To: <u>Comments</u>
Subject: IDL Comment

Date: Friday, May 04, 2018 8:24:48 AM

Name: Rolland Graham

Contact Phone number:

E-mail address: Exemption 6

Mailing address:

City: Mission Viejo

State: CA

To: <u>Comments</u>
Subject: IDL Comment

Date: Thursday, May 03, 2018 9:40:17 PM

Name: Jeremy Goodin

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Olney

State: MT

To: <u>Comments</u>
Subject: IDL Comment

Date: Thursday, May 03, 2018 7:39:28 PM

Name: Bernard Hines

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Huntsville

State: AL

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 02, 2018 7:46:44 PM

Name: Jerrod Shouse

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Oklahoma City

State: OK

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 02, 2018 1:55:15 PM

Name: Edwin Rahn

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Ossian

State: IN

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 02, 2018 12:03:36 PM

Name: Edward Leu

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Topeka

State: KS

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 02, 2018 9:11:40 AM

Name: Cathleen Yochheim

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Bonners Ferry

State: ID

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 02, 2018 3:05:50 AM

Name: Douglas Baskett

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Portland

State: OR

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 11:21:43 PM

Name: Nigel Feldman

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Kennewick

State: WA

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 10:28:43 PM

Name: Mark Lowary

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Kennewick

State: WA

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 8:45:41 PM

Name: Jason Landon

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Naples

State: ID

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 7:24:23 PM

Name: Joseph Rizzotti

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Arlington

State: TX

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 6:47:37 PM

Name: Teresa Simpson

Contact Phone number:

Exemption 6

E-mail address:

Mailing address: 2503 Wayne Dr

City: Greenfield

State: IN

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 5:48:04 PM

Name: Matt Ewers

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Spokane

State: WA

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 5:41:12 PM

Name: Tara Jacobs

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Auburn

State: KS

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 4:51:03 PM

Name: Jeffrey Zappen

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Port Orchard

State: WA

USCG0040443/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 4:27:28 PM

Name: Denise Dombrowski

Contact Phone number:

E-mail address: Exemption 6

Mailing address:

City: Sandpoint

State: ID

Records Request Description: As a resident of Bonner County since 2000, rail noise is a challenge. w We are asking the U.S Coast Guard to perform a full E.I.S. before any construction is started. We do not need additional tracks going thru our beautiful Sand Creek/Pend Oreille watershed The water, wildlife, families and everyone will have a difficult time enjoying our area with all this construction. There is really no need for it. We can wait and be patient for trains to take turns going thru the area. Thank you so much for considering this issue. Denise Dombrowski and family

USCG0040453/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 3:23:47 PM

Name: Thomas Jones

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Bonners Ferry

State: ID

Records Request Description: Before there was an Idaho, the right-of-way for the railroad bridge over lake Ponderay was already in existence. The BNSF is now investing millions in the Pacific Northwest to speed up rail transit. They should be allowed to use their property as they see fit. There will be negligible negative impact on the region, but untold positive benefits. Thank you for the opportunity to voice my support for the Sandpoint Junction Connector. I strongly urge your timely approval of the projects necessary permits.

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 9:40:45 AM

Name: Kenneth McVicker

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Topeka

State: KS

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 7:10:12 AM

Name: Chris Yeoman

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Gering

State: NE

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 01, 2018 1:31:43 AM

Name: Antonio Jones

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Memphis

State: TN

To: <u>Comments</u>
Subject: IDL Comment

Date: Monday, April 30, 2018 9:49:59 PM

Name: Kristin Mangino

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Vancouver

State: WA

To: <u>Comments</u>
Subject: IDL Comment

Date: Monday, April 30, 2018 9:41:41 PM

Name: Richard Scheidt

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Forsyth

State: MT

To: <u>Comments</u>
Subject: IDL Comment

Date: Monday, April 30, 2018 7:55:09 PM

Name: Robert fretz

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Edmonds

State: WA





May 2, 2018

Pend Oreille Lake Supervisory Area Tom Fleer, Area Manager 2550 Highway 2 West Sandpoint, ID 83864-7305

Dear Mr. Fleer,

On behalf of our boards and all of the growers and industry members of our coalition, I am writing to affirm our support for the Sandpoint Junction Connector project and urge your swift approval of the permits needed for construction. The project represents a significant private investment to enhance the rail network while taking deliberate steps to protect the local environment. It is a project worthy of an expedited approval.

The USA Dry Pea and Lentil Council and US Pea and Lentil Trade Association represents the entire pulse value chain; from the farm production to domestic use and foreign export. A vast majority of our harvest from ID, WA, ND, SD and MT moves via rail across this corridor. This project will immediately improve the efficiency of the overall rail network while also mitigating potential impacts to the community. The proposal to build a bridge and second track across Lake Pend Oreille – when completed – would allow trains to run in both directions, reducing the need for engineers to stop as they wait for clearance to cross. In turn, this project will mean shorter wait times on nearby roads and streets that cross BNSF tracks. By improving the efficiency of the line, this will also increase the safety of train traffic in the region.

And on top of the project's value to the rail network, BNSF is committed to the highest standards for safety. BNSF is well prepared to deal with sensitive areas like Lake Pend Oreille, and maintains highly-detailed response plans for environmentally sensitive regions. In reality, rail is the only cost-effective way transport agricultural commodities into the export market. Rail is among the safest and environmentally friendly ways to ship commodities.

Sandpoint is a model proposal in many regards with significant support. Thank you for the opportunity to voice our support for the Sandpoint Junction Connector. I strongly urge your timely approval of the project's necessary permits.

Sincerely,

Tim McGreevy

CEO

USA Dry Pea and Lentil Council and US Pea and Lentil Trade Association

2780 W Pullman Rd • Moscow ID 83843-4024 USA P: 208-882-3023 • F: 208-882-6406 Email: pulse@pea-lentil.com • Web: www.pea-lentil.com

To: <u>Comments</u>
Subject: IDL Comment

Date: Thursday, May 03, 2018 12:18:41 PM

Name: Virginia Thompson

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Kennewick

State: WA

To: <u>Comments</u>
Subject: IDL Comment

Date: Friday, May 04, 2018 8:24:48 AM

Name: Rolland Graham

Contact Phone number:

E-mail address:

Mailing address:

City: Mission Viejo

State: CA

Exemption 6

To: <u>Comments</u>
Subject: IDL Comment

Date: Thursday, May 03, 2018 9:40:17 PM

Name: Jeremy Goodin

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Olney

State: MT

To: <u>Comments</u>
Subject: IDL Comment

Date: Thursday, May 03, 2018 7:39:28 PM

Name: Bernard Hines

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Huntsville

State: AL

To: <u>Comments</u>
Subject: IDL Comment

Date: Monday, May 07, 2018 7:11:56 AM

Name: Tony Ciddio

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Philadelphia

State: PA

USCG0040583/27

From: State of Idaho WebMaster

To: <u>Comments</u>
Subject: IDL Comment

Date: Sunday, May 06, 2018 10:03:19 PM

Name: Laurence Orr

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Lompoc

State: CA

USCG0040593/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Saturday, May 05, 2018 4:44:12 PM

Name: Helen Newton

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Sandpoint

State: ID

Records Request Description: I support the 2nd railroad bridge at Sandpoint.

To: <u>Comments</u>
Subject: IDL Comment

Date: Saturday, May 05, 2018 4:42:08 PM

Name: Helen Newton

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Sandpoint

State: ID

To: <u>Comments</u>
Subject: IDL Comment

Date: Saturday, May 05, 2018 3:48:40 PM

Name: Andrew Holt

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Saint Paul

State: MN

To: <u>Comments</u>
Subject: IDL Comment

Date: Saturday, May 05, 2018 1:14:07 PM

Name: Rick Lagrutta

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Linden

State: CA

To: <u>Comments</u>
Subject: IDL Comment

Date: Monday, May 07, 2018 2:14:27 PM

Name: Jacob Sass

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Auburn

State: WA

To: <u>Comments</u>
Subject: IDL Comment

Date: Monday, May 07, 2018 2:07:20 PM

Name: David Bates

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Ludington

State: MI

To: <u>Comments</u>
Subject: IDL Comment

Date: Monday, May 07, 2018 4:47:12 PM

Name: Daniel Henry

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Waxahachie

State: TX

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 09, 2018 6:17:06 AM

Name: Derek Verbrugge

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Moscow

State: ID

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 08, 2018 8:53:33 PM

Name: Lawrence Owen

Contact Phone number:

E-mail address:

Exemption 6

Mailing address:

City: Bolingbrook

State: IL

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 08, 2018 7:53:08 PM

Name: Luke Hendrix

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Roanoke

State: TX

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 08, 2018 6:52:25 PM

Name: Robert Williams

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Windom

State: MN



May 9, 2018

Subj: Burlington Northern Santa Fe (BNSF) railroad bridge expansion project (USACE Application No. NWW-2007-01202)

The New Progressive Alliance at http://www.newprogs.org/ urges you to reject BNSF's proposal to build three new rail bridges in the Sand Creek/Lake Pend Oreille watershed.

Please consider the following adverse effects:

- Lake Pend Oreille is the biggest fresh water Lake in Idaho. Lake Pend Oreille is Idaho's largest and deepest lake. It is home to threatened bull trout and an entire ecosystem of aquatic life; the lake provides a regional drinking water source and is a major tourism asset. In 2017 alone, four trains derailed in this area near waterways. Just a single fossil fuel train derailment could damage and change Lake Pend Oreille forever.
- Water quality increased transport of hazardous materials through the watershed and the possibility of derailment into our local waterways threatens water quality.
- Wildlife habitat filling wetland and nearshore areas of the lake for additional bridge construction damages sensitive wildlife habitat beyond repair. The proposed project is within the range of bull trout and its critical habitat.
- Traffic increased train traffic flow through at-grade rail crossings may cause more traffic congestion, not less, as proposed by BNSF. Rail traffic is expected to increase to 114 trains per day (from 58 per day now) by 2025.
- Emergency response increased train traffic flow through at-grade rail crossings may cause emergency response delays.
- Noise increased train traffic may result in more whistle-related noise pollution at and around rail crossings.
- Economy increased train traffic may impact local businesses, property values, aesthetics and the tourism industry.

The proposal is to build three new rail bridges in the Sand Creek/Lake Pend Oreille watershed and the record on transportation of fossil fuels is not good. We should not be expanding unsafe fuel transportation with pipelines, trains, and other devices. (See reference 536. For a list of pipeline accidents since 2000 see reference 3296.) There has been a huge expansion in pipelines and dangerous fuel transportation by rail and truck.

For verification see references 7, 8, 11, 13, 18, 19, 24, 31, 47, 55, 57, 62, 138, 154, 165, 214, 304, 310, 319, 331, 335, 337, 338, 341, 381, 383, 384, 395, 427, 447, 457, 487, 501, 508, 510, 512, 530, 536, 538, 539, 543, 548, 549, 566, 567, 568 - 574, 577, 578, 586 - 588, 596 - 598, 605, 606, 640, 721 - 724, 734 - 736, 778 - 780, 784, 849 - 855, 891, 974 - 981, 1081, 1082 - 1093, 1120, 1204 - 1212, 1354, 1389 - 1430, 1564-1565, 1603-1619, 1695-1697, 1734-1737, 1742, 1743, 1775, 1792-1809, 1978-1986, 2155-2175, 2242, 2251, 2320, 2459-2468, 2575-2579, 2812, 2825-2834, 2987-2989, 3175, 3189, 3231, 3284-3315, 3494-3496, 3882-3887, 3916, 3917 of this article "The Environment" located at:

http://www.newprogs.org/the environment under the democratic republican uniparty

The proposed project involving three bridges encourages rail activity with cumulative impacts that affect communities far beyond Sandpoint, Bonner County and North Idaho. The New Progressive Alliance urges you to reject BNSF's proposal to build three new rail bridges in the Sand Creek/Lake Pend Oreille watershed.

Sincerely,

Ed Griffith

New Progressive Alliance

1000 17th Ave. #306

Longview, WA 98632-2358

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 09, 2018 3:26:38 PM

Name: Gary Seymour

Contact Phone number:

E-mail address:

Mailing address:

City: West Bend

State: WI

Records Request Description: I am writing to affirm my support for the Sandpoint Junction Connector project and urge your swift approval of the permits needed for construction. The project represents a significant private investment to enhance the rail network while taking deliberate steps to protect the local environment. It is a project worthy of an expedited approval. The Pacific Northwest economy is driven in large part by hundreds of industries, including agriculture and manufacturing firms, which depend on a world-class transportation network to get their goods to market. Thankfully, companies like BNSF Railway recognize this need and are willing to spend millions of dollars annually to keep our rail network healthy. In addition to supporting our regional trade-based economy, this project will immediately improve the efficiency of the overall rail network while also mitigating potential impacts to the community. The proposal to build a bridge and second track across Lake Pend Oreille when completed would allow trains to run in both directions, reducing the need for engineers to stop as they wait for clearance to cross. In turn, this project will mean shorter wait times on nearby roads and streets that cross BNSF tracks. By improving the efficiency of the line, this will also increase the safety of train traffic in the region. And on top of the projects value to the rail network, BNSF is committed to the highest standards for safety. BNSF is well prepared to deal with sensitive areas like Lake Pend Oreille, and maintains highly-detailed response plans for environmentally sensitive regions. The reality is rail is among the safest, most efficient and environmentally friendly ways to ship commodities. The best thing we can do is support proposals such as Sandpoint that will improve the system, increase safety, while protecting the environment. Sandpoint is a model proposal in many regards with significant support. Thank you for the opportunity to voice my support for the Sandpoint Junction Connector. I strongly urge your timely approval of the projects necessary permits.

Exemption 6

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 09, 2018 6:40:55 PM

Name: Robert Rynerson

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Denver

State: CO

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 09, 2018 6:10:37 PM

Name: John Hjaltalin

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Spokane

State: WA

To: <u>Comments</u>
Subject: IDL Comment

Date: Thursday, May 10, 2018 11:12:45 PM

Name: Ray Thomas

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Long Beach

State: CA



IDAHO DEPARTMENT OF FISH AND GAME PANHANDLE REGION

2885 West Kathleen Avenue Coeur d' Alene, Idaho 83815

C.L. "Butch" Otter/Governor
Virgil Moore/Director

May 14, 2018

Mr. Steven M. Fischer
U.S. Coast Guard District 13
915 2nd Ave, Room 3510
Seattle, WA 98174
D13-PF-D13BRIDGES@uscg.mil

Ms. Amidy Fuson
Idaho Department of Lands
2550 Highway 2 West
Sandpoint, ID 83864
comments@idl.idaho.gov

Mr. Shane Slate
U.S. Army Corps of Engineers
1910 Northwest Blvd, Suite 210
Coeur d'Alene, ID 83814
NWW BNSF Pendoreille@usace.army.mil

Dear Agency Representatives:

REFERENCE Joint Application for Permit NWW-2007-01303, BNSF Sandpoint Junction Connector

It is not the purpose of Idaho Department of Fish and Game to support or oppose this proposal discussions regarding potential impacts to fish, wildlife, and habitat and mitigation opportunities. perspectives and concerns. The purpose of this letter is to update and provide clarity on our met to gain a better understanding of the status of the permit application and each other's and Game (IDFG) and Burlington Northern Santa Fe (BNSF) staff and project representatives This is a follow-up to our letter dated March 28th, 2018. On May 3, Idaho Department of Fish

letter as follows: After meeting with the project proponents, we wish to amend our comments in the March 28

- Mitigation for nearshore impacts has yet to be defined. The amount, 1.26 acres, has been expectation the parties will work to find common ground on this aspect. with U.S. Fish and Wildlife Service (USFWS), Avista, IDFG, and Trout Unlimited with accurately accounted for. The project agent led a meeting on May 8th to address this need
- N Benthic habitat has not been surveyed and therefore impacts are unknown. As an likely suffice in characterizing this habitat and any potential effects from the proposed outcome of the meeting, we recommend a basic survey of the lakebed, which would
- w structure, were also topics of the May 8 meeting. may also be fish passed over the dam from the proposed Albeni Falls Dam fish passage recently completed Corps of Engineers EIS, to provide passage for bull trout at Albeni downstream past Albeni Falls Dam. of bull trout occasionally originating from Lake Pend Oreille tributaries moving are valuable from a larger population perspective because of that. We also have evidence the total population, as the only observed migrants originate from the East River. East implement measures that will conserve and protect Pend Oreille bull trout. committed to working with resource managers and stakeholders to Falls Dam. Thus, bull trout migrating to Lake Pend Oreille from the Pend Oreille River River bull trout are a relatively small population which exhibit a unique life history, and documented migrating through the project area was considered to be minor compared to We discussed the Biological Assessment for bull trout. The proportion of bull trout Effects of the new bridge on fish habitat, and subsequently fish community There is currently a proposal in place, It is our understanding BNSF is identify and with a

Furthermore, BNSF representatives provided the following clarifications:

- of project area, but only 1.02 miles are actual bridge. Total new, permanent bridges total 1.02 miles, not 2.2. The project map shows 2.2 miles
- 5 Vibratory hammers do not produce underwater noise levels harmful to fish. The use of recommending use of bubble curtains. vibratory hammers obviate the need for noise attenuation, thus we are no longer
- 'n alternative, work will be completed during low water, to reduce noise impacts when Bubble curtains would likely create turbidity problems in Sand Creek Slough. As an native salmonids are unlikely to be present.
- 4 expected to affect water quality, thus sediment core samples were not required under the Potential contaminant resuspension associated with pile driving and removal is not Environmental Quality's assessment of this risk and their conditioning of the final permit. draft 401 Water Quality Certification. We defer to the Idaho Department of
- Ş temporary risks are addressed in the hazmat and water quality protection plans the temporary risk associated with construction equipment working over the water. These not the second bridge is constructed; thus there would be no increase to spill risk beyond While adding a second bridge increases capacity and improves operational efficiency, BNSF representatives clarified that markets determine rail traffic regardless of whether or

We appreciate BNSF's efforts to improve emergency response effectiveness. One example is a recent update to the booming strategy at the SH-95 Bridge. Added equipment, training, and resources and support for first-responders, regardless of habitat mitigation alternatives. community and the Pend Oreille ecosystem. planning for spill emergencies at the current and proposed We encourage ongoing improvements to local bridges is an investment in the

reaching an outcome of consensus based mitigation approaches, to address likely effects on Pend commitment to participate constructively to reach mitigation that all parties can agree to. Oreille bull trout and other native species. BNSF has committed to continued discussion with resource agencies and stakeholders, and to We appreciate this commitment, and provide our

construction of different segments of the long bridge. We anticipate additional coordination with expressed a willingness to consider avoiding loss of fishing opportunity for Idaho anglers, and accommodating fish management activities that may be necessary, when determining timing of introduction of aquatic It is our understanding that final permit conditions will also include measures to prevent valuable public resources. BNSF to address nearshore mitigation opportunities and appreciate efforts to protect Idaho's invasive species and excess turbidity. We appreciate that BNSF

Sincerely,

Charles E. "Chip" Corsi Regional Supervisor

CEC:KJS:njk

 Ω Marshall Williams, USFWS, marshall_williams@fws.gov eFile M:/ Pierre Bordenave, Jacobs Engineering, pierre.bordenave@jacobs.com June Bergquist, IDEQ, june.bergquist@deq.idaho.gov Gary Vecellio, IDFG Idaho Falls From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Sunday, May 13, 2018 1:46:19 PM

Name: Jesus Ramos

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Brooklyn

State: NY

To: <u>Comments</u>
Subject: IDL Comment

Date: Sunday, May 13, 2018 6:42:57 AM

Name: David Wilson

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Signal Mountain

State: TN

To: <u>Comments</u>
Subject: IDL Comment

Date: Saturday, May 12, 2018 10:48:14 AM

Name: Paul Von Berg

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Newport Beach

State: CA



May 4, 2018

Mr. Shane Slate
U.S. Army Corps of Engineers
Walla Walla District
Coeur d'Alene Regulatory Office
1910 Northwest Boulevard, Suite 210
Coeur d' Alene, ID 83814-2676

Dear Mr. Slate:

On behalf of the Washington Public Ports Association, I am writing to express my strong support for BNSF Railway's Sandpoint Junction Connector Project. Furthermore, I ask that the application review and approval of permits be completed in the most efficient manner possible.

Sandpoint, ID is a stop on the Great Northern Corridor, which connects Washington state with northern tier states as far away as Illinois. Washington's ports have long understood the value this corridor has on the economy of our state and indeed the success of our economic development mission. Maintaining a safe and efficient rail connection that allows the corridor to prosper is a high priority for ports in Washington state.

In 2017, the Washington Public Ports Association updated our Marine Cargo Forecast. The forecast provides us both a glimpse into the economies of our international trading partners as well as informative data on how goods movement will occur during the next twenty years. The forecast advised that the regional rail system serving Washington's ports currently functions well. However, according to our forecast, chokepoints and bottlenecks begin to occur with more frequency beginning in the 2020 and 2025 forecast horizon. We know that for Washington's ports to remain competitive this corridor must operate efficiently with sufficient capacity to handle cargo volume growth we expect in the near future. We believe the Sandpoint Junction Connector project will alleviate one of the bottlenecks identified in the Marine Cargo Forecast. For more information or to read the 2017 Marine Cargo Forecast, please visit www.washingtonports.org/mcf.

We also recognize that local impacts are important to consider when evaluating the merits of transportation projects. Like many of the communities our member ports serve, Sandpoint has been a critical railway interchange point for over 110 years. The local impact of the Sandpoint Junction Connector Project is positive for the region. With two tracks, trains will no longer need to stop and wait for oncoming train traffic. This means that atgrade crossings currently allowing only one train to pass at a time will be less congested as trains may now be able to occupy the crossings concurrently, reducing wait times for vehicles. The reduced wait time will also result in reduced emissions from both vehicles as well as an end to the idling train locomotives waiting for a clear track to proceed.

Thank you for the opportunity to provide input on this very important infrastructure project. The Sandpoint Junction Connector project will provide improved rail capacity to support growing economies all along the northern tier states, including many of Washington's ports. The project will also reduce the time at-grade crossings are blocked and lead to reduced wait times for vehicles. For these reasons, I urge you to review this project and expedite the approval of permits.

Sincerely,

Eric D. Johnson

Eric DX

Executive Director

CC: Steven Fischer, U.S. Coast Guard, District 13

Idaho Department of Lands

March 24, 2018

May 20, 2018 May 16 2018

BNSF PROPOSAL TO BUILD THREE NEW RAIL BRIDGES IN SANDPOINT, IDAHO 404 JOINT APPLICATION US ARMY CORPS OF ENGINEERS--IDAHO DEPARTMENT OF WATER RESOURCES--IDAHO DEPARTMENT OF LANDS USCG

Steven Fischer
Thirteenth Coast Guard District
915 2nd Ave, Room 3510
Seattle, WA 98174
Email: D13-PF-D13BRIDGES@uscg.mil

PEND ORIELLE LAKE SUPERVISORY AREA TOM FLEER, AREA MANAGER 2550 Highway 2 West Sandpoint, ID 83864-7305

PUBLIC COMMENT

Chris Turner

Exemption 6

Longview WA

At this point, BNSF has not volunteered enough information about the project and its significant adverse impacts/possible mitigations to make a decision on whether any permits should be issued for this proposal.

BNSF has not demonstrated the need to double-track a small section of track that has a minimal train transit time over Lake Pend Orielle.

So, my answer is NO. No permits should be issued at this time. Obtaining public comment for the proposal by BNSF to double-track and construct three bridges over Lake Pend Orielle is important, and has far-reaching impacts. Unfortunately, the general public or others that write comments are not experts.

In reality, this proposal needs to have a full EIS evaluation with specific studies, an extended study area with analysis of the cumulative impacts that would occur with the increased train traffic. Then, any permitting agency that needs to research environmental impacts, can refer to the FEIS. This also will allow multiple agencies to use the same documents to approve or deny their permits.

There are too many factors that are involved with this proposal to rely on a simple environmental assessment. ACE and CG, to issue permits, normally rely on expert evaluations of the entire proposal. No one expects ACE or CG to be experts and provide the facts on the entire varied aspects of this proposal. Nor, would I want these agencies to ignore impacts that could be mitigated, or possibly issue a permit in error.

Page 2 Chris Turner BNSF LAKE PEND ORIELLE

Without sufficient information provided by BNSF, this is a list of the "questions" that I would have posed in a scoping public comment, to get the railroad started:

1. ALTERNATIVES....

- a. Railroad bridge construction design
- b. Bridge building materials
- c. Type of fill materials
- d. Method of dredging/piling installation
- e. Bridge approaches/landings
- f. Current Controlled/uncontrolled/at-grade crossings
- g. Emergency access to avoid congested crossings
- h. Construction windows
- i. Older oil rail cars
- j. Excessive length of trains
- k. Uncovered coal rail cars
- 1. Deposits of fugitive coal dust/particles
- m. Application of surfactants on coal train cars
- n. Filling wetlands
- o. To achieve no net loss
- p. Locations to relieve choke points
- q. Potential mitigations
- r. Train noise/horns
- s. Locomotive stationary operations--idling
- t. Current/future pollution of the lake/rivers
- u. Funding to provide increased emergency services, upgrade drossings etc.
- v. Aesthetics/viewing areas
- W. Lighting/glare--permanent/temporary/health effects on aquatic life
- x. Control signals/waiting areas of the trains (maps)
- y. Train speed within City limits
- z. Scope of the study area

2. STUDIES THAT SHOULD BE REQUIRED:

- a. Necessity of double-tracking over the lake--including train traffic statistics, direction of flow, waiting times, lenth of time for bridge transits, max loads etc. Why double-track such an insignificant minor choke point at all?
- b. Map all regional routes to the lake and state whether they are double-tracked etc., train yards etc.
- c. Tribal Rights/Tribal Resources
- d. Large project study area that no only includes the lake and surrounding areas but other regions like Spokane which is significantly affected by increased rail traffic
- e. Traffic impacts, waiting times at each crossing locally/ other affected jurisdictions

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STUDIES THAT SHOULD BE REQUIRED (Cont)

- f. Emergency access at crossings/impacts on response times
- g. In the immediate/other jurisdictions--Evaluate each rail crossing and the possibility of mitigating the adverse impacts by upgrading the crossings or constructing an overpass. Examine funding for such requests
- h. Increased rail traffic figures.
- i. Current/future length of trains
- j. Future cumulative impacts of increased train traffic on other regions
- k. Current speed of trains locally/other jurisdictions-predicted speed after double-tracking
- 1. Status of Positive Train Control in Idaho
- m. HIA--Human Health Impacts in nearby neighborhoods related to pollutants, noise, and cancer rates etc.
- n. The health effects of lighting/glare from temporary bridge construction and permanent infrastructure on the lake and rivers to aquatic life, especially the Trout
- o. Current/future train, vehicle, and pedestrian accident rates related to the railroad
- p. Relationship between the Water Treatment/Wastewater treatment plants/pollution in the lake and adjacent rivers, violations exceeding the effluent limits of these plants. Total expected pollution from existing sources, new infrastructure, and operations of railroad trains in the surrounding areas of the lake/rivers In relation to max limits
- q. Fugitive coal dust/diesel particulates/toxins, violations of the Clean Water Act relating to the pollution in the Lake and the adjacent rivers Sierra Club vs BNSF
- r. Necessity to double-track over the Lake and not in a different location
- s. Future length of trains in the large loop, which includes the Columbia River Gorge and Stampeded pass WA
- t. Origination of the increased trains, their projected cargoes and destinations
- u. Tier 4 lower emission diesel locomotives
- v. Train accidents/derailments and their causes/aftermath pollution and cleanups, especially involving the recent derailments, such as Moron Montana, Mosier Or, Amtrak Dupont WA etc. Percentage of increased risk of accidents/spills regarding this project
- w. The effects of fugitive coal dust/toxic chemicals on wildlie/aquatic plants and fish etc.
- x. Impacts related to endangered/threatened wildlife/aquatic species.
- y. Whether the elimination of more choke points is necessary. Two major projects involving train transportation, the Oil Terminal Vancouver WA and the coal terminal at Millennium Longview may never be built.
- z. Impacts of the additional bridges/railroad beds in relation to recreation on or near the lake and rivers

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STUDIES THAT SHOULD BE REQUIRED (Cont)

- aa. The current level of pollution/particular pollutants that are in the Lake and adjoining rivers
- bb. Use of puncture resistant oil train cars
- cc. Placing tariffs on oil and coal train cars passing through the Cities surrounding the Lake to obtain funds for increased risks to the communities and potential accidental contamination
- dd. Visualization of the bridges and railroad beds in relation to the local viewing points
- ee. Personnel/equipment necessary to provide adequate first responder mobilization in the case of accidents/derailments
- ff. In-water construction mitigations regarding suspended solids and other related disturbances of aquatic life including spawning areas
- gg. Spawning locations of the lake and rivers, impacts of year-round construction, permanent alterations and their impacts on the Trout's spawning areas
- hh. Cumulative effects of all the bridges on the lake and rivers including lighting effects on the aquatic life
- ii. BNSF Safety Record--their history on whistleblower train safety complaints, subsequent firings, and resolutions--Current whistleblower policies
- jj. Recent BNSF railroad improvements in the immediate vicinity
- kk. Effect on businesses/residential neighborhoods adjacent to the new railroad beds
- 11. Future projects/realignments, railroad double-tracking or railroad improvements by BNSF or others in the local area or other regions
- mm. Exact suggested mitigations to offset "no net loss" of this project. Mitigation for loss of wetlands
- nn. AMTRAK'S anticipated proposed use of the new bridges-increased service etc.
- oo. Air quality measurements. The various PM concentrations, surrounding the lake and rivers within a wide study area
- pp. Seismic Risks

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CONCLUSION

This is a long list of information that BNSF has not attempted to provide to the permitting agencies or to the public at this point.

The damage/destruction to the Lake and surrounding areas, risks, human/aquatic health outweighs the benefits of this project.

A full EIS would be required to explore all of these subjects properly.

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1	HON. JOHN C. COUGHENOUR		
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5	IN THE UNITED STATES DISTRICT COURT		
6	FOR THE WESTERN DISTRICT OF WASHINGTON		
7	AT SEATTLE		
8	Case No. 2:13-cv-00967-JCC (consolidated with No. 2:14-cv-00660)		
9	SIERRA CLUB, et al., [PROPOSED] CONSENT DECREE		
10	Plaintiffs, v.		
11	BNSF RAILWAY COMPANY,		
12	Defendant.		
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26	[PROPOSED] CONSENT DECREE CASE NO. 2:13-cv-00967-JCC BEVERIDGE & DIAMOND, P.C. 1350 I St., NW, Suite 700 Washington, D.C. 20005 202-789-6000		

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WHEREAS, Plaintiffs Sierra Club, Puget Soundkeeper Alliance, RE Sources for Sustainable Communities, Columbia Riverkeeper, Friends of the Columbia Gorge, Spokane Riverkeeper, and Natural Resources Defense Council (collectively, "Plaintiffs") filed a Complaint in this Court seeking civil penalties, as well as declaratory and injunctive relief, against Defendant BNSF Railway Company ("BNSF" and collectively with Plaintiffs, the "Parties") and others on June 4, 2013, alleging violations of the Clean Water Act, 33 U.S.C. § 1251 et seq. (the "CWA" or the "Act");

WHEREAS, Plaintiffs filed a separate Complaint in the United States District Court for the Eastern District of Washington similarly alleging that BNSF and others had violated the CWA (assigned Civil No. 2:13-cv-00272 (E.D. Wash.) and hereafter referred to as the "Eastern District Action");

WHEREAS, the Eastern District Action was transferred to this Court and assigned Civil No. 2:14-cv-00660, after which it was consolidated with the above-captioned civil action (ECF No. 84) ("the Litigation");

WHEREAS, subsequent to consolidation, on May 6, 2015, Plaintiffs filed their Third Amended Complaint (ECF No. 113) naming only BNSF as a Defendant;

WHEREAS, prior to filing their initial Complaint, Plaintiffs sent to BNSF and others Notices of Intent to Sue dated April 2, 2013 and May 9, 2013 in which they stated their intent to assert claims for alleged violations of CWA sections 301 and 404, 33 U.S.C. §§ 1311, 1344, and the Rivers and Harbors Act of 1899, 33 U.S.C. § 403, et seq., and further asserted that "[t]he pollutants that the Dischargers have discharged, are discharging, and will continue to discharge include, but are not limited to, coal, coal chunks, coal dust, metabolites or related byproducts of

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coal, surfactants applied to the coal, coal chunks and coal dust, petcoke, petcoke chunks, petcoke dust, and suppressants";

WHEREAS, CWA Section 301(a), 33 U.S.C. § 1311(a), prohibits the unpermitted discharge of any pollutant to waters of the United States;

WHEREAS, Plaintiffs brought their action against BNSF for alleged CWA violations pursuant to Section 505 of the Act, 33 U.S.C. § 1365;

WHEREAS, BNSF is a Class I railroad operating in 28 states. BNSF transports freight, including a number of commodities, for a wide range of customers. As a Class I railroad, BNSF operates as a common carrier subject to the jurisdiction of the Surface Transportation Board ("STB"). BNSF's status as a common carrier requires the railroad to provide transportation of goods on reasonable request;

WHEREAS, coal and petroleum coke ("petcoke") are among the commodities that BNSF transports for its customers. BNSF transports coal, petcoke, and other commodities in open-top railcars in the State of Washington and several other states;

WHEREAS, Paragraph 48 of Plaintiffs' Third Amended Complaint alleges that "[e]ach and every coal train and each and every rail car carrying coal discharges coal pollutants to waters of the United States when traveling adjacent to, over, and in proximity to waters of the United States." Paragraph 3 of the Third Amended Complaint defines "coal pollutants" to include "coal, coal chunks, coal dust, metabolites or related byproducts of coal, and other substances or materials added to the coal including, but not limited to, surfactants and suppressants, and petroleum coke." The Third Amended Complaint further alleges that BNSF did not obtain any permit to discharge any pollutants from its railcars;

б

WHEREAS, BNSF asserted defenses to the allegations contained in the Third Amended Complaint, expressly denies Plaintiffs' allegations in their entirety, and admits no liability by entering this Consent Decree;

WHEREAS, the Parties recognize that this Consent Decree is a settlement of a contested matter;

WHEREAS, the objective of the Parties in entering this Consent Decree is to resolve the Litigation; and

WHEREAS, the Parties acknowledge that this Consent Decree has been negotiated by the Parties in good faith and will avoid further litigation, and the Court, in entering this Consent Decree, finds that this Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, without the admission of any issue of fact or law except as provided in Section I, and with the consent of the Parties,

IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. GENERAL PROVISIONS

- 1. <u>Jurisdiction and Venue</u>. This Court has jurisdiction over the subject matter of this action and the Parties pursuant to 28 U.S.C. § 1331 and 33 U.S.C. § 1365(a). Venue is proper in this judicial district pursuant to section 505(c) of the Act, 33 U.S.C. § 1365(c), because the Complaint alleges that discharges in violation of the Act occurred in this judicial district. BNSF does not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.
- 2. Retention of Jurisdiction. This Court shall retain jurisdiction for the purposes of issuing such further orders and directions as may be necessary and appropriate for the implementation or

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the provisions of this Consent Decree.

3. Reservation of Rights. The Parties reserve the right to enforce the terms of this Consent

modification of this Consent Decree, enforcing compliance with, or resolving disputes regarding

- 3. Reservation of Rights. The Parties reserve the right to enforce the terms of this Consent Decree and take any action authorized by federal or state law not inconsistent with this Consent Decree.
- 4. <u>Parties Bound</u>. This Consent Decree shall be binding upon Plaintiffs, BNSF, and their respective officers, agents, servants, employees, successors, and assigns.
- 5. <u>Counterparts</u>. This Consent Decree may be signed in counterparts, and such counterpart signature pages shall be given full force and effect.
- 6. <u>DOJ and EPA Review</u>. The Parties recognize that, under 33. U.S.C. § 1365(c)(3), this Consent Decree can be entered only forty-five (45) days after the Attorney General of the United States and the Administrator of the Environmental Protection Agency receive a copy of this proposed Consent Decree. Plaintiffs shall serve copies of the executed Consent Decree upon the Administrator of the United States Environmental Protection Agency, the Attorney General, and the Regional Administrator for EPA Region 10, and Plaintiffs shall provide notice to the Court of the foregoing requirements, as required pursuant to 40 C.F.R. § 135.5.
- 7. <u>Final Judgment</u>. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final, non-appealable judgment of the Court under Rules 54 and 58 of the Federal Rules of Civil Procedure.

II. CAR COVER STUDY

8. BNSF shall conduct a study to assess the commercial and operational feasibility of car covers for use on open-top coal and petcoke railcars (the "Car Cover Study"). In its sole

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discretion, BNSF may conduct this study in cooperation with various interested stakeholders, including without limitation, the Association of American Railroads, its customers, mine operators located in the Powder River Basin, or others invited by BNSF, to the extent they may agree to participate. It is anticipated that the Car Cover Study will occur over a period of approximately two years following entry of this Consent Decree.

- 9. BNSF's obligation to conduct the Car Cover Study under Paragraph 8 shall require BNSF to assess only car cover designs for which a functioning prototype is reasonably available to BNSF within six months of the date of entry of this Consent Decree. As part of the first phase of the Car Cover Study, BNSF shall conduct outreach and solicit participation from car cover manufacturers.
- 10. This Consent Decree shall not be construed to require BNSF to assess any conceptual car cover design or develop any car cover design. As between the Parties, BNSF is exclusively responsible for conducting and overseeing the Car Cover Study, as well as arranging for equipment and personnel.
- 11. Once during each six-month period (January June and July December of each year) until the conclusion of the Car Cover Study, BNSF shall provide to Plaintiffs electronic copies of final versions of all reports, technical specifications of car cover designs, testing results, testing procedures, and testing data created for the Car Cover Study. Prior to receiving any such information pursuant to this Paragraph, each Plaintiff organization shall execute a confidentiality agreement acceptable to all study participants, including without limitation any companies whose covers will be assessed. Plaintiffs acknowledge that BNSF reserves the right to redact cover manufacturer-, customer-, mine- and utility-specific information in any document provided pursuant to this Paragraph, and Plaintiffs agree that the redaction of such information shall not be

a basis for challenging the adequacy of BNSF's compliance with this Paragraph. In the event that Plaintiffs contend that any information redacted by BNSF prevents Plaintiffs from assessing compliance with this Consent Decree, Plaintiffs may invoke the Dispute Resolution provisions in Section VIII to contest the necessity for such redactions.

- 12. If, in its sole discretion, BNSF determines that any car cover design assessed under Paragraph 8 is commercially and operationally feasible, then BNSF shall undertake good faith efforts to amend the safe harbor provision of BNSF Price List 6041-B (the "Coal Loading Rule") to add such car cover design(s) within 90 days of the conclusion of the car cover study. A decision by the STB concluding that any amendment to the Coal Loading Rule proposed pursuant to this Paragraph is unreasonable or otherwise invalid shall not constitute the basis for any allegation that BNSF has not complied with its obligations under this Decree.
- 13. For the purpose of Section II, commercial and operational feasibility of a car cover design shall mean that a particular car cover (a) when used during loading and unloading operations, and in transit, poses no unreasonable risk of property damage or of bodily harm to BNSF employees, employees of any shipper for which BNSF transports coal and/or petcoke, employees of any mine, or to the general public; (b) can be physically attached to existing open-top railcars transported by BNSF without unreasonable modification to such railcars, (c) will function properly and as intended throughout all operational conditions encountered by BNSF trains while in-transit, (d) complies with all applicable regulatory requirements and industry equipment and interchange rules, (e) conforms to all applicable BNSF clearance and operational requirements, (f) requires no unreasonable modifications to equipment or processes used in loading or unloading coal and petcoke into or out of railcars, (g) would not be unreasonably expensive to procure, install,

operate, replace, repair, or maintain; and (h) otherwise meets the requirements of the Coal Loading Rule. Notwithstanding any such determination of commercial and operational feasibility by BNSF, mines, shippers, or any other entity providing rail cars cannot be required by BNSF to adopt or accept any specific railcar covers or associated modifications to equipment or loading or unloading processes.

14. In the event that BNSF determines in its sole discretion that there exists one or more car cover design that is commercially and operationally feasible under Section II, BNSF shall present the results of the Car Cover Study at the following rail transportation and coal industry meetings or conferences during the two-year period following the conclusion of the Car Cover Study:

American Railway Engineering and Maintenance of Way Association meetings, the National Coal Transportation Association meetings, and the Railroad Environmental Conference. BNSF shall provide Plaintiffs with copies of any materials that BNSF uses to present the results of the Car Cover Study at those events.

III. REMOVAL

- 15. BNSF shall remove significant accumulations of coal and/or petcoke materials in areas on or adjacent to BNSF's right-of-way at each of the locations identified in Appendix A to this Consent Decree, as identified at trial and in designated deposition testimony. BNSF shall complete this initial removal of accumulations of coal and/or petcoke materials from each of these locations no later than one (1) year from entry of this Consent Decree.
- 16. Within thirty (30) business days of completion of the removal of coal and/or petcoke material at each site required by Paragraph 15, BNSF shall notify Plaintiffs that the removal is complete. The notification shall include before and after photographs and other documentation

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reasonably necessary to demonstrate that BNSF has removed materials consistent with Paragraph 15.

- 17. BNSF shall conduct follow-up inspections of each area identified in Appendix A two times during the period of this Consent Decree. BNSF will use good faith efforts to conduct the first inspection between 9-12 months after service of the notification required by Paragraph 16, and the second 9-12 months after the preceding inspection, subject to the availability of sufficient track windows, and taking into consideration weather, safety, and other factors that could restrict the time available to conduct an inspection. Within thirty (30) days of each inspection, BNSF shall provide Plaintiffs with a statement as to whether any significant accumulations of coal and/or petcoke materials require removal consistent with Paragraph 16.
- 18. In the event that BNSF identifies significant accumulations of coal and/or petcoke materials in areas on or adjacent to BNSF's property during either of the two subsequent inspections required by Paragraph 17, BNSF shall remove such materials in the same manner as in Paragraph 15. Within thirty (30) days of completion of any additional removal required by this Paragraph, BNSF shall notify Plaintiffs in writing that this additional removal is complete. The notification shall include photographs or other documentation reasonably necessary to demonstrate that BNSF has complied with its obligations under this Paragraph.
- 19. BNSF's obligation to remove significant accumulations of coal and/or petcoke material under Paragraphs 15 and 18 shall be limited to material on land. BNSF is only required to use non-invasive methods or techniques (e.g., vacuuming) to conduct the removal, and the means and methods to conduct the removal required under Section III are within BNSF's sole discretion. In no event shall BNSF be required under this Consent Decree to conduct any removal activities in

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any waterway, including any water of the United States, or conduct any ballast or track maintenance activities to remove materials from BNSF track, nor shall BNSF be obligated to remove non-significant accumulations or scattered, individual pieces or fragments of coal and/or petcoke material. BNSF shall not be required through this Consent Decree to remove coal and/or petcoke materials under Paragraphs 15 or 18 from any property in the event that any property owner declines to allow BNSF or its contractors access to their property under reasonable conditions.

20. In the event that Plaintiffs disagree with any determination that (a) BNSF has completed removal of significant accumulations of coal and/or petcoke material at any location under Paragraphs 15 and 18, (b) any subsequent inspection pursuant to Paragraph 17 identified no new and significant accumulations of coal and/or petcoke material that require removal, or (c) BNSF has completed any subsequent removal of significant accumulations of coal and/or petcoke material required under Paragraph 18, Plaintiffs may invoke the Dispute Resolution procedures in Section VIII.

IV. SUPPLEMENTAL ENVIRONMENTAL PROJECTS

21. Within 30 days of the date this Consent Decree is approved by the Court, BNSF shall pay \$1,000,000 to The Rose Foundation for Communities and the Environment for projects to improve water quality or habitat in the State of Washington (and, to the extent they may improve habitat or water quality of the Columbia River, in the State of Oregon). See Attachment 1 (Letter from Rose Foundation). Such payment shall be made by check payable and mailed to The Rose Foundation for Communities and the Environment, Attention: Tim Little, 1970 Broadway, Suite 600, Oakland, California 94612, and shall bear the notation "Sierra Club, et al. v. BNSF Railway Co.,

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Clean Water Act Settlement," with a copy provided to Plaintiffs at the time payment is made.

V. RELEASE AND CONVENANT NOT TO SUE

- 22. Plaintiffs release BNSF for all claims that were or could have been brought in this litigation.
- 23. Plaintiffs covenant not to sue BNSF systemwide under the Clean Water Act or analogous state law or any common law theory on the theory of material leaving open-top rail cars and entering waters of the United States or waters of any state for any events or occurrences arising over the next five years.
- 24. Any information provided by BNSF to Plaintiffs pursuant to this Consent Decree shall not be admissible in any proceeding against BNSF or any entity that meaningfully participates in the Car Cover Study (as that term is defined in Section II). Notwithstanding the previous sentence, information provided by BNSF to Plaintiffs pursuant to this Consent Decree may be used in proceedings to enforce the terms of this Decree.
- 25. If the Consent Decree is terminated prior to five (5) years from the date of entry of the Consent Decree, the provisions of Paragraphs 23 and 24 shall survive for the remainder of the five (5) year term of the covenant not to sue.
- 26. The Parties agree that, as of the date of the entry of this Consent Decree, litigation is not "reasonably foreseeable" concerning the matters described in the Third Amended Complaint. To the extent that any Party previously implemented a litigation hold to preserve documents or electronically stored information related to the Litigation, the Party is no longer required to maintain such litigation hold. Nothing in this paragraph relieves any Party of any other obligations imposed by this Consent Decree or of the obligation to implement a litigation hold

BEVERIDGE & DIAMOND, P.C. 1350 I St., NW, Suite 700 Washington, D.C. 20005 202-789-6000



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PEND OREILLE LAKE

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000 711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

September 26, 2017

Millennium Bulk Terminals-Longview, LLC ATTN: Ms. Kristin Gaines 4029 Industrial Way Longview, WA 98632

RE: Section 401 Water Quality Certification Denial (Order No. 15417) for Corps Public Notice No. 2010-1225 Millennium Bulk Terminals-Longview, LLC Coal Export Terminal – Columbia River at River Mile 63, near Longview, Cowlitz County, Washington

Dear Ms. Gaines:

The Washington State Department of Ecology (Ecology) has reached a decision on the Millennium Bulk Terminals-Longview request for a Section 401 Water Quality Certification for the proposed coal export terminal near Longview. After careful evaluation of the application and the final State Environmental Policy Act environmental impact statement, Ecology is denying the Section 401 Water Quality Certification with prejudice.

The attached Order describes the specific considerations and determinations made by Ecology in support of this decision to deny the Certification with prejudice. Your right to appeal this decision is described in the enclosed denial Order.

Sincerely,

Maia D. Bellon

Director

Enclosure

By certified mail [91 7199 9991 7034 8935 6995]

cc: Muffy Walker, U.S. Army Corps of Engineers
Danette Guy, U.S. Army Corps of Engineers
Glenn Grette, Grette Associates, LLC

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- (i) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (ii) Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- (iii) Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- (iv) Preserve important historic, cultural, and natural aspects of our national heritage;
- (v) Maintain, wherever possible, an environment which supports diversity and variety of individual choice;
- (vi) Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (vii) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.
- (c) The department recognizes that each person has a fundamental and inalienable right to a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.
- (d) The department shall ensure that presently unquantified environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations.

A. Significant Unavoidable Adverse Impacts

1. Air Quality. The FEIS found a significant increase in cancer risk for areas along rail lines and around the Project site in Cowlitz County where diesel emissions primarily from trains would increase. The study found that residents in some areas in Cowlitz County, including those living in portions of the Highlands neighborhood, would experience an increase in cancer risk rate up to 30 cancers per million. These levels of increased risk exceed the approvability criteria in WAC 173-460-090 for new sources that emit toxic air pollutants. Although WAC 173-460 only applies to stationary sources, the health risks from mobile sources in this case, primarily locomotives, would be considered significant using the same approvability criteria. Thus, the FEIS concluded the emission of diesel particulate primarily from train locomotives would be a significant unavoidable adverse impact. As the FEIS explained, this impact could be mitigated, but not eliminated, by use of cleaner burning Tier 4 locomotives. However, use of such locomotives is outside the control of Millennium and may not

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occur for decades because use of older locomotives is currently allowed under federal law. Other mitigation measures identified in the FEIS related to air quality, such as use of best management practices and compliance with permits, would not reduce diesel emissions from Project related locomotives.

The increased cancer risk associated with the Project is a significant adverse unmitigated impact that is inconsistent with the following substantive SEPA policies in WAC 173-82-110:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- 2. Vehicle Transportation. The FEIS found that there would be significant unavoidable adverse impacts to vehicle traffic from the proposed action when the Project reaches full operation in 2028 due to vehicle delays caused by increased train traffic that would block rail crossings in Cowlitz County. With current track infrastructure on the Reynolds Lead and BNSF Railway (BNSF) spur, Project-related trains in 2028 would increase the total gate downtime by over 130 minutes during an average day at the six crossings listed below. Project-related trains would cause these crossings to operate at Level of Service E or F¹ if one Project-related train traveled during peak traffic hours through the following crossings:
 - Project area access opposite 38th Avenue
 - Weyerhaeuser access opposite Washington Way
 - Industrial Way
 - Oregon Way
 - California Way
 - 3rd Avenue

¹ "Level of Service" is a report card rating based on the delay experienced by vehicles at an intersection or railroad crossing. Level of Service A, B, and C indicate conditions where traffic moves without substantial delays. Level of Service D and E represent progressively worse operating conditions. Level of Service F represents conditions where average vehicle delay has become excessive and demand has exceeded capacity.

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Millennium and BNSF may make track improvements to the Reynolds Lead and BNSF spur that would allow trains to travel faster through these intersections and thereby reduce gate downtimes. However, even with these planned track improvements to the Reynolds Lead and BNSF Spur, the Project at full build out in 2028 would still adversely impact and add delays at four crossings, and cause the following crossings to operate at Level of Service E or F if two proposed Project-related trains traveled through them during peak traffic hours:

- Project area access opposite 38th Ave
- Weyerhaeuser access opposite Washington Way
- 3rd Avenue
- Dike Road

On the BNSF main line in Cowlitz County, the increased Project-related trains at full build out in 2028 could adversely impact vehicle transportation at two crossings during peak traffic hours. The following crossings would operate Level of Service E if two Project-related trains travel during the peak hours:

- Mill Street
- South River Road

Delay of emergency vehicles at rail crossing would also increase because of additional Project-related trains.

As described in the FEIS, Millennium has agreed or may be required to implement several mitigation measures to address these impacts. These measures include funding crossing gates at the intersection of Industrial Way, holding safety review meetings, and notifying agencies about increases in operations on the Reynolds Lead. However, these measures will not reduce or eliminate the vehicle delays identified in the FEIS. Vehicle delays could be reduced by further improvements to rail and road infrastructure, however, it is currently unknown when or if such improvements would occur. Therefore, when the Millennium Project is at full operation in 2028, unavoidable and significant adverse impacts would occur on vehicle transportation at certain crossings in Cowlitz County including delays of emergency vehicles. This impact is inconsistent with the following substantive SEPA policies:

- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- Maintain, wherever possible, an environment which supports diversity and variety of individual choice.

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- Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.
- 3. Noise and Vibration. The FEIS found that there would be significant unavoidable adverse impacts to residences near four public at-grade crossings along the Reynolds Lead and BNSF spur from train-related noise. Train-related noise levels would increase from train operations and locomotive horn sounding intended for public safety.

Residences near the at-grade crossings at 3rd Avenue, California Way, Oregon Way, and Industrial Way would experience increased daily noise levels that would exceed applicable noise criteria per Federal Transportation Administration/Federal Rail Administration guidance.

Approximately 229 residences would be exposed to moderate noise impacts, and approximately 60 residences would be exposed to severe noise impacts. Although these impacts would be reduced near the Industrial Way and Oregon Way crossings if a grade-separated intersection is constructed there as currently proposed, the proposal has not yet received permits and its completion date is unknown.

As described in the FEIS, Millennium has agreed or may be required to implement several mitigation measures to address these train-related noise impacts. These measures include funding two "quiet crossings" at Oregon Way and Industrial Way grade crossings by installing crossing gates, barricades, and additional electronics. This proposed "quiet crossing" is not the same as a Quiet Zone, which requires the approval of the Federal Railroad Administration. The reduction of noise pollution from the proposed "quiet crossing" is unknown because Millennium trains may still be required to sound their horns at the intersections. Other measures include requiring Millennium to work with the City of Longview, Cowlitz County, Longview Switching Company, the affected community, and other applicable parties to apply for and implement a Quiet Zone that would include the 3rd Avenue and California Avenue crossings. However, as a Quiet Zone requires the approval of the Federal Railroad Administration, it is beyond the control of Millennium and it is unknown if it will ever be implemented. Consequently, Quiet Zones are not considered an applicable mitigation measure.

The FEIS states that, if the Quiet Zone is not implemented, Millennium would fund a sound-reduction study to identify ways to mitigate the moderate and severe impacts from train noise. However, it is unknown who would fund, implement, and maintain recommendations to mitigate moderate and severe noise impacts identified in the sound noise reduction study. The study itself does not mitigate the impacts. The Project's significant adverse impacts from noise are inconsistent with the following substantive SEPA policies:

Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.

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- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Maintain, wherever possible, an environment which supports diversity and variety of individual choice.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- 4. Social and Community Resources. The FEIS found that social and community resources would be significantly and adversely impacted by increased noise, vehicle delays, and air pollution. Impacts from the construction and operation of the Project would impact minority and low-income populations by causing disproportionately high and adverse effects. Impacts from noise, vehicle delay, and diesel particulate matter inhalation risk would affect the Highlands neighborhood, a minority and low-income neighborhood adjacent to the Reynolds Lead in Longview, Washington.
- a. Adverse Health Impact from Increased Cancer Risk Rate: Project-related trains and other operations would increase diesel particulate pollution along the Reynolds Lead, BNSF Spur, and BNSF mainline in Cowlitz County at levels that would result in increased cancer risk rates. The modeled cancer risk rate in the FEIS found a majority of the Highlands neighborhood would experience an increased cancer risk rate, varying from 3% to 10%. Use of Tier 4 locomotives, which produce less diesel pollution, by BNSF would reduce but not eliminate diesel particulate matter emissions and the associated potential cancer risk in the Highlands neighborhood. However, requiring Tier 4 locomotives is outside the control of Millennium and may not occur for decades. Therefore, the Project's disproportionately high adverse effects related to increased cancer risk rates from diesel particulate matter inhalation on minority and low-income populations would be unavoidable.
- b. Adverse Noise Impact: The Project would add 16 trains per day on the Reynolds Lead and increase average daily noise levels, which would exceed applicable criteria for noise impacts and cause moderate to severe impact to 289 residences in the Highlands neighborhood. Approval, funding, and construction of Quiet Zones for four highway and rail intersections would reduce noise levels. However, there is no sponsor(s) identified to apply for, fund, and maintain Quiet Zones that would reduce noise levels at the four rail crossings. Quiet Zones are outside the control of Millennium and require approval from the Federal Railroad Administration. Therefore, Project-related trains would cause significant adverse unavoidable impacts to portions of the Highlands neighborhood and cause a disproportionately high adverse effect on minority and low-income populations.
- c. Adverse Vehicle Traffic Impact: Project-related trains would increase vehicle delays at highway and rail intersections within the Highlands

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neighborhood. With the current track infrastructure on the Reynolds Lead, a Millennium-related train traveling during the peak traffic hours would result in a vehicle-delay impact at four public at-grade crossings in or near the Highlands neighborhood by 2028. This would constitute a disproportionately high adverse effect on minority and low-income populations. If planned improvements to the Reynolds Lead are made, the adverse impacts related to vehicle delay could be reduced but not eliminated. However, rail improvements have not received permits and their completion is unknown. Therefore, Millennium's disproportionately high adverse effects to vehicle traffic on minority and low-income populations would be unavoidable.

significant adverse effects on rail transportation that cannot be mitigated. At full build out of the Project, 16 trains a day (8 loaded and 8 empty) would be added to existing rail traffic. Three segments on the BNSF main line routes in Washington (Idaho/Washington State Line—Spokane, Spokane—Pasco, and Pasco—Vancouver) are projected to exceed capacity with the current projected baseline rail traffic in 2028. Adding the 16 additional Millennium-related trains would contribute to these three segments exceeding capacity by 2028, based on the analysis in the FEIS and assuming existing infrastructure. As described in the FEIS, Millennium would mitigate some of the impacts by notifying BNSF and Union Pacific (UP) about upcoming increases in operations at the Millennium site. This proposed mitigation measure is informational and does not commit BNSF or UP to take action to increase capacity.

BNSF and UP could make necessary investments or operating changes to accommodate the rail traffic growth, but it is unknown when these actions would be taken or permitted. Improving rail infrastructure is outside the control of Millennium and cannot be guaranteed. Under current conditions Millennium-related trains would contribute to these capacity exceedances at three rail segments on the main line and could result in an unavoidable and significant adverse impact on rail transportation, including delays and congestion.

This impact is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

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6. Rail Safety. The FEIS found that Millennium-related trains would increase the train accident rate by 22 percent along the rail routes in Cowlitz County and Washington. As described in the FEIS, Millennium would notify BNSF and UP about upcoming increases in operations at the Millennium site. However, this notification measure does not commit BNSF or UP to take action or make changes that would reduce accident rates.

To reduce some of the impacts to rail safety, the Longview Switching Yard, BNSF, and UP could improve rail safety through investments or operational changes, but it is unknown when or whether those actions would be taken or permitted. Improving rail infrastructure to increase rail safety is outside the control of Millennium and cannot be guaranteed. Therefore, the 22 percent increase to the rail accident rate over baseline conditions attributable to Millennium would result in unavoidable and significant adverse impacts on rail safety.

This impact is inconsistent with the following substantive SEPA policies:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
- Assure for all people of Washington safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- 7. Vessel Transportation. The FEIS found that the Project would have significant adverse effects on vessel transportation that cannot be mitigated. Millennium would add 1,680 ship transits to the current 4,440 ship transits on the Columbia River per year, for a total of 6,120 at full build out. Thus, the Project would be responsible for over one quarter of the traffic in the Columbia River.

Based on marine accident transportation modeling, the FEIS found the increased vessel traffic would increase the frequency of incidents such as collisions, groundings, and fires by approximately 2.8 incidents per year. While the chance that an incident would result in serious damage or spill is low, if a spill were to happen, the impacts to the environment and people would be significant and unavoidable.

An increase in vessels calling at the proposed new docks increases the risk of vessel-related emergencies, such as fire or vessel allision. An increase in vessels calling at the new docks also increases risk of spills from refueling ships at berth, although Millennium has stated there would be no refueling at the new docks. The FEIS proposes a mitigation measure that if refueling at the docks were to start, the company would notify Cowlitz County and Ecology. Another mitigation measure in the FEIS involves Millennium's attending at least one Lower Columbia Harbor Safety Committee meeting per year.

As a result, the nearshore areas around the lake, and the lake's water quality, are experiencing Reille LAKE environmental pressures from increased human activities and residential development.

Pend Oreille Lake has been designated as a Special Resource Water under Idaho's Water Quality Standards. This designation stipulates that no new point source discharges are allowed, nor may existing sources increase discharges of pollutants to the lake, a tributary, or an upstream segment if these discharges would compromise water quality necessary to designated uses of the water body. Pend Oreille Lake is home to bull trout, a species listed under the federal Endangered Species Act, and has designated uses listed in Idaho Code including: cold-water biota, salmonid spawning, recreation, water supply, wildlife habitat, and aesthetics.

Approximately 90 percent of the flow and 80 percent of the loading of total phosphorus into Pend Oreille Lake comes from Montana's Clark Fork River. Studies have shown that the Clark Fork is the predominate influence on the water quality of lake's deep open waters, while the nearshore, shallow areas of the lake are predominately influenced by sources located within one mile of the lake's shoreline. (TSWQC 2001). To address nutrient loading to the lake's open waters from the Clark Fork, a nutrient loading target for phosphorus has been set at the Montana/Idaho border. This target was officially adopted by the two states and TSWQC in 2002 and provides the basis for a coordinated interstate management approach by apportioning responsibilities between the two states for future water quality planning and implementation activities to protect the lake's open waters. It was agreed in order to complement the protection afforded by the border agreement that a TMDL program would be implemented in Idaho to reduce impacts from local nutrient sources affecting the lake's shallow nearshore areas.

The Pend Oreille Lake Nearshore TMDL focuses on waters in the lake less than 16 meters (~50 feet) in depth. The nearshore load allocation in the TMDL focuses on areas draining directly to the lake without first flowing into a major tributary. To address pollutant loads from other portions of the drainage, there are a number of other TMDLs currently existing or in development. The Pend Oreille basin in Idaho is composed of four different 4th field hydrologic cataloging units, or HUCs. They are the Lower Clark Fork River HUC, Pend Oreille Lake HUC, Priest River HUC and the Pend Oreille River HUC. Some TMDLs have been completed and approved in the Pend Oreille Lake and Priest River HUCs. In the Pend Oreille Lake sub-basin, in addition to the lake nearshore TMDL, there are sediment TMDLs for Gold Creek, Cocolalla Creek, Hoodoo Creek and the Pack River and its tributaries. Cocolalla Lake also has TMDLs for nutrients and dissolved oxygen. Additional TMDLs will be necessary for remaining and newly listed waters in the Priest River and Pend Oreille Lake HUCs. Sub-basin assessments and TMDLs are currently being developed for the Lower Clark Fork River and Pend Oreille River.

¹ The Montana/Idaho border nutrient loading target is 259,500 kg/yr total phosphorus from Montana (Clark Fork River) and 69,151 kg/yr total phosphorus from the Pend Oreille Lake watershed in Idaho. A ratio of 15:1 total nitrogen to total phosphorus was also set as a desirable lower limit to avoid the occurrence of algal blooms in the lake.

Pend Oreille Lake Nearshore Nutrient TMDL Implementation Plan

A Nutrient Management Plan

Pend Oreille Lake Bonner County, Idaho

December 2004

Prepared in cooperation with:

Idaho Department of Environmental Quality
Tri-State Water Quality Council
Idaho Soil Conservation Commission
Idaho Department of Lands
Idaho Transportation Department
Bonner Soil and Water Conservation District
Bonner County

1.0 EXECUTIVE SUMMARY

The Clark Fork-Pend Oreille Basin lies in western Montana, northern Idaho, and northeastern Washington. The Clark Fork River begins near Butte and drains an extensive area of western Montana before entering Idaho's Pend Oreille Lake. The lake is the source of the Pend Oreille River in northeastern Washington, which ultimately drains to the Columbia River.

In 1994, the State of Idaho designated Pend Oreille Lake as "threatened" due to the increasing amount of nutrients (nitrogen and phosphorus) and resulting algae growth in the lake. Because of this designation, the Idaho Department of Environmental Quality (IDEQ) prepared a problem assessment on the lake in 1999. The assessment concluded that the lake's nearshore waters would likely degrade over the long-term and that a plan should be developed to assure protection of the lake's water quality. The assessment recommended development of a Total Maximum Daily Load (TMDL) to control phosphorus (the nutrient of concern) in order to protect and maintain water quality standards in the nearshore waters of the lake.

During 2001-2002, a technical team of agencies and stakeholders developed the nearshore TMDL. The focus of the TMDL is on the lake's nearshore zone—the band of water along the shoreline where light can penetrate to the bottom and that averages around 50 feet in depth. The dominant factor affecting water quality in this shallow nearshore zone is loading from human activities in the areas immediately surrounding and draining into the lake. The TMDL sets a threshold for total phosphorus (9 ug/l average throughout the nearshore waters and 12 ug/l as an instantaneous "action level") and identifies the total allowable load (4,588 pounds of total phosphorus per season, June through September) that the lake can assimilate while continuing to meet water quality standards. The TMDL was approved by the U.S. Environmental Protection Agency (EPA) in October 2002, and then work began on development of an implementation plan to prescribe specific management actions to reduce nutrient loading from the lake's nearshore drainage area.

A TMDL provides the scientific foundation for protection of a waterbody by setting thresholds, or targets, for the pollutant(s) of concern. An implementation plan puts a TMDL into practice by identifying and implementing specific pollution control measures designed to achieve the targets outlined in the TMDL. As required by IDEQ, an implementation plan also describes when pollution control actions will take place, designates responsible parties, estimates costs and potential funding opportunities, and sets up a plan for monitoring, evaluation, maintenance of effort over time, and public involvement.

Recognizing that an implementation planning effort is more likely to be successful when a collaborative community approach is taken, IDEQ enlisted the assistance of the Tri-State Water Quality Council (TSWQC), a diverse stakeholder group, to help develop the Pend Oreille Lake nearshore TMDL implementation plan. Working with the IDEQ, the TSWQC organized and facilitated the efforts of the Pend Oreille Lake Planning Team. Members of the planning team included representatives from IDEQ, TSWQC, Idaho Soil Conservation Commission, Natural Resources Conservation Service, Idaho Transportation Department, Idaho Department of Lands, Bonner County Planning Department, Kootenai-Ponderay Sewer District, U. S. Army Corps of Engineers and interested citizens.

From fall 2002 through spring 2004, the planning team researched nutrient pollution problems, compiled existing pollution control programs, and developed management actions and potential opportunities for improving the water quality of Pend Oreille Lake and its watershed. The team met with agencies responsible for, or participating in, key existing water pollution control programs, including IDEQ, Bonner County Planning Department, Bonner County Public Works Department, Idaho Transportation Department, Idaho Department of Lands, U. S. Forest Service, Panhandle Health District, City of Sandpoint, Bonner Soil & Water Conservation District, Selkirk Cooperative Weed Management Area and U. S. Coast Guard Auxiliary. The team also held a public workshop in October 2003 to gather ideas from the public about actions that could be taken to protect the lake's nearshore water quality from nutrient pollution. From this variety of sources, the team then assembled management actions that could serve to protect lake water quality by enhancing or expanding upon existing programs, with a focus on activities that take place in the immediate nearshore drainage area. The resulting list of actions is the focal point of the implementation plan.

A total of 82 recommended actions fall into two program areas: **education** projects and **on-the-ground implementation** projects. The planning team considers education to be one of the most effective methods for meeting the goals of the TMDL. Through education, informed watershed residents and lake users will be more conscious of how their activities affect the lake, and thus may be more willing to modify those activities to meet water quality goals that they understand. However, on-the-ground pollution control measures are also essential for achieving the goals of the TMDL, because these actions can directly prevent or reduce the amount of phosphorus loading into the lake.

Categories for the on-the-ground actions include: development/shoreline property, stormwater, transportation/roads, forestry, agriculture, Eurasian milfoil and recreation, along with program coordination and water quality monitoring and data management. The recommended actions include a spectrum of activities that ranges from protecting and maintaining natural vegetation along shorelines, developing land disturbance and grading permit requirements, investigating increased setbacks for new waterfront lots, identifying and implementing beneficial roadway projects in water quality problem areas, encouraging landowner participation in federal and state forestry and agriculture cost share programs, and pursuing creative opportunities for revenues to fund the control of Eurasian milfoil. For each recommended action, the plan identifies lead agencies, estimated costs, anticipated implementation dates, and possible funding sources.

Dates for the recommended actions are set for the first five years of the implementation plan. Monitoring of the lake will be undertaken annually to determine the effectiveness of these initial actions. Based on monitoring and evaluation results at the end of the first five-year period—and subsequent five-year periods thereafter—management actions to reduce nutrient loading from local sources will be revised or developed as needed to meet the nutrient targets in the TMDL. The implementation plan is designed with an adaptive management strategy in mind. IDEQ recognizes that the implementation plan must allow for change over time as new scientific information becomes available, the lake's watershed population increases, new laws and ordinances are enacted, new projects are identified, and existing projects are implemented.

The plan outlines a water quality monitoring program to be undertaken to evaluate if the TMDL targets are being met and to assess overall project effectiveness. Monitoring data will also be used to strengthen the overall understanding of nearshore water quality in Pend Oreille Lake.

The monitoring program includes recommended actions to be taken by resource managers in the event of exceedances of the 12 ug/l action target. This includes either an instantaneous exceedance (exceedance of the target at any one time at a location) or a short-term exceedance (exceedance of the target for two consecutive years in the same location.)

In accordance with Idaho Code, the implementation plan confirms commitment from the lead agencies to devote the necessary resources to meet the targets of the TMDL. IDEQ will meet annually with the designated lead agencies and other resource managers and stakeholder groups to review the monitoring results and to determine the progress of individual projects and the implementation plan as a whole. These annual meetings will also ensure that projects are being monitored and that all agencies are held accountable for their respective projects. Additionally, each year IDEQ will hold a public meeting to provide updates and seek local community input on the implementation plan. IDEQ will prepare an annual implementation plan progress report for distribution at each annual public meeting.

2.0 INTRODUCTION

The Pend Oreille Lake nearshore Total Maximum Daily Load (TMDL) was submitted by the Idaho Department of Environmental Quality (IDEQ) and approved by the U.S. Environmental Protection Agency (EPA) in 2002. IDEQ has set a target date of 18 months after EPA approval of a TMDL to develop and approve a TMDL implementation plan. IDEQ is keenly aware that collaborative efforts on many fronts are required in order to meet the 18-month implementation plan completion date, to meet water quality targets established in the nearshore TMDL, and to attain full beneficial uses at the earliest possible date. For this reason, the IDEQ applied for an EPA grant to fund the Tri-State Water Quality Council (TSWQC), a diverse stakeholder group, to help develop and implement the Pend Oreille Lake nearshore TMDL and associated implementation plan.

Working with the IDEQ, the TSWQC facilitated the efforts of the Pend Oreille Lake planning team. From fall 2002 through spring 2004, the group researched pollution problems and existing water quality protection programs and developed management actions and potential opportunities for improving the water quality of Pend Oreille Lake and its watershed. The result of the 18-month collaborative effort is this implementation plan.

2.1 OVERVIEW OF THE PEND OREILLE LAKE WATERSHED

The Pend Oreille Lake watershed is part of the larger Clark Fork – Pend Oreille Basin which encompasses about 25,000 square miles in western Montana, northern Idaho, and northeastern Washington (Figure 1. Clark Fork – Pend Oreille watershed boundary). Located almost entirely in Bonner County, Pend Oreille Lake is the largest and deepest natural lake in Idaho. The surface area of the lake is approximately 143 square miles (95,000 acres) with about 175 miles of shoreline (Figure 2). The Clark Fork River is the principal tributary to the lake, contributing about 92 percent of the annual inflow (Frenzel, 1991a, as sited in DEQ 2002). Other tributaries to the lake include the Pack River, Lightning Creek, and Sand Creek with numerous smaller streams entering the lake at various locations. Surface water outflow from the lake consists only of the Pend Oreille River, and groundwater contributions from the lake to the Spokane Valley-Rathdrum Prairie Aquifer have been estimated between 3.8 and 7 percent of the total aquifer recharge (IDEQ, 2002).

The lake is most often divided into two hydrologic basins comprising the deep and relatively poorly-flushed southern basin and the relatively well-flushed, shallow northern basin. The deep southern basin contains approximately 95 percent of the overall lake volume. The pelagic zone (deep – open waters) accounts for approximately 89 percent of the lake's volume while the littoral zone (shallow nearshore areas and the focus of this TMDL implementation plan) accounts for approximately 11 percent (EPA 1993, as cited in IDEQ 2002).

The lake's watershed supports a natural resource based economy with an array of land use types. Recreation constitutes an important business for the entire lake community and the Pend Oreille Lake region continues to increase in popularity as a recreational destination. With 14 species of fish, the lake has a well-deserved reputation as a fishermen's paradise (a total estimated 465,000 hours per year is spent by anglers fishing the lake) and opportunities for a variety of water-related recreational activities abound. With a population rate in Bonner County currently at 38 percent, development in the lake's watershed—and use of the lake—is increasing significantly.



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News

PEND OREILLE LAKE

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Railroad Whistleblower In Seattle Wins \$1.6M Settlement

by **Ashley Ahearn** (/contributor/ashley-ahearn/) Follow and **Tony Schick** (/contributor/tony-schick/) Follow EarthFix May 27, 2016 4:30 p.m. | Updated: May 28, 2016 12:01 p.m.

A federal jury in Seattle has awarded a former BNSF Railway worker, and whistleblower, more than \$1.6 million.

In 2010, Curtis Rookaird alerted federal officials that his employer had told him to forego an important brake test on a train carrying oil and hazardous materials. He was later fired.

Rookaird's case came amidst heightened scrutiny for railroads (http://www.opb.org/news/article/workers-question-safety-culture-in-railroads-hauli/) as they began moving unprecedented amounts of crude oil throughout the country, including several trainloads per week to marine terminals and refineries in the Pacific Northwest.

The circumstances of his firing illustrate a trend within the railroad industry of retaliation for reporting safety concerns and injury reporting, according to current and former railroad workers, labor attorneys and railroad safety consultants.

RELATED COVERAGE

It's been six years since BNSF Railway fired Curtis Rookaird.

The Rookairds lost their home as a result. Curtis left to drive a truck in the oil fields of North Dakota to support his wife, Kelly, and their two boys.



(/news/article/workers-questionsafety-culture-in-railroads-hauli/)
Rail Workers Raise Doubts
About Safety Culture As Oil
Trains Roll On
(/news/article/workersquestion-safety-culture-inrailroads-hauli/) "We were down to the last few dollars and I went to ND to go to work in 2012," Rookaird said.

"On borrowed money," Kelly Rookaird added.

"We borrowed money for me to get there," Curtis said. "So, it's been a struggle."

But in court this week, the Rookairds were victorious. The judge ruled Curtis Rookaird was right to conduct that brake test over the objections of his supervisor and was wrongfully fired.

The jury described BNSF Railway's conduct was "malicious and oppressive," and awarded Rookaird to make up for his lost earnings and emotional stress.

Several others have won large sums from BNSF

Railway for similar cases.

Mike Elliot, a former union safety official who worked for BNSF, was awarded \$1.25 million last year after being fired for reporting unsafe track conditions north of Tacoma. Jen Wallis, a BNSF rail yard worker in Seattle, also won in court after she injured her knee on the job and said she was penalized by the railroad for reporting the injury.

It is not the first time a judge has ruled in Rookaird's favor. The court ruling follows an administrative law judge ruling in 2013 from the Occupational Safety and Health Administration, which handles railroad whistleblower claims.

BNSF maintains Rookaird was fired justifiably and that it was not retaliation, spokesman Gus Melonas said in an emailed statement. The company has repeatedly pointed to the ruling of an arbitration panel that found Rookaird's firing was justified.

"There was important information that was not presented to the jury," Melonas wrote. "We are weighing our options as we study the jury's decision."

BNSF could appeal Rookaird's colle all the way to the U.S. supreme court.





Science, Tech & Environment

Ex-employees claim a major US freight railroad company has ignored key safety checks

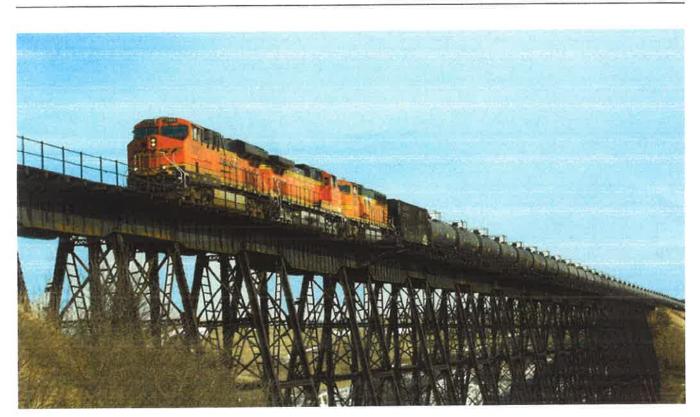
Living on Earth

July 21, 2014 · 5:00 PM EDT

By **Ashley Ahearn**

Listen to the story.





A BNSF train carrying crude oil from the Bakken Shale in North Dakota

Credit: BNSF file photo

One of the largest freight railroad companies in North America, Burlington Northern Santa Fe (BNSF) Railway, is accused of forcing workers to skip critical safety checks and firing employees who blow the whistle on unsafe practices.

A former BNSF employee named Curtis Rookaird, a conductor for the railway for six years, says he was <u>fired in 2010</u> for insisting that he perform certain safety checks over the objections of his supervisor.

"I was just doing my job, like I was trained to do, that day," Rookaird says. "I didn't know I was going to be in such a battle — and it's a battle for my life, for my family ... not just for my job."

On February 23, 2010, Rookaird went to the rail yard in Blaine, Washington, ready to start lining up train cars and doing safety checks. One of the most important checks is called an air test: a conductor or brakeman walks the length of a train to see if the air brakes on each car are properly set and functioning.

"If you don't have brakes ... you don't have control of the train," Rookaird says. "You can crash into things."

Testing air brakes is standard operating procedure for Class 1 railroads, including BNSF. But on that day, Rookaird's supervisor told him and his crew to hurry up, and that the air brake test wasn't necessary.

"It was really odd," Rookaird says. "We were looking at each other, going, 'Can he be serious? What is going on here?'"

Rookaird did the air brake test. His supervisor then dismissed him for the day. A

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railroads, and asked if he'd done anything wrong. The FRA said he was right to have conducted the air brake test, even though his supervisor told him not to.

Later, the FRA conducted an investigation of the incident and fined BNSF Railway. The FRA declined to be interviewed for this story. A month later, BNSF fired Rookaird. The company claimed he failed to work efficiently and had not properly filled out his timesheet that day.

More than fifteen trains of oil from the Bakken Shale of North Dakota <u>cross the American Northwest</u> each week, most of it transported by BNSF. Forty-seven people died last summer when air brakes on a train carrying Bakken oil were deactivated, allowing it to roll into a <u>community in Quebec</u>. That investigation is ongoing.

Curtis Rookaird is not alone in his experience with the BNSF Railway. The public radio reporting initiative <u>EarthFix</u> found three other pending cases where workers say they were fired for insisting that standard air brake testing procedures be followed.

In more than a dozen interviews, current and former BNSF employees described an intimidating work culture that discouraged workers from reporting accidents, injuries or safety concerns. Several spoke on condition of anonymity because they are afraid BNSF will fire them for speaking out.

BNSF Railway declined to be interviewed for this story.

Herb Krohn, a union representative for 2000 rail workers in Washington state, decries what he calls a "culture of blame" in the industry. "There's this … 'blame the messenger' kind of situation," he says. "We've had situations where people have been fired because they continually *did* report safety violations."

relatively short notice and their schedules are often erratic, making it difficult to get adequate or regular sleep.

Krohn says that workers on any given oil train rolling through Seattle may have been awake for 24 hours at a stretch. That, combined with fewer workers per train than in the past, could be a recipe for disaster.

"The history of railroads in America has been one where things generally don't get corrected until people die," Krohn says, "and that is frightening to me."

In an emailed statement, BNSF says it conducts frequent operational tests and audits to make sure employees are working safely and in compliance with all company rules. The company also pointed to its formal policies prohibiting retaliation against whistleblowers.

At a rail safety meeting held in Vancouver, Washington, in March, BNSF spokeswoman Courtney Wallace told EarthFix the company is committed to worker safety.

"We have a safety culture," Wallace said. "If an employee sees something that isn't right — whether that's a supervisor-level or someone below them or at their level — they feel comfortable enough to say, 'Stop, that is not the right approach."

Curtis Rookaird is skeptical. He and other current and former BNSF employees say management values speed over safety. "They get performance bonuses based upon velocity — and if they don't show those cars moving, they don't get those bonuses," Rookaird says.

His legal battle with BNSF is now in its fourth year. He found work in North

Doubte oil fields as a truck driver but the payment to good as when he worked

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Curtis Rookaird's wife, Kelly, says that BNSF — which is controlled by billionaire Warren Buffett — is delaying justice and had no right to fire her husband.

"Safety should come over money," she says. "That's what I'd like to say to Warren Buffett. 'Wake up. Us little people — you can take everything from us — but you're not going to take our pride and our dignity.' [Curtis] loved his job and we loved his job, too. He would take those boys out to the train and teach 'em about the engines ... He thought maybe one day one of these kids might want to follow in his footsteps, but now that we go through this, I don't know."

In September of last year, the Federal Occupational Safety and Health Administration <u>ruled in favor of Curtis Rookaird</u> and ordered BNSF to put him back to work. BNSF appealed OSHA's ruling, as they have done with several other similar whistleblower cases.

The Rookaird's home is now in foreclosure, and the family could be forced to move within a month. Curtis Rookaird's case won't go before a federal court until May of next year.

This story is based on a <u>longer article from the collaborative reporting initiative</u>

<u>EarthFix</u> reported by <u>Ashley Ahearn</u>, with help from Tony Schick. It also appeared on <u>PRI's Living on Earth</u>, a weekly environmental news and information program.

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Local News

Ex-BNSF engineer claims he was wrongly fired after avoiding rail mishap in Portland



Originally published January 22, 2018 at 10:47 am Updated January 22, 2018 at 11:06 am

A federal judge recently denied the railroad's request to dismiss a lawsuit filed by James T. Norvell, a Ballard resident, and scheduled a trial for later this year.



A former engineer for BNSF Railway now working and living in Ballard claims in a federal whistleblower lawsuit that he was fired for damaging company property after he was forced to throw a runaway locomotive into reverse to avoid a potentially catastrophic accident in Portland in 2015.

A federal judge in Tacoma earlier this month denied a motion by the railroad to dismiss the lawsuit filed in August by James T. Norvell, finding that Norvell's claims at this point give him standing to sue over his contention that he was improperly fired for discharging a public duty — protecting the lives of citizens and employees in and around the Willbridge rail yard in Portland on July 12, 2015.

According to the lawsuit, Norvell was a 13-year veteran engineer who was assigned to drive Locomotive 2339 and 22 freight cars between two connected BNSF rail yards, called the Lake Yard and the Willbridge Yard. Both are located along the Willamette River.

USCG0041233/27

Norvell was at the controls of a train heading into the Willbridge Yard, within the speed limit, when "locomotive 2339 did not respond to Norvell's efforts to slow," according to the lawsuit.

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The lawsuit claims that the tracks within the yard "are unique in that they all run downhill."

According to the suit, Norvell was aware there were others working around him and "knew there were loaded hazardous tank cars at the bottom of the yard and parked in a manner roughly broadside to the direction of travel of his train."

Moreover, the lawsuit notes, the Willbridge Yard is surrounded by petroleum and chemical tank farms.

"If he could not stop the train, Norvell would have put the lives of his co-workers in peril and likely would have caused an enormous explosion and/or spill of hazardous materials that would have put the public at large in danger," according to the lawsuit.

"With no other option to stop the train in time to avoid catastrophe, Norvell threw the throttle into reverse and was able to bring the train to a safe stop," the lawsuit said.

The result, however, was that the locomotive sustained serious damage.

Four days after the incident, according to the lawsuit, Norvell was notified that BNSF had initiated disciplinary proceedings against him because he had "failed to properly stop your movement in accordance with proper train handling," resulting in damage to the locomotive.

At a hearing a month later, Norvell presented evidence — in the form of an affidavit and testimony of a BNSF locomotive mechanic identified as Warren Stout — about shortcomings at the Vancouver, Washington, BNSF maintenance facility where Locomotive 2339 had recently been serviced.

Norvell also provided maintenance logs showing the locomotive "had brake rigging defects that had not been properly addressed despite multiple reports of the problem and multiple trips to the BNSF locomotive facilities in Vancouver and Seattle" before the July 12 incident at Willbridge Yard, according to the lawsuit.

Stout, according to the lawsuit and the sworn affidavit, concluded that BNSF's "Band-Aid" approach to maintenance and its "refusal to authorize proper repairs to locomotives, including 2339, had resulted in a 'fleet of substandard and noncompliant locomotives haunting the area.'"

One of Norvell's attorneys, Jeff Dingwall, of San Diego, said the railway "chose to blame him instead of owning up to the fact" of the maintenance problems.

Sonja Fritts, a Seattle lawyer representing BNSF, declined to comment Thursday on the allegations and referred inquiries to BNSF Railway spokesman Gus Melonas, who said the railroad had no comment.

However, in its answer to Norvell's complaint, filed with the court on Wednesday, the railway denied all of Norvell's substantive claims, up to and including his allegations that the public was in danger, that a catastrophe was averted, and that the tracks at the Willbridge Yard slope downhill.

In seeking to dismiss the claim outright, BNSF argued that the company's collective-bargaining agreement with the engineer's union governs his dismissal and that Norvell's case doesn't belong in federal court.

U.S. District Judge Benjamin Settle disagreed and set a trial date for Sept. 17, although it is likely that will be delayed. In the meantime, both sides will proceed with discovery and depositions.

"It is clear that railroad employees such as plaintiff have important rights and duties under public policy that are protected independently of the [collective-bargaining agreements governing] their labor relations," Settle wrote.

"For instance, [the law] expressly provides a cause of action for railroad employees who suffer retaliation for reporting railroad hazards and misconduct by railroad carriers," the judge said.

Norvell now works as an engineer at the Ballard Terminal Railroad.

Mike Carter: mcarter@seattletimes.com or 206-464-3706



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Closings



EX-BNSF ENGINEER RAISES SAFETY CONCERNS, CLAIMS WRONGFUL TERMINATION

USCG0041273/27

James Norvell says he stopped locomotive 2339 before it could crash into a group of hazardous train cars in Portland. He was fired — and then claims he learned about the history of 2339.

A train engineer says he was wrongfully terminated by BNSF Railway Company after he prevented a crash. He is now suing his old employer in federal court, saying his case highlights concerns about how locomotives are repaired.

James Norvell, a third generation train engineer in his family, started working for BNSF in 2002. He was fired in August of 2015 because of what happened the month before.

According to Norvell, during a nightshift, he was at the controls of locomotive 2339 for the purpose of bringing 22 freight cars from one yard to another in Portland.

"When I was applying the independent brake I had absolutely nothing," he said.

He says loaded, hazardous tank cars were at the bottom of the yard.

"All around that yard was some of the most volatile fluid you can possibly put in tanks. I felt that any sort of explosion or anything could have caused a pretty good size chain reaction that would have left a hole in north Portland." said Norvell.

He threw the throttle into reverse, causing the train to stop. As a result, the locomotive was damaged, and BNSF eventually fired him for failing to safely operate a train.

Norvell says he talked with BNSF machinist Warren Stout.

"When I talked to Warren about it and got a larger picture for what was really going on, I figured maybe I might have a case," said Norvell.

He says Stout claims there have been past issues with locomotive 2339, and in general, says there have been "band-aid fixes" and "a decline in regular maintenance."

USCG0041283/27 BNSF spokesperson Gus Melonas said the company is not commenting at this point. In federal court, BNSF filed a 11-page document. In those pages, BNSF denies any wrongdoing. BNSF also states that the company has "extensive safety protocols, procedures and policies to ensure the safe operation of trains."
But Norvell says he experienced something different.
To BNSF, Norvell says, "This is not my fault here. This is something that you guys have created and put me in this situation, and luckily for you, I was able to take action and not create a larger catastrophe."
He plans to make his case in federal court later this year.

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Motorist Killed by BNSF Train at Dangerous, Unguarded Crossing

(Bonner County, Idaho — December 31, 2013)

A dangerous and unguarded BNSF railroad crossing between the communities of Sagle and Sand Point in Bonner County, ID was the site of its third accident at about 4:22 P.M. Tuesday afternoon when a collision between a BNSF freight train travelling at a speed of 59 mph from Portland, OR to Chicago, IL and a vehicle driven by 25-year-old Kaitlin Brosh claimed the life of the female motorist.

Even though the Heath Lake Road crossing of BNSF tracks sees a daily average of 55 trains, including Amtrak passenger, BNSF and Montana Rail Link trains which operate at a maximum allowable speed of 70 mph, the crossing has no active protective devices such as flashing lights, bells and crossing gates, but rather is equipped only with passive railroad cross-buck and highway stop signage, therefore making the warning to drivers of approaching trains on the double-tracked rail corridor nearly impossible at best.

The victim was pronounced dead at the scene, making her the first fatality at the BNSF/Heath Lake Road intersection after two earlier accidents had resulted in a total of three non-fatal injuries suffered by motorists and their passengers.

As previously mentioned, this collision happened at a dangerous, unguarded crossing that does not have flashing lights or automatic gates. It is virtually certain that lights and gates would have prevented this incident. Both BNSF and Operation Lifesaver know lights and gates are the most effective type of protection at railroad crossings. Studies that have been

reduce the number of vehicle/train accidents by as much as 96%.

By Pottroff Law Office, P.A. | Posted on <u>January 2, 2014</u>

Tags: Crossing accidents, Motor vehicles, Train accidents

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Posted: March 22, 2018

Two Norfolk Southern Train Collide Causing Evacuations in Kentucky Town

Posted: March 15, 2018

Two Killed in Virginia at Dangerous, Unguarded Crossing

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RAIL SAFETY

Rail Workers: Deadly Tired...but Still Working

MARCH 21, 2016 | NTSBGOV | 38 COMMENTS By Georgetta Gregory

The rail business is an industry full of tired, stressed workers. It is an epidemic.

I know this first-hand because, before coming to the NTSB several years ago, I spent more than 30 years working in the freight railroad industry. While freight railroad managers and crews count on reliable schedules to make their shipments and make their customers happy, there is no routine schedule for the hundreds of thousands of crewmembers employed in this business. As a result, many railroad workers are literally walking and working in their sleep.

I was one of them.

One of my last jobs before coming to the NTSB was as a trainmaster for a major freight railroad. My duties included safely seeing the arrival and departure of trains in and out of terminals in California. I spent a large majority of my time reviewing train schedules and communicating with train personnel of arriving and departing trains. I coordinated the efforts of nearly 300 crewmembers, including yardmasters, dispatchers and engineers, to execute the transportation plan on my territory. Additionally, I was responsible for making sure all the work was done safely and in accordance with rules and regulations.

The job was very stressful and required long hours. It wasn't unusual for me to work 80 hours a week. I often worked overnight, evenings, weekends and long hours.

Over time, I became chronically fatigued. I gained weight and began to lose my memory and other cognitive abilities. I had no routine schedule for sleep, because I worked irregular hours that were counter to my circadian rhythms. Eventually, I began to make mistakes at work and in my personal life – potentially dangerous ones.

Noting how my work and home life was suffering, I went to a sleep specialist. The doctor determined that I was fatigued at a dangerous level – to the point where the state of California took my driver's license. Ironically, while I could no longer drive a car, I was still expected to carry out the meticulous details associated with managing rail yards.

I warned my bosses, but there was little help or response. I made suggestions for improvements, including encouraging the railroad to provide better lineups and opportunities for rest, but I felt unsupported and became concerned for the safety of my crews. Eventually, I left the railroad and began a new career.

My story is not unusual. And when I came to the NTSB as Chief of the Railroad Division, I quickly learned that the NTSB also realized the dangers of fatigue in the railroad business. As a result of our investigations in recent years, we have issued more than 25 recommendations related to managing fatigue—all still open, needing to be addressed.

One accident, in particular, involving a freight train perhaps best highlights the danger the NTSB is attempting to eradicate. In April 2011, an eastbound BNSF Railway (BNSF) coal train traveling about 23 mph, collided with the rear end of a standing BNSF maintenance-of-way equipment train near Red Oak, Iowa

(http://www.ntsb.gov/investigations/AccidentReports/P ages/RAR1202.aspx). The collision resulted in the derailment of 2 locomotives and 12 cars. The lead locomotive's modular crew cab was detached, partially crushed, and involved in a subsequent diesel fuel fire. Both crewmembers on the striking train were fatally injured.



(https://safetycompass.files.wordpress.com/2016/03/red-oak-ia.jpg)

Wreckage of BNSF train, including lead locomotive of striking train, at Red Oak, Iowa.

We determined that the probable cause of the accident was the failure of the crew of the striking train to comply with the signal indication requiring them to operate in accordance with restricted speed requirements and stop short of the standing train because they had fallen asleep due to fatigue resulting from their irregular work schedules and their medical conditions.

As a result of that accident, we recommended that the railway require all employees and managers who perform or supervise safety-critical tasks to complete fatigue training on an annual basis and document when they have received this training, and that they medically screen employees in safety-sensitive positions for sleep apnea and other sleep disorders.

Both the conductor and the engineer had worked irregular schedules for several weeks leading up to the accident. During this time, work start times often varied significantly from day to day for both crewmembers. Changing work start and end times can make achieving adequate sleep more difficult, because irregular work schedules tend to disrupt a person's normal circadian rhythms and sleep patterns, which in turn can lead to chronic fatigue.



(https://safetycompass.files.wordpress.com/2016/03/metro-north.jpg)

More recently, we investigated an accident in New York where a Metro North Railroad locomotive engineer was operating a train with undiagnosed severe obstructive sleep apnea (OSA). The train, on its way toward Grand Central Station in New York, New York

(http://www.ntsb.gov/investigations/AccidentReports/Pages/RAB1412.aspx), had 115 passengers on board. The engineer headed into a curve with a 30 mph Scene of the derailment of Metro North Train 8808. speed limit traveling at 82 mph, resulting in a derailment. Sixty-one people were injured, and 4 passengers died.

The engineer experienced a dramatic work schedule change less than 2 weeks before the accident, with his wake/sleep cycle shifting about 12 hours. Previously, he had complained of fatigue but had not been tested or treated for sleep apnea. After the accident he had a sleep evaluation that identified excessive daytime sleepiness and underwent a sleep study resulting in a diagnosis of severe OSA. Following the study, he was treated successfully for OSA within 30 days of the diagnosis.

The NTSB issued safety recommendation to the Metro-North Railroad to revise its medical protocols for employees in safety-sensitive positions to include specific protocols on sleep disorders, including OSA.

We have issued numerous recommendations to the Federal Railroad Administration, as well, requiring it to develop medical certification regulations for employees in safety-sensitive positions that include, at a minimum, a complete medical history that includes specific screening for sleep apnea and other sleep disorders, a review of current medications, and a thorough physical exam. If such a recommendation had been implemented at the railroad for which I worked, my fatigue most likely would have been caught earlier and mistakes avoided.

(Note: As I was writing this blog, I was heartened to hear that, on March 8, the FRA announced it was seeking public input on the impacts of screening, evaluating and treating rail workers for obstructive sleep apnea.)

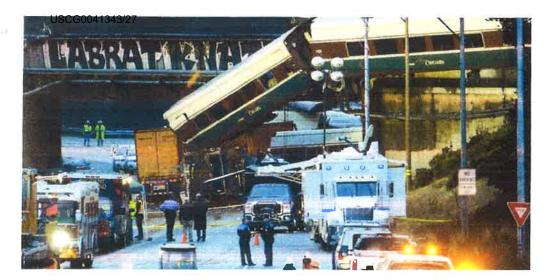
And while the railroads and the federal regulators are responsible for addressing this epidemic, so too must railroad workers recognize the dangers of working while fatigued. Yet many are compelled to make money and want to stay ready to react at any hour of the day to avoid missing the opportunity to get paid. To a certain extent, I understand this. And that's why we must also work with labor unions to address this issue and provide workers the opportunity for sleep, while still allowing them the opportunity to get a paycheck and progress in their careers.

Fatigue in transportation is such a significant concern for the NTSB that it has put "Reduce Fatigue-Related Accidents (http://www.ntsb.gov/safety/mwl/Pages/mwl1-2016.aspx)" on its Most Wanted List of transportation safety improvements. It is not just an issue in rail, but an issue in all modes of transportation that must be addressed.

As a former railroad worker and now as a supervisor of railroad accident investigators, I can tell you we still have a long way to go to address this issue. Doing so will require the joint efforts of the regulator, the operator, and the employee. These efforts must be undertaken, because we can't keep running down this dangerous track.

Georgetta Gregory is chief of NTSB's Railroad Division.

FATIGUE & MOST WANTED LIST & MOST WANTED LIST 2016



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PEND OREILLE LAKE

Lights illuminate cars from an Amtrak train that derailed above Interstate 5 on Dec. 18, 2017, in DuPont, Washington. Elaine Thompson / AP

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The train that careened off a bridge outside Tacoma, Washington, killing three people was traveling at 80 mph on a 30-mph stretch of track, federal investigators confirmed late Monday.

During a late-night briefing with reporters, NTSB board member Bella Dinh-Zarr added that Train 501 of Amtrak's Cascades service from Seattle headed south to Portland, Oregon, was carrying 80 passengers, three crew and two service personnel.

She said it was "too early to tell" why the train was travelling at 80 mph.

"We were glad that we were able to get the data from the event data recorder from the rear locomotive," she said at the briefing. "The front locomotive as you can imagine is a bit more difficult to access."

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Deadly Amtrak derailment: Investigators begin looking for cause

02:06

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http://www.heraldcourier.com/news/update-train-cars-confirmed-to-have-derailed-in-wise-county/article_f4827596-ccd5-11e7-8c9c-9f21c350627b.html

BREAKING

Update: 38 train cars confirmed to have derailed in Wise County, Va.

Staff Nov 19, 2017

UPDATE: A Norfolk Southern Railroad official confirmed 38 cars derailed on Saturday in Wise County, Virginia.

Four rail cars overturned into Pigeon Creek, spilling an estimated 400 tons of coal into the creek, company spokesman Jonathan Glass said as of 9:15 a.m on Sunday. Six other cars turned over on the bank of the creek.

Norfolk Southern is continuing cleanup and recovery efforts on Sunday, Glass said. The company is working closely with the Virginia Department of Environmental Quality to minimize impacts to the waterway.

The cause of the derailment still remains under investigation. No injuries were reported, Glass said.

UPDATE: A Norfolk Southern Railroad official says an estimated 36 cars derailed Saturday evening in Wise County, Virginia.

Company spokesman Jonathan Glass said an undetermined amount of coal spilled into Pigeon Creek as a result of the incident.

Norfolk Southern has specialists in route to begin re-railing the cars and cleaning up spilled coal. The company hopes to have Exeter Road, which was closed late Saturday, reopened by midmorning Sunday,

The cause of the derailment is under investigation, Glass said.

APPALACHIA, Va.—A "major train derailment" has been reported in the Imboden community of Wise County, Virginia, according to the Appalachia Fire Department.

A Norfolk Southern coal train derailed, company spokesman Jonathan Glass confirmed late Saturday. The derailment occurred about 8:40 p.m.

Glass did not know how many cars derailed, but said the train consisted of three locomotives and 54 rail cars.

The Exeter Road crossing was completely blocked Saturday night, along with access to the Imboden community, according to a notice posted on the Fire Department's Facebook page. Anyone who lives in Exeter, Lower Exeter or Keokee is advised to seek an alternate route through Lee County.

The Appalachia Fire Department is blocked from providing services to Exeter and Lower Exeter, the notice states. Lee County will be providing emergency services until the Exeter crossing is reopened.

"AFD will advise the public when the road reopens," the notice states. "Expect the Exeter crossing to be blocked for some time. AFD is asking everyone to stay away from the crash site."

A Virginia State Police spokeswoman confirmed troopers were responding to the derailment site to assist the Wise County Sheriff's Office.

The Virginia Department of Transportation reported that a portion of Exeter Road, or state Route 68, will be in closed for multiple days due to extensive cleanup and repairs to roadway as a result of the incident.

No injuries were reported late Saturday, Glass said.

Robert Sorrell

Jess Nocera



DEPT OF LANDS

MAY 1 6 2018

PEND OREILLE LAKE

Fact Sheet

The U.S. Environmental Protection Agency (EPA)
Proposes to Reissue a National Pollutant Discharge Elimination System (NPDES) Permit to
Discharge Pollutants Pursuant to the Provisions of the Clean Water Act (CWA) to:

City of Sandpoint Wastewater Treatment Plant

Public Comment Start Date: October 31, 2014

Public Comment Expiration Date: December 1, 2014

Technical Contact:

Brian Nickel

206-553-6251

800-424-4372, ext. 3-6251 (within Alaska, Idaho, Oregon and

Washington)

Nickel.Brian@epa.gov

The EPA Proposes To Reissue an NPDES Permit

The EPA proposes to reissue the NPDES permit for the facility referenced above. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the United States. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged from the facility.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a listing of proposed effluent limitations and other conditions for the facility
- a map and description of the discharge location
- technical material supporting the conditions in the permit

State Certification

The EPA is requesting that the Idaho Department of Environmental Quality (IDEQ) certify the NPDES permit for this facility, under Section 401 of the Clean Water Act. Comments regarding the certification should be directed to:

Idaho Department of Environmental Quality 2110 Ironwood Parkway Coeur d'Alene, ID 83814 (208) 769-1422

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NPDES Permit #ID0020842 Fact Sheet

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	02 – May 2012)		
Parameter	Statistic	Units	Number of Instances
Total suspended solids (TSS)	Monthly average removal rate	% removal	6
Five-day biochemical oxygen demand (BOD ₅)	Monthly average removal rate	% removal	4
E. coli	Daily maximum	#/100 ml	6
E. coli	Monthly geometric mean	#/100 ml	I
Total residual chlorine (TRC)	Monthly average	mg/L	2
BOD₅¹	Weekly average	lb/day	5
BOD ₅ ¹	Monthly average	lb/day	2
TSS	Weekly average	lb/day	1
TSS	Weekly average	mg/L	1
TSS	Monthly average	mg/L	1

^{1.} In these instances, the effluent loads of BOD₅ (in lb/day) were greater than the effluent limits in the prior permit but less than the effluent limits in the reissued permit.

III. Receiving Water

This facility discharges to the Pend Oreille River near Sandpoint, Idaho. The outfall is located at river mile 117, about 1 mile downstream (i.e., west) of the U.S. Highway 95 bridge, 925 feet from the shore, and 17 feet below the surface of the water. The outfall is equipped with a diffuser.

A. Low Flow Conditions

The low flow conditions of a water body are used to assess the need for and develop water quality based effluent limits (see Appendix D of this fact sheet for additional information on critical low flows). These flows were calculated by first subtracting the measured daily flow rates of the Priest River (USGS station #12395000) from those measured in the Pend Oreille River at Newport, Washington (downstream from the Priest River, at USGS station #12395500), to obtain estimated daily river flows for the Pend Oreille River at Sandpoint. The critical low flows were then calculated from the estimated daily flows.

Table 1: Low Flows in the Pend Oreille River							
at Sandpoint in CFS							
1Q10	Harmonic Mean						
2,410	3,880	8,090	7,360	16,800			

B. Water Quality Standards

Overview

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal regulations at 40 CFR 122.4(d) require that the conditions in NPDES permits ensure compliance with the water quality standards of all affected States. A State's water quality standards are composed of use classifications, numeric and/or narrative water quality criteria and an anti-degradation policy.

Tribe of Indians. Therefore, no numeric water quality-based effluent limits are proposed for PCBs in the draft permit.

The draft permit proposes influent, effluent and surface water column monitoring for PCBs. These data will be used to determine if the discharges have the reasonable potential to cause or contribute to excursions above water quality standards for PCBs in waters of the State of Idaho, the State of Washington or the Kalispel Tribe of Indians. Monitoring requirements for PCBs are discussed in more detail in Section V.D below.

IV. Effluent Limitations

A. Basis for Effluent Limitations

In general, the CWA requires that the effluent limits for a particular pollutant be the more stringent of either technology-based limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality-based effluent limit is designed to ensure that the water quality standards applicable to a waterbody are being met and may be more stringent than technology-based effluent limits. The basis for the effluent limits proposed in the draft permit is provided in appendices D, E and F.

B. Proposed Effluent Limitations

The following summarizes the proposed effluent limits that are in the draft permit.

- 1. The permittee must not discharge floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses.
- 2. Removal Requirements for BOD₅ and TSS: The monthly average effluent concentration must not exceed 15 percent of the monthly average influent concentration. Percent removal of BOD₅ and TSS must be reported on the Discharge Monitoring Reports (DMRs). For each parameter, the monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of the effluent values for that month. Influent and effluent samples must be taken over approximately the same time period.
- 3. The pH must be within the range of 6.5 9.0 standard units.

Table 2 below presents the proposed effluent limits for the City of Sandpoint.

Table 2: Proposed Effluent Limits						
Effluent Limits						
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit		
Five-Day Biochemical Oxygen	mg/L	30	45			
Demand (BOD ₅)	lb/day	906	1359			
Demaid (BOD3)	% Removal	85% (minimum)	-	_		
	mg/L	30	45	-		
Total Suspended Solids (TSS)	lb/day	906	1359	-		
	% Removal	85% (minimum)				

Table 2: Proposed Effluent Limits						
		Effluent Limits				
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit		
E. coli	#/100 ml	126 (geometric mean)	_	406 (instantaneous maximum)		
Tatal Davidual Chlorina	mg/L	0.45	-	1.1		
Total Residual Chlorine	lb/day	13.6		33.2		
Manager Transl	μg/L	0.56	_	1.1		
Mercury, Total	lb/day	0.017		0.033		
Phosphorus, Total as P	lb/day	87	112			

V. Monitoring Requirements

A. Basis for Effluent and Surface Water Monitoring

Section 308 of the CWA and federal regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather effluent and surface water data to determine if additional effluent limitations are required and/or to monitor effluent impacts on receiving water quality.

The permit also requires the permittee to perform effluent monitoring required by parts B.6 and D of the NPDES Form 2A application, so that these data will be available when the permittee applies for a renewal of its NPDES permit.

The permittee is responsible for conducting the monitoring and for reporting results on DMRs or on the application for renewal, as appropriate, to the EPA.

B. Effluent Monitoring

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Permittees have the option of taking more frequent samples than are required under the permit. These samples must be used for averaging if they are conducted using the EPA-approved test methods (generally found in 40 CFR 136 or as specified in the permit).

Table 3, below, presents the proposed effluent monitoring requirements for the City of Sandpoint. The effluent sampling location must be after the last treatment unit and prior to discharge to the receiving water. The samples must be representative of the volume and nature of the monitored discharge. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

Table 3: Effluent Monitoring Requirements						
Parameter	Units	Sample Location	Sample Frequency	Sample Type		
Flow	mgd	Effluent	Continuous	recording		
Temperature	°C	Effluent	Continuous	recording		
	mg/L	Influent & Effluent	2/wasts	24-hour composite		
BOD ₅	lb/day	Influent & Effluent	3/week	calculation		
_	% Removal	% Removal	1/month	calculation ²		
TSS	mg/L	Influent & Effluent	3/week	24-hour composite		

Tab	Table 3: Effluent Monitoring Requirements				
Parameter	Units	Sample Location	Sample Frequency	Sample Type	
	lb/day	Influent & Effluent		calculation1	
	% Removal	% Removal	1/month	calculation ²	
рН	standard units	Effluent	daily	grab	
E. Coli	#/100 ml	Effluent	10/month	grab	
Total Residual Chlorine	μg/L	Effluent	doil.	grab	
Total Residual Chiorine	lb/day	Effluent	daily	calculation1	
T-4-1 DL L .	mg/L	Effluent	0/ 1	24-hour composite	
Total Phosphorus	lb/day	Effluent	2/week	calculation ¹	
	μg/L	Effluent ⁴	1/ . 4	24-hour composite	
Mercury, Total	lb/day	Effluent ⁴	1/month	calculation ¹	
	μg/L	Influent4	1/quarter	24-hour composite	
Total Ammonia as N	mg/L	Effluent	1/month	24-hour composite	
Nitrate + Nitrite	mg/L	Effluent	1/quarter	24-hour composite	
Total Kjeldahl Nitrogen	mg/L	Effluent	1/quarter	24-hour composite	
Soluble Reactive Phosphorus	mg/L	Effluent	1/month	24-hour composite	
Arsenic, Total	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Cadmium, Total Recoverable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Chromium, Total	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Chromium VI, Dissolved	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Copper, Total Recoverable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Cyanide, weak acid dissociable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Lead, Total Recoverable	μg/L	Influent & effluent ⁴	2/year ³	24-hour composite	
Nickel, Total Recoverable	μg/L	Influent & effluent	2/year ³	24-hour composite	
Silver, Total Recoverable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Zinc, Total Recoverable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Whole Effluent Toxicity, Chronic	TUc	Effluent	Annual	24-hour composite	
PCB Congeners	pg/L	Influent & effluent	2/year	24-hour composite	
2,3,7,8 TCDD	pg/L	Influent & effluent	2/year	24-hour composite	
NPDES Application Form 2A Expanded Effluent Testing	-	Effluent	3x/5 years	-	

Notes

- 1. Loading is calculated by multiplying the concentration in mg/L by the flow in mgd and a conversion factor of 8.34. If the concentration is measured in μ g/L, the conversion factor is 0.00834.
- 2. Percent removal is calculated using the following equation:

 (average monthly influent average monthly effluent) ÷ average monthly influent.
- 3. Each twice yearly influent and effluent sampling event for these parameters must consist of three 24-hour composite samples taken within a calendar week.
- Sludge must be sampled twice per year: once during the month of May and once during the month of November.

Monitoring Changes from the Previous Permit

Effluent monitoring requirements are similar to those in the prior permit, however, the draft permit proposes more-frequent monitoring for total phosphorus and total mercury, in order to determine compliance with the new water quality-based effluent limits for those pollutants.

The Idaho WQS state that "waters designated for primary or secondary contact recreation are not to contain E. coli bacteria in concentrations exceeding a geometric mean of one hundred

contribute to excursions above water quality standards for TP, and has therefore proposed effluent limits for TP.

Table 4: Receiving Water Monitoring						
Requirements						
Parameter and Units Locations Frequency						
Total Mercury (ng/L)	Upstream	1/month1				
Dissolved Copper (μg/L)	Upstream	1/month ^T				
Dissolved Lead (μg/L)	Upstream	1/month ¹				
Total Ammonia as N (μg/L)	Upstream	1/month ¹				
Temperature (°C)	Upstream	1/month ¹				
pH (s.u.)	Upstream	1/month1				
Hardness (mg/L as CaCO ₃)	Upstream	1/month1				
PCB Congeners Upstream and Downstream 2/year						
Notes: 1. River samples must be grab samples collected at least once per month, every month, during the final full calendar year of the permit term.						

Available effluent and receiving water data show that the facility does not have the reasonable potential to cause or contribute to excursions above water quality standards for nitrate + nitrite. Therefore, continued receiving water monitoring for nitrate + nitrite is not necessary. As explained in Appendix E, phosphorus is the most likely limiting nutrient in the Pend Oreille River. Therefore, receiving water monitoring for total Kjeldahl nitrogen is not necessary.

The EPA proposes to require surface water monitoring for total mercury, dissolved copper, and dissolved lead. Although effluent limits have been proposed for mercury, the upstream concentration of mercury in the receiving water column was estimated based on the concentration of mercury in fish tissue collected from Lake Pend Oreille. It is necessary to collect water column mercury data to ensure that the proposed effluent limits for mercury will, in fact, ensure compliance with water quality standards. Furthermore, consistent with the recommendations of the Idaho Mercury Guidance, the draft permit proposes to require monitoring of fish tissue concentrations in the receiving water once during the permit cycle.

Although the reasonable potential analysis found that the discharge does not have the reasonable potential to cause or contribute to excursions above water quality standards for copper or lead, this finding was based in part on the assumption that the upstream concentration of lead is zero and that the upstream concentration of dissolved copper is the same as the median concentration of dissolved copper measured in the Clark Fork River at the Cabinet Gorge Dam during 2010 (Hydrosolutions 2011). It is necessary to collect upstream water quality data for copper and lead for the Pend Oreille River upstream from the discharge in order to perform a more accurate reasonable potential analysis for those parameters.



DEPT OF LANDS

MAY 16 2018

PEND OREILLE LAKE

Revised Fact Sheet

The U.S. Environmental Protection Agency (EPA)
Proposes to Reissue a National Pollutant Discharge Elimination System (NPDES) Permit to
Discharge Pollutants Pursuant to the Provisions of the Clean Water Act (CWA) to:

City of Sandpoint Wastewater Treatment Plant

Public Comment Start Date: April 19, 2016
Public Comment Expiration Date: May 19, 2016

Technical Contact:

Brian Nickel

206-553-6251

800-424-4372, ext. 3-6251 (within Alaska, Idaho, Oregon and

Washington)

Nickel.Brian@epa.gov

The EPA Proposes To Reissue an NPDES Permit

The EPA proposes to reissue the NPDES permit for the facility referenced above. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the United States. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged from the facility.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a listing of proposed effluent limitations and other conditions for the facility
- a map and description of the discharge location
- technical material supporting the conditions in the permit

State Certification

The EPA is requesting that the Idaho Department of Environmental Quality (IDEQ) certify the NPDES permit for this facility, under Section 401 of the Clean Water Act. Comments regarding the certification should be directed to:

Idaho Department of Environmental Quality 2110 Ironwood Parkway Coeur d'Alene, ID 83814 (208) 769-1422

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NPDES Permit #ID0020842

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I. Applicant

A. General Information

This fact sheet provides information on the draft NPDES permit for the following entity:

City of Sandpoint Wastewater Treatment Plant NPDES Permit # ID0020842

Physical Address: 723 South Ella Avenue Sandpoint, Idaho 83864

Mailing Address: 1123 Lake Street Sandpoint, Idaho 83864

Contact:

Ryan Luttmann, Public Works Director

II. Scope of Reopened Public Comment Period

Federal regulations state that comments filed during a reopened comment period shall be limited to the substantial new questions that caused its reopening, and that the public notice under 40 CFR 124.10 shall define the scope of the reopening (40 CFR 124.14). As stated in the public notice, the EPA is only accepting comments on permit conditions that are different from those proposed in the draft permit that was issued for public review and comment on October 31, 2014.

The EPA is making significant changes to the draft permit as it was proposed in October 2014. These changes result from comments made during the initial public comment period, computer modeling of the impact of the discharge, EPA guidance, and a revised draft Clean Water Act (CWA) Section 401 certification prepared by the Idaho Department of Environmental Quality (IDEQ). To allow the public an opportunity to comment on all of these changes, the EPA has decided to reopen the public comment period to accept comments on these specific changes. The changed conditions are as follows:

- Effluent limitations for total phosphorus and total residual chlorine have been changed.
- The permit now proposes a compliance schedule for the new water quality-based effluent limits for phosphorus proposed for the season of June September.
- The draft permit now includes effluent limitations and requires more frequent monitoring for total ammonia as N. A compliance schedule is proposed for the new ammonia limits.
- Loading (lb/day) effluent limitations for five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and mercury have been changed.
- The draft permit now requires effluent and receiving water monitoring for conductivity and dissolved organic carbon.
- The permit now requires effluent monitoring for hardness.

- The permit now allows the permittee to discontinue influent and effluent monitoring for 2,3,7,8 tetrachlorodibenzo-p-dioxin (TCDD) after the first three samples if no quantifiable 2,3,7,8 TCDD is measured in the first three samples.
- The "Design Flow Requirement" (Part II.D) in the original draft permit has been re-titled as "Facility Planning Requirement" and re-written.
- The permit now requires monitoring for methylmercury in fish tissue once every two vears.
- The permit no longer requires downstream receiving water monitoring for polychlorinated biphenyl (PCB) congeners.
- The permit now allows the permittee to discontinue upstream receiving water monitoring for PCB congeners after the first year if no quantifiable PCB congeners are measured during the first year.
- Influent sampling for mercury is now required on the same schedule as influent sampling for other metals.
- Sample collection and preservation procedures for cyanide now reference 40 CFR Part 136 instead of Standard Methods.
- The definition of "minimum level" has been changed to be identical to the definition in the sufficiently sensitive methods final rule (79 FR 49001).
- The definition of "24-hour composite" has been changed to be identical to the definition of "composite sample" in the instructions for EPA Form 3150-2C.
- The permit now requires DMRs and other reports to be submitted electronically using NetDMR by December 21, 2016.

III. Facility Information

In general, facility information is provided in the fact sheet for the initial public comment period dated October 31, 2014.

However, the 2014 fact sheet had incorrectly listed the design flow of the WWTP as 3.62 million gallons per day (mgd), when, in fact the design flow is 5.0 mgd. Since federal regulations state that "in the case of POTWs, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow," a change to the design flow results in changes to several of the effluent limits.

A map of the treatment plant and discharge location is provided in Appendix A.

A. Permit History

The first NPDES permit was issued to this facility in June 1974. The most recent NPDES permit for the City of Sandpoint wastewater treatment plant (WWTP) was issued on November 30, 2001, became effective on January 5, 2002, and expired on January 5, 2007. An NPDES application for permit reissuance was submitted by the permittee on September 25, 2006. The EPA determined that the application was timely and complete. Therefore, pursuant to 40 CFR 122.6, the permit has been administratively extended and remains fully effective and enforceable.

The EPA issued a draft permit for public comment on October 31, 2014. The public comment period was scheduled to close on December 1, 2014, but was extended to January 30, 2015.

IV. Receiving Water

In general, the receiving water, including its low flow conditions, water quality standards, and beneficial use support status, is described in the fact sheet dated October 31, 2014.

This facility discharges to the Pend Oreille River near Sandpoint, Idaho. The outfall is located at river mile 117, about 1 mile downstream (i.e., west) of the U.S. Highway 95 bridge, and 17 feet below the surface of the water. The outfall is equipped with a diffuser which is 50 meters long. The far end of the diffuser is 281 meters (921 feet) from shore, and the near end is 231 meters (758 feet) from shore.

A. Low Flow Conditions

Low flow conditions are discussed in detail in Appendix C, and are generally the same as those used to develop the October 2014 draft permit.

The Kalispel Tribe had stated in comments filed during the initial public comment period that the effluent limits for phosphorus should be based on seasonal 30-day, 10 year low flow rates (30Q10) instead of the 10th percentile 365-day rolling harmonic mean flow of 10,259 CFS, as proposed in the October 2014 draft permit. Mixing calculations for phosphorus now use the seasonal 30Q10 flow rates. The seasonal 30Q10 flow rates are 6,640 CFS for June – September and 8,260 CFS for October – May.

B. Antidegradation

The IDEQ has completed an antidegradation review which is included in the draft 401 certification for this permit. See Appendix G for the State's draft 401 water quality certification. The EPA has reviewed this antidegradation review and finds that it is consistent with the State's 401 certification requirements and the State's antidegradation implementation procedures. Comments on the 401 certification including the antidegradation review can be submitted to the IDEQ as set forth above (see State Certification).

In its antidegradation review of the City of Sandpoint permit, the State of Idaho found that, because of the increase in the design flow of the POTW (from 3.0 mgd to 5.0 mgd), the discharge could increase the concentration of E. coli bacteria in the receiving water. The State of Idaho has determined that the increase in E. coli concentrations is insignificant, and that therefore no alternatives analysis or socioeconomic justification are required (see the draft certification at Page 4).

V. Effluent Limitations

A. Basis for Effluent Limitations

In general, the CWA requires that the effluent limits for a particular pollutant be the more stringent of either technology-based limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality-based effluent limit is designed to ensure that the water quality standards applicable to a waterbody are being met and may be more stringent than technology-based effluent limits. The basis for the effluent limits proposed in the draft permit is provided in appendices D, E and F.

B. Proposed Effluent Limitations

The following summarizes the proposed effluent limits that are in the draft permit.

- 1. The permittee must not discharge floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses.
- 2. Removal Requirements for BOD₅ and TSS: The monthly average effluent concentration must not exceed 15 percent of the monthly average influent concentration. Percent removal of BOD₅ and TSS must be reported on the Discharge Monitoring Reports (DMRs). For each parameter, the monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of the effluent values for that month. Influent and effluent samples must be taken over approximately the same time period.
- 3. The pH must be within the range of 6.5 9.0 standard units.

Table 2 below presents the proposed effluent limits for the City of Sandpoint. Effluent limits printed in bold, italic type are different from the limits in the October 2014 draft permit. The EPA is specifically requesting comments on these limits.

Table 2: Proposed Effluent Limits						
			Effluent Limits			
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit		
Five Day Biochemical Owner	mg/L	30	45	_		
Five-Day Biochemical Oxygen Demand (BOD ₅)	lb/day	1251	1877	-		
Demand (BODs)	% Removal	85% (minimum)		-		
	mg/L	30	45	_		
Total Suspended Solids (TSS)	lb/day	1251	1877	_		
	% Removal	85% (minimum)	-			
E. coli	#/100 ml	126 (geometric mean)	_	406 (instantaneous maximum)		
Total Residual Chlorine	mg/L	0.348		0.912		
Total Residual Chlorine	lb/day	14.5	_	38.0		
Ammonia, Total as N	mg/L	32.8		62.9		
(Interim)	lb/day	1368	_	2623		
Ammonia, Total as N	mg/L	21.1	——————————————————————————————————————	40.5		
(Final)	lb/day	880		1689		
Mercury, Total	μg/L	0.56	_	1.1		
ivicioniy, Total	lb/day	0.014	_	0.028		
Phosphorus, Total as P June – September (Interim)	lb/day	96	125	_		
Phosphorus, Total as P June – September (Final)	lb/day	61	79	_		
Phosphorus, Total as P October – May	lb/day	96	125	-		

C. Schedules of Compliance

Schedules of compliance are authorized by federal NPDES regulations at 40 CFR 122.47 and by Section 400.03 of the Idaho Water Quality Standards. The Idaho water quality standards

performance. Permittees have the option of taking more frequent samples than are required under the permit. These samples must be used for averaging if they are conducted using the EPA-approved test methods (generally found in 40 CFR 136 or as specified in the permit).

Table 3, below, presents the proposed effluent monitoring requirements for the City of Sandpoint. The effluent sampling location must be after the last treatment unit and prior to discharge to the receiving water. The samples must be representative of the volume and nature of the monitored discharge. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

The EPA is proposing more frequent monitoring for ammonia in order to determine compliance with the new water quality-based effluent limits for ammonia. The State of Idaho has begun negotiated rulemaking to adopt water quality criteria for copper based on the biotic ligand model, consistent with EPA recommendations. Monitoring for conductivity, dissolved organic carbon and hardness is required so that, when the State of Idaho adopts water quality criteria for copper based on the biotic ligand model, water quality criteria for copper can be evaluated. The EPA has changed the influent monitoring schedule for mercury to be consistent with influent monitoring requirements for other metals.

The permit now allows the permittee to discontinue influent and effluent monitoring for 2,3,7,8 TCDD after the first three samples if no quantifiable 2,3,7,8 TCDD is measured in the first three samples. Experience with other POTWs has shown that 2,3,7,8 TCDD may not be present in POTW influent or effluent in quantifiable amounts, and testing for 2,3,7,8 TCDD can be costly.

The EPA has also changed the sample collection and preservation procedures for cyanide. The permit now references 40 CFR Part 136 instead of Standard Methods.

Table 3: Effluent Monitoring Requirements						
Parameter	Units	Sample Location	Sample Frequency	Sample Type		
Flow	mgd	Effluent	Continuous	recording		
Temperature	°C	Effluent	Continuous	recording		
•	mg/L	Influent & Effluent	3/week	24-hour composite		
BOD ₅	lb/day	Influent & Effluent	3/WEEK	calculation ¹		
	% Removal	% Removal	1/month	calculation ²		
	mg/L	Influent & Effluent	2/1-	24-hour composite		
TSS	lb/day	Influent & Effluent	3/week	calculation1		
	% Removal	% Removal	1/month	calculation ²		
рН	standard units	Effluent	daily	grab		
E. Coli	#/100 ml	Effluent	10/month	grab		
	μg/L	Effluent	1.21	grab		
Total Residual Chlorine	lb/day	Effluent	daily	calculation1		
err . d .d . h. h.v.	mg/L	Effluent	26	24-hour composite		
Total Ammonia as N	lb/day	Effluent	3/week	calculation1		
T . 1 D1 1	mg/L	Effluent	2/	24-hour composite		
Total Phosphorus	lb/day	Effluent	2/week	calculation1		
	μg/L	Effluent ⁴	1/month	24-hour composite		
Mercury, Total	lb/day	Effluent ⁴	1/111011111	calculation1		
	μg/L	Influent ⁴	2/year ³	24-hour composite		
Nitrate + Nitrite	mg/L	Effluent	1/quarter	24-hour composite		
Total Kjeldahl Nitrogen	mg/L	Effluent	1/quarter	24-hour composite		

Table 3: Effluent Monitoring Requirements					
Parameter	Units	Sample Location	Sample Frequency	Sample Type	
Soluble Reactive Phosphorus	mg/L	Effluent	1/month	24-hour composite	
Arsenic, Total	μg/L	Influent & effluent ⁴	2/year ³	24-hour composite	
Cadmium, Total Recoverable	μg/L	Influent & effluent ⁴	2/year ³	24-hour composite	
Chromium, Total	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Chromium VI, Dissolved	μg/L	Influent & effluent-	2/year ³	24-hour composite	
Conductivity	µmhos/cm	Effluent	1/month	24-hour composite	
Copper, Total Recoverable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Cyanide, weak acid dissociable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Dissolved organic carbon	mg/L	Effluent	1/month	24-hour composite	
Lead, Total Recoverable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Nickel, Total Recoverable	μg/L	Influent & effluent ⁴	2/year ³	24-hour composite	
Silver, Total Recoverable	μg/L	Influent & effluent⁴	2/year ³	24-hour composite	
Zinc, Total Recoverable	μg/L	Influent & effluent4	2/year ³	24-hour composite	
Whole Effluent Toxicity, Chronic	TUc	Effluent	Annual	24-hour composite	
PCB Congeners	pg/L	Influent & effluent	2/year	24-hour composite	
2,3,7,8 TCDD	pg/L	Influent & effluent	2/year	24-hour composite	
NPDES Application Form 2A Expanded Effluent Testing		Effluent	3x/5 years	-	

Notes:

- 1. Loading is calculated by multiplying the concentration in mg/L by the flow in mgd and a conversion factor of 8.34. If the concentration is measured in μg/L, the conversion factor is 0.00834.
- Percent removal is calculated using the following equation: (average monthly influent – average monthly effluent) ÷ average monthly influent.
- 3. Each twice yearly influent and effluent sampling event for these parameters must consist of three 24-hour composite samples taken within a calendar week.
- Sludge must be sampled twice per year: once during the month of May and once during the month of November.

C. Surface Water Monitoring

Water Column Monitoring

Table 4, below, presents the proposed surface water monitoring requirements for the draft permit. Surface water monitoring results must be submitted with the DMRs.

The State of Idaho has begun negotiated rulemaking to adopt water quality criteria for copper based on the biotic ligand model, consistent with EPA recommendations. Monitoring for conductivity, dissolved organic carbon and hardness is required so that, when the State of Idaho adopts water quality criteria for copper based on the biotic ligand model, water quality criteria for copper can be evaluated.

The revised draft permit no longer proposes downstream receiving water monitoring for PCBs. Upstream receiving water sampling may be discontinued after the first year if no quantifiable PCB congeners are measured during the first year. PCB congeners are considered less than quantifiable if the concentrations are less than the minimum level, or if the concentrations of all detected PCB congeners are less than three times the associated

blank concentration and the concentration total PCBs in the associated blank is less than 300 pg/L.

Methylmercury Fish Tissue Monitoring

The EPA's Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion, in Section 4.2.4, recommends biennial sampling of fish in waterbodies where recreational or subsistence harvesting is commonly practiced. Therefore, the revised draft permit proposes required monitoring for methylmercury in fish tissue once every two years.

ents cation estream estream estream	Frequency 1/month ¹ 1/month ¹ 1/month ¹ 1/month ¹
stream estream	1/month ¹ 1/month ¹
stream	1/month ¹
stream	1/month ¹
stream	1/month ¹
stream	1/month ¹
stream	1/month1
stream	1/month!
stream	1/month1
stream	2/year ²
)	ostream ostream ostream

- 1. River samples must be grab samples collected at least once per month, every month, during the final full calendar year of the permit term.
- 2. The permittee may discontinue receiving water sampling for PCB congeners after the first year if no quantifiable PCB congeners are measured during the first year.

VII. Sludge (Biosolids) Requirements

The EPA Region 10 separates wastewater and sludge permitting. The EPA has authority under the CWA to issue separate sludge-only permits for the purposes of regulating biosolids. The EPA may issue a sludge-only permit to each facility at a later date, as appropriate.

Until future issuance of a sludge-only permit, sludge management and disposal activities at each facility continue to be subject to the national sewage sludge standards at 40 CFR Part 503 and any requirements of the State's biosolids program. The Part 503 regulations are self-implementing, which means that facilities must comply with them whether or not a permit has been issued

VIII. Other Permit Conditions

A. Facility Planning Requirement

The "Design Flow Requirement" (Part II.D) in the original draft permit has been re-titled as "Facility Planning Requirement" and re-written. This provision requires the permittee to

Outfall

001

Permit No.: ID0020842

Longitude

48° 15' 40.5" 116° 33' 31"

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United States Environmental Protection Agency Region 10 1200 Sixth Avenue Suite 900 Seattle, Washington 98101-3140

DEPT OF LANDS

MAY 1 6 2018

Authorization to Discharge Under the National Pollutant Discharge Elimination System

PEND OREILLE LAKE

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

City of Sandpoint
Wastewater Treatment Plant
723 South Ella Ave
Sandpoint, ID 83864

is authorized to discharge from the wastewater treatment plant located in Sandpoint, Idaho, at the following location(s):

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

Receiving WaterPend Oreille River

Latitude
48° 15' 40.

This permit shall become effective December 1, 2017

This permit and the authorization to discharge shall expire at midnight, November 30, 2022.

The permittee shall reapply for a permit reissuance on or before June 3, 2022 if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this 5th day of September 2017.

/s/

Michael J. Lidgard, Acting Director
Office of Water and Watersheds

Re-proposal signed this _____ day of _____ 2018

Daniel D. Opalski, Director
Office of Water and Watersheds

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Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

Item	Due Date
1. Discharge Monitoring Reports (DMR)	DMRs are due monthly and must be submitted on or before the 20 th day of the month following the monitoring month (see III.B).
2. Quality Assurance Plan (QAP)	The permittee must provide EPA and IDEQ with written notification that the Plan has been developed and implemented by May 31, 2018 (see II.C). The Plan must be kept on site and made available to EPA and IDEQ upon request.
3. Operation and Maintenance (O&M) Plan	The permittee must provide EPA and IDEQ with written notification that the Plan has been developed and implemented by May 31, 2018 (see II.B). The Plan must be kept on site and made available to EPA and IDEQ upon request.
4. NPDES Application Renewal	The application must be submitted by June 3, 2022 (see V.B).
5. Surface Water Monitoring Report	The permittee must submit all surface water monitoring results for the previous calendar year for all parameters in an annual report to EPA and IDEQ by January 31st of the following year (see I.D).
6. Twenty-Four Hour Notice of Noncompliance Reporting	The permittee must report certain occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances. (See III.G. and I.B.2.)
7. Local Limits Evaluation	By November 30, 2018, the permittee must submit to EPA a complete local limits evaluation pursuant to 40 CFR 403.5(c)(1). (See II.A.5.)
8. Annual Pretreatment Report	The Report must be submitted to the pretreatment coordinator no later than October 1 st of each calendar year. (See II.A.9.)
9. Emergency Response and Public Notification Plan	The permittee must develop and implement an overflow emergency response and public notification plan. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented by May 31, 2018 (see II.E).
10. Mercury Minimization Plan	Written notice must be submitted to the EPA and the IDEQ that the plan has been developed and implemented by May 31, 2018 (see I.E.1).
11. Methylmercury Fish Tissue Monitoring Plan	The permittee must develop and submit a Methylmercury Fish Tissue Monitoring Plan to the Director of the Office of Water and Watersheds and the IDEQ for review and approval by November 30, 2018. (See I.E.2).

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I. Limitations and Monitoring Requirements

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls specified herein to the Pend Oreille River, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

B. Effluent Limitations and Monitoring

1. The permittee must limit and monitor discharges from outfall 001 as specified in Table 1, below. All figures represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.

Tak	ole 1: Effl			ind Monitor			
		Ef	fluent Limi	itations	Mon	itoring Requir	ements
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
Flow	mgd	Report	-	Report	Effluent	continuous	recording
Temperature	°C	See Notes 1	0 and 11.		Effluent	continuous	recording
	mg/L	30	45	-	Influent and	24 -1-	24-hr. comp.
Biochemical Oxygen	lb/day	1251	1877	-	Effluent	3/week	calculation
Demand (BOD ₅)	% removal	85% (minimum)	_	-	% removal	1/month	calculation
	mg/L	30	45	-	Influent and	1 4/11/00V	24-hr. comp
Total Suspended Solids	lb/day	1251	1877	_	Effluent		calculation
(TSS)	% removal	85% (minimum)	-	_	% removal	1/month	calculation
рН	s.u.	6.:	5 - 9.0 at al	ll times	Effluent	daily	grab
E. Coli Bacteria ^{1,2}	#/100 ml	126 (geometric mean)	_	406 (instantaneous max.)	Effluent	10/month	grab
T . ID 'I ICII ' .?	mg/L	0.348	_	0.912	Effluent	daily	grab
Total Residual Chlorine ²	lb/day	14.5		38.0	Ellident	daily	calculation
	μg/L	0.56		1.1	Effluent	1/	24-hr. comp
Mercury, Total ^{2,4}	lb/day	0.014		0.028	Effluent	1/month	calculation
	µg/L	Report		Report	Influent	2/year ³	24-hr. comp
Phosphorus, Total as P	μg/L	Report	Report	=			24-hr. comp
June – September (Interim)	lb/day	96	125	_	Effluent	2/week	calculation
Phosphorus, Total as P	μg/L	Report	Report	_			24-hr. comp.
June – September ⁹ (Final)	lb/day	61	79	-	Effluent	2/week	calculation
Phosphorus, Total as P	μg/L	Report	Report	-	Effluent 2/	2/week	24-hr. comp
October - May	lb/day	96	125			2/week	calculation
Ammonia, Total as N	mg/L	Report	_	Report	Effluent	1/month	24-hr. comp
Nitrate + Nitrite	mg/L	Report		Report	Effluent	1/quarter ⁵	24-hr. comp
Total Kjeldahl Nitrogen	mg/L	Report		Report	Effluent	1/quarter ⁵	24-hr. comp
Soluble Reactive Phosphorus as P	mg/L	Report	_	Report	Effluent	1/month	24-hr. comp.

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Tak	ole 1: Eff1			and Monitor			
			Effluent Limi	itations	Mo	nitoring Requir	ements
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
Arsenic	μg/L	Report	-	Report	Influent & effluent	2/year ³	24-hr. comp.
Cadmium, Total Recoverable	μg/L	Report	-	Report	Influent & effluent	2/year ³	24-hr. comp.
Chromium, Total	μg/L	Report	-	Report	Influent & effluent	2/year ³	24-hr. comp.
Chromium VI, Dissolved	μg/L	Report		Report	Influent & effluent	2/year ³	24-hr. comp.
Conductivity	µmhos/cm	Report	_	Report	Effluent	1/month ⁸	24-hr. comp.
Copper, Total Recoverable	μg/L	Report	-	Report	Influent & effluent	2/year³	24-hr. comp.
Cyanide, weak acid dissociable	μg/L	Report	-	Report	Influent & effluent	2/year ³	See I.B.10.
Dissolved organic carbon	mg/L	Report	-	Report	Effluent	1/month ⁸	24-hr. comp.
Hardness, total	mg/L as CaCO ₃	Report	-	Report	Effluent	1/month ⁸	24-hr. comp.
Lead, Total Recoverable	μg/L	Report	_	Report	Influent & effluent	2/year ³	24-hr. comp.
Nickel, Total Recoverable	μg/L	Report	-	Report	Influent & effluent	2/year ³	24-hr. comp.
Silver, Total Recoverable	μg/L	Report	-	Report	Influent & effluent	2/year ³	24-hr. comp.
Zinc, Total Recoverable	μg/L	Report	-	Report	Influent & effluent	2/year ³	24-hr. comp.
Polychlorinated Biphenyl (PCB) Congeners ⁶	pg/L	Report	-	Report	Influent & effluent	2/year	24-hr. comp.
2,3,7,8- Tetrachlorodibenzo-p- dioxin (TCDD) ⁷	pg/L	Report	-	Report	Influent & effluent	2/year	24-hr. comp.
Whole Effluent Toxicity, Chronic	TUc	See I.C.			Effluent	See I.C.	24-hr. comp.
NPDES Application Form 2A Expanded Effluent Testing	-	See I.B.9.			Effluent	3x/5 years	-

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	Table 1: Ef	fluent Lim	itations a	nd Monito	ring Requi	rements	
		E	ffluent Limi	itations	Mo	onitoring Requir	ements
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type

- 1. The average monthly E. Coli bacteria counts must not exceed a geometric mean of 126/100 ml based on samples taken every 3-7 days within a calendar month. See Part VI for a definition of geometric mean.
- 2. Reporting is required within 24 hours of a maximum daily limit or instantaneous maximum limit violation. See Parts I.B.2. and III.G.
- 3. See I.B.11.
- 4. The permittee must use an analytical method that can achieve a maximum ML less than or equal to that specified in Appendix A: Minimum Levels.
- 5. Quarters are defined as January March, April June, July September, and October December.
- 6. See I.B.12.
- 7. See I.B.13.
- 8. Samples for dissolved organic carbon, pH, hardness, and conductivity must be collected on the same day.
- 9. These effluent limits are subject to a compliance schedule. See II.F.
- 10. Temperature data must be recorded using micro-recording temperature devices known as thermistors. Set the recording device to record at one-hour intervals. Report the following temperature monitoring data on the DMR: monthly instantaneous maximum, maximum daily average, seven-day running average of the daily instantaneous maximum.
- 11. Use the temperature device manufacturer's software to generate (export) an Excel text or electronic ASCII text file. The file must be submitted annually to IDEQ by January 31 for the previous monitoring year along with the placement log. The placement logs should include the following information for both thermistor deployment and retrieval: date, time, temperature device manufacturer ID, location, depth, whether it measured air or water temperature, and any other details that may explain data anomalies.
 - 2. The permittee must report within 24 hours any violation of the maximum daily limits or instantaneous maximum limits for the following pollutants: E. coli, total residual chlorine, and mercury. Violations of all other effluent limits are to be reported at the time that discharge monitoring reports are submitted (See III.B. and III.H.).
 - 3. The permittee must not discharge floating, suspended, or submerged matter of any kind in amounts causing nuisance or objectionable conditions or that may impair designated beneficial uses of the receiving water.
 - 4. Removal Requirements for BOD₅ and TSS: The monthly average effluent concentration must not exceed 15 percent of the monthly average influent concentration. Percent removal of BOD₅ and TSS must be reported on the Discharge Monitoring Reports (DMRs). For each parameter, the monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of the effluent values for that month. Influent and effluent samples must be taken over approximately the same time period.
 - 5. The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.
 - 6. For all effluent monitoring, the permittee must use sufficiently sensitive analytical methods which meet the following:
 - a) Parameters with an effluent limit. The method must achieve a minimum level (ML) less than the effluent limitation unless otherwise specified in Table 1 Effluent Limitations and Monitoring Requirements.
 - b) Parameters that do not have effluent limitations.



DEPT OF LANDS

MAY 1 6 2018

PEND OREILLE LAKE

Fact Sheet

The U.S. Environmental Protection Agency (EPA)
Proposes to Reissue a National Pollutant Discharge Elimination System (NPDES) Permit to
Discharge Pollutants Pursuant to the Provisions of the Clean Water Act (CWA) to:

Kootenai-Ponderay Sewer District Wastewater Treatment Plant

Public Comment Start Date: June 9, 2017

Public Comment Expiration Date: July 10, 2017

Technical Contact: Brian Nickel

206-553-6251

800-424-4372, ext. 6251 (within Alaska, Idaho, Oregon and Washington)

Nickel.Brian@epa.gov

The EPA Proposes to Reissue NPDES Permit

The EPA proposes to reissue the NPDES permit for the facility referenced above. The draft permit places conditions on the discharge of pollutants from the wastewater treatment plant to waters of the United States. In order to ensure protection of water quality and human health, the permit places limits on the types and amounts of pollutants that can be discharged from the facility.

This Fact Sheet includes:

- information on public comment, public hearing, and appeal procedures
- a listing of proposed effluent limitations and other conditions for the facility
- a map and description of the discharge location
- technical material supporting the conditions in the permit

State Certification

The EPA is requesting that the Idaho Department of Environmental Quality (IDEQ) certify the NPDES permit for this facility, under Section 401 of the Clean Water Act. Comments regarding the certification should be directed to:

Idaho Department of Environmental Quality 2110 Ironwood Parkway Coeur d'Alene, ID 83814 (208) 769-1422

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B. Compliance History

From 2011 - 2016, the KPSD has generally been in compliance with the effluent limits in the 2002 permit, with the following exceptions shown in Table 1, below.

Table 1:	Table 1: Effluent Limit Violations January 2011 – June 2016							
Parameter	Statistic	Units	Number of Instances					
E. coli	Instantaneous maximum	#/100 ml	2					

III. Receiving Water

This facility discharges to an unnamed tributary to Boyer Slough near Sandpoint, Idaho. The outfall is located about 0.6 mile upstream (north) of Lake Pend Oreille.

A. Low Flow Conditions

The low flow conditions of a water body are used to assess the need for and develop water quality based effluent limits (see Appendix C of this fact sheet for additional information on flows).

The EPA used ambient flow data measured by the permittee, as a condition of the prior permit (see the 2002 permit at Page 5), to estimate the critical low flow conditions for the unnamed tributary to Boyer Slough, upstream from the point of discharge. The estimated 1Q10, 7Q10, 30Q5, and harmonic mean flows of the unnamed tributary to Boyer Slough, upstream from the point of discharge, are 0.12, 0.16, 0.17, and 0.34 CFS, respectively.

Between 1988 and 1993, the USGS operated a stream gauge (station # 12392660) on Sand Creek, which is another tributary to Lake Pend Oreille, located to the west of Boyer Slough. Since flow data are not available for the main stem of Boyer Slough, the EPA estimated the 30B3 flow rate of Boyer Slough (as opposed to the unnamed tributary that receives the discharge) based on the measured 30B3 flow rate of Sand Creek and the drainage areas of Sand Creek (at the stream gauge location) and Boyer Slough. The estimated 30B3 flow rate of Boyer Slough is 0.76 CFS.

B. Water Quality Standards

Overview

Section 301(b)(1)(C) of the Clean Water Act (CWA) requires the development of limitations in permits necessary to meet water quality standards. Federal regulations at 40 CFR 122.4(d) require that the conditions in NPDES permits ensure compliance with the water quality standards of all affected States. A State's water quality standards are composed of use classifications, numeric and/or narrative water quality criteria and an anti-degradation policy.

The use classification system designates the beneficial uses that each water body is expected to achieve, such as drinking water supply, contact recreation, and aquatic life. The numeric and narrative water quality criteria are the criteria deemed necessary by the State to support the beneficial use classification of each water body. The anti-degradation policy represents a three-tiered approach to maintain and protect various levels of water quality and uses.

Monitoring Reports (DMRs). For each parameter, the monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of the effluent values for that month. Influent and effluent samples must be taken over approximately the same time period.

Table 2 below presents the proposed effluent limits for BOD₅, TSS, *E. coli*, chlorine, ammonia, nitrate + nitrite, and total phosphorus.

Table 2: Propose		Effluent Limits		
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
	mg/L	30	45	_
Five-Day Biochemical Oxygen Demand (BOD ₅)	lb/day	86	129	-
	% removal	85% (min.)		
Total Suspended Solids (TSS)	mg/L	30	45	_
	lb/day	100	150	-
	% removal	85% (min.)		-
E. coli	#/100 ml	126 (geometric mean)	-	406 (instantaneous maximum)
	μg/L	9.6		19
Total Residual Chlorine	lb/day	0.032	_	0.063
	mg/L	21.5	64.0	_
Nitrate + Nitrite (as N)	lb/day	71.7	214	_
Total Ammonia (as N)	mg/L	1.71	_	4.85
(October May)	lb/day	5.70	_	16.2
Total Ammonia (as N)	mg/L	1.64		4.66
(June – September)	lb/day	5.47	_	15.5
Total Phosphorus (as P)	μg/L	9.0	18.0	
(June – September)	lb/day	0.030	0.060	

C. Schedules of Compliance and Interim Limits

Schedules of compliance are authorized by federal NPDES regulations at 40 CFR 122.47 and by Section 400.03 of the Idaho Water Quality Standards. The Idaho water quality standards allow for compliance schedules "when new limitations are in the permit for the first time." The proposed effluent limits for ammonia, nitrate + nitrite, and total phosphorus are new limits that are in the permit for the first time.

The federal regulation allows schedules of compliance "when appropriate," and requires that such schedules require compliance as soon as possible. When the compliance schedule is longer than 1 year, federal regulations require that the schedule shall set forth interim requirements and the dates for their achievement. The time between the interim dates shall generally not exceed 1 year, and when the time necessary to complete any interim requirement is more than one year, the schedule shall require reports on progress toward completion of these interim requirements. Federal regulations also require that interim effluent limits be at least as stringent as the final limits in the previous permit (40 CFR 122.44(l)(1)).

The permit also requires the permittee to perform effluent monitoring required by part B.6 of the NPDES Form 2A application¹, so that these data will be available when the permittee applies for a renewal of its NPDES permit. The required monitoring frequency for those pollutants listed in part B.6 of the application form, which are not subject to effluent limits (total Kjeldahl nitrogen, total dissolved solids, and oil and grease), is twice per year. This monitoring frequency will ensure that there are at least 10 results for these pollutants at the end of the permit cycle. If there are less than 10 data points available, the uncertainty is too large to calculate an average or a standard deviation with sufficient confidence (see the TSD at Page 53).

Table 3, below, presents the proposed effluent monitoring requirements for the KPSD WWTP. The sampling location must be after the last treatment unit and prior to discharge to the receiving water. The samples must be representative of the volume and nature of the monitored discharge. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

Table 3: Effluent Monitoring Requirements				
Parameter	Units	Sample Location	Sample Frequency	Sample Type
Flow	mgd	Effluent	Continuous	recording
Temperature	°C	Effluent	Continuous	recording
BOD₅	mg/L	Influent & Effluent	2/month	24-hour composite
	lb/day	Innuent & Entuent	2/month	calculation1
	% Removal	% Removal	1/month	calculation ²
	mg/L	I C - 1 C FCC	2/month	24-hour composite
TSS	lb/day	Influent & Effluent	2/month	calculation1
	% Removal	% Removal	1/month	calculation ²
pH	standard units	Effluent	5/week	grab
E. Coli	#/100 ml	Effluent	5/month	grab
T . 10 :1 1011 :	μg/L	Effluent	5/wcek	grab
Total Residual Chlorine	lb/day	Effluent		calculation
Total Ammonia as N (October – May until 10 years after the effective date of the final permit)	mg/L	Effluent	1/month	24-hour composite
Total Ammonia as N	mg/L	Effluent		24-hour composite
(June – September until 10 years after the effective date of the final permit)	lb/month	Effluent	1/week	calculation 1
Total Ammonia as N	mg/L	Effluent		24-hour composite
(Year-Round beginning 10 years after the effective date of the final permit)	lb/day	Effluent	1/week	calculation ¹
Nitrate + Nitrite as N	mg/L	Effluent	1/week	24-hour composite
	lb/day	Effluent	1/week	calculation!
Total Phosphorus as P (October – May)	mg/L	Effluent	1/month	24-hour composite
Total Phosphorus as P	mg/L	Effluent		24-hour composite
(June – September until 10 years after the effective date of the final permit)	lb/month	Effluent	1/week	calculation ¹

¹ See also Appendix J to 40 CFR 122.

The permit also requires the permittee to perform effluent monitoring required by part B.6 of the NPDES Form 2A application¹, so that these data will be available when the permittee applies for a renewal of its NPDES permit. The required monitoring frequency for those pollutants listed in part B.6 of the application form, which are not subject to effluent limits (total Kjeldahl nitrogen, total dissolved solids, and oil and grease), is twice per year. This monitoring frequency will ensure that there are at least 10 results for these pollutants at the end of the permit cycle. If there are less than 10 data points available, the uncertainty is too large to calculate an average or a standard deviation with sufficient confidence (see the TSD at Page 53).

Table 3, below, presents the proposed effluent monitoring requirements for the KPSD WWTP. The sampling location must be after the last treatment unit and prior to discharge to the receiving water. The samples must be representative of the volume and nature of the monitored discharge. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

Table 3:	Effluent Mo	nitoring Requiren	nents	
Parameter	Units	Sample Location	Sample Frequency	Sample Type
Flow	mgd	Effluent	Continuous	recording
Temperature	°C	Effluent	Continuous	recording
BOD_5	mg/L	Influent & Effluent	2/month	24-hour composite
	lb/day			calculation l
	% Removal	% Removal	1/month	calculation ²
	mg/L	Influent & Effluent	2/month	24-hour composite
TSS	lb/day	Influent & Effluent	2/month	calculation ¹
	% Removal	% Removal	1/month	calculation ²
рН	standard units	Effluent	5/week	grab
E. Coli	#/100 ml	Effluent	5/month	grab
Total Residual Chlorine	μg/L	Effluent	5/week	grab
	lb/day	Effluent		calculation1
Total Ammonia as N (October – May until 10 years after the effective date of the final permit)	mg/L	Effluent	1/month	24-hour composite
Total Ammonia as N	mg/L	Effluent		24-hour composite
(June – September until 10 years after the effective date of the final permit)	lb/month	Effluent	1/week	calculation ¹
Total Ammonia as N	mg/L	Effluent		24-hour composite
(Year-Round beginning 10 years after the effective date of the final permit)	lb/day	Effluent	l/week	calculation ¹
Nitrate + Nitrite as N	mg/L	Effluent	1/1-	24-hour composite
	lb/day	Effluent	1/week	calculation1
Total Phosphorus as P (October – May)	mg/L	Effluent	1/month	24-hour composite
Total Phosphorus as P	mg/L	Effluent		24-hour composite
(June – September until 10 years after the effective date of the final permit)	lb/month	Effluent	1/week	calculation ¹

¹ See also Appendix J to 40 CFR 122.

Table 3: Effluent Monitoring Requirements				
Parameter	Units	Sample Location	Sample Frequency	Sample Type
Total Phosphorus as P	mg/L	Effluent	1/week	24-hour composite
(June – September beginning 10 years after the effective date of the final permit)	lb/day	Effluent		calculation ¹
Dissolved Oxygen	mg/L	Effluent	1/month	grab
Total Kjeldahl Nitrogen	mg/L	Effluent	2/year	24-hour composite
Oil and Grease	mg/L	Effluent	2/уеаг	24-hour composite
Total Dissolved Solids	mg/L	Effluent	2/year	24-hour composite
Total Mercury	μg/L	Effluent	1/quarter ³	24-hour composite

Notes:

- 1. Loading is calculated by multiplying the concentration in mg/L by the flow in mgd and a conversion factor of 8.34. If the concentration is measured in μg/L, the conversion factor is 0.00834.
- 2. Percent removal is calculated using the following equation:

 (average monthly influent average monthly effluent) ÷ average monthly influent.
- 3. Effluent monitoring for mercury is required for the final three full calendar years of the permit cycle.

Monitoring Changes from the Previous Permit

Monitoring frequencies for certain parameters have been reduced, relative to the previous permit. The reductions in monitoring frequency are based on the EPA's *Interim Guidance for Performance-based Reduction of NPDES Permit Monitoring Frequencies* (April 19, 1996). Table 4, below, summarizes the reductions in monitoring frequency that were made based on the guidance.

Table 4: Reductions in Monitoring Frequency				
Parameter	1	2002 Permit Monitoring Frequency	Reduced Monitoring Frequency	
BOD ₅	38%	1/week	2/month	
TSS	32%	1/week	2/month	

Monitoring frequencies for ammonia, nitrate + nitrite, and total phosphorus have been increased relative to the 2002 permit, in order to determine compliance with the new water quality-based effluent limits for those parameters. Since a compliance schedule has been authorized for ammonia and total phosphorus, the monitoring frequencies have not been increased relative to the prior permit unless and until there is an effluent limit (either final or interim) in effect.

The prior permit did not require monitoring for dissolved oxygen. Monthly effluent monitoring of dissolved oxygen is proposed in the draft permit to determine if the discharge has the reasonable potential to cause or contribute to nonattainment of Idaho's water quality criteria for dissolved oxygen. Since the receiving water provides little physical dilution of the effluent, the effluent dissolved oxygen concentration is relevant, in addition to the BOD concentration and load. In addition, effluent data for dissolved oxygen are required in order to prepare a complete application.

Effluent monitoring for total mercury is proposed in order to determine if the discharge has the reasonable potential to cause or contribute to the excursions above Idaho's methylmercury fish tissue criterion of 0.3 mg/kg, which have been measured in Lake Pend

Oreille, downstream from the discharge. The required monitoring frequency for mercury is quarterly, for the final three full calendar years of the permit cycle. This monitoring frequency will ensure that there are at least 12 results for mercury at the end of the permit cycle. This will ensure that there will be enough mercury results to calculate an average and a standard deviation with sufficient confidence (see the TSD at Page 53).

The EPA proposes to increase the effluent temperature monitoring frequency from once per month in the prior permit to continuous in the reissued permit. Continuous effluent monitoring for temperature is required in order to determine if the discharge of heat has the reasonable potential to cause or contribute to excursions above water quality standards for temperature. The applicable water quality criteria for temperature are stated as maximum allowable daily average and daily maximum temperatures. Continuous monitoring for temperature will allow for accurate calculation of these statistics for the discharge.

C. Surface Water Monitoring

Table 5 presents the proposed surface water monitoring requirements for the draft permit. Surface water monitoring results must be submitted with the DMRs.

The primary purpose of the proposed surface water monitoring is to determine if additional or more-stringent effluent limits are necessary for dissolved oxygen, biochemical oxygen demand, or temperature, and to determine if phosphorus and/or total nitrogen limits are necessary outside of the June – September season. Surface water monitoring must occur during the final full calendar year of the permit term.

Table 5: Receiving Water Monitoring Requirements				
Parameter and Units	Locations	Frequency	Sample Type	
Flow (Unnamed arm of Boyer Slough, CFS)	Upstream	1/month	Measure	
Flow (Boyer Slough, CFS)	Downstream	1/month	Measure	
Dissolved Oxygen (mg/L)	Upstream	1/month	Grab	
Dissolved Oxygen (mg/L)	Downstream	Continuous	Recording	
Dissolved Oxygen (% saturation)	Downstream	Continuous	Recording	
Temperature (°C)	Upstream & Downstream	Continuous	Recording	
$BOD_5 (mg/L)$	Upstream & Downstream	1/month	Grab	
Total Phosphorus (μg/L)	Downstream	1/month	Grab	
Total Nitrogen (μg/L)	Downstream	1/month	Grab	
Water column chlorophyll a (µg/L)	Downstream	1/month	Grab	
Periphyton chlorophyll a (mg/m²)	Downstream	1/month	See note 1	
Secchi depth (m)	Downstream	1/month	Measure	
Notes: Field sampling procedures for period 	phyton chlorophyll a must be	consistent with	Section 6.1.1	

VI. Sludge (Biosolids) Requirements

The EPA Region 10 separates wastewater and sludge permitting. The EPA has authority under the CWA to issue separate sludge-only permits for the purposes of regulating biosolids. The EPA may issue a sludge-only permit to each facility at a later date, as appropriate.

of Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers (EPA 841-B-99-002).

DEPT OF LANDS

MAY 16 2018

LAKE PEND OREILLE AND PEND OREILLE RIVER

Geographic Response Plan



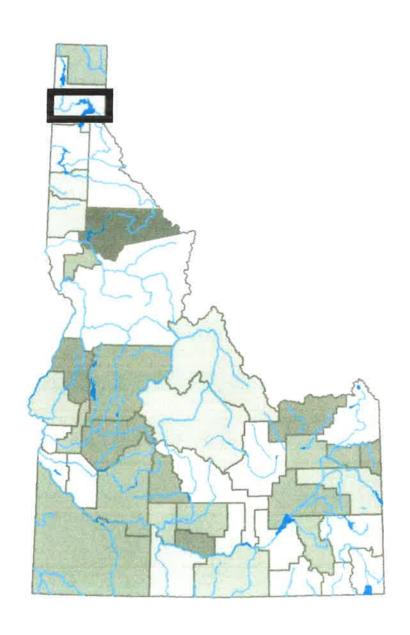












This document recommends strategies and priorities for the order in which strategies should be implemented until a unified command is established. However, these recommendations are not a substitute for proper judgement based on current local factors.

Protecting human life is always the highest priority—public evacuation should be considered immediately. Control and containment of a spill becomes the next priority, followed by the appropriate response strategy. The information contained in the response strategy descriptions (Appendix B) is recommended guidance, not prescriptive requirements.

Vulnerabilities

During development of this GRP, challenges beyond the scope of this plan were identified that need further attention. The purpose of this preface is to highlight those concerns and encourage dialogue followed by action to obtain appropriate funding and implementation of the needed changes. State and local civic leaders and managers of the various emergency response agencies are the parties who may be able to address these vulnerabilities. These challenges are current as of June 2017.

Equipment Vulnerabilities

A comparison of the inventory presented in Section 4.6 with the equipment needs stated in the prioritization tables provided in Section 4.4 reveals that, with the exception of the Clark Fork Delta area, the amount of boom and anchor posts available appears adequate for anticipated needs. A full response in the Clark Fork Delta could require as much as 8,300 feet which would consume the entire boom inventory in all five of the local equipment caches. Recovery devices such as skimmers and vacuum trucks are not staged within the Lake Pend Oreille region and would need to be obtained from outside the area. Additionally, conversations with the various fire departments in the Lake Pend Oreille region indicate the equipment trailers do not have an assigned or designated tow vehicle to move the trailer to the appropriate staging area.

Training Vulnerabilities

Like most emergency response tasks, deployment of a spill response boom is a specialized skill that requires training and field practice. Boom deployment in swift moving water or iced-over conditions adds complexity necessitating additional training. The seven fire districts addressed in this plan are largely staffed by volunteers and a smaller number of professionals; they are trained for a variety of emergency scenarios. However, most of the volunteers have not yet received boom deployment training, thus limiting the response to a hazardous material or oil spill into regional waterways.

Evacuation and Procedural Vulnerabilities

The propensity of oil train accidents to erupt into significant spills and fires, coupled with the proximity of rail lines to high population areas, indicate that the Bonner County communities must be prepared to invoke prompt evacuations or provide shelter-in-place assistance. Facilities that are required to have an evacuation plan, such as schools and nursing homes, should also periodically review their plan and conduct appropriate training.

Bonner County has an Evacuation and Reception Plan that was written prior to the large increase in unit oil train traffic (Bonner County, 2010a). Recent lessons learned from either the Cascadia Rising emergency action drill in 2015 or actual oil train accidents in other areas have not been incorporated. As discussed in Section 4.7, an oil train or hazardous material accident in the Sandpoint area would likely require evacuation of half the city's area. Existing preparations do not appear to adequately address the process for a hasty evacuation. Section 4.7 provided details regarding evacuation considerations.

Geographic Vulnerabilities

The Lake Pend Oreille region is vulnerable to spills of hazardous material from highway vehicles and rail cars primarily because the transportation corridors are in close proximity to the rivers and the lake. Additionally, the rail lines and highways pass through or near many high-value wetlands (see Section 6.1.4) and cross over numerous streams and rivers. Of the 37 accidents reported between 1995 and 2014, 21 were at or near a lake, stream, or wetland.

Most notably, the Clark Fork Delta is vulnerable to any spill downstream of the Cabinet Gorge Dam, which is located only 7.5 miles upstream. At a stream velocity of 4.5 miles per hour (mph), a spill could reach the delta in under 2 hours. The nearest equipment cache is located at the Cabinet Gorge Dam. Although response strategies are presented in this plan, their deployment is complex and resource intense. The response may be ineffective. Section 4.3.1 provides recommendations that may enhance response effectiveness.

Section 2 relies heavily on information from the Northwest Power and Conservation Council (NPCC) Intermountain Province Subbasin Plan and Pend Oreille Subbasin Plan (NPCC, 2005a-b).

2.1 General Description of the Natural Environment of the Intermountain Province (IMP)

The IMP, which contains the Pend Oreille Subbasin relevant to the GRP (and five others outside the GRP coverage area), is characterized by a diverse landscape ranging from 1,000 feet (ft) above mean sea level (msl) near the tailwaters of Chief Joseph Dam to 7,690 ft above msl at Illinois Peak in the headwaters of the St. Joe River. The northern and eastern boundaries lie within the Northern Rocky Mountains (NPCC, 2005a). These areas are generally characterized as alpine and subalpine forests with a decaying granitic geology (Alt and Hyndman, 1994). In the eastern portion of the province, in both the Coeur d' Alene and Pend Oreille Subbasins, the Precambrian Belt Supergroup is the predominant bedrock (NPCC, 2005a). Belt rocks are a thick layer of sedimentary sandstones and mudstones, approximately 1 billion years old (Alt, 2001). Much of the southwestern portion of the IMP is within an area known as the Palouse Hills. The Palouse Hills are a softly rounded landscape with rich, fertile, silty soils (NPCC, 2005a). Set within this farmland are areas known as scablands, with outcrops of black basalt, broad expanses of raw gravel, and dry stream channels (coulees) (Alt, 2001). This landscape was carved during the most recent ice age. About 15,000 years ago, the southern glacial fringe encroached upon the mountain valleys of northern Washington and Idaho. Glaciers dammed the Clark Fork River creating Glacial Lake Missoula. The dam broke and the lake drained catastrophically causing a torrential flood (NPCC, 2005a). This process happened several dozen times, resulting in the landscape seen today (Alt, 2001).

2.2 Environmental Conditions within the Pend Oreille Subbasin

Euro-American settlement of the Clark Fork River valley and Lake Pend Oreille was accompanied by forest clearing, agricultural development, logging, introduction of nonnative species, mining, railroad construction, hydroelectric projects, and general urbanization (Entz and Maroney, 2001). Natural and human-made fires, past timber harvest activities, and dams have also heavily influenced the landscape in the Pend Oreille Subbasin (NPCC, 2005b).

In the early and mid-1900s, hydroelectric facilities within the Pend Oreille Subbasin and upstream in the Clark Fork and Flathead drainages were present or under construction (NPCC, 2005b). Facilities in Idaho and Montana—such as the Albeni Falls Dam (inside the GRP coverage area) and Hungry Horse, Kerr, and Noxon Rapids Dams (outside the GRP coverage area)—were built for hydropower, flood protection, fisheries, and recreation (U.S. Senate, 1949).

Large-scale habitat degradation occurred due to operation of Cabinet Gorge, Noxon Rapids, and Albeni Falls Dams. Upstream dams impeded sediment transport to the Clark Fork River Delta, prohibiting development of delta landforms and the protective lakeside beach. Widely fluctuating flows associated with dam operations continued to erode delta shorelines that would naturally be protected by armored streambeds during low fall/winter flows. These and other impacts have resulted in the loss of roughly

50% of functional delta wildlife habitat and ongoing losses estimated at 7.9-11.9 acres per year (NPCC, 2005b).

2.3 Pend Oreille Subbasin Sub-Area Site Description and Physical **Features**

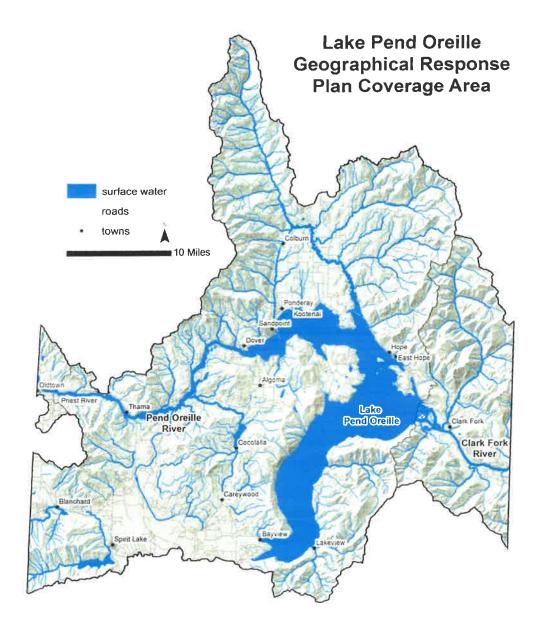
The Pend Oreille Subbasin is located in northern Idaho and northeastern Washington and represents the northeastern-most corner of the IMP. As shown in Figure 2-1, the Pend Oreille Subbasin is comprised of three sub-areas: the Lower Pend Oreille Sub-Area, the Priest Lake Sub-Area, and the Upper Lake Pend Oreille Sub-Area. This GRP addresses only the Upper Lake Pend Oreille Sub-Area, which is shown in greater detail in Figure 2-2. The Upper Pend Oreille Sub-Area encompasses the Cabinet Gorge Dam and all of Lake Pend Oreille and its tributaries located on the Clark Fork River down to Albeni Falls Dam, which is located on the Pend Oreille River.

The Pend Oreille River is the largest river in the subbasin and flows west out of Lake Pend Oreille and north across the Idaho panhandle and the northeastern corner of Washington before draining into the Columbia River in British Columbia, Canada.

Much of the northern and eastern parts of the Pend Oreille River watershed sub-area are public lands comprising mountainous or hilly terrain deeply cut by streams and mostly forested. The broad, fertile valleys and river bottoms, predominately in the western part of the watershed, are mostly in private ownership. Near the lake and on its shore, private lands account for more than half of the ownership. The remaining land is managed by the U.S. Forest Service (USFS) (25%), the state (7%), and the Bureau of Land Management (BLM) (1.6%). Major land uses in the sub-area include agricultural and timber production and recreational development. Only 12% of the drainage is open water.

Lake Pend Oreille's elevation is regulated by Albeni Falls Dam, operated by the U.S. Army Corps of Engineers (USACE). Three major tributaries enter Lake Pend Oreille: the Clark Fork River enters the lake approximately 9.3 miles west of the Idaho-Montana border, the Pack River enters the northeastern portion of the lake, and the Priest River enters the Pend Oreille River about 5 miles upstream of Albeni Falls Dam (this portion of the river is backed up by the dam). Lake Pend Oreille is the fifth-largest natural freshwater lake in the United States.

Figure 2-2: Lake Pend Oreille Geographical Response Plan Coverage Area



2.3.1 Upper Pend Oreille Sub-Area Description

The Upper Pend Oreille Sub-Area is sparsely settled; Bonner County has a population of about 42,500 people. Sandpoint, the county's largest city with about 7,800 residents, and the surrounding cities and rural areas along the northern shore of the lake comprise about half the county's population (U.S.

Census, 2017). In summer, an additional 5,000 people call the northern shore their home (RRT/NWAC, 2005).

The Upper Pend Oreille Sub-area drainage (approximately 1,972 square miles) encompasses all of Lake Pend Oreille and its tributaries, including 9.3 miles of the Clark Fork River upstream to Cabinet Gorge Dam, and the Pend Oreille River and its tributaries down to the lake's control point, Albeni Falls Dam. Lake Pend Oreille is located in the Panhandle region of northern Idaho and lies primarily within Bonner County. Lake elevation is regulated by Albeni Falls Dam. Congressional authorization of Albeni Falls Dam (by the 81st Congress, 1st Session, Senate Document No. 9, February 7, 1949) requires that the Albeni Falls Dam not contribute to downstream flooding. Inflow comes through Cabinet Gorge and Noxon Rapids Dams, which are "power peaking" facilities owned and operated by Avista Utilities. During low flow (non-runoff) season, Avista operates these dams for hourly peaking, but these projects do not affect lake levels (NPCC, 2005b). The USACE operates Albeni Falls Dam, which is located on the Pend Oreille River near the Washington border.

The Pend Oreille River, prior to the construction of Albeni Falls Dam in 1952, provided free-flowing riverine habitat that supported a cold water fishery. Prior to construction of Albeni Falls and Cabinet Gorge Dams, the lower Clark Fork River supported important fisheries for migrating kokanee salmon, mountain whitefish, and bull trout. Westslope cutthroat trout were also present in the river and provided a fishery for fluvial and adfluvial fish (NPCC, 2005b). Today, the upper Pend Oreille River supports a limited warm water fishery, and the presence of salmonids is very low (Bennett and DuPont, 1993). Bennett and DuPont (1993) conducted a 2-year survey (1991 to 1992) and found salmonids (native and nonnative species) accounted for only 1.9% of all species collected in 1991 and 0.6% in 1992. Management direction is to work with USACE on lake level management to improve conditions for fish species (NPCC, 2005b).

Fish habitat in tributary streams within the Upper Pend Oreille Sub-Area has been impaired through delivery of excess bedload sediment, fine sediment delivery, loss of large woody debris and riparian forest habitat, channelization, and isolation of streams from their floodplains (PBTTAT, 1998). Humanmade fish migration barriers and water diversions are scattered around the subbasin, resulting in loss of access to spawning and rearing habitat and loss of flow and migrating fish to diversions. During the summer and fall months, the lower 3.4 miles of the Clark Fork River (the headwaters of Lake Pend Oreille) are flooded by backwater from Albeni Falls Dam, creating an unproductive environment for native and introduced salmonids (NPCC, 2005b). Riverine habitat has been further compromised by Cabinet Gorge Dam and its operations, resulting in blocked fish passage, rapidly fluctuating river flows, and during high water years (such as 1997), total dissolved gas levels exceeding 150% saturation (Weitkamp et al., 2003).

Cabinet Gorge Dam presents a complete migration block to fish migrating upstream from the Clark Fork River. Steps are underway to restore fish passage as part of the Federal Energy Regulatory Commission (FERC) re-licensing process (NPCC, 2005b).

northern and eastern aspects. Relatively open stands of Douglas-fir and ponderosa pine are typical on the warmer, dryer southern and western aspects. Representative species of upland shrubs include western serviceberry, Amelachier alnifolia; mountain maple; snowberry; mountain balm, Ceanothus velutinus; mallow ninebark, Physocarpus malvaceus; huckleberry, Vaccinium spp.; and others (NPCC, 2005b).

2.4 Hydrology

Lake Pend Oreille is the largest and deepest natural lake in Idaho, covering approximately 83,264 acres prior to impoundment by Albeni Falls Dam in 1952. At full pool, the lake now covers 94,794 acres (USFWS, 1953; Hoelscher, 1993). The lake has more than 175 miles of shoreline and has a mean and maximum depth of 538 ft and 1,151 ft, respectively (Rieman and Falter, 1976). An estimated 95% of the lake's volume is held in the large, southern-most basin, a glacially influenced portion of the Purcell Trench (Savage, 1965) with a mean depth of 715 ft.

The USACE regulates the lake's elevation via operations at Albeni Falls Dam within about 11 ft, between a winter low of 2,051.5 ft above msl and a summer high of 2,062.5 ft above msl. Winter drawdown generally begins after Labor Day. Minimum pool is normally reached between November 15 and December 1, with a target date of November 15 to facilitate kokanee salmon spawning (Fredericks et al., 1995).

The Clark Fork River is the largest tributary to Lake Pend Oreille and drains a watershed of approximately 22,905 square miles (Lee and Lunetta, 1990). The river contributes approximately 92% of the annual inflow to the lake (Frenzel, 1991) and most of the annual suspended sediment load. Tributaries to the Clark Fork below Cabinet Gorge Dam include Lightning, Twin, Mosquito, and Johnson Creeks. Pack River is the second-largest tributary to the lake and is fed by a number of significant tributary watersheds, including Grouse Creek.

Melting snow produces peak flows in the Clark Fork River typically between 30 and 60 thousand cubic feet per second (cfs) in May or June. Mid-winter rain-on-snow events can result in rapid snowmelt, and in some years the peak flow from tributary watersheds occurs during these events in winter (i.e., the non-runoff season). Lightning Creek and other tributaries draining the Cabinet and Bitterroot Mountains are particularly susceptible to rain-on-snow events due to high precipitation, their location relative to the lake, prevailing winds, and the tendency for warm winter storms to pick up moisture from the lake. The Pend Oreille River is the only surface outflow from Lake Pend Oreille. The reservoir narrows to what was once the natural river channel but is now the forebay of Albeni Falls Dam. Velocities in the channel can be river-like during high flow conditions. The constricted sections of the lake flow for about 27 miles from the lake's northwest corner near Sandpoint into Washington.

2.5 Climate

Continental and marine weather patterns influence climatic conditions in the Upper Pend Oreille Sub-Area. Winter storms pass over the area from November through March causing a noticeably wet climate. Mid-winter storms periodically bring warm air masses resulting in rain-on-snow events at middle elevations ranging between 2,500 and 4,500 ft above msl. Summer storms generally pass farther

18% 14% 12% 8% 7% 5% 4% 1% NW S SW SE N NE E

Figure 2-3: Sandpoint, Idaho, Wind Directions over the Entire Year

Note: Values do not sum to 100% because the wind direction is undefined when the wind speed is zero.

2.6 Risk Assessment

Numerous transportation and facility-based oil and chemical threats exist in proximity to Lake Pend Oreille. U.S. Highways 2 and 95, State Route 200, and the BNSF Railway/Montana Rail Link (MRL) paralleling Lake Pend Oreille and the Union Pacific (UP) rail line paralleling Pend Oreille River are the primary spill risks. The Cabinet Gorge Dam may also maintain an oil supply for normal operations. Facilities are located on the Clark Fork River approximately 8 miles upstream of Lake Pend Oreille.

2.6.1 Oil and Hazardous Materials Transit in Bonner County

Numerous trains travel through the city of Sandpoint daily and many carry hazardous materials and crude oil. In 2016, three railroads provided commodity transportation information to DEQ. These three railroads combined moved significantly more than 300,000 rail cars or tank cars containing various forms of hazardous materials and crude oil. Currently, approximately 24 unit trains per week carrying crude oil from the Bakken oil fields in the Dakotas and Saskatchewan travel through Sandpoint. As such, the Bakken crude oil trains represent approximately 52.5% of the total number of hazardous material carloads traveling this area. Additionally, butane and alcohols represent about 11.6% of the total hazmat carloads. Table 2-1 and Figure 2-4 summarize the types and quantities of hazardous materials transported through Bonner County.

Table 2-1: Oil and Hazardous Material Rail Shipments in Bonner County (More than 300,000 Total Loads Per Year)

Hazardous Material Rail Shipments in Bonner County per Year (2016)	Hazard Class	% of total
Bakken Crude (UN 1267)	3	52.5%
Flammable Gases	2.1	11.6%
Other Hazard Class 3 & Combustible Liquid	3	21.1%
Hazard Class 9 and other hazardous material	9	14.8%

14.8% Bakken Crude (UN 1267) Flammable Gases 21.1% Other Hazard Class 3 & 52.5 % Combustible Liquid Other Hazardous material 11.6 %

Figure 2-4: Hazardous Material by Rail in Bonner County

Further analysis of the rail commodities reveals that the 20 most frequently shipped commodities comprise 97% of the total number of packages shipped. A review of the most frequently shipped commodities against guidance from the North American Emergency Response Guidebook (US Department of Transportation, 2016) indicates the following:

- All of the top 20 hazardous materials require self-contained breathing apparatus (SCBA) as personal protective equipment, and 5 require SCBA personal protective equipment that is "specifically recommended by the manufacturer."
- 13 of the top 20 are liquid.
- 4 of the top 20 are gaseous.
- 1 of the top 20 is a solid (ammonium nitrate).
- Sulfuric acid and hydrochloric acid represent 1.1% of the total number of hazmat rail shipments. These materials are reactive and may release corrosive, toxic, or combustible gases.
- Aside from the two acids mentioned, all of the top 20 hazmat rail shipments are combustible.
- Evacuation criteria for accidents involving rail cars transporting these hazardous materials range from 0.5 to 1 mile.
- Allyl bromide comprises 2.5% of the total hazmat rail shipments. It has a specific gravity greater than 1 and will sink if spilled into a waterway.
- Alcohol NOS, sulfuric acid, hydrochloric acid, and methanol comprise 12.9% of the total hazmat rail shipments. These items are soluble in water.
- Current response trailers are set up for crude oil releases (see Section 4.6). Collection of other materials may create hazardous and explosive environments.

A considerable amount of hazardous materials is also shipped on the highways of Bonner County. In 2010, a qualitative survey was conducted to assess the amount and type of hazardous materials flowing

through the county (Bonner County, 2010c). During two separate 2-hour periods at four different locations, a total of 310 commercial vehicles were observed passing through. Of those vehicles, 35 were observed to be placarded as containing hazardous materials. Table 2-2 lists the relative percentage of the types of materials observed. Not surprisingly, flammable liquid, such as gasoline and diesel fuel, were the largest contributors.

Number observed **Percentage Hazard Class** Description (for a 16 hour period) 37.1 2.1 Flammable Gas 13 45.7 Flammable Liquid 16 3 2.9 5.1 Oxidizer 1 3 8.6 Corrosive 8 2 5.7 Class 9 (and Other) 9 100 **TOTAL** 35

Table 2-2: Hazardous Materials by Highway in Bonner County

Since the 2010 survey was completed, mining operations in Canada have resulted in numerous truckloads of "ammonium nitrate liquid (hot concentrated solution)" (ID number 2426, Hazard Class 5.1) being transported through Bonner County. This material is very hazardous and may react explosively when heated (Cameo Chemicals, 2017).

The 2010 highway survey and recent observations result in a qualitative assessment because the survey was conducted for a short duration at one particular time of year. Seasonal variations in weather as well as commercial and recreational activities would alter the amount of fuel being delivered to or through the county. Nevertheless, the survey and observations indicate that a wide variety of hazardous materials are being transported by truck through Bonner County.

2.6.2 Roadway

U.S. Highways 2 and 95 and State Route 200 are the primary roadways passing through the GRP coverage area. ITD conducted a highway safety corridor analysis for Bonner County (Figure 2-5). Highway 200 along the north shore of Lake Pend Oreille represents a unique challenge in that accidents are more frequent and the highway runs very close to the lake shore.

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Figure 2-5: Highway Accident Safety Corridor Map for Bonner County

2.6.3 Railroads

The topography of Bonner County has been very attractive to the railroad industry over the last one and a half centuries. Figure 2-6 shows the rail lines in Bonner County. The MRL follows the Clark Fork River and the northern shore of Lake Pend Oreille to Sandpoint. The UP railroad runs from Bonners Ferry southwards through Sandpoint and southwest toward Spokane. The UP railroad also shares trackage with the MRL. The BNSF Railway also runs south from Bonners Ferry through Sandpoint but crosses the Pend Oreille River at its junction with the lake; the BNSF line then continues south to the county line

where it runs adjacent to the UP railroad before turning west towards Spokane, Washington. The Pend Oreille Valley railroad is a short line railroad operating between Newport, Washington, and Sandpoint, Idaho, along the north side of the Pend Oreille River.

Railroad accidents in Bonner County are common. Between 1995 and 2014, the last date for which data were available, the Federal Railroad Administration reported 37 unique accidents, which includes all accidents from minor mishaps to significant derailments. In the spring of 2017, at least four significant derailments occurred in Bonner and Boundary Counties near waterways. Table 2-3 below summarizes those accidents by rail line. Figure 2-7 and Figure 2-8 show the location of those accidents; the north side of Sandpoint appears to be an area where accidents are more frequent.

Table 2-3: Bonner County Rail Accidents, 1995-2014

Railroad	Number of Accidents
BNSF	13
MRL	8
UP	15
Pend Oreille Valley	1
TOTAL	37

In fall 2016, at the request of DEQ, the four railroads provided copies of the public version of their bridge inspection reports. All bridge inspections were current in accordance with the Fixing America's Surface Transportation Act Public Law 114-94. The reports indicated that all bridges passed inspection and were "confirmed to have the capacity to safely carry traffic being operated over the bridge."

\arthhol\GIS\Active\Fatland\SIART\Bonnet_County\Mapc\MXD\8conet_County_Rabasdamed Nordman 2 Boundary County Naples Coolin Lincoln Colbum County County 200 Sandpoint 20 Priest River Laclede 25 • Cocolalla Heron Sanders Careywood County Blanchard Bayview Shoshone Gounty Rathdrum Railroads Legend ally Bonner County, Idaho Burlington Northern Santa Fe Riwy 🔫 Montana Rail Link September, 2016 Pend Oreille Valley RR Storce EMI 2010, US Centra 2016 Union Pacific RR County

Figure 2-6: Bonner County Railroads

Nordman Colbum 🧓 sandpoini Sagle Cocolalia Blanchard • Careywood Bayview 53 6 Rothdrum Hayser Hayden Train Accident Locations legend from 1995 through 2014 Train Accident Localions Bonner County, Idaho County

Figure 2-7: Bonner County Train Accidents (1995–2014)

Sandpoint Legend Train Accident Locations from 1995 through 2014 City Near Sandpoint Train Accident Locations Bonner County, Idaho P.ailraods

Streets

County

Figure 2-8: Sandpoint, Idaho, Train Accidents (1995–2014)

Source ESR12010

3 Response Options and Considerations

The table provided in this section correlates the type of terrain or other environmental feature with the response sectors. The response sectors are further described in Section 4.3.

						Locat	tion		21	40
	Lake Pend Oreille GRP Spill Response Options and Considerations	Sector 1A-1B	West Pend Oreille	Sector 2 Westside Fire	Sector 3A-3D Sandpoint	Sector 4A Northside (Lakeshore)	Sector 4B Northside (Selle Valley)	Sector 5 Sam Owens	Sector 6 Clark Fork	Sector 7A-7B Sagle
	Rivers	-		•		•	•		•	
→	Creeks		<i>i</i>	•	•	•	۰	•	•	•
Waterbody	Lakes				•	•		•		•
ate	Pool Area formed by Dam								•	
3	Wetland Area(s)	•		•	•	•	•	•	•	•
	Intermittent Streams (Seasonal Flow)	•		•	•	٠	•		0	
4)	Source Control and Containment Activities			•	•	•	•	•	•	•
)Suc	Aerial/Vessel Surveillance Activities	•		•	•	•	•			
Spo	Wildlife Rescue and Rehabilitation Activities			•	0	•	•		•	•
tial Resp Options	Shoreside Collection and Oil Recovery (Note: 1)			•	٠	•	•	•	•	•
를 급	Vessel-Based Skimming Operations (Note: 2)		10	•	•	•		•	•	•
Potential Response Options	Shore- or Vessel-Based Skimming Operations (Note: 3)			•	•	•			•	•
<u>~</u>	Shoreline Protection Booming (Note: 4)		Ø.	•	۰	•	٥		٠	•

Lake Pend Oreille GRP

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					Locat	ion			
	Lake Pend Oreille GRP Spill Response Options and Considerations	Sector 1A–1B West Pend Oreille	Sector 2 Westside Fire	Sector 3A–3D Sandpoint	Sector 4A Northside (Lakeshore)	Sector 4B Northside (Selle Valley)	Sector 5 Sam Owens	Sector 6 Clark Fork	Sector 7A–7B Sagle
	Shoreline Cleanup Activities (Note: 5)	•	0	9	0		0		0
	Containment in Ditches or Outfalls (Note: 6)								
	In-Situ Burning <u>Area is not pre-approved (Note: 7)</u>								
	High Water vs. Low Water Boat Launches	•	•	٠	•		•	•	•
	Current – Ability to Boom	•						•	
	Weather Concerns – Freezing Waterway Potential and Safety of Roads	•	•	•	•	•			•
	Shoreside Access can be Limited by Private Property	•		•	•	•		0	
us	State or National Wildlife Refuge / Recreation Area	•	•	•	•		•	•	
Considerations	Threatened/Endangered Species	•	•	•	•	•	•	•	•
rat	Public or Commercial Marina(s) in Area		•	•			•		
side	Recreational Boat Traffic	•		0					•
i i	Tribal Lands or Usual and Accustom Interests (Note: 8)	•	•	٠	•	•	•	•	•
	Historic / Cultural District(s) in Area			•			•		
	Dam(s) in Area							•	
B 3	U.S. Highway Corridor		•	•	•	•			•
	Oil Movement by Rail in Area	•	•	•	•	•			•
	Oil Pipeline(s) in Area								

Lake Pend Oreille GRP

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Note 1: Shoreside Collection and Oil Recovery response options should only happen in locations where skimmers or vacuum trucks can access the collected oil. Note 2: Vessel-Based Skimming response options should include enhanced skimming using a U-boom, V-boom, or J-boom configuration in waters large enough for boats to maneuver (e.g., lake, large river).

Note 3: Shore-Based Skimming response options should include use of fixed skimmers: weir, belt, brush, drum, or other skimmer types.

Note 4: Shoreline Protection Booming should include deploying response strategies (booms) to divert and collect oil off of the water before shoreline areas are impacted, or deflect and exclude oil away from shoreline areas. These strategies include those published in this document (GRP response strategies), those provided in other plans (e.g., facility contingency plans), and "ad-hoc" strategies developed during the spill itself.

Note 5: Shoreline Cleanup options depend on safe and efficient access to spill locations and the type of river, creek, or stream bank present. Potential activities could include flooding, flushing, manual removal, vacuum, mechanical removal, sorbents, vegetation cutting, mechanical tilling/aeration, and/or sediment reworking/surf washing.

Note 6: A culvert block or underflow dam might be installed to aid in the recovery of spilled oil in small streams or those with intermittent flow. This strategy is used to protect downstream waterbodies such as Lake Pend Oreille and the rivers from upstream releases of oil.

Note 7: These areas are not pre-approved for the use of in-situ burning. Refer to the Northwest Area Contingency Plan for the in-situ burn policy. The use of insitu burning would require incident approval from EPA, the Department of the Interior, and the National Oceanic and Atmospheric Administration.

Note 8: This sheet doesn't represent all locations where Tribes and Tribal Nations have lands or areas of specific interest (including lands established by treaty or rights to Usual and Accustom areas). Early coordination with tribal governments is highly recommended during a response, regardless of the spill location or potential impact areas.

Lake Pend Oreille GRP

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PEND OREILLE LAKE



Verification of 303(d) Listings for Fish Tissue in the Skagit and Pend Oreille Rivers

June 2005 (Revised July 2005)

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Results and Discussion

Skagit River

Results from the Skagit River fish tissue samples are shown in Table 8.

The only chemical to exceed the NTR human health criteria was total PCBs. Over half of the analyzed contaminants were not detected at or above detection limits in any of the fish tissue composite samples. Those that were detected were present at low concentrations.

Detected contaminants included all three DDT analogs, PCB aroclors 1254 and 1260, and dieldrin. Dieldrin was detected in only one composite sample. PCBs were detected in all but one sample. Non-detected chemicals in the Skagit River included bis(2-ethylhexyl)phthalate, alpha-BHC, aldrin, endrin, heptachlor, heptachlor epoxide, and some of the PCB aroclors.

Based on the exceedances of NTR human health criteria, the Skagit River should be placed on the Category 5 303(d) list for total PCBs in fish tissue. The other historical chemical listings – 4,4'-DDE, 4,4'-DDT, alpha-BHC, dieldrin, and bis(2-ethylhexyl) phthalate – for fish tissue should be moved to Category 1 (Meets Tested Standards). Specific 303(d)-listing recommendations for both the Category 2 and 5 fish tissue listings are provided in the *Conclusions and Recommendations* section of this report.

Table 9 gives a comparison between the historical and current 303(d)-listed contaminants in fish tissue composite samples from the Skagit River. Contaminant levels appear to be decreasing overall. Total DDT shows the most dramatic decline with concentrations decreasing by one to two orders of magnitude.

Pend Oreille River

Results from the Pend Oreille River fish tissue samples are shown in Table 10.

The only chemical to exceed the NTR human health criteria was total PCBs. Over half of the analyzed contaminants were not detected at or above detection limits in any of the fish tissue composite samples. Those that were detected were present at low concentrations.

Detected contaminants included all three DDT analogs and PCB aroclors 1254 and 1260. They were detected in all but one sample. Non-detected chemicals in the Pend Oreille River included bis(2-ethylhexyl)phthalate, alpha-BHC, aldrin, endrin, dieldrin, heptachlor, heptachlor epoxide, and some of the PCB aroclors.

Based on the exceedances of NTR human health criteria, the Pend Oreille River should be placed on the Category 5 303(d) list for total PCBs in fish tissue. The historical fish tissue listing for aldrin should be moved to Category 1 (Meets Tested Standards). Recommendations for both the Category 5 fish tissue and Category 2 water column 303(d) listings are provided in the Conclusions and Recommendations section of this report.

Comparisons between historical and current study data for the Pend Oreille River were not made due to differences in species and types of fish tissue analyzed.

Comparison to Statewide Data for PCBs and DDT

To give more perspective on the current PCB and DDT concentrations in Skagit River and Pend Oreille River fish, data from the present study were compared to statewide concentrations and are shown in Figures 4 & 5. Each figure is a cumulative frequency plot that displays the distribution of values in the data set as percentiles. The data are plotted on a logarithmic scale.

Data for the figures were compiled from the following Ecology and EPA fish tissue studies: Davis and Johnson, 1994; Davis et al., 1995; Davis and Serdar, 1996; Davis et al., 1998; Ecology, 1995; EPA, 1992; EPA 2002a; EPA 2002b; Hopkins et al., 1985; Hopkins, 1991; Jack and Roose, 2002; Johnson and Norton, 1990; Johnson, 1997; Johnson, 2000; Johnson et al., 2004; Rogowski, 2000; Seiders and Kinney, 2004; Seiders, 1995; Serdar, Johnson, and Davis, 1994; Serdar, Yake, and Cubbage, 1994; Serdar, 1998; Serdar and Davis, 1999; Serdar, 1999; and Serdar 2003.

PCBs

As shown in Figure 4, all results for total PCBs from the Skagit and Pend Oreille rivers fell below the 30th percentile when compared to other statewide values. All but one result (from the Skagit River) still exceeds the NTR human health criterion of 5.3 ug/Kg ww.

DDT

Figure 5 illustrates that results for total DDT from the Skagit and Pend Oreille rivers fell below the 16th percentile, far below the NTR human health criteria of 31.6 and 45 ug/Kg ww for DDT analogs.

Addressing PCBs in a Statewide Context

The Federal Clean Water Act requires the development of a TMDL for Category 5-listed waters. Results from the current study indicate that the Skagit and Pend Oreille rivers should be listed for total PCBs in fish tissue. Total PCB concentrations, however, do not seem high enough to warrant a TMDL study for the Skagit and Pend Oreille rivers. Total PCB concentrations in the Skagit and Pend Oreille rivers are relatively low compared to other areas of Washington State.

An alternative to a river-specific TMDL for the Skagit and Pend Oreille rivers would be to address PCBs by a statewide approach such as a statewide TMDL. Background levels would first need to be established for PCBs. Waterbodies with 303(d) listings for PCBs could then be prioritized statewide.

Results from the Washington State Toxics Monitoring Program show that PCBs were found in 63% of fish tissue samples analyzed, and that more than half of those samples exceeded the NTR human health criteria. The results were from 80 fish tissue samples collected from nearly 50 sites between 2001 and 2004 (Keith Seiders, personal communication).

Conclusions and Recommendations

Skagit River

The only chemical to exceed the NTR human health criteria in Skagit River fish was total PCBs. Over half of the analyzed contaminants were not detected at or above detection limits in any of the fish tissue composite samples. Those that were detected were present at low concentrations. Contaminant levels in the Skagit River fish appear to be decreasing overall. Recommendations for 303(d) listing for the Skagit River are shown in Table 11.

Table 11. Recommended Listing Status for each of the Current 303(d) Listings for Fish Tissue in the Skagit River (Waterbody ID 5V53RP).

River Segment	Listing ID No.	303(d)-Listed Parameter	Matrix	Proposed Listing Category	Recommended Listing Category
North	14032	4,4'-DDT	Fish Tissue	5	1
44	14034	4,4'-DDE	Fish Tissue	5	1
"	14035	Alpha BHC	Fish Tissue	5	1
**	14036	Total PCBs	Fish Tissue	5	5
South	35541	4,4'-DDE	Fish Tissue	2	1
66	35550	Dieldrin	Fish Tissue	2	1
44	35548	Bis(2-ethylhexyl)phthalate	Fish Tissue	2	1
"	35570	Total PCBs	Fish Tissue	2	5

Bold = Category 5 listings

The Category 5 listings on the 2002/2004 303(d) list for the Skagit River include 4,4'-DDE, 4,4'-DDT, alpha BHC, and total PCBs in fish tissue. Results from the current fish tissue verification study indicate that, with the exception of total PCBs, these contaminants no longer exceed the NTR human health criteria. Alpha BHC, 4,4'-DDE, and 4,4'-DDT should therefore be moved to Category 1 for meeting tested standards. The total PCB listing should be retained in Category 5.

The Category 2 fish tissue listings for 4,4'-DDE, dieldrin, and bis(2-ethylhexyl)phthalate should be moved to Category 1. The Category 2 total PCB listing should be moved to Category 5.

Recommendations for the next steps in addressing PCBs in Skagit River fish include:

- 1. Fish tissue should be monitored again in five years.
- 2. Total PCBs should be addressed by a statewide approach such as statewide TMDL.

Pend Oreille River

The only chemical to exceed the NTR human health criteria in Pend Oreille River fish was total PCBs. Over half of the analyzed contaminants were not detected at or above detection limits in any of the fish tissue composite samples. Those that were detected were present at low concentrations. Recommendations for 303(d) listing for the Pend Oreille River are shown in Table 12.

Table 12. Recommended Listing Status for each of the Current 303(d) Listings for Fish Tissue and for the Water Column in the Pend Oreille River (Waterbody ID DS54SI).

River Segment	Listing ID No.	303(d)-Listed Parameter	Matrix	Proposed Listing Category	Recommended Listing Category
North	9077	4,4'-DDT	Water	2	1
66	9078	4,4'-DDE	Water	2	1
46	9079	4,4'-DDD	Water	2	1
66	9072	Endrin	Water	2	I
"	9073	Aldrin	Water	2	1
"	9074	Dieldrin	Water	2	1
46	9075	Heptachlor	Water	2	1
cc	9076	Heptachlor Epoxide	Water	2	1
	NL	Total PCBs	Fish Tissue	NL	5*
South	9080	Aldrin	Fish Tissue	5	1
ec	NL	Total PCBs	Fish Tissue	NL	5*

^{*}New listing for the 2002/2004 303(d) list

NL = not currently 303(d) listed

Bold = Category 5 listings

The Category 5 listing on the 2002/2004 303(d) list for the Pend Oreille River is for aldrin in fish tissue. Results from the current fish tissue verification study indicate that the chemical aldrin no longer exceeds the NTR human health criteria and therefore should be moved to Category 1 for meeting tested standards. Results also indicate that total PCBs exceeded NTR criteria in a majority of samples from the north and south river segments. Therefore, total PCBs should be added as Category 5 listings for fish tissue. These will be new listings.

The Category 2 water column listings were addressed through the fish tissue results. By way of the process of biomagnification, it was assumed that contaminants present in the water column would show up in the fish tissue results. The Category 2 water column contaminants are recommended to be moved to Category 1 of the 303(d) list.

Recommendations for the next steps in addressing PCBs in Pend Oreille River fish include:

- 1. Fish tissue should be monitored again in five years.
- 2. Total PCBs should be addressed by a statewide approach such as statewide TMDL.



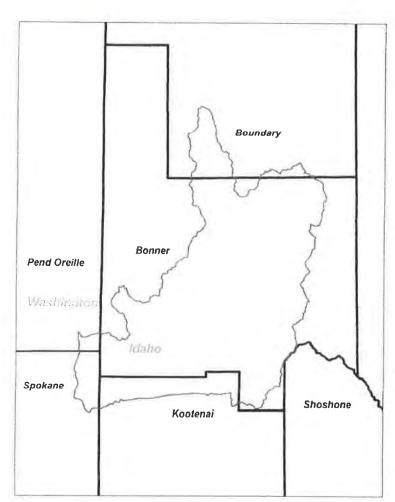
8 Digit Hydrologic Unit Profile

February 2006

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Introduction

The Pend Oreille 8-Digit Hydrologic Unit Code (HUC) subbasin contains 780,330 acres. Bonner County accounts for 81 percent of the subbasin. Nine percent of the subbasin is in Kootenai County, six percent in Boundary County, four percent in Spokane County, Washington and less than one percent in Pend Oreille County, Washington. Fifty four percent of the basin is privately owned.

Sixty-six percent of the basin is in forest. Less than one percent is cropland. With the presence of Lake Pend Oreille, 21 percent is water, wetland, developed or barren. Thirteen percent is shrubland, rangeland, grass, pasture or hayland.

Elevations range from 2,000 feet at Lake Pend Oreille to over 7,500 feet in the northern portion of the watershed.

Conservation assistance is provided through five Soil Conservation Districts which include Boundary SCD, Kootenai-Shoshone SCD, Bonner SWCD, Spokane CCD the Pend Oreille CCD, and the

Panhandle Lakes Resource Conservation and Development office.

Profile Contents

Introduction

Physical Description

Landuse Map

Common Resource Area

Resource Settings

Resource Concerns

Census and Social Data

Progress/Status

Footnotes/Bibliography

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

Idaho

Pend Oreille Lake - 17010214

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February 2006

Resource Concerns - Continued

Impacted Water Bodies /9.10	Stream Miles	Sediment, Siltation or TSS	Nutrients	Temperature	Dissolved Oxygen	Flow	Other or Unknown
Cocolalla Lake (PN013_0L)			x		x		
Falls Creek (PN018_02a)			Х				
Pend Oreille Lake* (PN018L_0L)			X			х	
Caribou Creek (PN045_02))	17.0	x					
Cedar Creek (PN026_02)	9.5			х) - J		
Chloride Creek (PN024_02))	7.1	X		х			
Cocolalla Creek (PN 012_02, 012_04, PN 014_03, 014_04)	72.9	х		х*			
Fish Creek (PN 015_02, 015_03)	17.7	х		Х*			
Gold Creek (PN 023_02, 023_03, PN 021_02, 021_03)	14.4	х		х			
Gold Creek (PN034_02)	17.8			х			х
Granite Creek (PN 027_02, 027_03)	31.2			х			
Grouse Creek (PN 035_02, 035_03, PN 036_02, 036_03)	48.1	x		x			
Hellroaring Creek (PN044_02)	10.9			х			х
Hoodoo Creek (PN 003_03, 003_02, 003_02a)	19.2	X		X			
Jeru Creek (PN043_02)	6.3			х			
Lower Pack River (PN031_04)	19.2	x	X				
McCormick Creek (PN042_02)	10.8			х			x
NF Grouse Creek (PN037_02)	17.4	х		х			
NF Gold Creek (PN 025_03, 025_02)	19.4	x					
Pend Oreille River (PN 002_02, 002_03, 002_08)	64.5	x		х		х	х
Pend Oreille River (PN 001_02, 001_08)	13.7	Х		Х		Х	Х
Rapid Lightning Creek (PN033_03)	7.8			Х			X
Sand Creek (PN048_03)	4.0			Х			
Sand Creek (PN 049_02,049_03)	19.4			41			Х
Schweitzer Creek ((PN052_02)	6.7	Х					
Trestle Creek (PN030_02)	21.0			Х			
Trout Creek (PN032_02)	10.1			х			
Upper Pack River (PN039_04)	3.8	х		х			
Upper Pack River (PN041_02)	56.2			x			X
West Gold Creek (PN022_02)	9.6	Х		X			
TOTAL STREAM MILES:	555.7						

^{*}Listing includes several segments; temperature-impaired segments are bolded.

Shading indicates an EPA-approved TMDL. Note: Portions of Pend Oreille Lake have not been assessed.

Pollutant sources in the watershed include hydropower, mining, timber harvest, lakeside development, industrial discharge, and agricultural land use. The majority of listed streams are temperature impaired. Elevated stream temperatures may be due to loss of riparian habitat, stream channel widening, altered flood plain and hyperheic zone hydrology, or other anthropogenic or natural sources. Flow alteration problems exist within the watershed.



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February 2006

Resource Concerns - Continued

Conservation practices that can be used to address these water quality issues include erosion control, grazing management, irrigation water management, residue management, and riparian buffers.

Conservation practices that can be used to address these water quality issues include erosion control, grazing management, irrigation water management, residue management, and riparian buffers.

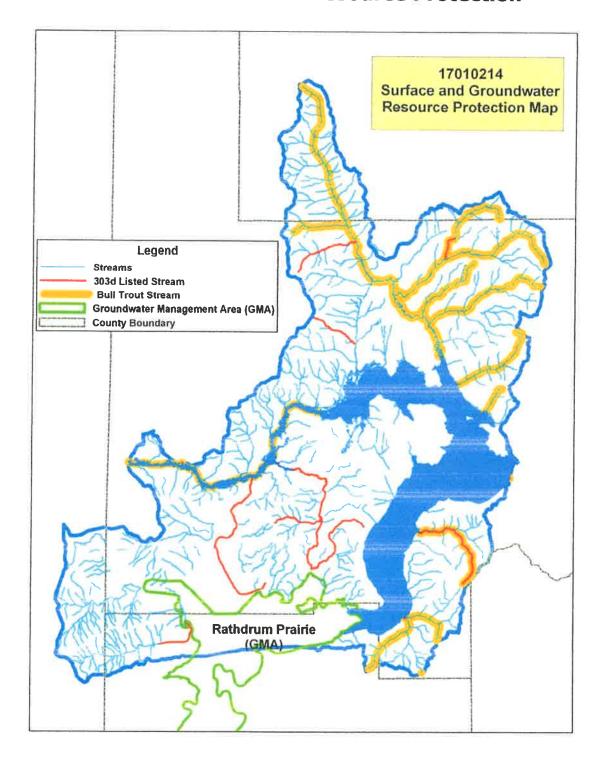
Federal:	State:
NRCS Watershed Plans/Studies/Assessments/14,15	IDEQ TMDLs ⁷¹⁸
None	Pend Oreille River Subbasin TMDL (2001)
	Pend Oreille Lake (nearshore) TMDL (2002)
NWPPC Subbasin Plans and Assessments	IDEQ 319 Projects 17
Intermountain Province Subbasin Plan (2004)	Pack River Watershed Sediment Reduction (2003)
	IDFG Assessments
	Bull Trout Assessment (2004)
	SCC Plans/Projects ¹⁹
	Pend Oreille River TMDL Implementation (in progress
	Pend Oreille Lake (nearshore) TMDL Implementation Plan (complete)
	Hoodoo and Cocolalla Creeks (in progress)
	Pack River (in progress)
	Cocolalla Lake SAWQP (1996)
	Pack River Stream Channel Assessment (2003)
	ISDA Regional Water Quality Projects ²⁰
	None
	IDWR Comprehensive Basin Plans ⁷²
	None

^{*} Listing includes past efforts in the watershed, and on-going studies and assessments.



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Surface and Groundwater Resource Protection/22, 23, 24





8 Digit Hydrologic Unit Profile

February 2006

Resource Concerns – Continued

	Resource Concerns/ Issues by	Land U	se					
SWAPA*	Specific Resource Concerns/Issues	Pasture	Hayland	Dry Crops	Surface Irrigated Crops	Sprinkler Irrigated Crops	Rangeland	Grazed or Ungrazed Forest
	Sheet and rill	х	X	х				
Soil Erosion	Ephemeral or classic gully	X	X					
Son Erosion	Wind							
	Streambank	х	X	X				x
Water Quantity	Excess surface water runoff, flooding, ponding	Х	х	X				
Water Quality, Surface	Suspended sediment	х	X	х				X
water Quanty, Surface	Nutrients, organics and pesticides	х	х	X				X
Water Quality, Ground	Nutrients and organics	x	x	x				
water Quanty, Ground	Pesticides	x	X	X				
Soil Condition	Organic matter depletion	x	x	X	()			X
Soil Colldition	Compaction	X		X				х
	Productivity, health and vigor	x	X					x
Plant Condition	Plants not adapted or suited	x	X					X
Plant Condition	Noxious and invasive plants	x	x	X				X
	Wildfire hazard							X
Domestic Animals	Inadequate feed or water	х						x
Fish and Wildlife	Inadequate cover/shelter	x	х	X				X
Air Quality	Smoke and airborne soil particulate		X	X				X

^{*} SWAPA: - Soil, Water, Air, Plants and Animals

Human considerations: Implementation of conservation practices and enhancement has the potential for change in management and cost of production. Installation of practices will have an upfront cost and require maintenance. In the short run increased management may be required as new techniques are learned. Land may be taken out of production for installation of practices or conversion to other uses, such as wildlife habitat. Long term benefits should result from increased soil health, benefits to water quality and wildlife habitat. Wildfire hazard concerns exist on all land uses.

poaching losses. Highway 95 and the Burlington Northern Santa Fe rail line, which trave AY 1 6 2018 north/south between the Cabinet and Selkirk Mountains, are responsible for a considerable amount of wildlife loss annually and are believed to have a significant impact on habitat connectivity.

Changes in fish communities have likely resulted in fewer migratory fish available to species such as bears and otters, particularly in tributary streams that no longer support large runs of bull trout, cutthroat trout, or mountain whitefish.

Development of wildlife habitats for residential and commercial purposes is ongoing and increasing as the area's population grows. Shoreline habitat has been modified by development, resulting in changes in vegetation communities, loss of wetlands, and human disturbance.

The Selkirk Mountains woodland caribou population ranges across the Lower Pend Oreille, Priest River, Upper Pend Oreille, and Kootenai subbasins. Adjacent habitat in British Columbia is integral to the existence of this population (W. Wakkinen, IDFG, personal communication). During the 1980's, poaching and collisions with vehicles were believed to limit the Selkirk caribou population (USFWS 1994). Programs instituted in the Selkirks to reduce the effect of these factors were largely successful but populations did not improve substantially, even with translocations of 103 caribou into the range from 1987 through 1998 (Wakkinen and Johnson 2000). Predation is believed to be limiting for woodland caribou in general (Bergerud 1978, Caughley and Sinclair 1994) and the Selkirk population in particular (Bergerud 1978). It has been hypothesized that large, long-term changes in habitat and other factors may have led to increases in predator numbers, thereby increasing predation on caribou (Wakkinen and Hayden, IDFG, personal communication).

The range of grizzlies outside of Canada and Alaska is now confined to six recovery zones located within the states of Montana, Wyoming, Idaho, and Washington. One recovery zone, the Selkirk Zone, includes portions of the Lower Pend Oreille, Priest River, Upper Pend Oreille, and Kootenai subbasins. This zone is adjacent to important grizzly bear range within British Columbia, Canada. The current population of grizzly bears within the Selkirk Zone is increasing slowly, but is far from meeting ESA de-listing criteria (Wakkinen and Johnson 2000). Human caused mortality, especially of females, by illegal shooting or killing bears in self-defense is apparently the limiting factor in the recovery of the Selkirk grizzly bear population (Knick and Kasworm 1989, McLellan *et al.* 1999).

The amount and quality of lynx foraging habitat is primarily a result of post timber harvest regeneration, wildfires, and to a lesser extent controlled burns. Livestock grazing also has the potential to impact lynx by removing herbaceous forage that snowshoe hares use during the summer. Ruediger *et al.* (2000) suggest that cattle grazing is also a factor in the decline of aspen stand regeneration in Rocky Mountain subalpine areas, and probably degrades snowshoe hare habitat in riparian willow areas as well. In contrast, wind throw, insects, and disease aid in creating lynx denning habitat. Lynx are relatively tolerant of human activity; however, urban development and roads with high traffic volumes may affect lynx movements (Stinson 2000). Lynx are limited by the availability of a winter prey base, primarily snowshoe hare, as well as environmental/anthropogenic factors including forest management practices, habitat fragmentation, wildfires, fire suppression, insect epidemics, and lynx harvest management (Stinson 2000).

Development is likely the greatest threat to waterfowl, upland game, and furbearers in the subbasin. The abundance and quality of suitable nesting, brood rearing, and foraging habitat is assumed to be limiting for waterfowl and upland game. Aquatic furbearers are likely limited by

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Pend Oreille Subbasin Summary

October 2, 2000

Prepared for the Northwest Power Planning Council

Edited by

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DRAFT: This document has not yet been reviewed or approved by the Northwest Power Planning Council.

Minimum pool is normally reached between November 15 and December 1, with a target date of November 15 to facilitate kokanee salmon spawning.

The Clark Fork River is the largest tributary to Lake Pend Oreille. It drains the Clark Fork River watershed, an area of approximately 59,324 km² (Lee and Lunetta 1990). The river contributes approximately 92% of the annual inflow to the lake (Frenzel 1991) and most of the annual suspended sediment load. Tributaries to the Clark Fork below Cabinet Gorge Dam include Lightning Creek, Twin Creek, Mosquito Creek, and Johnson Creek. Pack River is the second largest tributary to the lake and is fed by a number of significant tributary watersheds, including Grouse Creek.

Annual runoff in the Clark Fork River is produced by melting snow, with peak flows typically occurring in May'or June, but occasionally in April or July. Tributaries to the lake and Pend Oreille River may experience one or more run-off events. Mid-winter rain-on-snow events can result in rapid snowmelt, and in some years the peak flow from tributary watersheds occurs during these events. Lightning Creek and other tributaries draining the Cabinet and Bitterroot Mountains are particularly susceptible to rain-on-snow events due to high precipitation, their location in relation to the lake, prevailing winds, and the tendency for warm winter storms to pick up moisture from the lake. The Pend Oreille River is the only surface outflow from Lake Pend Oreille. The river flows for about 44 km from the lake's northwest corner near Sandpoint into Washington. Lake Pend Oreille is hydrologically connected to the Spokane Valley-Rathdrum Prairie aquifer at the lake's southernmost end, contributing about 44 million cubic meters (m³) of water annually to the aquifer via subsurface flow (Hammond 1974, Drost and Seitz 1978).

Water Quality

Lake Pend Oreille is an oligotrophic (nutrient poor) lake. The lake's trophic status was determined in 1989 (Ryding and Rast 1989) using euphotic zone depth, annual mean total phosphorus concentrations, mean and maximum chlorophyll a concentrations, and mean and minimum secchi disc water transparency depths. Nutrient concentrations in shoreline areas and in the northern basin of the lake are considerably higher due to urbanization and suspended sediments in Clark Fork River inflow. Most of the annual phosphorus, and suspended sediment load enters the lake via the Clark Fork River (Hoelscher 1993). Studies of the pelagic zone (open water area) of Lake Pend Oreille indicated no major temporal changes in water quality variables such as secchi-disc readings, pH, alkalinity, dissolved oxygen, percent saturation, nutrients, chlorophyll-a, and trophic state (Woods 1991).

A number of stream segments within the Upper Pend Oreille subbasin are listed as water quality limited (IDEQ 1998). Granite Creek, Pend Oreille River, Pend Oreille Lake, North Fork of Grouse Creek, Caribou Creek, Fish Creek, Schweitzer Creek, Cocolalla Creek, and Hoodoo Creek are all listed for various "pollutants of concern" including sediment, flow, total dissolved gas (TDG), habitat alteration, and thermal modification. Sediment has also reduced the suitability for the production of native bull trout of a number of streams that are not listed, including Lightning Creek, its tributaries, and Twin Creek.

Vegetation

Historic vegetation patterns in the Upper Pend Oreille subbasin were largely influenced by wildfire. Early accounts and photographs of the subbasin indicate that old-growth stands of

western red cedar, *Thuja plicates*, and other species were common in riparian zones and floodplains. Large cedar stumps can still be found in many riparian areas along subbasin streams. Uplands were more typically dominated by seral species in various stages of succession, with age and composition dependent largely on fire cycles, elevation, slope, and aspect.

Euro-American settlement of the Clark Fork River Valley and Lake Pend Oreille was accompanied by forest clearing, agricultural development, logging, introduction of non-native pests, mining, railroad construction, hydroelectric projects, and general urbanization. Forest products are an important commodity in the subbasin. Forest fires have had a profound impact on vegetation within the Upper Pend Oreille subbasin during the last century. One fire ecologist speculated that riparian areas along the Clark Fork River and Lake Pend Oreille might have escaped the 1910 forest fire that burned an estimated 1.2 million ha in western Montana and northern Idaho (Peek 1983 as cited in MDFWP 1984). Other streams in the watershed were burned extensively by timber companies to remove understory vegetation following riparian and up-slope logging operations (USFS 1993). Low elevation riparian zones near tributary mouths include areas with and without tree canopy cover. Along stream corridors where tree overstory does not exist or is thin, vegetation includes shrubs and small trees such as thin-leaf alder. Alnus sinuate; willows, Salix spp.; snowberry, Symphoricarpos albus; mountain maple, Acer glabrum; red-osier dogwood, Cornus stolonifera; blue elderberry, Sambucus cerulea; and black hawthorn. Crataegus douglasii. Where tree canopy is present, tree species include black cottonwood, Populus trichocarpa; water birch, Betula occidentalis; quaking aspen, Populus tremuloides; and a mix of conifer species including western red cedar, western hemlock, Tsuga heterophylla; Douglas fir, Psuedotsuga menziesi; grand fir, Abies grandis; and western white pine, Pinus monticola.

Conifer forests in the subbasin consist of mixed stands, typified by stands of western red cedar/western hemlock; stands of co-dominant Douglas fir and ponderosa pine, *Pinus ponderosa*; stands of Douglas fir; western larch, *Larix occidentalis*; lodgepole pine, *Pinus contorta*; and western white pine. Dense stands of Douglas fir, larch, and lodgepole are characteristic of slopes with north and east aspects. Relatively open stands of Douglas fir and ponderosa pine are typical on the warmer, dryer south and west aspects.

Representative species of upland shrubs include western serviceberry, *Amelachier alnifolia*; mountain maple; snowberry; mountain balm, *Ceanothus velutinus*; mallow ninebark, *Physocarpus malvaceus*; huckleberry, *Vaccinium spp.*; and others.

Vegetation can strongly influence conditions in streams. Canopy cover adjacent to streams provides shade and helps to maintain cooler water temperatures during summer months. Conifers may also provide insulation during winter months, reducing freezing and formation of anchor ice. Large trees which fall into streams and floodplains help to shape channels, create pools, provide cover and shade, introduce and store nutrients, dissipate stream energy, and contribute to overall channel stability (Murphy and Meehan 1991). Riparian vegetation also plays an important role in providing stream bank stability through binding of soils by roots. The amount, type, and stage of vegetation in a watershed can also influence stream flows. Vegetation removal by fire or timber harvest can result in increased peak flows during storm events and increased summer flows (Harr 1981 and King 1989). Increased peak flows during winter months, when bull trout eggs are incubating, may reduce hatching success.

Vegetation patterns have a profound influence on distribution and abundance of wildlife species in upland habitats. Stand replacing wildfires periodically replaced older, mature stands of

timber, shifting wildlife species use from old-growth/mature forest dependent wildlife species, such as pileated woodpeckers and caribou, to species favoring early seral conditions, such as elk.

Fish and Wildlife Resources

Fish and Wildlife Status

The Upper Pend Oreille subbasin supports a significant complement of fish and wildlife species. Many are important to the region for economic, aesthetic, cultural, recreational, and ecological values.

Fisheries

Over 30 species of fish, including 12 native species, are found in the Upper Pend Oreille subbasin (Table 1).

Table 1. Fish species present in the Upper Pend Oreille subbasin.

Species	Origin	Location	Status
Bull trout (Salvelinus confluentus)	N	L,R,T	A/S-D
Westslope cutthroat trout (Oncorhynchus clarki lewisi)	N	L,R,T	C/S-D
Mountain whitefish (Prosopium williamsoni)	N	L,R,T	C/S-D
Pygmy whitefish (Prosopium coulteri)	N	L	U/U
Rainbow trout (Oncorhynchus mykiss)	E	L,R,T	A/S
Kokanee salmon (Oncorhynchus nerka)	E	L,R,T	C/D
Lake trout (Salvelinus namaycush)	E	L	C/I
Brook trout (Salvelinus fontinalis)	E	\mathbf{T}	C/I
Brown trout (Salmo trutta)	Е	L,R,T	C/S
Lake whitefish (Coregonus clupeaformus)	E	L	A/S
Longnose dace (Rhinichthys cataractae)	N	L,R,T	C/U
Redside shiner (Richardsonius balteatus)	N	L,R,T	C/U
Peamouth (Mylocheilus caurinus)	N	L,R	C/U
Tench (Tinca tinca)	E	L,R	C/I
Largescale sucker (Catostomus catastomus)	N	L,R,T	C/U
Longnose sucker (Catostomus macrocheilus)	N	L,R,T	C/U
Slimy sculpin (Cottus cognatus)	N	L,R,T	C/U
Torrent sculpin (Cottus rhotheus)	N	L,R,T	C/U
Burbot (Lota lota)	E	L,R	O/D
Northern pike (Esox lucius)	E	L	C/I
Tiger muskie (Esox lucius x E. masquinogy)	E	L	O/D
Yellow perch (Perca flavescens)	E	L,R	A/S
Walleye (Stizostedion vitreum)	E	L,R	O/D
Crappie (Pomoxis spp.)	E	L,R	C/S
Channel catfish (Ictalurus punctatus)	E	L,R	O/D
Brown bullhead (Ameiurus nebulosis)	E	L,R	C/S
Largemouth bass (Micropterus salmoides)	E	L,R	C/S-D
Smallmouth bass (Micropterus dolomieui)	E	L,R	C/S-D

Species	Origin	Location	Status
Pumpkinseed (Lepomis gibbosus)	E	L	C/S
Bluegill (Lepomis macrochirus)	E	L	O/I

E=Exotic, N=Native, L=Lake, R=River, T=Tributary, A=Abundant, C=Common, O=Occasional, U=Unknown, S=Stable, I=Increasing, D=Declining

Lake Pend Oreille supports a significant sport fishery. In 1991, anglers expended an estimated 465,000 hours fishing the lake with approximately 65% of the effort targeting trout and 35% of the effort targeting kokanee (Paragamian 1994). The world record bull trout, 14.5 kilograms (kg), and the world record rainbow trout, 16.8 kg, were taken from Lake Pend Oreille in 1949 and 1947, respectively. Currently, target species for management efforts in the lake are kokanee salmon, rainbow trout, bull trout, cutthroat trout, and lake trout. The kokanee fishery was closed to harvest, and harvest limits on lake trout and rainbow trout were relaxed in 2000 due to the steady declines in the kokanee population, which could be exacerbated by predation.

Prior to construction of Albeni Falls and Cabinet Gorge dams, the lower Clark Fork River supported important fisheries for migrating kokanee salmon, mountain whitefish, and bull trout. Westslope cutthroat trout were also present in the river and provided a fishery for fluvial and adfluvial fish. Currently, rainbow trout, brown trout, westslope cutthroat trout, and mountain whitefish are the principle sport fish in the lower Clark Fork River. Bull trout are also present and occasionally caught by anglers. Management direction is to improve habitat and recruitment to the river, with the fishery dependent on wild fish. Ecologically, restoring connectivity to the lower Clark Fork system is important as the Idaho portion currently serves as a sink for fish migrating downstream from Montana. Likewise, restoring access to the hundreds of miles of spawning and rearing habitat available in the Montana portion of the lower Clark Fork watershed provides an opportunity to bolster native populations of bull trout, westslope cutthroat trout, and mountain whitefish.

The Pend Oreille River, prior to the construction of Albeni Falls Dam, provided free flowing riverine habitat that supported a coldwater fishery for cutthroat trout, rainbow trout, mountain whitefish, and occasionally bull trout. Today, only a limited fishery for warmwater fish species and virtually no coldwater fish exist due to operational impacts of Albeni Falls Dam (Bennett and DuPont 1993). Management direction is to work with the USACOE on lake level management to improve conditions for warmwater species.

Bull Trout

Lake Pend Oreille and its tributaries have historically provided a highly regarded sport fishery for bull trout, including trophy specimens. Estimated harvest peaked in the 1950's, as the last of the fish produced from adfluvial runs to Montana tributaries became available to anglers. Legal harvest of bull trout was discontinued beginning in 1996 due to the pending Endangered Species Act (ESA) listing and declining spawning runs in several tributaries. Kokanee were recently documented to be the principle food item of bull trout over 406 millimeters (mm), comprising 66% of the diet (Vidergar 2000). The Pend Oreille bull trout population is comprised of a number of genetically distinct local populations, many of which have declined due to habitat loss. Despite local population declines in some tributary spawning stocks with an estimated total adult population between 8,000 and 16,000 fish (Vidergar 2000), the Pend Oreille bull trout

population is generally considered to be one of the strongest remaining populations in the U.S. Local citizens and agency representatives developed the *Idaho Bull Trout Conservation Plan* (Lake Pend Oreille Bull Trout Watershed Advisory Group 1999). The plan calls for restoring bull trout such that healthy local populations are well distributed around the Lake Pend Oreille subbasin and that a harvestable surplus of fish will be available. Bull trout restoration is also a primary emphasis of the Lower Clark Fork Settlement Agreement (Settlement Agreement) forged by Avista and local, state, and federal entities as part of the relicensing of Cabinet Gorge and Noxon Rapids dams. The Settlement Agreement includes provisions for restoring fish passage past Cabinet Gorge and Noxon Rapids dams.

Westslope Cutthroat Trout

Westslope cutthroat trout comprised an important part of the sport fishery up until the 1960's, but have since declined. Hatchery production was used through the 1990's to supplement wild stocks and provide a limited harvest fishery. Hybridization with rainbow trout, competition, and loss of habitat have contributed to declines of westslope cutthroat trout, but they are still widely distributed in tributary streams and are an important component of the lower Clark Fork River fishery. Harvest limits on westslope cutthroat trout were reduced in in 2000 in an effort to reduce harvest. Cutthroat trout restoration projects, including fish passage are a key component of the Native Salmonid Restoration Plan (NSRP) in the Settlement Agreement.

Kokanee

Since being introduced through emigration from Flathead Lake in the 1930's, kokanee have established themselves as a keystone species in Lake Pend Oreille. Kokanee provide forage for predatory bull, rainbow, lake trout, bald eagles, and a host of other wildlife species. The Lake Pend Oreille kokanee fishery was one of the most significant kokanee fisheries in the western U.S. and Canada. During the 1950's and 1960's, kokanee harvest averaged 1 million fish annually with a high of 1.3 million fish in 1953. This made Lake Pend Oreille the largest fishery in Idaho. Kokanee abundance began declining in 1966 concurrent with deeper drawdowns of the lake (Figure 5) (Maiolie and Elam 1993). Fishery was closed in 2000.

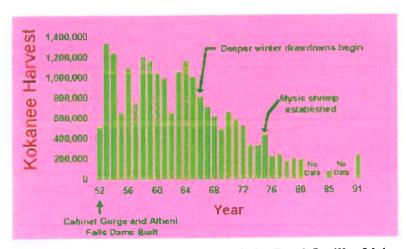


Figure 5. Harvest of kokanee from Lake Pend Oreille, Idaho

Kokanee salmon populations have declined precipitously since the 1960's (Figure 6). This decline has been largely attributed to the current operation of Albeni Falls Dam (Maiolie and Elam 1993; Paragamian and Ellis 1994). Historical population trends and harvest data indicate winter pool elevation effect kokanee abundance and harvest. Consistent annual drawdowns of the lake, below the elevation needed for flood control, exposed most of the shoreline gravel and limited kokanee spawning. Gravel surveys conducted in 1994 determined a 1.6-meter higher winter pool level would increase the amount of suitable kokanee spawning gravel by 560% (Fredericks *et al.* 1995).

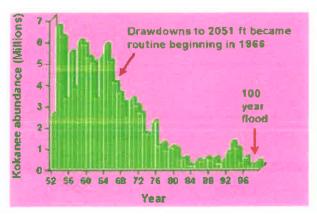


Figure 6. Estimates of kokanee abundance in Lake Pend Oreille, Idaho

The NPPC directed the USACOE to change the winter elevation of Lake Pend Oreille beginning in 1996. The lake was to be kept above an elevation of 626m msl for three winters. The IDFG investigated the effect of changed lake levels on kokanee production, the movements of shoreline gravel and sediment, and changes in the abundance of warmwater fish species in the Pend Oreille River. The higher winter lake level made an additional 167,225 m² of gravel available for kokanee (Fredericks *et al.* 1995). The survival rate for kokanee eggs to fry increased from 1.4% in 1995 to 9.6% in 1998 and 6.0% in 1999. This 500% increase in survival will be evaluated further. Additional studies were conducted on predation levels, the lake's energy budget, zooplankton, food availability for kokanee, opossum shrimp, and Eurasian watermilfoil, *Myriophyllum spicatum* (EWM).

Beginning in 2000, an emergency closure was imposed on kokanee harvest to maximize the number of spawners available to rebuild the population. The IDFG's management goals are to recover kokanee populations to a level where they can provide forage for trophy species and produce an annual harvest of 750,000 kokanee.

The kokanee population in the lake is monitored annually by mid-water trawling and hydroacoustics. The IDFG estimated kokanee abundance at 8.8 million fish in 1999, with a biomass of 240.4 metric tons, an annual production rate of 220.8 metric tons, and an annual yield to all sources of mortality of 235.8 metric tons (Maiolie 2000, in press). For comparison, total abundance was 13.7 million kokanee in 1996, with a biomass of 391.4 metric tons, an annual production rate of 299.3 metric tons, and an annual yield of 205 metric tons (IDFG files). These recent declines in kokanee abundance are considered very serious since even the higher abundance in 1996 was only at a one quarter of the population's recovery goal.

Rainbow Trout

Rainbow trout were first introduced into the Pend Oreille system in 1919, and the Gerrard strain rainbow trout, which are predaceous and grow to large sizes, were first introduced to the lake in 1941. Vidergar (2000) found that 77% of the diet of rainbow trout larger than 275 mm is kokanee. Trophy specimens exceeding 10 kg are caught every year and attract anglers from all over the country. Long-term management goals for the lake include continuing to provide a trophy rainbow trout fishery, utilizing kokanee salmon as a forage base. Bag limits, size restrictions, and season restrictions for rainbow trout were recently expanded to encourage angler harvest and reduce predation on the depressed kokanee population. These measures are intended to be short-term until the kokanee population shows signs of recovery as demonstrated by an increasing population trend. Resident rainbow trout contribute to the lower Clark Fork fishery, and rainbow trout are widely distributed in tributaries to Lake Pend Oreille and the lower Clark Fork River. Rainbow trout pose a threat of hybridization with westslope cutthroat trout, with hybrids being common in some portions of the subbasin.

Lake Trout

In 1925, the U.S. Fish Commission first introduced lake trout into Lake Pend Oreille. Lake trout dispersing from Flathead Lake, and possibly Upper Priest Lake and Priest Lake, likely contribute to the Lake Pend Oreille lake trout population. Lake trout are well established in Lake Pend Oreille and contribute to the sport fishery. They are considered to be a potentially significant threat to native fish and kokanee; therefore, the management emphasis is to reduce lake trout numbers through a year-round, no bag limit regulation. A mark-and-recapture population estimate of lake trout in 1999 was 1,792 fish with a 95% confidence interval of 1,054 to 5,982 (Vidergar 2000). Lake trout are thought to comprise 4% of the predator biomass and consume 2% of the kokanee production (Vidergar 2000).

Wildlife

The Upper Pend Oreille subbasin supports a diversity of wildlife species that provide important recreational opportunities for viewing, hunting, and trapping. Several species are federally listed under the ESA (Table 2).

Table 2. Wildlife species of the Upper Pend Oreille subbasin currently listed under the ESA

Species	Status
Grizzly bear (Ursus arctos)	Threatened
Woodland caribou (Rangifer tarandus)	Endangered
Gray wolf (Canis lupus)	Endangered
Lynx (Lynx canadensis)	Threatened
Bald eagle (Halieeatus leucocephalus)	Threatened

White-tailed deer, *Odocoileus virginianus*, are the most sought-after big game species, followed by elk, *Cervus elaphus*, black bear, *Ursus americanus*, and mountain lion, *Felis concolor*. Significant hunting activity is expended in pursuit of waterfowl, ruffed grouse, *Bonasa umbellus*, and wild turkeys.

Other big game species include mule deer, O. hemionus; moose, Alces alces; and mountain goat, Oreamnos americanus. Furbearers present include beaver, Castor Canadensis;

mink, Mustela vison; fisher, Martes pennanti, marten, M. Americana; river otter, Lutra canadensis; muskrat, Ondatra zibethica; and wolverine, Gulo gulo. Numerous small mammals are present.

Lake Pend Oreille, the lower Clark Fork River, and the Pend Oreille River have historically been important waterfowl migration and wintering areas. These areas provide important waterfowl nesting habitat as well. The Upper Pend Oreille subbasin supports 20% of all the wintering redhead ducks, *Aythya Americana*, in the Pacific flyway. Over 20 species of waterfowl using waters in the Upper Pend Oreille subbasin have been documented (Table 3).

Table 3. Waterfowl inhabiting the Upper Pend Oreille subbasin

Species
Mallard (Anas platyrhynchos)
Gadwall (Anas strepera)
Green-winged teal (Anas crecca)
Cinnamon teal (Anas cyanoptera)
Blue-winged teal (Anas discors)
American wigeon (Anas americana)
Pintail (Anas acuta)
Shoveler (Anas clypeata)
Ruddy duck (Oxyura jamaicensis)
Wood duck (Aix sponsa)
Redhead ducks (Aythya americana)
Canvasback (Aythya valisineria)
Ring-necked duck (Aythya collaris)
Lesser scaup (Aythya affinis)
Harlequin duck (Histrionicus histrionicus)
Bufflehead (Bucephala albeola)
Barrow's goldeneye (Bucephala islandica)
Common goldeneye (Bucephala clangula)
Common merganser (Mergus merganser)
Hooded merganser (Lophodytes cucullatus)
Canada goose (Branta canadensis)
Tundra swan (Cygnus columbianus)

Raptors using the area for nesting and/or as a migratory stop when food is plentiful include osprey, *Pandion haliaetus*; bald eagle; peregrine falcon, *Falco peregrinus*; and a variety of hawks and owls. Lake Pend Oreille supports one of the largest concentrations of nesting ospreys in the western U.S. and may support several hundred bald eagles during the winter migration period when spawned-out kokanee and wintering waterfowl are available as a food source (Martin *et al.* 1988). At least 10 pairs of bald eagles are known to nest along Lake Pend Oreille, the lower Clark Fork River, and the Pend Oreille River (C. Brengle, USACOE, personal communication).

Many species of songbirds, including year-round residents and neotropical migrants, are known to use the Upper Pend Oreille subbasin. At least two great blue heron, *Ardea herodias*,

rookeries are present along the Pend Oreille River and the Clark Fork River delta. Martin *et al.* (1988) completed an assessment of wildlife impacts associated with the construction and inundation of Albeni Falls Dam. Table 4 (Martin, *et al.* 1988) summarizes wildlife habitat losses for the target wildlife species. An interagency team of biologists used the Habitat Evaluation Procedure (HEP) to determine the quality and quantity of wildlife habitat impacted by the dam.

Table 4. Summary of Habitat Units (HI	Us) impacted by Albeni Falls Dam
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Toward	Pre-construction	Post-construction	Net impact
Target species	HUs	HUs	HUs
Mallard	10,995	4,970	-5,985
Canada goose	8,197	3,498	-4,699
Redhead	7,387	4,008	-3,379
Bald eagle (breeding)	7,730	3,222	-4,508
Bald eagle (wintering)	8,103	3,738	-4,365
Peregrine falcon	*	-	6,617 acres
Black-capped chickadee	3,157	871	-2,286
Yellow warbler	350	421	+71
White-tailed deer	2,686	1006	-1,680
Muskrat	3,722	2,016	-1,756

Habitat Areas and Quality

Fisheries

The Panhandle Bull Trout Technical Advisory Team (1998) assessed the condition of habitat and watershed condition for known and suspected bull trout waters within the Upper Pend Oreille subbasin (Appendix 1). Complete descriptions of these waters are provided in the Lake Pend Oreille Bull Trout Key Watershed Problem Assessment (Panhandle Bull Trout Technical Advisory Team 1998).

Fish habitat in tributary streams within the Upper Pend Oreille subbasin has been impaired through delivery of excess bedload sediment, fine sediment delivery, loss of large woody debris and riparian forest habitat, channelization, and isolation of streams from their floodplains (Panhandle Bull Trout Technical Advisory Team 1998). Man-made fish migration barriers and water diversions are scattered around the subbasin, resulting in loss of access to spawning and rearing habitat and loss of flow and migrating fish to diversions (Appendix 1).

During the summer and fall months, the lower 5.4 km of the Clark Fork River are flooded by backwater from Albeni Falls Dam, creating an unproductive environment for native and introduced salmonids. Riverine habitat is further compromised by Cabinet Gorge Dam and its operations, resulting in blocked fish passage, rapidly fluctuating river flows, and, during high water years, high levels of dissolved gas. The Settlement Agreement resulted in an increase in minimum flows released from Cabinet Gorge Dam from 85 cubic meters per second (cms) to 142 cms. The increased minimum flow results in an increase of over 4 ha of permanently wetted riffle habitat.

Cabinet Gorge Dam presents a complete migration block to fish migrating upstream from the Clark Fork River. Steps are underway to restore fish passage as part of the Settlement Agreement. There are high levels of TDG in the lower Clark Fork River, Lake Pend Oreille, and the Pend Oreille River as a result of river flows spilling over Cabinet Gorge Dam during periods

of high runoff. High TDG levels resulting from spill at Cabinet Gorge Dam may affect fish populations. Avista is working to reduce TDG as part of the Settlement Agreement. The effects of modified flow regimes in the lower Clark Fork River resulting from Hungry Horse Dam operations are unknown.

The Pend Oreille River provides good summer habitat for warmwater species including largemouth bass and yellow perch, but winter drawdown resulting from Albeni Falls Dam operations significantly compromises the ability of the river to support a healthy warmwater fishery. Riverine habitat in the Pend Oreille River below Albeni Falls is partially inundated by Box Canyon Dam and is an unproductive environment for both warmwater and coldwater sport fish. Consequently, only a marginal sport fishery exists in the Pend Oreille River in Idaho. It is not known what impact Albeni Falls Dam has on TDG. Albeni Falls Dam is a complete upstream migration block to fish.

In general, Lake Pend Oreille continues to provide good rearing habitat for coldwater fish species, but Albeni Falls Dam operations have resulted in impaired shoreline spawning habitat for kokanee salmon. Over 16 ha of high quality kokanee spawning habitat is estimated to be lost due to a 3.5-meter drawdown of Lake Pend Oreille during the winter months. Lowering of the lake to 625m msl each year has not allowed for shoreline gravel to be cleaned and resorted at a depth where it is available for kokanee spawning. Consequently, most kokanee spawning takes place at the south end of the lake where conditions are favorable. Studies are currently underway that address how dam operations may be changed to improve shoreline spawning. The effects of elevated TDG on lake fishes during periods of high runoff are currently not known but are under study by Avista.

Lake Pend Oreille's nutrient budget may also be affected by Albeni Falls Dam operations. Prior to impoundment, Lake Pend Oreille flooded well-vegetated shoreline areas during the spring, which likely resulted in an influx of nutrients to the lake at the onset of the summer growing season. Albeni Falls Dam operations inundated shoreline vegetation, resulting in an initial significant release of nutrients. Over time, that vegetation has been lost and higher elevation vegetation is only rarely flooded. Thus, it is possible that an important seasonal source of nutrients has been lost. Early summer nutrient releases would benefit plankton blooms and growth of kokanee salmon and other juvenile fish. Drawdown of the reservoir also results in an unproductive shoreline environment for production of aquatic invertebrates, potentially reducing a food source for shoreline feeding species such as cutthroat trout.

Wildlife

Upper Pend Oreille subbasin wildlife habitats range from sub-alpine areas of the Selkirk, Cabinet, and Coeur d'Alene Mountains to deepwater areas within Lake Pend Oreille. Habitats can be grossly divided into upland coniferous forest, and wetland/riparian/lake. The following discussion includes general descriptions of each of these divisions within the Upper Pend Oreille subbasin.

Upland Coniferous Forest

The moist, mild climate of the Pend Oreille subbasin contributes to the occurrence of richly diverse and productive forests dominated mainly by coniferous species. The diversity of the subbasin forest landscapes resulted from a complex interaction of elevation, aspect, climate, topography, geology, fire ecology, human influence, and soils. Perhaps the factors with the greatest effect are fire suppression, logging history, and white pine blister rust. These factors

resulted in disturbance and subsequent successional processes that are very different today than those that naturally occurred prior to Euro-American settlement. Early seral species such as ponderosa pine, western larch, and western white pine have declined in occurrence, while Douglas fir, grand fir, and western hemlock now dominate much of the forest landscape. The area occupied by old-growth forest has also been significantly reduced. Further, there are fewer large trees, snags, and downed woody debris within forest stands irrespective of successional stage. Generally, the Pend Oreille subbasin forests have lost diversity at a landscape scale.

Perhaps the most threatened forest type is low elevation ponderosa pine habitat where fire suppression and past logging resulted in replacement of widely spaced large trees, snags, and logs with dense, young Douglas fir and grand fir forests. These encroaching stands, compete with relic old trees for space and nutrients, eliminate ponderosa pine regeneration, and increase the potential for stand-replacing fire. It is estimated that greater than 75% of historic Interior Columbia Basin old-growth ponderosa pine ecosystems have been lost (USFS and BLM 1997). Noss *et al.* (1995) listed old-growth ponderosa pine forests as endangered (85 to 95% decline) in the northern Rocky Mountains, Intermountain West, and eastside Cascade Mountains. Henjum *et al.* (1994) recommended prohibiting logging of dominant or codominant ponderosa pine from forests in eastern Washington and Oregon, and Ritter (2000) identified dry ponderosa pine/Douglas fir/grand fir forests as a priority habitat for bird conservation in Idaho, with a goal of preventing additional loss of old-growth ponderosa pine forests. Low elevation old-growth ponderosa pine forests are especially important to flammulated owls, wintering ungulates, and animals such as black bears, grizzly bears, wolves, wolverine, fisher, lynx, cougar, and bald eagles that seek carrion associated with ungulate winter ranges.

An added impact to low elevation forests is recently accelerated subdivision and residential development. Impacts associated with residential development include removal of natural vegetation, which provides cover, forage, roosts, nest sites and dens, and increased human-related disturbances such as free-ranging dogs, snowmobiling, and cross-country skiing. In addition to direct mortality, harassment of wildlife by dogs during the winter stress period may predispose animals to other forms of mortality such as starvation. Habitat losses associated with rural residential development tend to be permanent. Consequently, impacts compound as development proceeds.

Some important conservation measures for upland forests in the Upper Pend Oreille subbasin include protection and restoration of low elevation ponderosa pine forests, and securing key low-elevation wildlife habitat from residential development.

Wetland/Riparian/Lake

Wetlands, riparian areas, and lakes within the Upper Pend Oreille subbasin were strongly influenced by past glaciation. Wetland areas in the subbasin can be separated into two divisions: wetlands associated with rivers, streams, and floodplains; and isolated glacial depressions and kettle lakes. Floodplain wetlands have greater hydrologic and nutrient dynamics and are more biologically productive, while glacial depressions have relatively stable water levels, and limited surface water and nutrient inputs. Due to anoxic conditions associated with continual saturation in wetlands associated with glacial depressions, organic material is incompletely decomposed. This results in organic material accumulation and peatland development. Peatlands, while naturally less biologically productive than floodplain wetlands, often support rare plants.

Most wetlands in the Upper Pend Oreille subbasin have undergone significant alteration or loss. Major influences include early beaver trapping, drainage for agricultural conversion, and

hydrologic alteration associated with Albeni Falls Dam. Fur trapping resulted in near complete removal of beaver during the 19th century in North America (Ringelman 1991). While largely undocumented, the effects of beaver removal on wetland extent must have been considerable in the Upper Pend Oreille subbasin. Beaver continue to re-occupy and restore wetlands across the subbasin today.

Most wetlands in the subbasin were at least partially drained for agricultural production by the 1930's. Agricultural production often included shrub removal and grazing, which continue to inhibit beaver re-occupancy and restoration. Floodplain wetlands were often the most completely drained and converted to agriculture due to the presence of productive soils and ease of drainage. Glacial depressions and kettle lakes were often only partially drained due to deep peat soils, deep kettle lakes, and lack of topographic outlet. Hoodoo Creek is a notable example due to the extensive floodplain wetlands, and the existence of a legal drainage district.

The greatest single impact to wetlands in the subbasin was construction and operation of Albeni Falls Dam. Pre-dam hydrology included steeply rising lake levels with spring run-off, peak lake levels in June, and receding lake levels through summer. This resulted in heavily vegetated, highly productive, seasonally flooded wetlands along the low gradient northern shorelines of Lake Pend Oreille, especially at the mouths of tributary creeks and rivers.

Following construction of Albeni Falls Dam, the water level of Lake Pend Oreille was regulated so that water levels were held above historic lake levels through the growing season. The lake is then drawn down in September. This regulated hydrology removed most vegetation from wetland areas so that drawdown, beginning in September, exposes poorly vegetated mudflats where productive, seasonally flooded wetlands formerly occurred. Martin *et al.* (1988) determined that 2,677 ha of former wetlands were converted to open water due to development and operation Albeni Falls Dam.

Potential nesting sites and cover for a diversity of wildlife species were removed due to a loss of vegetation and conversion of wetlands to open water. Wetland plant species that produce seeds, rootstocks, and vegetative parts selected by wildlife as food were eliminated from most former wetlands (USFWS 1960). Further, benthic invertebrates critical to ducks, shorebirds, bats, swallows, swifts, and many other insectivorous birds are significantly reduced in the drawdown zone (Bennett and DuPont 1993). These impairments resulted in an indicated 50% reduction in duck production from brood counts conducted in 1949, 1958, and 1960 (USFWS 1960).

Some of the most productive wetlands associated with Lake Pend Oreille occur at the mouths of streams and rivers where loose alluvial soils accumulated in deltas. Vegetation loss associated with operation of Albeni Falls Dam exposes loose alluvial soils to wave action and undercutting at high water, followed by sloughing upon annual fall drawdown. Erosion of important wildlife habitat in these locations has been significant and is ongoing. Martin *et al.* (1988) estimated the annual erosion rate due to operation of Albeni Falls Dam at 12 ha per year. Sites where ongoing losses are of special concern include the Clark Fork River delta, Pack River delta, Strong's Island, and the mouths of Priest River, Hoodoo Creek, Hornby Creek, and Carr Creek. Due to the historic productivity of these areas to fish and wildlife, they often support important cultural resources. Sandberg noted apparent island erosion of 3.35 m at the base of the shoreline, and 2.4 m at the top of the shoreline slope during 1989 (P. Cole, IDFG, personal communication).

Habitat losses in the Clark Fork River delta merit special description because they represent the largest contiguous floodplain wetland complex in the Upper Pend Oreille subbasin, and impacts are further compounded by the influence of Cabinet Gorge and Noxon Rapids dams.

Following glacial recession, ancient Lake Missoula was permanently drained, and the Clark Fork River carved channels into the stiff lacustrine deposits forming the Clark Fork River delta at the mouth of the lower Clark Fork River at Lake Pend Oreille. These channels, with alluvial landforms and historic lakeside beaches created by sediment transported down the Clark Fork River, formed a rich and diverse complex of old wetland river channels, active river channels, islands, and floodplain wetlands. It can be noted from historic photographs that the area was heavily forested by a mixture of cottonwoods and conifers. Included in the approximately 1,214 ha of the Clark Fork River delta were stands of old-growth western red cedar

Early logging removed much of the old-growth western red cedar in the Clark Fork River delta. However, large-scale habitat degradation occurred due to operation of Cabinet Gorge, Noxon Rapids, and Albeni Falls dams. Upstream dams impeded sediment transport to the delta, prohibiting development of delta landforms, and the protective lakeside beach. Widely fluctuating flows associated with dam operations continue to erode delta shorelines that would naturally be protected by armored streambeds during low fall/winter flows. Compounding these impacts is an unnaturally elevated lake level during the growing season due to operation of Albeni Falls Dam. This elevated lake level removed protective vegetation due to deep inundation in areas that were formerly seasonally flooded. Elevated lake levels and lack of protective vegetation and lakeside beach exposed the delta to accelerated erosion associated with a long wind fetch across Lake Pend Oreille. Further, following growing season inundation, poorly vegetated banks slough during drawdown in late summer and early fall. The result has been the loss of roughly 50% of functional delta wildlife habitat and ongoing losses estimated at 3.2 to 4.8 ha per year (Parametrix 1998).

Important wetland/riparian/lake conservation measures would include wetland protection and restoration, and erosion control in sites affected by the operation of Albeni Falls Dam. Ideally, eroded habitats due to dam operations would also be restored.

Watershed Assessment

Several recent reports describe the Upper Pend Oreille subbasin and its fish and wildlife resources. These documents include the Lake Pend Oreille Key Watershed Bull Trout Problem Assessment (Panhandle TAT 1998), the Lake Pend Oreille Key Watershed Bull Trout Conservation Plan (Lake Pend Oreille Bull Trout WAG), the Albeni Falls Wildlife Protection, Mitigation, and Enhancement Plan (Martin et al. 1988), and the Idaho Department of Fish and Game Five Year Fish Management Plan (IDFG 1996). Many IDFG annual reports, funded by either Dingell-Johnson or the BPA, have focused on the Lake Pend Oreille kokanee fishery. Master's theses from the University of Idaho and Eastern Washington University have described conditions in the lake, the Pend Oreille River, and tributary streams. Descriptions of specific portions of the subbasin are also provided in USFS National Environmental Protection Act (NEPA) documents, Cumulative Watershed Effects (CWE) analyses performed by the Idaho Department of Lands (IDL) and a significant number of studies conducted by Avista. Recent studies by the USFS Rocky Mountain Research Station and the University of Montana describe the genetic structure of bull trout populations in Lake Pend Oreille and lower Clark Fork River tributary streams.

Major Limiting Factors

The two primary limiting factors for fish, wildlife, and associated habitats in the Upper Pend Oreille subbasin are habitat loss and non-native species competition. Habitat loss can be described in a variety of ways, but is generally referred to as the loss of connectivity, quality, quantity, and diversity. Many environmental and managed factors can contribute to these limiting factors. Several of these key factors are described further in more detail.

Fisheries

Key factors limiting fish populations in the Upper Pend Oreille subbasin are described in Resident Fish Planning: Dworshak Reservoir, Lake Roosevelt, and Lake Pend Oreille (Fickeisen and Geist 1993), the Lake Pend Oreille Key Watershed Bull Trout Problem Assessment (1998), IDFG reports, and Master's theses from the University of Idaho. Limiting factors can result from either human activities or natural events, acting separately or cumulatively.

In the Upper Pend Oreille subbasin, limiting factors for fish include lake and stream habitat conditions; outside influences on the species including competition, hybridization, prey availability, and predation (including human predation); and biological constraints inherent to the species (Panhandle Bull Trout Technical Advisory Team 1998). Limiting factors are not equally distributed across the basin and different species may have different limiting factors.

Limiting factors in the lake for kokanee have been well documented. Stock-recruitment curves for kokanee declined from the early 1950's (Bowler 1980) to the 1990's (Fredericks et al. 1995) and put the entire population at risk of collapse. Equilibrium points on the curves were approximately 5 million adult kokanee between 1952 and 1965, 3 million kokanee between 1965 and 1975, and 1 million kokanee between 1977 and 1994. Declines in the stock-recruitment curves are due to declines in habitat. The mechanism for the declines is rather straightforward. Wave action sorts the gravel on the shorelines creating silt-free areas for kokanee spawning. Drawdowns in the fall drop the water level below the wave-washed zone, which limits the availability of spawning habitat. Also, lowering the lake to 625m msl each year prevents the creation of spawning areas at 1 to 1.6 m below the surface where they would be useful for kokanee spawning. Fredericks et al. (1995) estimated only 35,370 m² of gravel below 625 m elevation, but 197,685 m² of spawning gravels below the 626.4 m elevation. Limitations in the spawning area are thought to limit the kokanee population to a low level. Experimentally keeping the lake higher in the winter (which puts more gravel in the water) has met with promising results. Survival of kokanee eggs increased four to seven fold during two of three test years (Maiolie et al. 2000, Maiolie et al. in press). Further work is needed to reduce the confounding effects of floods and declining kokanee abundance but results point to spawning habitat as a limiting factor. It has been hypothesized that opossum shrimp may limit kokanee abundance. Studies are continuing, but to date no limitations due to shrimp were found (Clarke 1999). Growth and survival of newly emerged kokanee fry does not show adverse effects due to shrimp. Historically, the kokanee population declined concurrently with changes in water level management and nearly a decade before shrimp became established in the lake, which points to spawning habitat as a limiting factor.

The Pend Oreille River fluctuates between a cold flowing river during the winter months and a warm slackwater reservoir during the summer months. Lack of suitable overwintering habitat limits the warmwater fishery, and warm water during the summer precludes a coldwater fishery. Higher winter pool levels could result in a seven-fold increase in largemouth bass overwintering area and a viable fishery (Bennet and DuPont 1990).

The lower 5 km of the Clark Fork River support a seasonal coldwater fishery during the winter months, but some of the most diverse and productive riverine habitat in the lower Clark Fork is compromised by the summer pool flooding otherwise productive riffle habitats. Peaking operations at Cabinet Gorge Dam lower the productivity of the Clark Fork River, but a good trout fishery is present year-round in free flowing reaches.

Instream habitat conditions that influence bull trout and westslope cutthroat trout distribution and abundance include flow, water temperature, cover, connectivity, and habitat complexity. Living space for these species has been reduced in some streams through loss of flow; excess bedload filling in pools; widening of stream channels resulting in water too shallow to support fish; loss of large woody debris recruitment needed to create pools and cover; fine sediment covering spawning gravels; or filling in the spaces between rocks where juvenile bull fish hide. Shifting bedload in unstable streams may reduce incubation success by physically damaging eggs of fall spawning fish such as bull trout. Shifting bedload in unstable streams is believed to be a significant limiting factor in streams on the northern and eastern tributaries to Lake Pend Oreille, and is primarily associated with significant levels of timber management and road construction (Panhandle Bull Trout Technical Advisory Team 1998). Fine sediment can reduce the flow of oxygenated water into redds, reducing hatching success, and is a problem in upper Pack River tributaries (Panhandle Bull Trout Technical Advisory Team 1998). Water temperature can be influenced by streamside vegetation management or land management practices that alter groundwater inflow. Loss of shade or groundwater inflow can result in temperature conditions that are unsuitable for bull trout and other salmonids. Limiting factors for each of the bull trout supporting tributaries are thoroughly discussed in the Lake Pend Oreille Key Watershed Bull Trout Problem Assessment (1998).

Dam construction on the Clark Fork River, beginning in 1913 with construction of Thompson Falls Dam, cut off hundreds of kilometers of spawning and rearing habitat for migratory species such as bull trout, westslope cutthroat trout, and mountain whitefish. After 1913, the accessible watershed available to Lake Pend Oreille fish upstream of Albeni Falls Dam consisted of the Pend Oreille River and its tributaries, Lake Pend Oreille and its tributaries, and the Clark Fork River and its tributaries upstream to Thompson Falls Dam. After construction of Cabinet Gorge Dam blocked the Clark Fork River in September 1951, the total watershed area available to bull trout, excluding the Priest River subbasin and the Lower Pend Oreille subbasin, was further reduced by about 43% (Panhandle Bull Trout Technical Advisory Team 1998). Overall, it is estimated that less than 10% of the historic range of bull trout in the Upper Pend Oreille subbasin is accessible to bull trout as a result of dam construction (Panhandle Bull Trout Technical Advisory Team 1998). Restoration of fish passage at Cabinet Gorge and Noxon Rapids dams is currently underway as an adaptive management program under the Settlement Agreement. If this program is successful, it will restore fish passage back to conditions found between 1913 and 1952.

Biological constraints inherent to fish include reproductive potential, existing genetic diversity within populations, and behavioral attributes. Reproductive potential can be influenced by factors that select for fish size, such as angling, because larger females produce more eggs than smaller females. Factors that increase mortality on juvenile and sub-adult fish can influence reproductive potential for species such as bull trout, which typically mature at older ages than some other fish species. Genetic diversity can be influenced by introductions of non-native fish into populations, shrinking population size, and fragmentation of populations through migration barriers. Behavioral changes can occur through selective breeding in a hatchery environment or

introductions of new genetic material but would be a function of genetic changes. To increase the likelihood of a population persisting through time, fish populations with genetic material that is adapted to local conditions must be maintained. In addition, population sizes must be large enough that a full range of genetic diversity is retained, providing a greater probability of a population withstanding environmental changes or disturbances. Temporary behavioral changes may result from stress brought on through competition or other factors; the genetic integrity of a population can determine how well the population responds to stress.

Reproductive potential of a bull trout population can be significantly impacted by hybridization with brook trout. The sharp decline in the kokanee population will result in lost forage for top predators such as bull trout and rainbow trout, and it is anticipated that this will eventually limit predator populations if not reversed (Mailolie 1999). Competition for spawning areas with other species, such as between bull trout and brown trout, can directly reduce reproductive success if competition results in redd superimposition. Competition for food or habitat that is in limited supply or predation can limit populations by reducing survival to spawning age. Lake trout pose this threat to bull trout, cutthroat trout, and kokanee in Lake Pend Oreille, but lake trout on their own are not currently believed to be limiting fish populations due to their relatively low numbers. The combined presence of lake trout, rainbow trout, and bull trout may act to further limit the kokanee population.

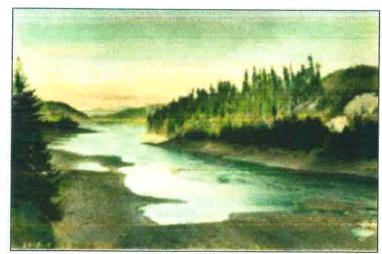
Illegal harvest of some species, particularly bull trout, has been cited as a limiting factor in some spawning streams (Panhandle Bull Trout Technical Advisory Team 1998).

Wildlife

The presence, distribution, and abundance of a number of wildlife species in the Upper Pend Oreille subbasin have been affected by habitat losses due to hydropower development, agricultural development, urbanization, timber harvest, road construction, legal and illegal wildlife harvest, and natural and human-caused events. These factors continue to limit wildlife populations. Current operation of the hydropower system and, in particular, lake level management have affected the availability of aquatic macrophytes to some species of waterfowl, resulting in apparent changes in distribution and use patterns of waterfowl. Ongoing habitat loss due to dam operations, particularly the loss of unique habitat types such as those found in the Clark Fork River delta, result in an ever-shrinking habitat base for several species of waterfowl, furbearers, songbirds, shorebirds, big game, and raptors. Productive wetland habitats have been converted to mudflats due to inundation by Albeni Falls Dam. Operation of Albeni Falls dam has resulted in an estimated loss of 12 ha per year of delta, island, and shoreline habitats around Lake Pend Oreille, the lower Clark Fork River, and the Pend Oreille River (Martin et al. 1988). Peaking operations and trapping of river sediments by Cabinet Gorge Dam are also responsible for the loss of approximately one hectare per year of Clark Fork River delta habitat (Parametrix 1988).

Loss of old-growth habitat types due to logging, fire, development, and dam operations limit the ability of old-growth dependent species to thrive in the Upper Pend Oreille subbasin. Woodland caribou are considered to be one of the most endangered mammals in the United States; logging and fires resulting from human and natural causes have largely impacted their old-growth and mature forest habitat.

An extensive forest road network and the presence of major highways and rail lines have resulted in the loss of security habitat and fragmentation of habitat, particularly for wide ranging species such as grizzly bear, elk, and moose. Extensive road networks contribute to increased



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PEND OREILLE LAKE



Pend Oreille River Temperature Total Maximum Daily Load



Water Quality Improvement Report

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Pend Oreille River Temperature Total Maximum Daily Load

Water Quality Improvement Report

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What is a total maximum daily load (TMDL)?

The federal Clean Water Act (CWA) requires that a TMDL be developed for each of the water bodies on the 303(d) list. The TMDL study determines the extent of the water quality problem(s) and the underlying causes, and then specifies a limit on the amount of pollutants to improve water quality and return the surface water to criteria, achieving its beneficial uses. Then Ecology, with the assistance of local governments, agencies, and the community develops a plan that describes actions to control the pollution and a monitoring plan to assess the effectiveness of the water quality improvement activities. The water quality improvement report (WQIR) consists of the TMDL study and implementation strategy or plan.

Study area

The Pend Oreille River is part of the Pend Oreille/Clark Fork watershed, which drains parts of Montana, Idaho, and Washington as well as a portion of British Columbia, Canada before entering the Columbia River. The Kalispel Indian Tribe (Tribe) Reservation is located along a ten-mile stretch the Pend Oreille River in Washington. The bulk of the reservation is on the east side of the river north of Usk, but a small portion is located on west side of the river north of Cusick.

The focus of this study is the 72-mile section of the Pend Oreille River from its entrance into Washington, near the city of Newport, to its northern exit into British Columbia, Canada. The Pend Oreille River watershed in Washington State encompasses about 1,000 square miles and comprises water resource inventory area (WRIA) 62. For the analysis, the river was divided into 12 reaches.

Within the study area, river hydraulics are affected by three hydroelectric facilities including:

- 1) Albeni Falls Dam, located in Idaho upstream of the Washington-Idaho Stateline and operated by the U.S. Army Corps of Engineers (COE).
- 2) Box Canyon Dam, located near the town of Ione and owned by the Pend Oreille Public Utility District.
- 3) Boundary Dam, located 18 miles below Box Canyon Dam and operated by Seattle City Light.

Temperature criteria and its assessment

The Pend Oreille temperature criteria has two parts. Part 1 applies when temperatures are over 20°C. If the natural condition temperatures exceed 20°C, then the allowable increase is 0.3°C. Part 2 of the criteria applies when temperatures are under 20°C.

Both Washington State's and the Kalispel tribal water quality criteria reference both an existing and a natural temperature condition designed to protect salmonids. The natural condition is a river temperature regime present prior to hydroelectric management, point source discharge, and riparian vegetative alteration. Because of the current changes to the river as a consequence of the dams, the natural temperature condition is one that can only be estimated through the application of a water quality model. For this reason, this study used the CE-QUAL-W2 water

quality model to describe both the existing and natural conditions for the Pend Oreille River. The model was used to examine, individually, the relative influence of riparian shade levels, point source discharges, and the hydroelectric facilities' operations on current river temperatures.

Overview of results

Results indicate that both the Pend Oreille Public Utility District's Box Canyon Dam and Seattle City Light's Boundary Dam increase the heat load to the Pend Oreille River to levels that result in the exceedance of the temperature criteria. Cumulatively, the effect of the hydroelectric facilities on Pend Oreille River water temperature is subtle: daily maximum temperatures in many reaches of the river are cooler than what is predicted to have occurred naturally and, where warming does occur (most prominently in the reaches directly upstream of the facilities) it tends to be low, about 1°C above what occurred naturally. There are several reasons for this:

Water source: Lake Pend Oreille provides the vast majority of flow through the study area, both historically and currently. At Newport, the most upstream reach in Washington and situated below Albeni Falls dam, river temperatures are cooler now than what is predicted to have occurred naturally. This is due to the dam maintaining the lake level in the mid and late summer higher than what it would have been under natural conditions. The higher lake level allows for deeper, cooler water from the lake to enter the Pend Oreille River. This cool water buffers sources of river warming from Newport to Blueslide so that river temperatures are cooler now than before the dams were built. Box Canyon and Boundary dams also depress the maximum temperatures observed in their associated tailrace reaches by withdrawing cooler subsurface water from their forebays and discharging it downstream after power generation.

Hydraulic changes: Because of the dams the river is now deeper and wider, with lower average velocities in comparison to what occurred naturally. These changes are most evident during the critical summer months when the warmest temperatures occur. This increased storage now buffers the river from large temperature fluctuations and is one of the reasons why cooler temperatures found at Newport (downstream of the Albeni Falls tailrace) can now be observed in temperature profiles 40 miles down-river at Blueslide. These hydraulic characteristics also buffer temperature changes associated with alterations in mainstem or tributary shading and the presence of NPDES discharges. In comparison, the Pend Oreille River's natural channel flow characteristics were narrower and shallower and subject to greater gains and losses in heat which, in turn, affected the range in temperature.

Temperature criteria exceedances

Despite the hydraulic changes and their overall effect on buffering temperature shifts, the temperature criteria for the Pend Oreille River was exceeded in particular reaches (Table ES-2). This occurred most prominently in the forebays of Box Canyon and Boundary dams, where Part 1 of the criteria, concerning maximum temperatures, was exceeded by an average (2004, 2005) of 0.94°C and 0.59°C, respectively.

For Part 2 of the criteria, Ecology analyzed temperatures under 20°C to 12°C. The 12°C lower limit was applied because bull trout use the river for migration in the early fall and are sensitive to temperatures above that level. (Pend Oreille River bull trout are listed for protection under the Federal Endangered Species Act.) During the time-frame associated with these temperatures (September through October), the criteria was exceeded for all of the Boundary reaches. The level of exceedance increased longitudinally from 0.14°C at Metaline to 0.53°C at the Boundary tailrace (Table ES-2).

Allocations

State line: Ecology set an assumption to comply with 2004 existing temperatures at the Idaho-Washington Stateline. Setting this allocation protects the river from additional heating upstream and ensures viability of allocations downstream.

Hydroelectric facilities: When natural condition river temperatures are greater than 20°C (July and August), load allocations have been set equivalently at 0.12°C above the natural temperature condition for the Box Canyon and Boundary facilities due to the inter-relationship of the temperature impacts and the associated cumulative impacts in the watershed. The temperature reduction required to achieve the load allocations for Box Canyon and Boundary is 1.13°C and 0.76°C, respectively, based on 2004 results. These reductions apply during July and August in the forebays of the dams, which are the areas of maximum temperature impairment.

Table ES-2. Pend Oreille River reaches and their compliance with Parts 1 and 2 of the Washington State temperature Criteria.

Criteria	ia Reach River				Level of Criteria Exceedance (°C)*	
			2004	2005	2004	2005
Washington State Pend River Temperature	Newport	88.0 - 84.4	Yes	Yes	1 ==	
	Dalkena	84.3 – 77.0	Yes	Yes	1 =	==
	Skookum	76.8 – 72.4	No	No	0.21°C	0.20°C
ure	Kalispel	72.3 – 63.7	Yes	Yes	==	==
Sta	Middle	63.6 – 56.1	Yes	Yes	==	==
ton	Blueslide	56.0 – 47.7	Yes	Yes	==	==
ng Fen	Tiger	47.6 - 36.4	No	No	0.44°C	0.51°C
er '	Box Canyon Forebay	36.2 – 34.6	No	No	0.95°C	0.93°C
R W	Metaline	34.4 – 27.1	No	No	0.58°C	0.17°C
1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 =	Slate	26.9 – 19.6	No	No	0.45°C	0.19°C
	Boundary Forebay	19.5 – 17.1	No	No	0.70°C	0.47°C
	Boundary Tailrace	16.8 – 16.2	No	No	0.53°C	0.27°C
	Newport	88.0 - 84.4	Yes	Yes	==	==
.a	Dalkena	84.3 – 77.0	Yes	Yes	==	==
iter d	Skookum	76.8 – 72.4	Yes	Yes	==	==
Per C	Kalispel	72.3 – 63.7	Yes	Yes	==	==
ture	Middle	63.6 - 56.1	Yes	Yes	==	==
n Si era	Blueslide	56.0 – 47.7	Yes	Yes	=	==
gto	Tiger	47.6 – 36.4	Yes	Yes	==	==
Part 2–Washington State Pend Oreille River Temperature Criteria	Box Canyon Forebay	36.2 – 34.6	Yes	Yes	==	and a
	Metaline	34.4 – 27.1	No	No	0.14°C	
le R	Slate	26.9 - 19.6	No	No	0.24°C	==
Part 2– Oreille 1	Boundary Forebay	19.5 – 17.1	No	No	0.61°C	=
a 0	Boundary Tailrace	16.8 – 16.2	No	No	0.53°C	==

^{*} The level of exceedence listed, for each reach, indicates the temperature extension beyond the relevant criteria; 0.3°C for part 1 and the allowable temperature increase for part 2.

The allocations are set for the forebays of each facility as opposed to each reach, because the temperature impacts identified in all of the reaches can be associated with operations of the facilities. To achieve water quality standards in the forebays, Ecology anticipates that actions will need to be taken throughout the reservoirs and in the tributaries.

When river temperatures are under 20°C in late summer and early fall (September through October), the Pend Oreille River exceeded the temperature criteria for each of the Boundary reaches to varying levels. To achieve criteria during September and October, the level of temperature reduction required for the reaches are:

Metaline: 0.14°C Slate: 0.24°C Boundary forebay: 0.61°C Boundary tailrace: 0.53°C

Point source discharges: NPDES point source discharges were not found to cause any significant shift in river temperatures. In addition, during the summer critical period temperature data from the point sources show that temperature increases at their mixing zone boundary were below 0.3°C.

Tributary and mainstem shading: Temperatures will be reduced in Pend Oreille River tributaries and along the mainstem through the establishment of potential natural vegetation conditions. Providing optimal riparian shade conditions to reduce peak temperatures will further increase the extent of viable habitat augmenting the river's designated uses.

Reserve capacity: The remainder of the 0.3°C load capacity when natural temperatures are above 20°C is 0.06°C (0.24°C was split among the dams), which has been set aside as a reserve. Ecology established this reserve to account for future economic growth associated with the expansion of public and private enterprise. Any future NPDES discharges to the Pend Oreille River in Washington will be allocated a portion of this reserve capacity. No reserve capacity is allocated to nonpoint sources or to the dams.

Planning and implementation to achieve criteria

The Pend Oreille Public Utility District (PUD) and Seattle City Light own and operate Box Canyon Dam and Boundary Dam, respectively. As part of their Federal Energy Regulatory Commission (FERC) license, these utilities will complete actions in their 401 Water Quality Certifications to achieve the temperature criteria for the Pend Oreille River. Specifically, Seattle City Light and the Pend Oreille PUD will follow the dam compliance schedule outlined in the state water quality standards [WAC 173-201A-510(5)]. In addition, Pend Oreille River watershed residents and landowners are called upon to reduce water temperature by increasing the number of native trees and shrubs along the Pend Oreille River and its tributaries.

In addition, seven facilities have National Pollutant Discharge Elimination System permits to discharge to surface waters. However, only four facilities (the town of Ione, city of Newport, Ponderay Newsprint and the Pend Oreille Mine) discharge when the river temperatures exceed 20°C. All seven facilities will be required to monitor temperatures, and the four facilities will have temperature limits placed in their permits.

Since the Tribe is affected by this TMDL, Ecology will work with those listed previously as well as Pend Oreille County to ensure that the Tribe's temperature criteria are met for their waters.

Why this matters

Reducing Pend Oreille River temperatures is important to protect the native salmonids and migrating bull trout that use the river. Salmonids' ability to feed, grow, reproduce, resist disease, compete with other fish, and avoid predators is negatively affected if water temperatures are too warm1. Actions to reduce water temperatures are necessary to ensure survival of bull trout, a threatened fish under the Endangered Species Act.

¹EPA. 2001. Technical Synthesis: Scientific issues relating to temperature criteria for Salmon, Trout, and Char Native to the Pacific Northwest. U.S. Environmental Protection Agency. EPA 910-R-01-007

MAY 1 6 2018

PEND OREILLE RIVER SHORELINE STABILIZATION LE LAKE PHASE III DRAFT ENVIRONMENTAL ASSESSMENT

Albeni Falls Dam Priest River Wildlife Management Area, Bonner County, Idaho





PEND ORIELLE RIVER SHORELINE STABILIZATION, Phase III Draft ENVIRONMENTAL ASSESSMENT

EXECUTIVE SUMMARY

RESPONSIBLE AGENCIES: The responsible agency for this shoreline stabilization project is the U.S. Army Corps of Engineers, Seattle District.

ABSTRACT:

This Environmental Assessment (EA) evaluates the environmental effects of the proposed shoreline stabilization along the Pend Oreille River upstream of Albeni Falls Dam, near Priest River, Idaho. Scattered tracts of federal land administered by the US Army Corps of Engineers and located along the Pend Oreille River have been licensed to the Idaho Department of Fish and Game (IDFG) for management due to the valuable fish and wildlife habitat they encompass. Erosion from wave action has caused incremental bank failure along the north shore of the Pend Oreille River within the boundaries of an archeological site, which are also part of the IDFG wildlife management areas. Operation of the Albeni Falls Dam project is having an adverse effect on the National Register-eligible sites, as year round reservoir operations continue to cause shoreline erosion that results in a loss of important archaeological data that contributes to the understanding of the prehistory of the area and the cultural history of several Native American tribes. The erosion and bank failure has progressed within approximately 100 lineal feet of the Burlington Northern Santa Fe Railroad. This will lead to the potential interruption of a mainline railroad if the erosion is not stopped at its current location. Phase I of this project was completed in 2006, and Phase II was completed in 2007.

The proposed project will not constitute a major federal action significantly affected the quality of the human environment.

THE OFFICIAL 30-DAY COMMENT PERIOD ON THIS ENVIRONMENTAL ASSESSMENT IS: JULY 30 TO AUGUST 31, 2015.

This document is also available on line at:

Please send questions and requests for additional information to:

Ms. Beth McCasland
Environmental and Cultural Resources Branch
U.S. Army Corps of Engineers
PO Box 3755
Seattle, WA 98124-3755
Elizabeth.l.mccasland@usace.army.mil
206-764-3641

4 EXISTING ENVIRONMENT

The following two chapters focus on those resources specific to the proposed project area that has the potential to be affected by activities connected with the proposed shoreline stabilization project. An environmental effect, or impact, is defined as a modification in the existing environment brought about by mission and support activities. These impacts are described as direct or indirect. Council on Environmental Quality (CEQ) guidelines 40 CFR 1508.8 describes direct impacts as those which are caused by the action and occur at the same time and place. The CEQ regulations define indirect impacts as those that are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. Cumulative impacts are those that result from the incremental impacts of an action added to other past, present, and reasonably foreseeable actions, regardless of who is responsible for such actions.

The following resources were not studied in detail as existing conditions and the project alternatives would not have direct, indirect, or cumulative effects on the resources:

Climate: The Priest River project area lies in the Purcell Trench, a deep, glacial carved, U-shaped valley separating the Cabinet, Selkirk, and Cœur d'Alene mountain ranges. The area has a typical Pacific Northwest climate consisting of cool, wet springs and autumns; dry moderate summers; and cool, relatively long winters with alternating periods of severe and moderate temperatures. In lower elevations, the normal growing season occurs from late April or May through September. At Sandpoint, Idaho, July is the warmest month with an average daily temperature of 65°F (18.3° C). January is the coldest month, with an average daily temperature of 26° (-3.3°C). Average annual precipitation is approximately 30.5 inches (77.5 cm) for the overall basin. Most precipitation occurs as snow from November to March, but heavy snowstorms can occur in the higher elevations as early as mid-September or as late as mid-May.

Land Use: Idaho Department of Fish and Game manages the site as well as others around the Pend Oreille River, for conservation, maintenance, and management of wildlife, wildlife resources, and habitat. The public uses the area for recreational activities including fishing and observing wildlife. Public access to the area would be closed during construction for safety reasons. Once construction is completed, public access would resume.

Air Quality and Noise: Bonner County, Idaho is currently listed as in attainment for Air Quality standards set forth by Idaho Department of Environmental Quality (IDEQ, 2014). No known noise problems exist in the area. The operation of heavy equipment associated with the project would temporarily increase air emissions, including greenhouse gases, and noise in the immediate project vicinity. These increases would be minor in scope, temporary in duration, and are not expected to result in significant impacts. The total volatile organic compound emissions for this project during construction were also anticipated to be well below the *de minimis* level of 100 tons per year.

Utilities and Public Service: There was an easement for a buried waterline for an adjacent property owner on the western end of the project area. There are no known additional utilities at

the proposed project site. The rail line will remain active during construction. Coordination with the POVA will help to minimize impacts to their operations.

Socioeconomic: The project site is located near the town of Priest River, Idaho. The immediate area is located within the Priest River WMA, which is used recreationally for hunting, fishing, and wildlife viewing. Bonner County's population is estimated at 40,456 with 96.2 percent white persons, and approximately 16.3 percent of the population below the federal poverty level (US Census Bureau, 2012). The economy has shifted from a reliance on the timber industry to a mixture of tourism, manufacturing, retail, and services (Idaho Dept. of Labor, 2014).

4.1 HYDROLOGY AND GEOLOGY

The Pend Oreille River at AFD has a watershed of 24,200 square miles, which supplies a mean discharge of 25,930 cubic feet per second. Lake Pend Oreille is a natural lake that is located in the glacially scoured basin in the Purcell Trench in northern Idaho, making it one of the deepest and largest lakes in the western United States. The Clark Fork River, emptying into the northeast corner of the lake, is its single largest tributary, contributing about 85 percent of the input. The Pend Oreille River begins at the outflow of Lake Pend Oreille near Sandpoint, ID. Conditions in Lake Pend Oreille and the Pend Oreille River, such as the stage of the reservoir and timing of the inflow, are influenced not only by AFD, but also by the operation of upstream projects and basin hydrologic factors. AFD operations target the following schedule:

- Fall storage drawdown and Lake stabilization period. The lake is drafted beginning in early September, targeting an elevation of generally 2051 or 2055 feet above mean sea level. This is called the minimum control elevation (MCE). The MCE is determined in the fall of each year based on a combination of factors to support kokanee salmon spawning habitat. During September the target draft is to reach the MCE by mid-November. The November objective is to stabilize the lake within a 0.5 foot range of the MCE to support kokanee spawning, and to prepare for the winter flood season and draft for power in the fall and winter. Throughout December the lake level is managed to avoid dewatering kokanee redds (gravel nests); kokanee are a key prey source for Endangered Species Act (ESA) listed bull trout. These operations also support flows for ESA listed salmonids in the lower Columbia River, particularly chum salmon.
- Winter holding period. During the winter holding season, (from approximately January to March) the lake level is held to no lower than the MCE. Lake storage above the MCE may be used for occasional flood management or hydropower operations without resetting the MCE, but storage above elevation 2056 feet must be evacuated by April 1 for flood management.
- April through June flood season. During the spring flood season (from approximately April through June) the objective is to manage runoff for flood risk management. The project will frequently operate on "free flow" to pass as much water as possible through the project to help minimize flood elevations on Lake Pend Oreille. AFD operations during this time also support flows in the lower Columbia River for ESA listed salmon. The lake is generally held at 2056 feet for flood storage but may be raised to manage floods. After the spring flood risk is passed, operations begin to refill the lake to reach the summer target elevation of between 2062 and 2062.5 feet. About every 10 years on

- average, the lake is raised to 2062.5 feet earlier than normal as a result of flood management. Large floods may result in lake elevations greater than 2062.5 feet.
- Summer conservation period. During the summer, the lake elevation is held between 2062 and 2062.5 feet starting from the end of the spring runoff (June or early July depending on stream flows) until mid-September. The objective is to maintain a lake level to support recreational uses.

The shoreline is characterized by shallow water at summer pool and is exposed and dry during most of the winter drawdown period. As the water level of Lake Pend Oreille fluctuates between summer elevations at 2062 feet and winter elevations at 2051 to 2056 feet above mean sea level, soils that are normally not subjected to long-duration flooding are being inundated for many weeks. The soils in this area are mapped by the Natural Resources Conservation Service (NRCS) as Wrencoe silty clay, which are found in flood plains and stream terraces and are considered very poorly drained (NRCS, 2013). These soils have low cohesion and are easily eroded. Saturation weakens soil structure and kills vegetation that would help stabilize the bank. Bare banks during the lengthy high summer elevation are attacked directly by wake- and windgenerated waves, and by undercutting the sediment column with subsequent collapse of the overlying strata. Site soils are also affected by erosion within pipes created by burrowing animals. Both overland flow and hydraulic overpressure from wave action at the pipe entrance in the pool are leading to fairly rapid sediment loss.

As discussed in the 2011 AFD Flexible Winter Power Operations EA, shoreline erosion was expected to increase with lake levels cycling between 2051 feet and 2056 feet up to three times each winter. This increase would be an extension of existing processes related to soil sloughing and piping from the repeated wetting and drying of sediments caused by the water level variation and associated freeze-thaw effects (US Army Corps of Engineers and Bonneville Power Administration, 2011). To date, flexible winter power operations have not occurred.

4.2 WATER RESOURCES AND WATER QUALITY

The Pend Oreille River is part of the Pend Oreille/Clark Fork Watershed. The Clark Fork and its tributaries drain the Rocky Mountains in western Montana and northern Idaho. The Clark Fork empties into Lake Pend Oreille and the Pend Oreille River begins at the outlet of the lake. Albeni Falls Dam occurs along the Pend Oreille River at river mile (RM) 90, approximately 25 miles downstream from the lake.

The Pend Oreille River is listed for temperatures on Idaho's 2010 303(d) list of impaired waters (IDEQ, 2010). Water quality data from the Pend Oreille River shows that water temperature exceeds the site-specific criterion of 20°C from the state water quality standards. In addition to Idaho, the entire Pend Oreille River in Washington is also considered impaired for temperature. High water temperatures limit bull trout distribution in general, and spawning and rearing are extremely limited due to high summer temperatures above the thermal tolerance for bull trout. However, bull trout from the Priest River use it as a migration corridor in the fall and spring to migrate to and from Lake Pend Oreille.

Sediment flow is another pollutant of concern in the upper Pend Oreille basin. Localized turbidity during the summer pool levels is evident between Lake Pend Oreille and Albeni Falls

Dam. The proposed project area contributes to localized turbidity due to wave erosion and sloughing of unconsolidated shoreline materials.

4.3 VEGETATION AND WETLANDS

Most of the area that comprises the approximately 3,700 feet of shoreline and associated riparian corridor consists of scattered Ponderosa pine (*Pinus ponderosa*), with a dense undergrowth comprised of black hawthorn (*Crataegus douglasii*), serviceberry (*Amelanchier alnifolia*), and snowberry (*Symphoricarpos albus*). Ground cover is comprised of common uplands grasses with the primary species consisting of reed canarygrass (*Phalaris arundinacea*) and forbs including an invasive species, spotted knapweed (*Centaurea maculosa*).

A palustrine emergent wetland contiguous with the Pend Oreille River occurs adjacent to the project area (Figure 4). The wetland is dominated by cattail (Typha latifolia) with sub-dominant native sedges (Carex spp., Scirpus spp.) and rushes (Juncus spp.) The perimeter of the wetland is dominated by willows (Salix spp.) and red-osier dogwood (Cornus sericia).



Figure 4. Wetlands adjacent to shoreline stabilization projects

4.4 FISH AND WILDLIFE

4.4.1 Fish

Lake Pend Oreille and the Pend Oreille River are home to a variety of native and non-native fish. Cold water species tend to occupy the deeper waters of the lake while the warm water species are more prevalent in the near-shore areas and the river between Sandpoint and the AFD. Prevalent species include kokanee (*Oncorhynchus nerka*), bull trout (*Salvelinus confluentus*), rainbow trout (*O. mykiss*), cutthroat trout (*O. clarkii*), bass (*Micropterus spp.*), whitefish (*Prosopium spp.*),

perch (*Perca spp.*), and sunfish (*Lepomis spp.*). The significant sport fishery targets trout in the cooler waters and bass in the warmer. In the lake proper, the kokanee fishery had been closed in the past due to the decline in populations. However, with an ongoing increase in population, current regulations allow for a total of 15 fish per day. No spawning and creation of redds is known to occur within the footprint of the proposed action most likely due to the clay substrate instead of a preferred gravel substrate.

4.4.2 Wildlife

The upper Pend Oreille area supports a variety of wildlife species that contribute to recreational opportunities including viewing, hunting, and trapping. The most sought-after game species include white-tailed deer (*Odocoileus virginianus*), elk (*Cervus elaphus*), black bear (*Ursus americanus*), and mountain lion (*Felis concolor*).

In the vicinity of the proposed project site, state and federal agencies intensively monitor waterfowl for their importance to hunting as a recreational activity. The number of ducks can range from 47,500 to as high as 142,600 in the Pend Oreille Lake and River basin. While most of the 23 species of waterfowl recorded are migrants or winter residents, several resident species of ducks and Canada geese nest and rear their young around the shorelines of the lake and river. Mallards, three species of teal, wigeons, coots, and pied-billed grebes are among the many species reported to nest along the shoreline and/or in adjacent marshes.

Birds of prey such as hawks, owls, and bald eagles (*Haliaeetus leucocephalus*) are associated with the Pend Oreille riparian areas. Bald eagles have been nesting along the river for as long as recorded history goes back, with the closest active nest being approximately 600 ft away on the eastern end of the project area in some trees to the north of Highway 2. Ospreys (*Pandion haliaeutus*) migrate into area from mid-March through October. The osprey population Idaho and the northeastern Washington constitute the largest nesting concentration in the western states and there are multiple nests along the river, many on man-made nest poles.

4.5 THREATENED AND ENDANGERED SPECIES

Bonner County has three listed species protected under the 1973 Endangered Species Act (ESA), as amended, potentially occurring in the project area. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) West Coast Region web sites (USFWS, 2015) (NMFS, 2015) consulted in June 2015 to determine which species under their respective jurisdictions could occur in the project area. In accordance with ESA Section 7(a)(2) federally funded, constructed, permitted, or licensed project must take into consideration impacts to federally listed and proposed threatened or endangered species (Table 1).

Table 1. Protected species potentially occurring in the project area

Species	Listing Status	Critical Habitat
Bull trout (Salvelinus confluentus)	Threatened	Designated
Lynx, Canada (Lynx canadensis)	Threatened	Designated – not in project area
Caribou, woodland (Rangifer tarandus caribou)	Endangered	Designated – not in project area

4.5.1 Bull trout (Salvelinus confluentus)

Bull Trout spawning and rearing habitat below Lake Pend Oreille is extremely limited due to high summer temperatures that are above the thermal tolerance for the fish. However, bull trout from the Priest River do use it as a migration corridor in the fall and spring to migrate to and from Lake Pend Oreille. Therefore, there is a probability that bull trout could utilize the areas that surround the project. Due to the clay substrate in the project area, they are not expected to utilize the area for spawning or creating redds.

4.5.2 Canada lynx (Lynx canadensis)

The distribution of lynx in Idaho is closely associated with the distribution of boreal forest and sub-alpine forests. Within these general forest types, lynx are most likely to persist in areas that receive deep snow and have high-density populations of snowshoe hares, the principal prey of lynx. Because of this habitat preference, they are not expected to be found in the project area.

4.5.3 Woodland caribou (Rangifer tarandus caribou)

Historically woodland caribou inhabited the forests of the northern United States from Maine to Washington State, but have been reduced to one small herd in the Selkirk Mountains of northern Idaho, eastern Washington and southern British Columbia. Caribou are generally found above 4000 ft elevation in Engelmann spruce/sub-alpine fir and western red cedar/western hemlock forest types. The Selkirk herd is reduced to approximately 25 to 30 animals that tend to stay mostly in the Canadian part of its range; therefore caribou are not expected to be found in the project area.

4.6 CULTURAL RESOURCES

Cultural resources are locations on the physical landscape of past human activity, occupation, or use and typically include archaeological sites such as lithic scatters, villages, procurement areas, resource extractions sites, rock shelters, rock art, shell middens; and historic era sites such as trash scatters, homesteads, railroads, ranches, logging camps, and any structures or buildings that are over 50 years old. Cultural resources include traditional cultural properties, which are aspects of the landscape that are a part of traditional lifeways and practices and are considered important to a community.

Two National Register- eligible archaeological sites (10-BR-94 and 10-BR-95) are located within the project area. Both sites were first recorded in 1977 by Corps archaeologists. Subsequent investigations in 1979 and 2000 have uncovered lithic, faunal and botanical remains at each of the sites. In addition, there is evidence of pre-and post Mazama occupation at each site. Both sites are contributing elements to the Upper Pend Oreille Archaeological District and are individually eligible to the National Register. Site 10-BR-94 is eligible to the National Register under Criteria D for its potential to yield additional information important to prehistory of the region. Idaho State Historic Preservation Office (SHPO) concurred that 10-BR-94 was eligible on January 16, 2006. Site 10-BR-95 is individually eligible to the National Register under Criteria B for its association with Kwil'te, the older brother to Chief Victor, the headman and chief of the nlxwloxw band, who typically wintered in the vicinity of CCA creek's confluence with the Pend Oreille River at river mile 65.2 and Criteria D for its potential to yield additional information important to prehistory of the region. Idaho SHPO concurred on June 5, 2015.

Two previous bank stabilization projects occurred at site 10-BR-94 in 2006 and 2007 to protect the site from on-going adverse effects of erosion. Ground penetrating radar (GPR) survey was conducted in March 2015 along the beach frontage of site 10-BR-95. The results of the GPR survey indicate three areas positive for subsurface deposits. In addition, to the GPR survey the preferred staging area along U.S. 2 was examined and no evidence of archaeological sites was observed. As part of the 2006 work shovel testing occurred on the access route leading from the high ground to the beach. It was determined that while the access road is a part of 10-BR-94 there would be no adverse effect to the site if the road was constructed by laying down cloth and installing a gravel pad resistant to penetration by vehicle traffic.

4.7 TRANSPORTATION

Road access to the project area is via a two lane Federal highway, US Highway 2 (Albeni Road). The Idaho Department of Transportation (IDOT) does not have any construction projects planned for US Highway 2 according to their 5-year transportation plan (IDOT, 2013).

The POVA railroad operates the short-track rail line adjacent project area under lease from the BNSF railroad. The POVA train normally operates one round-trip, three days a week to serve the shipping needs of local industries. Normally scheduled freight operations are Monday through Friday from 6 AM to 6 PM with an occasional weekend or evening run to meet the needs of shippers or sight-seeing/tour trains. Trains on the route are low speed, operating less than 25 mph.

4.8 AESTHETICS AND VISUAL RESOURCES

The hillsides around the Pend Oreille River are forested with evergreens. Small pockets of residential developments and farms are visible near the shoreline of the river. Also in the viewshed are the highway and the POVA railroad. The proposed project area has the appearance of a shoreline without development that is in a state of constant erosion. Grasses and shrubs are constantly sloughing off, and turbidity is nearly constant at high pool. The remaining upland riparian area between the toe of the railroad bed and the river is threatened if erosion is not curtailed.

4.9 RECREATION

Recreation is an important industry for the local and county governments. Fishing, boating, skiing, hunting, camping, bird watching, and train viewing are common recreational activities in Bonner County. The mainline BNSF railroad through Sandpoint has 50 trains per day, which attracts train aficionados from across the country. The Pend Oreille Lake and River host many water activities such as swimming and water skiing. A popular sailing and rowing regatta takes place each year in September. West Bonner County Park is located east of the Town of Priest River on the north shore of the Pend Oreille River and provides a public access boat ramp. The public uses the shoreline area that is being protected by Phase I and II for recreation, hunting, and bird watching.

as minority or low-income population. A query of the US Census Bureau² indicated that Bonner County contained a 95.9 percent Caucasian population, and that 15.2 percent of the County's population had income below the poverty level.

The project does not involve siting a facility that would discharge pollutants or contaminants, so no human health effects will occur. Maintenance of the proposed erosion control structures will not affect property values in the area, nor would it socially stigmatize local residents or businesses in any way. The project would not interfere with local Native American Nations' treaty rights, and construction activities will not disrupt access to usual and accustomed fishing grounds. Since no adverse human health or environmental effects are anticipated to result from the project, the Corps has determined that no disproportional adverse human health impacts to low-income or minority populations will occur.

9.9 Executive Order 119901, Protection of Wetlands

Executive Order 11990 encourages federal agencies to take actions to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands when undertaking federal activities and programs. The bankline stabilization project has drainage breaks in the design to allow known permanent and intermittent streams to discharge into the Pend Oreille River. Approximately 1.22 acres of riverbed mud flats/emergent wetlands would be filled as a result of the project. Approximately 0.14 acres of mud flats/emergent wetlands would be temporarily affected during the construction of the project. To mitigate this loss, soil and native plantings would be incorporated into the rocky bank stabilization structure design. Over time, this additional native fringe vegetation would improve habitat and may discourage weedy herbaceous growth.

10 SUMMARY / CONCLUSION

The following table summarizes the potential effects to the environment of the proposed project alternatives:

Table 3. Summary table to compare potential effects of alternatives

Resource	No Action Alternative	Proposed Project Alternative
Hydrology	Existing conditions are expected to continue.	Restriction in natural channel
	to continue.	movement, reduction of channel complexity, and decreased sinuosity
Geology	Continued erosion of the shoreline.	3,700 feet of shoreline would be stabilized with Class II riprap or smaller diameter spall rock to a depth of about three feet.
Water Resources and Water Quality	Localized turbidity due to wave erosion and sloughing of unconsolidated shoreline materials.	Decrease in localized turbidity as the shoreline would be stabilized with rocks.

² US Census Bureau Quickfacts for Bonner County, Idaho. http://quickfacts.census.gov/qfd/states/16/16017.html

Resource	No Action Alternative	Proposed Project Alternative
Vegetation and	Slow loss of riparian vegetation	Loss of 1.22 acres of mudflat
Wetlands	as the shoreline erodes	habitat.
		Temporary effects on 0.14 acres of
		frozen mud flat/emergent wetlands.
		Temporary effects to vegetation
		along trails and roadsides when
		vegetation is cleared to improve
		access. These areas would be
		reseeded once work is complete.
Fish and Wildlife	Potential loss of kokanee salmon	Temporary disruption to local birds
	spawning habitat. Continued	in the area due to noise of
	loss of riparian habitat as the	construction activities.
	shoreline erodes.	Further loss of riparian habitat would
		be prevented.
Threatened and	No effect	No effect to Canada lynx and
Endangered Species		woodland caribou or their designated
		critical habitats.
		May affect but not likely to
		adversely affect bull trout or its
		designated critical habitat.
Cultural Resources	Continued erosion of National	Sites 10-BR-94 and 10-BR-95 would
	Register eligible archaeological	be protected from further erosion
	sites 10-BR-94 and 10-BR-95.	which is considered an adverse
		effect.
Transportation	Existing conditions are expected	Temporary disruption of local and
	to continue	tourist traffic by construction
		vehicles
Aesthetics and	Existing conditions are expected	The appearance will change from a
Visual Resources	to continue	muddy sloughing shoreline to a
		rocky bankine, topped with
		vegetation.
Recreation	Slow loss of land based activities	Slight benefit to the recreational user
	as the bankline erodes.	due to improvements to the trail and
		rocky bankline.

Based on this Environmental Assessment and on coordination with Federal agencies, a Native American Tribe, and State Agencies, stabilization of the shoreline in the vicinity of the Priest River outlet on the Pend Oreille River is not expected to result in significant adverse environmental impacts. The Priest River Shoreline Stabilization Project is not considered a major Federal action having a significant impact on the human environment. Therefore, the preparation of an environmental impact statement is not required. A signed finding of no significant impact (FONSI) will complete this environmental review.



MONTANA RAIL LINK INC. 101 INTERNATIONAL WAY POST OFFICE BOX 16390 MISSOULA, MONTANA 59808-6390 (406) 523-1500

May 17, 2018

U.S. Army Corps of Engineers Walla Walla District Attn: Shane Slate Coeur d' Alene Regulatory Office 1910 Northwest Boulevard, Suite 210 Coeur d' Alene, Idaho 83814-2676

Dear Mr. Slate:

I am writing you on behalf of Montana Rail Link's (MRL) nearly 1,200 employees and hundreds of local and regional businesses that move their products across our railroad to voice our support for the Sandpoint Junction Connector project and to encourage timely approval of the necessary permits.

Based in Missoula, MT, MRL is a class II regional railroad that operates over 900 route miles of track from Huntley, MT to Sandpoint, ID. MRL services over 125 local businesses directly and hundreds of regional shippers whose product moves across our line. MRL transports these products to domestic and international markets on a daily basis. We are committed to providing transportation services that result in long-term growth and prosperity for our company, customers and employees. We live by our values of fairness, integrity, respect, safety and trust. MRL prides ourselves on being a good neighbor in the communities we serve and being a railroad dedicated to safety. As a BNSF partner, our shipments help feed, clothe, supply and power American and international homes and businesses every day.

The Sandpoint Junction Connector will further improve our rail system, which serves as the backbone of commerce in the Pacific Northwest. Every dollar of this project will come from private investment, which will save public funds while benefiting the public good.

MRL crews currently operate trains over the single bridge over Lake Pend Oreille which requires approaching trains to come to a stop and wait for clearance. Quite often it takes longer to travel from Sandpoint, ID to Hauser, ID than all the way from Missoula, MT to Sandpoint. A second bridge would eliminate this bottleneck and improve the flow of rail shipments throughout the Pacific Northwest, thus improving service to our existing rail customers and allowing them to connect to their markets who continue to demand a more efficient and timely supply chain. We are a global economy and U.S. producers must be able to keep pace with global competitors who are investing heavily in transportation infrastructure to gain an edge over the U.S..

The decision to approve this project places environmental concerns at the forefront. Idaho maintains a comprehensive environmental review and permitting process. The Sandpoint Junction Connector will achieve full compliance with these stringent standards. Additionally, the project supports the safest and most environmentally-friendly method of transportation, while improving traffic flow and reducing idling. As a result, the project will successfully eliminate carbon emissions that would otherwise be emitted in our communities.

Rail companies have invested heavily into local communities by constructing safe, responsible projects that benefit all levels of the economy. This project would support our local industries by increasing rail's reliability even further. The Sandpoint Junction Connector project will be held to the highest of standards and deserves swift approval. Thank you for considering my letter and the importance of this project.

Sincerely,

Thomas J. Walsh

President

USCG0042413/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 22, 2018 4:37:48 PM

Name: William Edwards

Contact Phone number:

E-mail address: Exemption 6

Mailing address:

City: Livingston

State: MT

Records Request Description: I support the bridge prodject in Sand Point.

USCG0042423/27

From: Rourk Price To: Comments Subject: Date: Bridge support

Tuesday, May 22, 2018 4:37:04 PM

I support the BNSF bridge project

Sent from my iPhone

USCG0042433/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 22, 2018 4:36:58 PM

Name: Shelly Goff

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Missoula

State: MT

Records Request Description: Sandpoint bridge support

From: Nick McAtee
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:36:34 PM

I support the addition of another rail bridge at sandpoint.

Nick McAtee | Manager Of Train Operations | Montana Rail Link, Inc | 101 International Drive | Missoula, MT 59808 | Office: 406-523-1507

USCG0042453/27

From: Jacquie Duhame To: Comments Subject: Date: Bridge support

Tuesday, May 22, 2018 4:36:23 PM

I support the second rail bridge at Sandpoint.

USCG0042463/27

From: Shane Arneson
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:36:22 PM

I support the 2nd bridge for rail traffic.

Get Outlook for Android

USCG0042473/27

From: Brent Mueller
To: Comments
Subject: Bridge support

Subject:Bridge supportDate:Tuesday, May 22, 2018 4:36:22 PM

I support BNSF's second bridge project at Sandpoint, ID.

USCG0042483/27

From: To: State of Idaho WebMaster

Comments

Subject: IDL Comment
Tuesday, May 22, 2018 4:36:22 PM

Name:

Contact Phone number:

E-mail address:

Mailing address:

City:

State: ID

Records Request Description: I support the second railroad bridge project by BNSF

USCG0042493/27

From: Stacy Posey
To: Comments

Subject:I support the new Sandpoint bridgeDate:Tuesday, May 22, 2018 4:36:22 PM

USCG0042503/27

Ray Cornell From: To: Comments Subject: Date: Bridge support

Tuesday, May 22, 2018 4:36:22 PM

I support the second bridge in Sandpoint.

Ray

USCG0042513/27

From: KATRINA RYAN
To: Comments
Subject: Bridge Support

Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:35:56 PM

I support the 2nd rail bridge at Sandpoint!

Katrina Ryan

Sent from Yahoo Mail on Android

USCG0042523/27

From: S Boaz To:

Comments
Support bridge project
Tuesday, May 22, 2018 4:35:54 PM Subject: Date:

USCG0042533/27

From: Tom Coston
To: Comments
Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:35:54 PM

I support construction of a second railroad bridge at Sandpoint, ID!

USCG0042543/27

From: Fotis A. Vatoussis
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:35:54 PM

I support the 2nd bridge in Idaho for bnsf.

Sent from Yahoo Mail for iPhone

USCG0042553/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 22, 2018 4:35:50 PM

Name: Kelly Allison

Contact Phone number:

E-mail address:

Mailing address:

City: Missoula

State: MT

Records Request Description: I support the bridge

USCG0042563/27

From: Jody Verity
To: <u>Comments</u>
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:35:45 PM

I support the second bridge in Sandpoint.

Jody Verity Director Human Resources Montana Rail Link

USCG0042573/27

From: Mike Rahl
To: Comments
Subject: Bridge Suppo

Subject: Bridge Support
Date: Tuesday, May 22, 2018 4:35:41 PM

I support the new bridge at Sandpoint.

USCG0042583/27

From: Tony Bacino To:

Subject:

Comments
Sandpoint rail bridge
Tuesday, May 22, 2018 4:35:38 PM Date:

I support the railroad bridge

Sent from my Verizon Smartphone

USCG0042593/27

From: Russ Young
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:35:36 PM

I support the second rail bridge BNSF has proposed. Sent from my iPhone

USCG0042603/27

From: Bruce Young
To: Comments
Subject: Bridge Suppor

Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:35:35 PM

I support the BNSF bridge project.

Thank you,

Bruce

Sent from my Verizon, Samsung Galaxy smartphone

From: Chris Seymour
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:35:32 PM

I support the second rail bridge in Sandpoint, Idaho.

Chris Seymour Roadmaster Montana Rail Link Belgrade, MT

Exemption 6

USCG0042623/27

From: Cory Cromwell Comments Rail bridge To: Subject: Date:

Tuesday, May 22, 2018 4:35:32 PM

I support the second rail bridge!!

Cory Cromwell

USCG0042633/27

From: ALEXANDRIA RYBICKI

To: Comments Subject:

. Bridge Support Tuesday, May 22, 2018 4:35:25 PM Date:

I support the second railroad bridge in Sandpoint.

USCG0042643/27

From: Chris Cline
To: Comments
Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:35:25 PM

I support the 2nd railroad bridge in Idaho.

USCG0042653/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 22, 2018 4:35:21 PM

Name:

Contact Phone number:

E-mail address:

Mailing address:

City:

State: MT

Records Request Description: I support the bridge at Sandy Point.

USCG0042663/27

From: Nicholas McAtee
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:35:20 PM

I support the adding of an additional rail bridge in sandpoint.

USCG0042673/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 22, 2018 4:35:18 PM

Name: Debbie Marshall

Contact Phone number:

E-mail address: Exemption 6

Mailing address:

City: Missoula

State: MT

Records Request Description: Bridge support

USCG0042683/27

From: Bobby Selby
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:35:11 PM

I support the second bridge at Sandpoint Idaho.

USCG0042693/27

From: Haley Kramer
To: Comments
Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:35:08 PM

I support the second rail bridge in Sand Point, ID.

USCG0042703/27

From: Lee Kinser
To: Comments
Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:35:08 PM

I support second railroad bridge in Idaho

From: Dave Schuyler Comments
2nd rail bridge
Tuesday, May 22, 2018 4:35:05 PM To: Subject:

Date:

I support the 2nd BNSF Rail bridge at Sandpoint

USCG0042723/27

From: Cullen Huntley
To: Comments
Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:35:03 PM

I support the second rail bridge in Sandpoint.

USCG0042733/27

Derek Ollmann (SRY) From:

To: Comments Subject: Date: bridge support

Tuesday, May 22, 2018 4:35:01 PM

I support the proposed rail bridge.

Derek Ollmann SRY Rail Link

USCG0042743/27

From: Joe Racicot To: Comments Subject: Date: Bridge Support

Tuesday, May 22, 2018 4:34:57 PM

I support the bridge.

Get Outlook for Android

From: Brittney Gardner
To: Comments
Subject: 2nd bridge

Date: Tuesday, May 22, 2018 4:34:56 PM

I support the 2nd bridge in Sandpoint

Brittney Gardner

Manager Procurement

Missoula, MT

Exemption 6



USCG0042763/27

From: AJ Erdman To: Comments Subject: Date:

Bridge Support Tuesday, May 22, 2018 4:34:53 PM

I support the second tail bridge at Sandpointe.

AJ Erdman

USCG0042773/27

From: Robert Foote Jr
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:34:50 PM

I support the second bridge for rail traffic at Sandpoint.

USCG0042783/27

From: Jeremy Langendorff

To: <u>Comments</u>
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:34:48 PM

I support the second bridge at sandpoint

J.M.Langendorff

Laurel Terminal Trainmaster

Exemption 6

Sent by my Google Pixel Phone

USCG0042793/27

From: Tom Walsh To: Comments Subject: Date: Bridge support

Tuesday, May 22, 2018 4:34:46 PM

I support the Second rail bridge at Sandpoint.

USCG0042803/27

From: Daniel Sherwood
To: Comments
Subject: Bridge support

Subject: Bridge support

Date: Tuesday, May 22, 2018 4:34:41 PM

I support the second rail bridge at Sandpoint

Dan Sherwood

USCG0042813/27

From: Kathy Mahoney Comments
Sandpoint bridge
Tuesday, May 22, 2018 4:34:30 PM To: Subject: Date:

I support the bridge at Sandpoint

USCG0042823/27

From: Phil Van Tassel
To: Comments
Subject: Bridge Support

Date: Tuesday, May 22, 2018 4:34:27 PM

I support the second rail bridge in Sandpoint.

Sent from my iPhone

USCG0042833/27

From: Dawn Taylor Comments
Bridge Support
Tuesday, May 22, 2018 4:34:26 PM To: Subject:

Date:

I support the second rail bridge in Sandpoint

Sent from my iPhone

USCG0042843/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Tuesday, May 22, 2018 4:34:25 PM

Name: Maggie Mccall

Contact Phone number:

E-mail address: Exemption 6

Mailing address:

City: Missoula

State: MT

Records Request Description: I support the second bridge at Sandpoint.

USCG0042853/27

From: Tim McHugh (Montana Rail Link)

To: <u>Comments</u>
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:34:21 PM

Hello,

I support the second bridge at Sandpoint.

Thank you, Tim McHugh

Sent from my iPhone

From: Mark Turner
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:34:19 PM

I support the second bridge!

Mark Turner General Mechanical Foreman 2800 Shannon Road Laurel, MT 59044

Exemption 6

Office: (406) 628-3201 Cell: www.montanarail.com

USCG0042873/27

From: Jason Herynk
To: Comments
Subject: Bridge support

Date: Tuesday, May 22, 2018 4:34:16 PM

I support the second rail bridge in sandpoint.

Jh

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USCG0042883/27

From: Max Medlin
To: Comments
Subject: Standpoint Bridg

Subject: Standpoint Bridge
Date: Tuesday, May 22, 2018 4:34:11 PM

I support the 2nd railway bridge in Sandpoint, ID. What a great idea!

Max

USCG0042893/27

From: Derek Whittenburg

To: <u>Comments</u>
Subject: Bridge support.

Date: Tuesday, May 22, 2018 4:34:06 PM

I support the second bridge for BNSF in sandpoint.

Sent from my iPhone



Our Lake for Life

Submitted via email to comments@idl.idaho.gov

Ms. Amidy Fuson Resource Specialist Sr Lands & Waterway - Public Trust Pend Oreille Lake Supervisory Area 2550 Highway 2 West Sandpoint, ID 83864 (208)263-5104

Re: Comments on Public Notice NWW-2007-01303 – <u>BNSF Sandpoint Junction Connector Project</u>

Dear Ms. Fuson,

On behalf of itself and its members, Lake Pend Oreille Waterkeeper (hereinafter LPOW) submits this comment letter in opposition to BNSF's proposed Sandpoint Junction Connector Project (Project) and requested authorizations from the Idaho Department of Lands.

As detailed herein the Project would threaten local water quality, aquatic life, habitat, public health, welfare, diminish recreational opportunities, and negatively impact ecological and aesthetic values by materially altering the bed and banks of Lake Pend Oreille and other navigable waters of the state.

The Idaho Legislature clearly recognized the authority of the Board to deny encroachment authorizations that negatively affect adjacent property and lake values such as navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality. Idaho Code 58-1306(b). When an encroachment application is received, the Idaho Land Board is also instructed to consider the justification of benefit (public or private) and the detrimental effects on real property and lake value factors. 58-1306(d). Idaho's administrative rules similarly expresses the policy of the State in balancing protection of property, navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality against the navigational or economic necessity or justification for, or benefit received, from the proposed encroachment. IDAP 20.03.04.012.

We also note that Idaho has worked in partnership with the federal EPA for decades in administering the Clean Water Act's 404 Permit program, a pollution control mechanism aimed directly at avoiding first, and mitigating if necessary, the discharge of dredge or fill into waters

of the United States. While the Project's request for 404 Permit approvals is subject to ultimate approval by the U.S Army Corps of Engineers (USACE), the criteria for 404 permit decisions is directly applicable to the Board's consideration of encroachment authorizations for the Project. I.e., the potential negative effects to water and public resources which the Legislature directed the Board to consider in its decisionmaking, are the same criteria at issue under a 404 permit proposal.

Below is a brief summary of reasonably foreseeable negative impacts the Project will cause or incite in Lake Pend Oreille and Sand Creek, not to mention the nearby community of Sandpoint. These impacts are significant, widespread, and fully within the Board's authority to control and, as LPOW urges, completely avoid, by denying BNSF its requested encroachment permit.

<u>Summary of the BNSF Rail Expansion Project & Foreseeable Impacts to Aquatic Resources</u>

- 1 new bridge over Lake Pend Oreille
- 1 new bridge over Sand Creek
- 2 temporary bridges over each waterway
- Wetland destruction
- Related rail construction on lands running through Sandpoint
- A minimum of 3 years of construction

<u>The Board Should Deny BNSF's Permit Because Its Project Will Create Significant, Unavoidable Impacts That Outweigh Any Potential Benefits</u>

Just as the USACE must undertake a case-by-case evaluation of a specific project involving proposed discharges to determine whether the action is in the public interest, so too must the Board undertake an evaluation and make a finding as regards BNSF's Project, here. The Board should consider the extent of the public vs. private need for the project, the practicability of alternative locations or methods to accomplish the project, and the type and significance of negative effects. Above all else the Board's analysis and final determination should be guided by the Idaho Legislature's intent in balancing the benefit of a project against its harm.

Contrary to its application's suggestion, BNSF's Project can only be considered a large-scale undertaking with significant, long-ranging negative effects on values ranging from the health of local aquatic environment, to aesthetics, to public safety, to lost business income. At the outset we note BNSF failed to provide any meaningful discussion of substantive alternative rail routes; instead of articulating alternative routes that do not require huge, multi-year construction projects in Lake Pend Oreille and Sandpoint it routinely dismissed any such alternatives as impracticable. BNSF's failure to provide any meaningful alternatives should weigh heavily against authorization in the Board's consideration of its permit request. It may well be that there is in fact no reasonable need for the Project as proposed, and no need for the negative impacts it will incite on the Lake and surrounding environment.

More specifically, the Project will cause or create significant physical and chemical impacts, biological impacts, new water quality pollution impacts, and induce negative human, economic, and social impacts or risks.

Dredge & Fill

The Project proposes to permanently fill 0.28 acres of palustrine wetland. The fill will modify the physical characteristics by replacing wetlands with, likely, sand and concrete. The fill will destroy the filtering capacity of the wetlands, which will lead to increased run-off, turbidity, and water temperature. The biological impacts of the proposed fill are significant.

The loss of additional estuarine wetlands only compounds the significant loss of wetlands in the Lake Pend Oreille Watershed. According to a study conducted by Idaho Fish and Game (Murphy and Schmidt, 2010), the wetlands in the Sandpoint area of study (Figure 23) are classified as "completely disturbed" with the following descriptions: numerous/many stressor present, most high impact, most processes and functions disrupted and restoration very difficult or impossible. The Board should deny the requested permits because Lake Pend Oreille's remaining wetlands provide important ecological benefits to the Lake's water quality and to aquatic organisms. According to the Idaho Department of Fish and Game (IDFG), wetlands provide essential habitat for many of Idaho's fish, wildlife, invertebrate, and plant species (Idaho's Wetland Program Plan, Murphy, 2014). Nearly 50% of bird species rely on wetland and riparian habitats and wetlands, and associated aquatic and riparian habitats, support about 47% of Idaho's wildlife. Furthermore, Species of Greatest Conservation Need and 46% of the state's rare plant species are dependent on these habitats. Wetlands also provide additional hydrologic, water quality and ecosystem support including food for fish and waterfowl, groundwater recharge, sediment and shoreline stabilization, filtration, carbon sequestration, recreation and more.

The Board should also consider input from state and federal natural resource agencies. We are particularly concerned with the short and myopic public review timeframe provided for this Project when considering the Project's intensity, significance, and 3+ year time span. Furthermore, the public cannot meaningfully comment on many of the physical impacts likely to result from the Project because other natural resource agencies have not yet performed their expert reviews of the Project, nor provided the public with evidence and data of those reviews.

Turbidity, Temperature, & Dissolved Oxygen

There is zero analysis of the Project's likely impacts on receiving waters' chemical integrity. In fact, there is an apparent assumption that the filling of wetlands and new rail line footwork will not exacerbate temperature conditions in receiving waters or contribute to unnaturally elevated turbidity. The agencies must reject the applicant's Project because it contains unsupported conclusions. The construction of other rail bridges in the past has been shown to create and incite elevated temperature and turbidity, which harms water quality.

Lake Pend Oreille, where it empties into the Pend Oreille River, is classified as water quality limited under the CWA, Section 303(d) for temperature and dissolved gas supersaturation (IDEQ 2014 Integrated Report). This is the same location where the proposed fill activities would take place if permitted by USACE. TMDLs have not been established for either pollutant. Elevated temperature has several well-documented, negative impacts on aquatic species including ESA-listed salmonids, such as the documented Bull Trout known to inhabit the Project Area. Similarly, turbidity has several adverse effects on water quality, including reducing light for photosynthesis by algae and plants, increasing temperature, and decreasing dissolved oxygen levels. Increases in temperature because of turbidity are caused by the suspended particles absorbing more heat from sunlight and, therefore, increasing the temperature of the water around the particles.

Further, there is no analysis of how placement of fill or rail support beams will alter water temperature due to increases in turbidity, and how any changes in temperature resulting from increased turbidity will exacerbate known impairment conditions in these waters. Also, as a result of turbidity and increased water temperatures, dissolved oxygen levels and light will decrease, harming aquatic biota including federally protected fish species. Placement of fill and construction of bridge pilings will also increase temperature because suspended particles absorb more heat from sunlight.

Biological Impacts

Potential turbidity increases and the impact to aquatic life are great due to the large size and long duration (at least a 3-year construction time period) of aquatic activities. Increased turbidity will also have negative effects on salmonids by impairing their ability to feed and by causing gill damage. Elevated turbidity can also adversely affect benthic macroinvertebrates, upon which fish and other organisms rely for food.

Loss of Habitat & Suspension of Pollutants

The potential for the creation of a new rail line across the Lake, including construction and placement of new pylons across the channel width, can foreseeably create a chronic mixing zone of elevated temperatures, turbidity, and low dissolved oxygen, affecting aquatic species movement and/or migration, and feeding in Lake Pend Oreille. The placement of fill materials in water harms aquatic life by introducing multiple pollutants contained in the fill sediments. The adverse effects of excess temperature, turbidity, oxygen demand, and other fill pollutants is well known and proven to be negative to aquatic life and their habitat conditions. The dredging will increase each of these pollutants, which will harm aquatic life.

Furthermore, BNSF simply failed to adequately consider any studies on ESA-listed species presence at and near the Project area.

Light, Noise, & Vibration

The contemplated 3+ year construction period, without any further information, indicates a

potentially significant intensity of impacts on the aquatic environment of Lake Pend Oreille. Potentially debilitating impacts to aquatic species include noise, unnatural light, suspension of sediment, turbidity, loss of salmonid habitat and ability to rest or avoid predation, and potential attractant for other aquatic species to dangerous construction zones (particularly the creation of a new rail bridge across the Lake). These impacts were simply not discussed in the public notice.

Numerous studies show light can affect a variety of aquatic organisms and may attract or repel such organisms. The public notice does not indicate whether lighting will be used on ships or barges during times of darkness and construction, which could result in additional impacts to aquatic species. Possible adverse impacts caused by lights during dredging activity could be attraction of fish or aquatic organisms to the construction area, causing harm either by increased sound levels, turbidity levels, or the possibility of harm from contact with equipment.

The long-term and constant nature of this Project are particularly troubling and distinguish this project from smaller operations that the Board routinely approves. This controversial project requires close scrutiny. We are particularly concerned because public notice materials fail to provide any best available science on the impacts of fill or rail bridge construction on turbidity and sediment, nor analyze the potential impacts on ESA-protected Bull trout, nor on other aquatic organisms.

Stormwater

Stormwater pollution is a leading cause of water quality degradation in the United States. According to the National Research Council, "[s]tormwater runoff from the built environment remains one of the great challenges of water pollution control, as this source of contamination is a principal contributor to water quality impairment of waterbodies nationwide." Stormwater from construction sites can lead to discharges of sediment, turbidity, nitrogen, phosphorus, metals, trash and debris, nutrients, organic matter, pesticides, petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), other toxic organics, substances that can modify pH, and pathogens. EPA acknowledges that the cumulative effects of these pollutants are significant.²

An important Board consideration should be the detrimental impacts of polluted stormwater from both bridge construction and terrestrial land conversion near aquatic sites on local water resources. The public notice does not estimate how much new impervious surface will be created by the totality of the Project. These figures must be known to properly understand the scope and significance of potentially toxic and harmful stormwater pollution on the Lake and its

¹ Urban Stormwater Management in the United States, National Research Council (Oct. 15, 2008), http://www.epa.gov/npdes/pubs/nrc_stormwaterreport.pdf (emphasis added).

² See EPA's Environmental Impact and Benefits Assessment for Proposed Effluent Guidelines and Standards for the Construction and Development Category, 3–6 (Nov. 2009), http://www.epa.gov/ guide/construction/; see also 74 Fed. Reg. 62996, 63010 – 011 (December 1, 2009).

environs. It is likely that stormwater pollution caused by construction of the Project will contribute to degraded water quality in Lake Pend Oreille and its tributaries given that rail lines and supporting features are impervious terrain that contain industrial chemicals and pollutants that are susceptible to movement in precipitation events. In some cases, stormwater pollution discharges may exacerbate existing impairments; in other cases, stormwater pollution discharges may create new pollution impairment concerns. Based on these factors the Board should deny the applicant's proposal to significantly increase pollution to this watershed.

Human, Economic, & Social Risks & Impacts

The Project could also have numerous human, social and economic impacts:

- Air quality. The proposed Project may result in increased deposition of particulate material from diesel engines and the release of coal dust from uncovered coal rail cars.
- Noise pollution. The proposed Project may increase noise pollution from train whistles at crossings as well as track vibration.
- Traffic congestion. The proposed Project may increase train traffic through at-grade crossings, resulting in more "gate down" time.
- Delayed emergency response. The proposed Project may increase train traffic through at-grade crossings, delaying emergency responders from reaching patients in need of critical care.
- Impacts to local economy. The proposed Project may increase train traffic that will hamstring the local economy as a function of the other impacts listed above.
 Tourism, local business investment and the real estate market may all suffer losses.

To elaborate on the environmental impacts, the Project could cause economic harm by inhibiting the flow of boat traffic, diminishing the tourism appeal of the area, and negatively impacting the housing market. In addition to these delays faced by tourist vessels on water and vehicles on land, the Project would affect tourism in the area in general, which is a significant contributor to the economy of Bonner County and Sandpoint in particular. Rail traffic is perceived as unsafe despite BNSF's assertions of safety. There were 4 derailments in North Idaho and Western Montana in 2017. Of particular significance was the loaded coal train that derailed on the banks of the Clark Fork River, which is Lake Pend Oreille's largest tributary. In an industry where perception is reality, tourism as an economic generator depends on a positive perception of the area. Further industrialization of the unique, otherwise rural nature of the Lake Pend Oreille Watershed may thereby lead to decreased tourism, decreased jobs, and a decreased taxable base for the County and State. Additionally, property values of areas near construction sites would experience a considerable decrease, due to factors such as the diminished aesthetic appeal of the area as well as the ongoing subjection to the accident zone of rail lines. Also associated with the risks inherent in rail derailment or explosions are increased insurance costs.

The Board should also consider the impacts of increased hazardous substances transport through and over human communities in the Lake Pend Oreille Watershed, particularly with respect to volatile Bakken crude oil. The analysis must include consideration of public safety and environmental impacts in the case of a spill, train derailment, and/or explosion. The analysis must also account for economic impacts to the local recreational economy of increased rail traffic, as well as consequences of accidents such as those noted above.

The Project Will Harm ESA-Listed Species and Critical Habitat

The federal government may not approve any permit if it "jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973, as amended, or results in likelihood of the destruction or adverse modification of . . . critical habitat" 33 C.F.R § 230.10(b)(3). As discussed above, the destruction of shoreline habitat and the prolonged construction of new lake bridge crossings will jeopardize the struggling bull trout population found in Lake Pend Oreille. The USFWS has not completed a Biological Assessment of the Project's likelihood to harm ESA-protected species or their habitat; however, based on BNSF's application alone the Board can be reasonably certain the Project will at minimum significantly affect salmonid habitat and water quality. Because the Project will put at-risk a protected species, and because Idaho's Lake Protection Act recognizes and prioritizes protection of aquatic species, the Board should deny BNSF's requested permit authorizations.

Violations of Idaho Water Quality Standards

The Project will cause or contribute to violations of Idaho's water quality standards. This includes the protection of aquatic life and fishing use, both designated uses, narrative criteria, biocriteria, dissolved oxygen, temperature, toxic substances, turbidity and the state's antidegradation policy. Critically, IDEQ has tiered its request for public comments on the Project's 401 certification to the same timeframe as comments for this Project. This means the State has not yet performed its review of the likely Project's pollution impacts, and no agency materials or findings are available to inform the public of those impacts at this time. Regardless, the best available science provided by commenters above suggests, uniformly, that the Project will entail significant water quality standards violations. Insofar as IDEQ's 401 Certification Process remains open, we request that the Board consider comments on that Certification in reaching a decision on the Project.

Conclusion

The Board should deny the requested Lake Protection Act permit and associated encroachment authorizations because BNSF's project represents far more cost, than benefit, and will result in significant, unavoidable, negative impacts to waterways, landscapes, natural and human communities. The Project will have numerous negative, harmful environmental effects and is contrary to the public interest. It will harm the local environment surrounding new rail infrastructure and it will induce environmentally harmful upstream fossil fuel production.

The public notice does not address these or the economic or social harms discussed above, nor recognize that environmental harms translate into economic damage, particularly for tourism dependent local economies like that of Lake Pend Oreille. If pollution sickens people, or restricts their travel, economic productivity will suffer – as it will, more directly, if clean air and water and adequate pollution controls are not available. Similarly, as landscapes are industrialized, tourism, agricultural, forestry, hunting and angling, and other place-dependent industries will suffer.

When weighed against the purported benefit – pecuniary wealth to a private corporation, not local Idaho citizens or Idaho businesses – it is clear that BNSF's project represents a circumstance of Idaho taking all the risks and suffering all the negative consequences, while private shareholders reap all the benefits. The many significant impacts weigh all the more strongly against BNSF's permit because there is no public need for the Project.

While BNSF acknowledges that rail traffic has steadily increased over time, they have not provided any meaningful data to the public to justify the need for expanded rail bridge infrastructure in the Lake Pend Oreille Region including, but not limited to the number of trains that pass over the existing rail bridges in Sandpoint per day, expected increases in rail traffic volumes, or quantitative data on how the proposed three new bridges would reduce wait times, particularly at at-grade crossings in Sandpoint. Until these claims are verified or refuted through a full Environmental Impact Statement (EIS), the Board should refrain from making any kind of authorization determination.

Sincerely,

Shannon Williamson, Ph.D. Executive Director Lake Pend Oreille Waterkeeper

Email: shannon@lakependoreillewaterkeeper.org

Phone: 208-587-7188



2110 Ironwood Parkway • Coeur d'Alene, Idaho 83814 • (208) 769-1422 www.deq.idaho.gov

C.L. "Butch" Otter, Governor John H. Tippets, Director

April 13, 2018

Matthew Keim, Manager Engineering **BNSF Railway Company** Northtown GOB 80-44th Ave NE Minneapolis, MN 55421

Subject: Draft §401 Water Quality Certification for Sandpoint Junction Connector Project; NWW-2007-01303

Dear Mr. Keim,

Section 401 of the Federal Clean Water Act requires states issue certifications for activities that are authorized by a Federal permit and that may result in a discharge to surface waters. In Idaho, the Department of Environmental Quality (DEQ) is responsible for reviewing these activities and evaluating whether the activity will comply with Idaho Water Quality Standards; including any applicable water quality management plans (e.g. Total Maximum Daily Loads). A federal permit cannot be issued until DEQ has provided a certification or waived certification either expressly or by taking no action.

Enclosed is the draft water quality certification for the above referenced railroad bridge project. Our draft certification process allows the public to examine the draft document and provide written comments to DEQ for 30 days, however due to public interest in this project the comment period will be 45 days. At the end of this comment period, DEQ will consider the comments and provide our final certification decision.

If you have any questions or concerns, please contact June Bergquist at 208.666.4605 or via email at june.bergquist@deq.idaho.gov.

Sincerely,

Daniel Redline

Regional Administrator

Coeur d'Alene Regional Office

Enclosure

c: Shane Slate, Corps of Engineers - Coeur d'Alene Regulatory Office

Loren Moore, DEQ State Office

Pierre Bordenave, Jacobs 101 North Fourth Ave, Suite 203 Sandpoint, ID 83864

Printed on Recycled Paper



Idaho Department of Environmental Quality Draft §401 Water Quality Certification

April 13, 2018

404 Permit Application Number: NWW-2007-01303; BNSF Sandpoint Junction Connector (SJC) Project – Second Rail Crossing Pend Oreille Lake **Applicant/Authorized Agent:** Matthew Keim, Manager Engineering, BNSF Railway Co. Northtown GOB 80-44th Ave NE, Minneapolis, MN 55421; Authorized Agent: Pierre Bordenave, Director –Rail Jacobs Engineering, 101 North Fourth Ave, Suite 203 Sandpoint, ID 83864

Project Location: Latitude 48° 15' 54.81"N; Longitude 116° 32' 11.3"W The north end of the SJC project begins where Montana Rail Link tracks join BNSF tracks. This is located immediately north of the end of Sandpoint Road in Sandpoint. The project extends south to a point approximately 2.12 miles north on Bottle Bay Road, Sandpoint. Note all access to the BNSF Right of Way must be coordinated with BNSF.

Receiving Water Body: Pend Oreille Lake

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities receiving Section 404 dredge and fill permits and issue water quality certification decisions.

Based upon our review of the joint application for permit, received on February 26, 2018, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the activity will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

Project Description

Overview

BNSF proposes to discharge 14,900 cubic yards of rock into 1.54 acres of waters of the U.S. including wetlands, associated with the construction of a 2.2 mile long second mainline track located 50 feet to the west of the existing BNSF mainline. The second mainline track proposes to connect the North Algoma Siding track located south of Sandpoint, to the Sandpoint Junction switch located in Sandpoint where the BNSF and Montana Rail Link mainlines converge. The second track is proposed to cross over Bridge Street in Sandpoint (Bridge 3.0), cross over Sand

Creek (Bridge 3.1) and cross Pend Oreille Lake (Bridge 3.9). Proposed work in waters of the U.S. is related to Bridges 3.1 and 3.9 construction, a wetland fill, and nearshore transition zones. A temporary work bridge is proposed for work related to Bridges 3.1 and 3.9. The work bridge will have "set-outs" every 500 feet which are widened areas along the work bridge for materials and equipment staging and worker safety. The project is proposed to start in fall 2018 and take approximately 3 to 3.5 years to complete.

Regulatory Background

As stated above, section 401 of the Clean Water Act (CWA) provides states with the opportunity to determine if federally issued licenses or permits will violate state water quality standards. This 401 certification requested by the U.S. Army Corps of Engineers, addresses activities related to the BNSF construction project within the scope authorized by the CWA. Other federal permits related to this project are the U.S. Coast Guard's (USCG) bridge permit and U.S. Environmental Protection Agency's (EPA) Construction General Permit (CGP).

The applicant indicated they will obtain coverage under the CGP. This federal permit has a 401 certification from DEQ dated December 22, 2016 (Appendix A) with conditions that apply to project activities on land where discharges from the construction site could enter waters of the U.S.

Under the National Environmental Policy Act, the USCG is the lead federal agency. Their permit, issued under the authority of the General Bridge Act of August 2, 1946, will be in order of issuance, the last federal permit issued for this project. The USCG permit will include this final 401 certification, provisions of the CGP, and the final Corps permit as conditions to be met.

Proposed BMPs

Listed below are the major BMPs proposed by BNSF (in italics but not verbatim) for this project and related certification condition(s). Please note that this list is not all inclusive:

- 1. Fills in nearshore and wetland locations will occur at the earliest stages of the project to take advantage of performing that work while lake levels are lower and wetland areas are relatively dry. This BMP has been modified by the certification conditions to conduct nearshore filling activities during low pool (see Condition 7). A stormwater swale will treat runoff displaced by the wetland fill.
- 2. All roads, staging areas, and access pads will be rock covered. Vehicle entrance/exits will have rocked track-out control. The need for track out control is further addressed by Condition 20 which requires other BMPs be used if the proposed rocked exits do not function adequately.
- 3. Limits of activities will be clearly marked to protect existing vegetation.
- 4. Sediment filtering fencing or equivalent BMPs will be installed at the work perimeter/limits to protect adjacent undisturbed surface water and wetland resources.
- 5. Erosion control BMPs will be inspected daily. The 401 certification conditions also require maintenance of BMPs and modification of inspection frequency (see Conditions 14, 15, 16, 27, 28, and CGP part 9.7.1).
- 6. Work boats or barges will be inspected for invasive species prior to deployment into Pend Oreille Lake. See Condition 39 for more details regarding cleaning of equipment.

- 7. Open soil areas will be seeded with native grass species and weed-free mulch within seven days of work completion and during periods of seasonal shutdown. See the CGP part 2.2.14 for modifications to this proposed BMP.
- 8. Dust control by means of watering or clean rock cover.
- 9. Portable toilets and garbage containers will be located in upland staging area, on work bridge set-outs and regularly maintained. Garbage containers and toilets on the bridge will be secured to the bridge. See Condition 40 for more details.
- 10. Petroleum spill containment materials will be on-site at all times and staged to be within immediate direct access of machinery and vehicles on site. Fuel containers will not be stored on work bridges or within 50 feet of surface water. All equipment parked on the work bridge will have appropriately sized containment beneath it in the event of a spill or leak.
- 11. Equipment operating near or adjacent to Pend Oreille Lake or Sand Creek will have spill containment booms and/or other spill retention and containment materials deployed under and around the location of the work. See Conditions 35-39 and 41 for more details.
- 12. Temporary work bridges (for both Bridge 3.1 and 3.9) will be constructed using steel pilings that are vibrated into the lake or creek bed and removed upon project completion. One pile per bent will be impact proofed which requires striking the pile repeatedly. Vibratory installation of piles is used as a BMP to minimize acoustic impacts to aquatic life. The frequency of use of an impact hammer to drive piles has been minimized and is further mitigated by use of a bubble curtain when it must be used.
- 13. Bubble curtains and silt curtains are proposed to be used for pile driving associated with the temporary and permanent Bridge 3.9 for depths that are 8 feet and greater. For depths less than 8 feet only a silt curtain is proposed to be used. There are no bubble or silt curtains proposed for pile driving for Bridge 3.1 due to shallow conditions and current that renders these BMPs unable to function correctly. Conditions 21-25 modify the use of these BMPs.
- 14. Containment BMPs will be used to capture inadvertent fall of construction materials or debris into the lake or creek.
- 15. Isolation of in-water work areas via temporary coffer dams and installation of turbidity curtains for in-water work is proposed. See Conditions 9, and 21-25 for more details.
- 16. Monitoring and compliance with Idaho Water Quality Standards for turbidity is proposed. See Conditions 26-28 for more details.
- 17. Concrete pours will be associated with work on top of the precast bridge decks. Pilings may be filled with concrete but as yet has not been determined. There will be no cement in-water pours or contact with surface waters, however, final designs may require handling and transport of cement over surface waters. In this event, Condition 9 requires a concrete best management plan be developed for DEQ review and approval.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The primary pollutants of concern for this project are sediment and phosphorus. As part of the Section 401 water quality certification, DEQ is requiring the applicant comply with various conditions to protect water quality and to meet Idaho WQS, including the water quality criteria applicable to sediment.

Receiving Water Body Level of Protection

This project is located on Pend Oreille Lake within the Pend Oreille Lake Subbasin assessment unit (AU) 17010214PN018L_0L (Pend Oreille Lake). This AU has the following designated beneficial uses: cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

The water intake for the City of Sandpoint is located approximately 0.67 mile north of the proposed construction activity. The intake pipe is placed at a depth of 14-25 feet depending on water levels, and the general flow pattern of water in the vicinity of the intake is south towards the proposed construction. Therefore, DEQ has reasonable assurance that WQS for this domestic water supply use will be met.

Although Bridge 3.1 is being constructed over what is locally known as Sand Creek, the Pend Oreille Lake assessment unit includes the lower portion of Sand Creek upstream to near where Highway 2 crosses the creek. Therefore, beneficial uses and water quality impairments in this lower portion of Sand Creek are the same as the lake. This certification refers to Sand Creek as a location in an effort to avoid confusion.

According to DEQ's 2014 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use in this receiving water body AU is not fully supported. Causes of impairment include mercury, other flow regime alterations, and phosphorus. The contact recreation beneficial use is also not fully supported. Causes of impairment include mercury. As such, DEQ will provide Tier I protection for both the aquatic life and contact recreation uses (IDAPA 58.01.02.051.01).

Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. Once a TMDL is developed, discharges of causative pollutants shall be consistent with the allocations in the TMDL (IDAPA 58.01.02.055.05). Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

During the construction phase, the applicant will implement, install, maintain, monitor, and adaptively manage best management practices (BMPs) directed toward reducing erosion and minimizing turbidity levels in receiving water bodies downstream of the project. In addition, permanent erosion and sediment controls will be implemented, which will minimize or prevent future sediment contributions from the project area.

As long as the project is conducted in accordance with the provisions of the project plans, Section 404 permit, and conditions of this certification, then there is reasonable assurance the project will comply with the state's numeric and narrative criteria. These criteria are set at levels that protect and maintain designated and existing beneficial uses. In addition, the project will be consistent with the *Total Maximum Daily Load (TMDL)* for Nutrients for the Nearshore Waters of Pend Oreille Lake, Idaho. This TMDL focuses on the prevention of additional phosphorus added to the lake. Because significant amounts of phosphorus can be found in soils, limiting sources of sedimentation and turbidity should adequately prevent significant amounts of phosphorus from entering Pend Oreille Lake and Sand Creek. This project will comply with the TMDL by application of BMPs such as silt fences, silt curtains, straw wattles, and other BMPs (see list under Project Description) that minimize or prevent soil erosion and in-water turbidity.

There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated and discussed above; therefore, the permit ensures that the level of water quality necessary to protect both existing and designated uses is maintained and

protected in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

General Conditions

- 1. This certification is conditioned upon the requirement that any modification (e.g., change in BMPs, work windows, etc.) of the permitted activity shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401. Such modifications may not be implemented until DEQ has determined whether additional certification is necessary.
- 2. DEQ reserves the right to modify, amend, or revoke this certification if DEQ determines that, due to changes in relevant circumstances—including without limitation, changes in project activities, the characteristics of the receiving water bodies, or state WQS—there is no longer reasonable assurance of compliance with WQS or other appropriate requirements of state law.
- 3. A copy of this certification must be kept on the job site and readily available for review by any contractor working on the project and any federal, state, or local government personnel.
- 4. Project areas shall be clearly identified in the field prior to initiating land-disturbing activities to ensure avoidance of impacts to waters of the state beyond project footprints.
- 5. The applicant shall provide access to the project site and all mitigation sites upon request by DEQ personnel for site inspections, monitoring, and/or to ensure that conditions of this certification are being met.
- 6. The applicant is responsible for all work done by contractors and must ensure the contractors are informed of and follow all the conditions described in this certification and the Section 404 permit.

Fill Material

- 7. Fill activities affecting the shoreline, stream banks or wetland shall take place only during periods of low flow and/or low pool.
- 8. Fill material subject to suspension shall be free of easily suspended fine material. The fill material to be placed shall be clean material only from an Idaho Department of Lands permitted source.
- 9. If concrete is placed inside pilings or if cofferdams require dewatering, the permittee shall **submit to DEQ plans for review and approval**, for the over-water handling and transport of uncured concrete that prevents spillage into water and/or a dewatering plan that meets WQS.
- 10. All temporary fills shall be removed in their entirety on or before construction completion.
- 11. Excavated or staged fill material must be placed so it is isolated from the water edge or wetlands and not placed where it could re-enter waters of the state.

Erosion and Sediment Control

- 12. BMPs for sediment and erosion control suitable to prevent exceedances of state WQS shall be selected and installed before starting construction at the site. One resource that may be used in evaluating appropriate BMPs is DEQ's Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, available online at http://www.deq.idaho.gov/media/494058-entire.pdf. Other resources may also be used for selecting appropriate BMPs.
- 13. Permanent erosion and sediment control measures shall be installed in a manner that will provide long-term sediment and erosion control to prevent excess sediment from entering waters of the state.
- 14. Erosion and sediment control measures shall be installed at the earliest practicable time consistent with good construction practices and shall be maintained as necessary throughout project operation.
- 15. A BMP inspection and maintenance plan must be developed and implemented. At a minimum, BMPs must be inspected and maintained daily during project implementation.
- 16. BMP effectiveness shall be monitored during project implementation. BMPs shall be replaced or augmented if they are not effective.
- 17. All construction debris shall be properly disposed of so it cannot enter waters of the state or cause water quality degradation.
- 18. Disturbed areas suitable for vegetation shall be seeded or revegetated to prevent subsequent soil erosion.
- 19. Maximum fill slopes shall be such that material is structurally stable once placed and does not slough into the stream or lake during construction, during periods prior to revegetation, or after vegetation is established.
- 20. Sediment from disturbed areas or able to be tracked by vehicles onto pavement must not be allowed to leave the site in amounts that would reasonably be expected to enter waters of the state. Placement of clean aggregate at all construction entrances or exits and other BMPs such as truck or wheel washes, if needed, must be used when earth-moving equipment will be leaving the site and traveling on paved surfaces.
- 21. Silt curtains (turbidity curtains) must be implemented and properly maintained to minimize in-water sediment suspension and resulting turbidity, in accordance with all monitoring and compliance requirements of this certification.
- 22. Silt curtains shall be reliable and function correctly. Curtain design and materials (product) must have been previously and scientifically field tested to determine effectiveness in water quality protection. Manufacturers' specifications and deployment instructions shall be followed. If there is flowing water, curtains must have been designed, tested and recommended by the manufacturer for this condition (velocity rating). Curtains that drag back and forth along the bottom of the lake or stream due to wave action are incorrectly installed and are a violation of this certification, unless a manufacturer who has scientifically field tested this design recommends this type of placement. The silt curtain shall function in such a manner as to meet WQS. Silt curtains shall be deployed so as to minimize the area within the curtain while still maintaining

ii.

- optimum function. Curtains shall hang so the fabric is smooth allowing sediment to slide down its face rather than becoming trapped in folds.
- 23. Total containment curtains are not required unless conditions are conducive to them functioning without themselves creating turbidity that exceeds WQS from movement of the curtain bottom against the lake or stream bed.
- 24. Bubble curtains shall be deployed as directed by Idaho Fish and Game and U.S. Fish and Wildlife Service to protect aquatic life. If bubble curtains create turbid plumes, they shall be enclosed with a silt curtain or similar BMP.
- 25. The use of silt/turbidity curtains in various depths and water velocities shall be guided by manufacturer's suggested uses, and shall be used to protect all aquatic life and habitat, not limited by just considering protections for bull trout.

Turbidity Monitoring and Compliance Requirements

Compliance locations

silt curtains.

- 26. Sediment resulting from this activity must be mitigated to prevent violations of the turbidity standard as stipulated under the Idaho WQS (IDAPA 58.01.02). Any violation of this standard must be reported to the DEQ regional office immediately by calling (208)666-4605 and leaving a message.
- 27. Visual observation is acceptable to determine whether BMPs are functioning properly unless a plume is observed. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must inspect the condition of the projects BMPs and initiate turbidity monitoring consistent with Table 1 with a properly and regularly calibrated turbidimeter. These turbidity monitoring requirements do not replace or supersede any monitoring or other requirements of the CGP.
 - a. Turbidity Sampling Location. Choose, identify, and document the following locations for each plume observed:
 - i. <u>Background locations</u>
 Collect background samples at relatively undisturbed locations unaffected by the construction activity, up-current from the permitted activity.
 - For Sand Creek and shoreline activity along Pend Oreille Lake choose a location 50 feet down-current from the permitted activity, within any visible plumes. For plumes associated with work in and over open waters of Pend Oreille Lake (bridge work), choose a location in the

plume that is immediately outside of any containment measures such as

b. Turbidity measurements must be representative of stream or lake turbidity when the activity is being conducted. *Measurements cannot be taken during a cessation of activity*.

Table 1. Turbidimeter Monitoring When a Plume is Observed

Turbidity Amount Above Background ²	Monitoring Frequency	Action Required
0 to 24 NTU	Monitor every 2 hours	None
25 to 49 NTU	Monitor every 2 hours	STOP work after 8 hours in every 24-hour period
≥50 NTU (first occurrence)	Monitor after Instructions ¹ are followed	STOP work and follow Instructions ¹
≥50 NTU (second occurrence)	Monitor after Instructions ¹ are followed	STOP work, follow Instructions ¹ and notify DEQ Regional Office at (208) 666-4605

¹ **Instructions**: If BMPs appear to be functioning to their fullest capability, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs) until additional monitoring indicates turbidity standards are met. Monitoring can cease when a plume is no longer observed.

- 28. Reporting. Beginning with observation of a plume, provide a written description of the information required in 28a and 28b. Copies of these reports must be made available to DEQ and other local, state and federal regulatory agencies upon request. The reports must include:
 - a. Background NTUs, compliance location NTUs and their difference in NTUs, a mapped location, time, and date for each sample.
 - b. A narrative discussing BMPs in use when the plume was observed (27.a.ii), all exceedances, controls applied and their effectiveness, subsequent monitoring, work stoppages, and any other actions taken.

In-water Work

- 29. Work in open water is to be kept at a minimum and conducted only when necessary.
- 30. Fording of the channel is not permitted. Temporary bridges or other structures may be built if crossings are necessary.
- 31. Activities in spawning areas must be avoided to the maximum extent practicable.
- 32. Work in waters of the state shall be restricted to areas specified in the application.
- 33. Practices must prevent wet concrete from entering into waters of the state.
- 34. Stranded fish found in dewatered cofferdams should be safely moved to a location (preferably downstream) with water.

Management of Hazardous or Deleterious Materials

35. Petroleum products and hazardous, toxic, and/or deleterious materials shall not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of waters of the state. Adequate measures and controls must be in place to ensure that those materials will not enter waters of the state as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third-party activities.

² Turbidity shall be sampled three times at each location and reported. Use the maximum value of the three samples for determining compliance and following Table 1 direction.

- 36. Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.
- 37. Daily inspections of all fluid systems on equipment to be used in or near waters of the state shall be done to ensure no leaks or potential leaks exist prior to equipment use. If equipment leaks fluids as a normal part of operation it shall have an absorbent drip pad (diaper) that captures all leaks. A log book of these inspections shall be kept on site and provided to DEQ upon request.
- 38. Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.
- 39. Equipment and machinery used in or over water shall be steam cleaned of oils, grease, and invasive species in an upland location or staging area with appropriate wastewater controls and treatment prior to entering on or over a water of the state. Any wastewater or wash water must not be allowed to enter a water of the state. Cleaning shall be adequate enough to remove all life stages of aquatic invasive species.
- 40. Portable toilets placed on land shall be securely anchored to prevent tipping.
- 41. Emergency spill procedures shall be in place and include spill response kits (e.g., oil absorbent booms or other equipment) located where heavy equipment is being operated.
- 42. In accordance with IDAPA 58.01.02.850, in the event of an unauthorized release of hazardous material to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must
 - a. Make every reasonable effort to abate and stop a continuing spill.
 - b. Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state.
 - c. Call 911 if immediate assistance is required to control, contain, or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office during normal working hours or Idaho State Communications Center after normal working hours (1-800-632-8000). If the spilled volume is above federal reportable quantities, contact the National Response Center (1-800-424-8802).
 - Coeur d'Alene Regional Office: 208-769-1422 / 877-370-0017
 - d. Collect, remove, and dispose of the spilled material in a manner approved by DEQ.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to June Bergquist, Coeur d'Alene Regional Office at 208-666-4605 or via email at june.bergquist@deq.idaho.gov.

DRAFT

Daniel Redline
Regional Administrator
Coeur d'Alene Regional Office

WEBSITE POSTING INFORMATION

(For internal DEQ use only and to be removed from the 401 certification prior to posting)

County: Bonner

ACOE Permit Application Number: NWW-2007-01303

Project Description: BNSF proposes to construct a bridge across Sand Creek and Pend Oreille

Lake

ACOE Nationwide Permit Number: individual permit

Applicant's Name: BNSF Railway Company Impacted Water Body: Pend Oreille Lake Public Comment Period Duration: 45 days

Appendix A



Idaho Department of Environmental Quality Final §401 Water Quality Certification

December 22, 2016

NPDES Permit Number(s): General Permit for Stormwater Discharge from Construction Activities (CGP) IDR100000

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NPDES) permits and issue water quality certification decisions.

Based upon its review of the draft Construction General Permit (CGP) and associated fact sheet, received from EPA on April 1, 2016, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits, including without limitation, the approval from the owner of a private water conveyance system, if one is required, to use the system in connection with the permitted activities.

The draft CGP authorizes discharges associated with construction activity, including clearing, grading, and excavation, if the construction activity:

- Will result in the disturbance of 1 or more acres of land; or
- Will result in the disturbance of less than one acre of land but is part of a common plan of development or sale that will ultimately disturb 1 or more, acres of land; or
- Has been designated by EPA as needing permit coverage under 40 CFR 122.26(a)(1)(v) or 40 CFR 122.26(b)(15)(ii)

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

• Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected

(IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).

- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The primary pollutant of concern associated with storm water discharges from construction activities is sediment, typically measured as total suspended solids and turbidity. Other potential pollutants include the following: phosphorus, nitrogen, pesticides, organics, metals, PCBs, petroleum products, construction chemicals, and solid wastes.

Receiving Water Body Level of Protection

The CGP provides coverage to construction activities throughout the entire State of Idaho. Because of the statewide applicability, all of the jurisdictional waters within Idaho could potentially receive discharges either directly or indirectly from activities covered under the CGP. DEQ applies a water body by water body approach to determine the level of antidegradation protection a water body will receive.

All waters in Idaho that receive discharges from activities authorized under the CGP will receive, at minimum, Tier I antidegradation protection because Idaho's antidegradation policy applies to all waters of the state. Water bodies that fully support their aquatic life or recreational uses are considered to be *high quality waters* and will receive Tier II antidegradation protection.

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs) designated, it is possible for a water body to be designated as an ORW during the life of the CGP. Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy.

To determine the support status of the receiving water body, persons filing a Notice of Intent (NOI) for coverage under this general permit must use the most recent EPA-approved Integrated Report, available on Idaho DEQ's website: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/.

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified in Category 3 of DEQ's Integrated Report. These waters require a case-by-case determination to be made by DEQ based on available information at the time of the application for permit coverage. If a water body is unassessed, the applicant is directed to contact DEQ for assistance in filing the NOI.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired", for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a healthy, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i)

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: http://www.deq.idaho.gov/assistance-resources/maps-data/.

Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, the applicant is directed to make contact with the appropriate DEQ regional office or the State Office (Table 1).

Table 1. Idaho DEQ Regional and State Office Contacts

Regional and State Office	Address	Phone Number	Email
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene 83814	208-769-1422	june.bergquist@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	mark.sellet@deq.idaho.gov
Pocatello	444 Hospital Way, #300 Pocatello 83201	208-236-6160	lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls 83301	208-736-2190	balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	nicole.deinarowicz@deq.idaho.gov

Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and

protected. In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses. The effluent limitations and associated requirements contained in the CGP are set at levels that ensure compliance with the narrative and numeric criteria in the WQS.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations (WLA) for point source discharges, which are set at levels designed to help restore the water body to a condition that supports existing and designated beneficial uses. Discharge permits must contain limitations that are consistent with wasteload allocations in the approved TMDL. A permit with effluent limitations consistent with TMDL wasteload allocations will provide the level of water quality necessary to support existing and designated uses and therefore satisfies Tier I antidegradation requirements.

The non-numeric effluent limitation requirements in the CGP address erosion and sediment controls, soil stabilization requirements, de-watering procedures, pollution prevention measures, prohibited discharges and surface outlets. Further, the 2017 CGP imposes the same additional requirements for construction activities where the discharge will occur on water bodies identified as "impaired" for sediment or a sediment-related parameter, such as total suspended solids (TSS) or turbidity, and/or nutrients, including impairments for nitrogen and/or phosphorus as in the 2012 CGP. The permittee will be responsible for identifying such waters in the NOI.

Those additional control measures to be taken if the affected water body is impaired for sediment and/or nutrients are:

- Increased frequency of site inspections;
- Compliance with the deadline for complete stabilization; and
- Any additional State or Tribal requirements.

In order to ensure compliance with Idaho WQS, DEQ has included a condition requiring that the permittee(s) must comply with Idaho's numeric turbidity criteria, developed to protect aquatic life uses. The criterion states, "Turbidity shall not exceed background turbidity by more than 50 NTU instantaneously or more than 25 NTU for more than 10 consecutive days" (IDAPA 58.01.02.250.02.e). When there is a direct discharge from an unstabilized portion of the site to a water of the United States, DEQ is requiring the permittee to conduct turbidity monitoring as described below in the "Conditions" section of this certification.

As written in the CGP, if EPA determines that the controls outlined in Parts 2, 3, and 9 of the permit will not be sufficient to control discharges in a manner which is consistent with the assumptions and requirements of any applicable wasteload allocation set forth in an applicable TMDL, then additional water quality-based limitations will be imposed on a site-specific basis, or EPA will require the permittee to obtain an individual permit. An individual permit necessitates an individual certification by the state.

Lastly, per section 3.2 of the CGP, if a discharge to a water body that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform the permittee if any

additional limits or controls are necessary for the discharge to be controlled as necessary to meet water quality standards.

The effluent limitations, including non-numeric technology based and water quality-based effluent limits, frequent site inspections, visual monitoring requirements, and associated requirements contained in the CGP, coupled with the conditions in this certification, ensure compliance with the narrative and numeric criteria in the Idaho WQS. In addition, the permit ensures compliance with any applicable WLA in any applicable TMDL. Therefore, DEQ has determined the permit will protect and maintain existing and designated uses in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Protection of High-Quality Waters (Tier II Protection)

Water bodies that fully support their beneficial uses are recognized as high-quality waters and are provided Tier II protection in addition to Tier I protection. Water quality parameters applicable to existing or designated beneficial uses must be maintained and protected under Tier II, unless a lowering of water quality is deemed necessary to accommodate important economic or social development. Although EPA is not proposing any significant modifications to the draft CGP as compared to the 2012 CGP, they are including several minor new or modified requirements that will further protect water quality. Such modifications include, but are not limited to:

- 1. Implementing the 2014 amendments to the Construction and Development Rule (C&D rule);
- 2. Including information on public notices on how to contact EPA if stormwater pollution is observed in the discharge;
- Requiring all inactive stockpiles and land clearing debris piles be covered or temporarily stabilized;
- 4. Requiring waste containers remain covered when not in use and;
- 5. Implementing controls to minimize the release of PCBs from demolition.

Further, the draft CGP will continue to provide additional protection for high quality waters. Those additional protection measures include: maintaining natural buffers in riparian areas, more frequent site inspections, and a more stringent timeline for implementing stabilization measures. In cases where information submitted with the NOI, or available from other sources, indicates that further Tier II analysis is necessary and/or additional conditions are needed, either for a new project or an existing project with a significantly increased discharge, EPA will conduct this review and require any appropriate additional controls. DEQ is requiring, as a condition of this certification, that EPA consult DEQ during any such review. If during this review, EPA and DEQ decide that an additional Tier II protection is warranted, then EPA may either change the terms of coverage or terminate coverage under the CGP and require an individual permit. This individual permit will then necessitate an individual review and certification by the state.

With respect to existing sites that were covered under the 2012 CGP, the 2017 CGP imposes permit limits at least as stringent as the 2012 permit. Therefore, there will be no lowering of water quality as a result of existing sites covered under the new CGP.

For new sites, DEQ believes the effluent limitations and associated requirements in the CGP, coupled with the conditions set forth in this certification, provide reasonable assurance that there

will be no lowering of water quality in any high quality waters. Therefore, DEQ concludes that the activities authorized will comply with the provisions of IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.08.

Protection of Outstanding Resource Waters (Tier III Protection)

Idaho's antidegradation policy requires that the quality of outstanding resource waters (ORWs) be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03). To date, no water bodies in Idaho have been designated as ORWs. In the event that water bodies are designated as ORWs during the term of this permit, DEQ believes that the terms of the CGP and the conditions in this 401 Certification, provide reasonable assurance there will be no lowering of water quality. In addition to the requirements that apply to all work covered by the CGP, Part 3.2 of the CGP requires more frequent site inspections and a more stringent timeline for implementing stabilization measures for activities on ORWs. In addition, on a case-by-case basis, EPA may require additional analyses, stormwater controls, or other permit conditions that are necessary to comply with applicable antidegradation requirements, or require an individual permit be obtained. As a condition of this certification, DEQ is requesting that EPA coordinate with the appropriate DEQ Regional Office prior to authorizing any work on an ORW to ensure there is no lowering of water quality.

In sum, DEQ concludes that the authorized activities will comply with Idaho antidegradation provisions should waters become designated ORWs during the term of the CGP.

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Turbidity Monitoring

The permittee must conduct turbidity monitoring during construction activities and thereafter on days when there is a direct discharge of pollutants from an unstabilized portion of the site which is causing a visible plume to a water of the United States.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field (preferred method), but grab samples may be collected and taken to a laboratory for analysis. If the permittee can demonstrate that there will be no direct discharge from the construction site, then turbidity monitoring is not required. When monitoring is required, a sample must be taken at an undisturbed area immediately upstream of the project area to establish background turbidity levels for the monitoring event. Background turbidity, location, date and time must be recorded prior to monitoring downstream of the project area. A sample must also be taken immediately downstream from any point of discharge and within any visible plume. The turbidity, location, date and time must be recorded. The downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the compliance point sampling or observation¹ must be compared to the background levels to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more than the upstream turbidity, then the project is causing an exceedance of the WQS. Any exceedance of the turbidity standard must be reported to the appropriate DEQ regional office within 24 hours. The following six (6) steps should be followed to ensure compliance with the turbidity standard:

- 1. If a visible plume is observed, quantify the plume by collecting turbidity measurements from within the plume and compare the results to Idaho's instantaneous numeric turbidity criterion (50 NTU over the background).
- 2. If turbidity is less than 50 NTU instantaneously over the background turbidity; continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities and proceed to Step 3.
- 3. Take immediate action to address the cause of the exceedance. That may include inspecting the condition of project BMPs. If the BMPs are functioning to their fullest capability, then the permittee must modify project activities and/or BMPs to correct the exceedance.
- 4. Notify the appropriate DEQ regional office within 24 hours.
- 5. Possibly increase monitoring frequency until state water standards are met.
- 6. Continue earth disturbing construction activities once turbidity readings return to within 50 NTU instantaneously and 25 NTU for more than ten consecutive days over the background turbidity.

Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

High Quality Waters

For any high quality waters that require a further Tier II analysis and or additional conditions, either for a new project or an existing project with a significantly increased discharge, DEQ requires that EPA consult with the appropriate DEQ regional office during any such review.

Outstanding Resource Waters

Should waters become designated as ORWs during the term of the CGP, DEQ is requiring that EPA coordinate with the appropriate DEQ regional office prior to authorizing any work on an ORW to ensure there is no lowering of water quality.

General Permit for Stormwater Discharge from Construction Activities (CGP) IDR100000

¹ A visual observation is only acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must collect turbidity data and inspect the condition of the projects BMPs. If the BMPs appear to be functioning to their fullest capability and the turbidity is 50 NTUs or more than the upstream turbidity, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).

Equivalent Analysis Waiver

Prior to granting a waiver from the permitting requirements of the CGP, EPA must coordinate with the appropriate DEQ regional office to conduct a joint review of the equivalent analysis waiver submitted by the permittee to ensure there will be no lowering of water quality.

Reporting of Discharges Containing Hazardous Materials or Petroleum Products

All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in Table 2 during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Response Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

Table 2. Idaho DEO Regional Contacts

Regional Office	Toll Free Phone Number	Phone Number
Boise	888-800-3480	208-373-0550
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	877-541-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

Other Conditions

This certification is conditioned upon the requirement that any material modification of the permit or the permitted activities—including without limitation, significant changes to the draft CGP, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site-specific criteria, variances, or other new information—shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative

Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Nicole Deinarowicz, DEQ State Office, at 208-373-0591 or via email at nicole.deinarowicz@deq.idaho.gov.

Barry N. Burnell

Water Quality Division Administrator

Baron. Bernell

USCG0043203/27

From: Jon
To: <u>Comments</u>
Subject: BNSF bridge

Date: Wednesday, May 23, 2018 5:50:12 PM

I'll keep this short. Build the bridge and keep commerce flowing smoothly. And fish like pilings.

Sent from my iPhone

From: lacy robinson
To: Comments
Subject: bnsf comments

Date: Wednesday, May 23, 2018 6:45:08 PM

I am very opposed to the proposed BNSF long bridge project. It's too dangerous for our lake water and BNSF does not have a good track record on safety- not good enough for me to trust them.

Please don't allow this project to go through. We don't need or want this in Sandpoint!

Lacy Robinson

Sandpoint, ID

Exemption 6



208.265.9565 • PO Box 2308, Sandpoint, ID 83864 • www.idahoconservation.org

April 30, 2018

U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Environmental Protection Agency
Federal Rail Administration

RE: Comments on BNSF Sandpoint Junction Connector, NWW-2007-01303

Dear Agency Representatives:

Since 1973, the Idaho Conservation League has been Idaho's leading voice for clean water, clean air and wilderness—values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest state-based conservation organization, we represent over 25,000 supporters, many of whom have a deep personal interest in protecting Idaho's human health and environment.

Attached, please find my comments on behalf of the Idaho Conservation League regarding BNSF's Sandpoint Junction Connector project in Bonner County, Idaho.

Please do not hesitate to contact me at (208) 265-9565 or <a href="maybet-edge-nc-edge

Thank you for your time and consideration.

Sincerely,

Matthew Nykiel

Rether Mykel

Conservation Associate

Introduction

In our first set of comments submitted on March 7, 2018, we outlined the background of Burlington Northern Santa Fe's (BNSF) Sandpoint Junction Connector project proposal (SJC), the relevant permitting agencies' legal authority, and the scope of potential impacts that could result if this project is approved. We incorporate our March 7, 2018 comments here by reference, to avoid redundancy.

The following comments primarily address the U.S. Army Corps of Engineers' (ACOE) regulatory authority and requirements to review, regarding BNSF's SJC project. However, many of our comments apply broadly to the review and analysis required of other federal permitting agencies in this case.

It is our understanding that that U.S. Coast Guard (USCG) intends to open its own public comment period at a later date to inform its National Environmental Policy Act (NEPA) review of the SJC project. We intend to submit additional comments, which will address the USCG's role more specifically, at that time.

Requests

The following comments address several different issues surrounding the permitting processes involved with BNSF's SJC project. We summarize here the specific requests and actions we encourage the ACOE and other permitting agencies to take into consideration:

- 1. Pursuant to 33 CFR 325.2(d)(4), we request the district engineer advise the other permitting agencies of its position on the Department of Army (DA) permit but defer its final decision, until the USCG has reached a decision on the bridge permit;
- 2. When reviewing the SJC, we request the ACOE and USCG use a broad scope of analysis that includes an analysis of impacts to all rail line communities along the BNSF rail corridor;
- 3. We request the ACOE explain the basis of its regulatory action pursuant to Section 404 of the Clean Water Act and the 404(b)(1) Guidelines;
- We request a detailed analysis of the potential direct, indirect, and cumulative impacts on rail line communities along the BNSF rail corridor that may be impacted by the SJC project;
- 5. We request that the ACOE and USCG require a single Environmental Impact Statement (EIS);
- 6. If the ACOE or USCG decline to require an EIS, we further request that the permitting agencies make the Environmental Assessment (EA) available to the public and facilitate a public comment period and hearing on the EA; and

7. We request the Federal Rail Administration (FRA) to share its subject matter expertise on the relationship between rail safety and public/environmental safety, as the ACOE and USCG conduct their regulatory review of the SJC project.

ACOE Should Defer its Final Decision on the DA Permit

Pursuant to 33 CFR 325.2(d)(4), we request the district engineer advise the other permitting agencies of its position on the DA permit but defer making a final decision, until the USCG has reached a decision on the bridge permit.

We are concerned that if BNSF initiates dredge and fill activities in this case, before securing a bridge permit and other permits associated with the SJC proposal, it would risk unnecessary destruction of wetlands and waters of the United States, should any other associated permit for the project be denied or should BNSF choose not to pursue the project, as it did in 2014. The ACOE's regulations guiding its processing of permit applications states:

"In unusual cases the district engineer may decide that due to the nature and scope of a specific proposal, it would be prudent to defer taking final action until another agency has acted on its authorization. In such cases, he may advise the other agency of his position on the DA permit while deferring his final decision."

33 CFR 325.2(d)(4).

The nature and scope of BNSF's SJC proposal is unusual, as these comments will further explain below. Therefore, it would be prudent for the district engineer to defer taking a final action until the USCG and other agencies have an opportunity to consider the entirety of BNSF's proposal.

The ACOE and other permitting agencies have received over 2,000 public comments regarding BNSF's proposal. Indeed, interest in this project is warranted because the project would likely impact rail line communities throughout the Pacific Northwest, including in Idaho, Montana, Washington and Oregon. As such, the nature and scope of this project is unusual, warranting the district engineer to defer taking a final action in this case, until other permitting agencies have the opportunity to review the project and weigh in.²

[&]quot;Plans for second rail bridge across Lake Pend Oreille put on hold," The Spokesman-Review, Sept. 16, 2015

⁽available at http://www.spokesman.com/stories/2015/sep/16/plans-for-second-rail-bridge-across-lake-pend/).

² Based on personal communications with the USCG, it appears that the USCG has not received BNSF's full SJC proposal application, and the USCG is delaying its own public comment period, until it has a chance to fully review the proposal. Accordingly, it would be prudent and reasonable for the ACOE to afford the other main federal permitting agency in this case the time to review the proposal.

Scope of Analysis

When reviewing the SJC, we request the ACOE and USCG use a broad scope of analysis that includes an analysis of impacts to all rail line communities along the BNSF rail corridor subject to the SJC project proposal.

The scope of analysis describes the portions of an overall project the ACOE will evaluate as the area subject to the federal action. This is the geographic limit of federal responsibility for the action and is the basis for subsequent NEPA analysis and compliance with other federal laws. According 33 CFR 325, Appendix B, the ACOE considers four factors in determining sufficient federal control and responsibility, including:

- i. Whether or not the regulated activity comprises "merely a link" in a corridor type project;
- ii. Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity;
- iii. The extent to which the entire project will be within Corps jurisdiction; and
- iv. The extent of cumulative Federal control and responsibility.

33 CFR 325, Appendix B 7.b.(2)(i)-(iv).

Analyzing these factors in relation to BNSF's SJC project reveals that the federal control and responsibility extends beyond the specific SJC project site and beyond the limits of ACOE jurisdiction because the cumulative federal involvement of the ACOE and other federal agencies is sufficient to grant legal control over additional portions of the project. In other words, the environmental consequences of the larger project (i.e. constructing and installing five separate bridges) are essentially products of the ACOE's permit action. Accordingly, the ACOE scope of analysis should not be segmented pursuant to is jurisdictional authority but should encompass a single area that includes rail line communities throughout the Pacific Northwest that may be impacted by BNSF's SJC project.

Factor (i)

The ACOE's DA permit in this case is an essential component of the overall SJC project. The ACOE's permit bears on the origin, destination, and route of the project outside of the ACOE's regulatory boundaries. If BNSF is correct in its claim that the alternatives feasibly capable of meeting its needs in this case are limited to the construction of a second rail bridge at the site of the existing bridge over Lake Pend Oreille, then the ACOE's DA permit is a compelling force and critical component of the entire project. This aspect of the DA permit in this case favors a broad scope of analysis.

Factor (iv)

Moreover, the extent of cumulative federal control and responsibility in this case is significant. The SJC project requires USCG authorization for the bridge and construction storm water

authorization from the U.S. Environmental Protection Agency.³ In addition, the USCG will act as the federal lead agency overseeing compliance with Section 106 of the National Historic Preservation Act and Endangered Species Act consultation for the proposed bridge projects. Federal agencies will also be charged with reviewing the SJC project's compliance with the Bald and Golden Eagle Protection Act and the Clean Air Act.

Substantial Impacts to Waters of the U.S. and other Federally Regulated Resources

The ACOE's scope of analysis should also be broad due to potential substantial impacts to wetlands, waters of the U.S., endangered species, and cultural resources. At least two of the five proposed bridges will each cross and impact nearly a mile of Lake Pend Oreille (a water of the U.S.). These impacts compound other projected impacts to waters of the U.S. and wetlands, including the permanent discharge of 11,220 cubic yards of rock into 1.16 acres water and wetlands.

The SJC project would also be conducted within a known or historic range of federally listed bull trout and its critical habitat and within known habitat of bald eagles protected by the Bald and Golden Eagle Protection Act.

The area in which dredge and fill activities would take place may also include extensive cultural resources, as was the case during the construction of the nearby Sand Creek Byway.⁴ As a result, the significant extent of waters of the U.S. and wetlands that the SJC project would impact, in addition to other federally protected resources, demands the ACOE utilize a broad scope of analysis in this case.

Scope of Analysis and Scope of the Benefits

The ACOE's scope of analysis should be as broad as the ACOE's analysis is of analyzing the potential benefits of the SIC project.

At 33 CFR 325, Appendix B 7.b.(3), the ACOE's NEPA Implementation Procedures state, "In all cases, the scope of analysis used for analyzing both impacts and alternatives should be the same scope used for analyzing the benefits of a proposal." Presumably, the ACOE will analyze the benefits of the SJC project based on the scope of potential benefits claimed by BNSF. BNSF has claimed a broad scope of benefits.

On its website, BNSF states that the SJC project is "[a] vital link between [the] Pacific Northwest and Mid-West." BNSF goes on to state that "[t]he new infrastructure will provide

³ We believe the EPA should further evaluate and provide an explanation as to whether or not BNSF is eligible for a General Construction Storm Water Permit for the SJC project.

⁴ "Sand Creek Byway Archaeological Project," last accessed on April 30, 2018 (available at http://www.idahoarchaeology.org/single-post/2011/11/01/Sand-Creek-Byway-Archaeological-Project).

⁵ "Second Bridge at Sandpoint Will Relieve Congestion, Enhance Safety," BNSF Railway, last accessed Apr. 30, 2018 (available at https://bnsfnorthwest.com/news/2018/03/30/second-bridge-at-sandpoint-will-relieve-congestion-enhance-safety/).

the capacity needed for BNSF's current traffic and future growth, benefiting all the commodities that we transport and the Amtrak trains that run on our main line." BNSF claims that the result of the SJC project "will be reduced congestion, enhanced safety, shorter wait times at crossing, and improved service to our customers." BNSF also suggests that the benefits of removing the rail bottleneck at Sandpoint will specifically impact other states, including Montana and Washington, as well as producers, shippers, and consumers using BNSF's rail services.8 Lastly, in BNSF's SIC Joint Application for Permits, BNSF states that "[t]his project will relieve congestion of rail traffic, and reduce hold times on sidings and wait times at grade crossings both locally and regionally."9

BNSF's SIC project site does not include a single at-grade crossing, so the benefits of the SIC project claimed by BNSF must extend beyond the immediate area of the proposed project. And, given BNSF's statements quoted above, the ACOE's scope of analysis should similarly extend beyond the immediate area of the proposed project and include the benefits and impacts this project will have throughout the Pacific Northwest region.

Regional Impacts Along BNSF's Rail Corridor

While BNSF's SIC project is physically located in Bonner County, along with the specific activities being permitted by the Corps and USCG, the area of impact is far greater. Rail impacts, including crossing delays, derailments, noise, will extend throughout the Pacific Northwest region into communities in Idaho, Washington, Montana, and Oregon. Indeed, BNSF itself extolls the regional benefits it claims the SLC project will create, as cited above. The regional character and implications of this project warrant a broad scope of analysis.

ACOE 404 Permit Evaluation

We request the ACOE explain the basis of its regulatory action pursuant to Section 404 of the Clean Water Act and the 404(b)(1) Guidelines.

Section 404 of the Clean Water Act authorizes the ACOE to regulate and permit the discharge of dredged or fill material into waters of the U.S. The discharges of dredged and fill material proposed in the SJC project, require BNSF apply for an individual DA permit from the ACOE. As such, the ACOE must evaluate whether BNSF's application is in the public interest and whether BNSF's application meets the criteria set out in the CWA Section 404(b)(1) Guidelines. See 33 CFR 323.6(a) and 40 CFR 230.

⁶ See id.

⁷ "BNSF could start on key Idaho bridge by fall," Railway Age, Apr. 3, 2018 (available at https://www.railwayage.com/freight/bnsf-start-key-idaho-bridge-fall/); see also BNSF to move ahead with second Sandpoint rail bridge; opposition voiced by mayor," The Spokesman-Review, Apr. 18, 2017 (available at http://www.spokesman.com/stories/2017/apr/18/bnsf-to-move-ahead-with-second-sandpoint-rail-brid/). ⁸ "BNSF plans 2nd bridge over Lake Pend Oreille to ease rail congestion," YouTube video last accessed on April 30, 2018 (available at https://www.youtube.com/watch?v=4MKEYm4jXqo).

⁹ See BNSF SJC Joint Application for Permits at Box 15. Purpose and Need, page 2.

Specifically, the 404(b)(1) Guidelines state that "Except as provided under section 404(b)(2), no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." 40 CFR 230.10(a).

According to the standards of review stated above, we request the ACOE thoroughly explain why or why not BNSF's SJC project is in the public interest, by setting out the factors, benefits, and impacts the ACOE took into consideration. We also request that the ACOE require and share publicly a more thorough analysis of the practicable alternatives to the proposed discharge. BNSF's alternatives analysis appears unduly restricted to alternatives that require a new rail bridge across Lake Pend Oreille. Whereas, there may be other practicable and feasible alternatives, involving changes in BNSF's operations, for example, which may avoid the impacts proposed in the SJC project.

We also request that the ACOE explain why the pilings associated with BNSF's SJC project do not constitute a discharge of fill material requiring Section 404 authorization. Although placement of pilings in waters of the U.S. for linear projects do not always have the effect of a discharge of fill material, the unique circumstances and scale of the SJC project may, in this case, have the effect of a discharge of fill material. See 33 CFR 323.3(2). The ACOE should further evaluate the circumstances in this case and scale of pilings required by the SJC project. Afterward, the ACOE should explain whether or not the proposed pilings constitute a discharge of fill material, pursuant to Section 404 of the CWA.

Evaluation of Potential Direct, Indirect, and Cumulative Impacts

Under NEPA, an EIS must consider direct effects, indirect effects, and cumulative effects. "Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetics, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." 40 C.F.R. I 508.8.

The direct effects of an action are those effects "which are caused by the action and occur at the same time and place." 40 CFR 1508.8(b). The indirect effects of an action are those effects "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 CFR 1508.8(b). For example, "[i]ndirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." Id. These types of growth-inducing impacts of must be analyzed, even when they are characterized as "secondary." City of Davis v. Coleman, 521 F.2d 661, 676 (9th Cir. 1975) (requiring EIS to address growth-inducing impacts of freeway interchange planned in agricultural area on the edge of urban development). In fact, "[f]or many projects, these secondary or induced effects may be more significant than the project's primary effects... While the analysis of secondary effects is often more difficult than defining the first-order physical effects, it is also indispensable." Fifth Annual Report of the Council on Environmental Quality, 410-11 (Dec. 1974).

The comments below further elaborate how the SJC project individually, or in combination with the other BNSF proposed rail expansion projects in the region, will likely cause significant local and regional impacts that the ACOE and USCG should study and evaluate.

Public Safety Impacts From Increased Rail Traffic

According to BNSF, the SJC project is needed to accommodate more train traffic. An increase and more constant stream of train traffic will adversely impact public health and safety, the environment, and the economy through increased vehicle and pedestrian accidents, increased derailments and cargo spills, coal dust releases, and increased travel time delays (affecting both local economies and emergency response).

A. Train Traffic

To our knowledge, BNSF has not conducted or released a traffic impact study, evaluating the SJC project's impact to overall rail traffic and congestion in the Sandpoint area or broader region. Without such a study, the ACOE cannot confirm BNSF's claims that rail congestion and crossing wait times will be reduced. There is a reasonable likelihood that adding a second rail line through the bottleneck at Sandpoint will, contrary to BNSF's claims, facilitate greater quantities of trains to pass through the region at greater frequencies, potentially causing longer wait times at crossings and delays for emergency responders. The potential for these impacts should be studied and made reviewable by the public.

The Washington Department of Transportation projects that the number of freight trains along the rail corridor on which BNSF has proposed the SJC project will increase from 56 trains per day to 114 trains per day by 2035, and further increases will continue beyond 2035 to 125 trains per day, representing the practical capacity of the rail corridor in the area. Therefore, the ACOE and USCG must conduct a traffic impact study to compare current traffic delays to future potential delays if the SJC project is completed.

B. Hazardous and Volatile Substance Transport by Rail

In addition to impacts from delays, the ACOE and USCG should also review the impacts from train derailments and especially derailments of crude oil, coal, and other hazardous substances. In 2016, three railroads in our county transported significantly more than 300,000 rail cars or tank cars containing various forms of hazardous materials and crude oil. And, as of 2017, approximately 24 unit trains per week carrying crude oil from the Bakken oil fields in the

¹⁰ WSDOT Washington State Rail Plan, Integrated Freight and Passenger Rail Plan 2013-2035 (available at http://www.wsdot.wa.gov/NR/rdonlyres/F67D73E5-2F2D-40F2-9795-

⁷³⁶¹³¹D98106/0/WashingtonStateRailPlan20132035.pdf).

¹¹ 2017 Lake Pend Oreille Geographic Response Plan at 26 (available at https://evogov.s3.amazonaws.com/media/136/media/60622.pdf).

Dakotas and Saskatchewan travel through Sandpoint.¹² This is significant given that in the spring of 2017, at least four significant derailments occurred in Bonner and Boundary Counties near waterways.¹³ The ACOE and USCG, therefore, must evaluate the increased risk of derailments if the SJC project is completed and must evaluate the potential impacts of such derailments.

The 2017 Lake Pend Oreille and Pend Oreille River Geographic Response Plan also identified a range of equipment, training, evacuation, procedural, and geographic vulnerabilities and deficiencies posed by the derailment of trains carrying crude oil and other hazardous materials and Bonner County's capacity to respond to such a derailment.¹⁴

The ACOE and USCG should consider and evaluate requiring additional safety protocol and resources for rail travel and emergency response, given the importance and range of critical resources in this area. The EIS should further analyze the impacts of increased rail traffic with and without additional safety and emergency response protocols and resources.

C. Seismic Activity in Lake Pend Oreille and Northern Idaho

Derailments are a special concern in Bonner and Boundary Counties because of the prevalence of earthquake activity, much of which is focused in Lake Pend Oreille. In the past 10 years, the two northern most counties in Idaho experienced 39 unique earthquakes, ranging in magnitude from 1.5 to 3.9.¹⁵

The vast majority of earthquakes in northern Idaho occur in or around Lake Pend Oreille. Of the 39 earthquakes that occurred since 2008, 36 occurred in or around Lake Pend Oreille. This is significant given the location of the SJC project and any increases in train traffic the SJC project would facilitate around Lake Pend Oreille. The ACOE and USCG must study and evaluate the impact and risk of approving the SJC project, given the local seismic activity.

D. Coal Dust Emissions from Uncovered Rail Cars

Impacts from coal dust will also impact public safety, as BNSF continues to ship coal in uncovered rail cars. Coal dust has been shown to be a cause of rail bed instability and derailments. The Surface Transportation Board, which found coal dust to be "a pernicious ballast foulant," acknowledged that the quantity of coal emitted by a train into the air, water, and onto tracks is not insignificant. This is particularly relevant given that BNSF was the subject of litigation in 2017 regarding allegations that BNSF violated the Clean Water Act by

¹² Id.

¹³ Id. at 30.

¹⁴ ld. at iv-v.

¹⁵ Data last accessed on April 30, 2018 (available at www.earthquake.usgs.gov).

¹⁶ Arkansas Electric Cooperative Corporation--Petition for Declaratory Order, FD_35305_0 (available at http://www.stb.dot.gov/decisions/readingroom.nsf/WebDecisionID/40436?OpenDocument).

illegally discharging various forms of coal and coal dust into waters of the U.S.¹⁷ This litigation was resolved in a settlement agreement that requires BNSF to conduct a study of commercial and operational feasibility of car covers for use on open-top coal and petcoke railcars, as well as remove significant accumulations of coal and/or petcoke materials in areas on or adjacent to BNSF's right-of-way.¹⁸ The ACOE and USGS must evaluate how much coal dust BNSF currently generates, how much BNSF might generate with increased rail traffic after the SJC project, and the resulting impacts to public health and local water bodies.

Public Health Impacts from Increased Rail Traffic

Public health will also be impacted by the SJC project, which will affect both the air rail line communities breath and the water from which these communities drink and in which these communities recreate. BNSF's application to the USCG indicates that the Sandpoint area is designated as in maintenance for PM10, pursuant to the Clean Air Act. Emissions from diesel locomotives and coal dust emitted from uncovered rail cars may further impact Sandpoint's ambient air quality for PM10. The ACOE and USCG must evaluate how much PM 10 emissions BNSF currently generates, how much BNSF might generate with increased rail traffic after the SJC project, and the resulting impacts to public health.

Furthermore, coal dust emitted by uncovered rail cars could also impact the quality of water used by the public for drinking and recreation. The Pend Oreille Lake Subbasin Assessment Unit (AU) 17010214PN018L_0L (this AU includes the water bodies that will be directly impacted by the SJC project but does not include the many water bodies that will be indirectly impacted throughout the rail corridor region) is designated for domestic water supply and primary contact recreation. However, this AU does not fully support the primary contact beneficial use because the AU is impaired by high mercury levels.

The SJC project has a high likelihood of increasing train traffic carrying coal in uncovered rail cars, which would continue to emit coal and coal dust, a component of which is mercury, into this AU. The agencies must evaluate how much additional coal dust will be emitted and what the human health impacts are using baseline air quality conditions in Sandpoint. The ACOE and USCG should also further consider and evaluate whether requiring covered coal train would mitigate the potential impacts from coal dust described above.

¹⁷ "BNSF Railway agrees to study covers for rail cars transporting coal to reduce dust," The Spokesman-Review, Nov. 15, 2016 (available at http://www.spokesman.com/stories/2016/nov/15/bnsf-railway-environmental-groups-reach-settlement/).

¹⁸ See Case No. C13-0967-JCC, Consent Decree, Sierra Club v. BNSF Railway Company (available at https://cases.justia.com/federal/district-

courts/washington/wawdce/2:2013cv00967/193334/384/0.pdf?ts=1493825037).

Economic Impacts

The SJC project individually, or in combination with the other BNSF proposed rail expansion projects in the region will significantly impact the economies of dozens of communities along the rail line.

A. Construction and Operation of Bridges Across Sand Creek and Bridge Street

In Bonner County, the construction of the SJC project alone will weigh heavily on our tourist-and outdoor recreation-based economy. BNSF projects that the SJC project will cost at least \$100 million and require at least 3 years to construct. In total, five additional bridges will be constructed during this time, three permanent and two temporary. The three new bridges proposed over Sand Creek and Bridge Street occur near the heart of downtown Sandpoint, where many of Sandpoint's local small businesses are located. Indeed, Bridge Street is the sole road that provides access to the City of Sandpoint's primary access to public shoreline on Lake Pend Oreille and renown park, City Beach. Bridge Street also is the sole access road for several businesses, residences, and a hotel. The agencies should evaluate how construction will impact local businesses by impairing access and serenity and estimate the resulting economic impact.

B. Construction and Operation of Bridges Across Lake Pend Oreille

The two additional bridges proposed to cross over Lake Pend Oreille will also significantly impact the local economy. Lake Pend Oreille is used for a myriad of recreational water activities, including fishing, kayaking, and tour boating. Dozens of residential homes, hotels, and businesses are located along the shoreline of Lake Pend Oreille, within view or earshot of BNSF's rail bridge as well. Adding a second rail bridge across the lake would particularly impact all of these interests over the course of the three-year minimum construction period, where construction noise and potential impediments to navigational travel may disturb the character of the community residents invested in the community for or tourists seek out. Similar impacts may continue into the future, as a new rail bridge may facilitate greater train traffic and associated impacts like train noise. Because increases in train traffic and noise could impact property values these potential impacts should be analyzed and evaluated. Further consideration should also be given to construction sequencing and potentially limiting construction to the non-tourist season, to avoid or mitigate local economic impacts.

The project as a whole may facilitate increases in train traffic, which could further delay the movement of commerce by road in the region, as well as individuals traveling to small local businesses.

Wildlife, Aquatic Health, and Historic Properties

The EA or EIS in this case must include an analysis of impacts to biological and aquatic resources on both public and private lands and waters in the affected area – the affected area

includes the site of the SJC project, as well as the rail corridor through which impacts, both negative and beneficial, from the SJC project may occur. Biological and aquatic resources include terrestrial and fresh water mammals, game and non-game resident and migratory bird species, raptors, songbirds, amphibians, reptiles, fisheries, aquatic invertebrates, wetlands, and vegetative communities. The ACOE and USCG must ensure that up-to-date baseline information on all potentially impacted flora and fauna is made available, so that adequate impact analyses can be completed.

Habitat degradation, fragmentation, and loss must all be assessed, along with any resulting impacts to wildlife and aquatic species.

A. Impacts to Water and Wetland Resources

The SJC project will likely negatively impact water resources and wildlife in Bonner County and throughout the rail corridor. As mentioned above, BNSF's proposal would discharge 14,900 cubic yards of rock into wetlands or waters of the U.S. This project would also require impacts to 1.54 acres of wetlands and waters of the U.S. At the completion of the SJC project and for years to come, the project would result in indirect impacts to water resources both locally and throughout the rail corridor.

The SJC project's impact to water resources is significant because the impacted waters of the U.S. are already impaired. The Lake Pend Oreille AU, which includes a portion of Sand Creek, does not fully support aquatic life use due to mercury levels, flow regime alterations, and phosphorus. This AU also does not fully support the primary contact recreation beneficial use due to mercury levels. A TMDL for total phosphorus was approved for this AU in 2008, and this AU is in line for a TMDL for mercury. The dredge and fill activities associated with the SJC project, as well as the coal and coal dust that will escape uncovered rail cars will likely further degrade this water body. As mentioned above, the additional train traffic the SJC project would facilitate would also increase the likelihood of a derailment and spill of substances or materials that may also contaminate these water bodies.

B. Impacts to Wildlife and Aquatic Species

The SJC project's potential impacts to water resources listed above may similarly impact or harm species and critical habitat listed under the Endangered Species Act. There is a population of federally listed bull trout in Lake Pend Oreille, which also includes bull trout critical habitat. In addition to the dredge and fill activities provided above, noise from construction of the SJC and increases in train traffic may also negatively impact this species.

The bald eagle is also federally protected under the Bald and Golden Eagle Protection Act and is a species that inhabits Bonner County and relies on Lake Pend Oreille as a food source. The SJC project proposes dredging, filling, and affecting terrestrial areas along Lake Pend Oreille, which include a variety of mature tree species bald eagles may use for nesting, refuge, and

vantage. The ACOE and USCG must study and evaluate the impacts the SJC project would have on bald eagles in particular, as well as other local and migratory bird species.

C. Impacts to Floodplain

Flooding is also a risk with potential impacts to the community and ecological resources, where the SJC project is proposed. According to the Northwest River Forecast Center, this year Lake Pend Oreille is 60% likely to exceed flood levels at the gauge station in Hope, ID.¹⁹ U.S. Army Corps of Engineer Water Management Section Chief, Kevin Shaffer, has stated that "it's almost certain we see flooding downstream [of the Hope gauge station]." The ACOE and USCG must study the impacts associated with flood risk to construction of the SJC project and to future operations of the SJC rail line.

D. Rathdrum Prairie-Spokane Valley Sole Source Aquifer

Additional rail traffic facilitated by the SJC project individually and in conjunction with other BNSF rail expansion projects near Cocolalla Lake and Hauser will also increase the risk of derailment over the Rathdrum Prairie-Spokane Valley Aquifer (RPSV). This aquifer is an EPA designated sole source aquifer and an Idaho designated sensitive resource aquifer. The RPSV underlies approximately 321 square miles of land in Idaho and Washington and provides drinking water to approximately 100,000 people in Idaho and 400,000 people in Washington.²⁰ Spills and contamination are significant concerns for the RPSV aquifer because the aquifer is an unconfined, valley fill aquifer. This means there is no barrier limiting or blocking the flow of water down into the aquifer from the surface. The rocks and sediments in the aquifer are fit together very loosely, so water (and any contamination) moves quickly through the aquifer. In some places, water has been estimated to move at a rate of 50 feet per day.²¹ The indirect impacts from BNSF's project proposals may be significant given the importance and sensitivity of the RPSV aquifer. The ACOE and USCG must study and evaluate these potential impacts and make these findings available to the public.

E. Cultural Resources

The SJC project may also harm tribal and historic properties in the project site. Native American tribes, such as the Kalispel, used and inhabited Lake Pend Oreille and its shores since time immemorial. Tribal sacred places and cultural items may still exist in the project area that must be respectfully identified and protected according to the NHPA. These sacred places and cultural items may exist both on land and at depth in Lake Pend Oreille or Sand Creek.

¹⁹ "Army Corps: Flooding 'almost certain' this spring," The Sandpoint Reader, Apr. 19, 2018 (available at http://sandpointreader.com/army-corps-flooding-almost-certain-spring/).

²⁰ "Rathdrum Prairie Aquifer," Idaho Department of Environmental Quality (available at http://www.deq.idaho.gov/regional-offices-issues/coeur-dalene/rathdrum-prairie-aquifer/).

²¹ "Sole Source Aquifers," Idaho Department of Environmental Quality (available at http://www.deq.idaho.gov/water-quality/ground-water/sole-source-aquifers/).

Moreover, the SJC project site may also hold cultural items from early white migrants into this region. In advance of the construction of the Sand Creek Byway, not far from the SJC project site, the Sand Creek Byway Archaeological Project recovered almost 600,000 artifacts from this area. Given the prevalence of artifacts in this area, it is critical that the USCG, as lead agency implementing the NHPA, conduct a thorough inventory of potential impacts to these cultural resources. The Sandpoint Train Station is also listed on the National Register of Historic Places and must be reviewed and protected according to the NHPA.

F. Greenhouse Gas Emissions

The Council for Environmental Quality (CEQ), which implements NEPA at the federal level, issued draft federal guidance on how to evaluate the effects of GHG under NEPA.²³ The Federal Guidance confirms that both direct and indirect greenhouse gas emissions should be evaluated in the context of "cumulative effects" in an EIS if significant. Id. at 5 ("Analysis of emissions sources should take account of all phases and elements of the proposed action over its expected life, subject to reasonable limits on feasibility and practicality.").

Under the Federal Guidance, NEPA documents should put direct and indirect greenhouse gas emissions associated with a project in the context of the "aggregate effects of past, present, and reasonably foreseeable future actions" related to climate. Id. at 9-10. As the guidance confirms, the duty to evaluate all climate related impacts is not "new." Rather, climate is an important factor to be considered within NEPA's existing framework. Id. at 11.

Therefore, the agencies in this case must evaluate the direct and indirect greenhouse gas emissions of the increase of BNSF locomotives that the SJC project will facilitate, as well as the indirect greenhouse gas emissions that may be caused by an increase of fossil fuel transport by rail that the SJC project will facilitate.

ACOE and USCG Should Prepare a Single EIS

The construction of the SJC project and operations of a new rail line and bridges, individually and in combination with other proposed rail expansion projects, will cause significant, harmful impacts to the rail line communities along the BNSF rail corridor.

An EIS is required when a project "may" significantly impact the environment. Native Ecosystems Council v. U.S. Forest Serv., 428 F.3d 1233, 1239 (9th Cir. 2005) (emphasis in original). "[T]his is a low standard." California Wilderness Coal. v. U.S. Dep't of Energy, 631 F.3d 1072, 1097 (9th Cir.

²² "Sand Creek Byway Archaeological Project," Idaho Archaeology (available at http://www.idahoarchaeology.org/single-post/2011/11/01/Sand-Creek-Byway-Archaeological-Project).

http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.pd f.

2011) (quoting Klamath Siskiyou Wildlands Ctr. v. Boody, 468 F.3d 549, 562 (9th Cir. 2006)) (emphasis added).

The Council of Environmental Quality's (CEQ) implementing regulations for NEPA set forth 10 factors that must be considered when evaluating the intensity of potential environmental effects. 40 CFR 1508.27(b). The presence of any one of these factors may require an EIS. Ocean Advocates v. U.S. Army Corps of Eng'rs, 402 F.3d 846, 865 (9th Cir. 2005).

BNSF's project triggers nearly all of the NEPA "intensity" factors. It affects public safety, affects unique characteristics of the area, is highly controversial, has highly-uncertain effects and unique and unknown risks, will have cumulatively significant impacts, and threatens violations of federal and state law and policies for environmental protection. See 40 CFR 1508.27(b)(2), (3), (4), (7) and (10).

Public Safety

NEPA requires an EIS where a project may significantly impact public safety. 40 CFR I 508.27(b)(2). In determining the "significance" of potential environmental impacts, one must consider "the degree to which the proposed action affects public health or safety." 40 CFR I 508.27(b)(2).

As indicated above, BNSF transports a significant volume of crude oil, coal, and other hazardous substance along the rail corridor where the SJC project is proposed. This particular area of the rail corridor has been subject to several recent derailments, that could have significantly harmed public health and safety had the derailments involved crude oil or other hazardous or volatile materials. The risk to public health and safety will continue as long as BNSF continues to ship these materials. And, the SJC project will likely increase this risk by facilitating a greater volume and frequency of rail traffic throughout this rail corridor.

Unique Characteristics of the Area

NEPA requires an EIS when a project may impact "[u]nique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas." 40 CFR 1508.27(b)(3). See Cascadia Wildlands v. U.S. Forest Serv., 937 F.Supp.2d 1271, 1281 (D. Or. 2013) (ordering EIS where timber project "may" have significant impacts to "unique attributes" of potential wilderness area).

The pile-driving into Lake Pend Oreille and permanent displacement of those parts of the lake to construct a nearly mile-long bridge associated with the SJC project will impact the unique characteristics of this local area. Indeed, Lake Pend Oreille is both unique and ecologically critical. It is Idaho's largest lake and one of the largest lakes in the western United States.²⁴

²⁴ Lake Pend Oreille is the fifth deepest lake in the United States.

Lake Pend Oreille covers an area of 94,600 acres in Northern Idaho and reaches depths over 1,200 feet. Water recreation is a major attraction for local residents and visitors to Lake Pend Oreille and the Pend Oreille River. Lake Pend Oreille and its 226-mile shoreline provide a diverse range of aquatic and upland habitat important to sustaining fish and wildlife.

Lake Pend Oreille is, arguably, the most famous fishing lake in Idaho. The lake is home to a major kokanee salmon fishery, in addition to the site of the world record bull trout (14.5 kg) and world record rainbow trout (16.8 kg), which were caught in Lake Pend Oreille in the 1940s.

Lake Pend Oreille is also an important waterfowl migration and wintering area. The lake serves as a major spring and fall stop for waterfowl migrating along the Pacific Flyway. The wintering population of redhead ducks—which may be the largest in the United States—is 98 percent of Idaho's total and 20 percent of the Pacific Flyway population. These are just some of the unique and ecologically critical features of the area that necessitate an EIS.

Highly Controversial

NEPA requires the preparation of an EIS for "highly controversial" actions. See 40 CFR I508.27(b)(4). An action is highly controversial "when substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor, or there is a substantial dispute about the size, nature, or effect of the major Federal action." Nat'l Parks & Conservation Ass'n. v. Babbitt, 241 F.3d 722, 736 (9th Cir. 2001) ("NPCA") (quotations omitted), abrogated on other grounds by Monsanto Co. v. Geertson Seed Farms, 561 U.S. 139 (2010).

Here, at least 2,000 people have submitted comments of concern and have raised substantial questions about the size, nature, and extent of the project's impacts. For example, BNSF claims the project will reduce vehicle traffic delays in the area; however, adding more rail infrastructure may facilitate an increase in overall train traffic and vehicle delays, causing not only inconvenience, but lost economic productivity and reduced ability to respond to emergencies. An EIS must be prepared to address these highly controversial impacts.

Highly Uncertain Impacts; Unique or Unknown Risks

An EIS is also required where "[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks." 40 CFR 1508.27(b)(5). See National Parks, supra; Blue Mountains Biodiversity Proj. v. Blackwood, 161 F.3d 1208 (9th Cir. 1998).

Here, many of the impacts discussed above, including public safety, risk of spills to water, coal dust impacts to air and water, involve uncertain, unique, and unknown risks for the reasons already set forth above. An EIS must be prepared to resolve the uncertainties associated with these risks.

Cumulative Impacts

In deciding whether to prepare an EIS, an agency must consider not only the proposed action but also "whether the action is related to other actions with individually insignificant but cumulatively significant impacts." 40 CFR 1508.27(b)(7). "Cumulative impact" means "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." *Id.* at 1508.7.

"Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.* Where an agency fails to adequately analyze cumulative impacts, this can raise substantial questions about whether the project will cause cumulatively significant environmental impacts. *Ocean Advocates*, 402 F.3d at 870 (finding substantial question as to significance due to "perfunctory and conclusory" cumulative impacts analysis).

Here, a single EIS analysis, including an analysis of similar impacts from BNSF rail expansions proposals throughout the region is necessary. A single EIS is required for multiple discreet actions under some circumstances, for example, when the projects have common timing, geography, and/or impacts. There are at least two other BNSF projects in the region that share common timing, geography, and impacts with the SJC project.

BNSF has proposed to install 2.8 miles of additional track along a water of the U.S., roughly 8 miles south of the SJC project.²⁵ In addition, BNSF is in the process of proposing the construction of 4.4 miles of additional rail track roughly 42 miles south of the SJC project, from Hauser, Idaho to Spokane Valley.²⁶ The Hauser-Spokane Valley proposal will similarly impact waters of the U.S.

Considering the BNSF projects and actions described above along with the SJC project together, direct, indirect, and cumulative impacts are likely significant, necessitating an EIS.

Threatens Violations of Law

Where a proposed action threatens violations of federal, state, or local law or requirements imposed for the protection of the environment, the agency must prepare an EIS. 40 CFR I508.27(b)(I0). Here, this factor is also triggered due to threatened violations of the Endangered Species Act, Bald and Golden Eagle Protection Act, EPA's Sole Source Aquifer protections, Idaho's Sensitive Resource Aquifer protections, and Idaho's Water Quality Standards and associated Total Maximum Daily Loads.

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²⁵ "Draft 401 Certification – BNSF Railway Company Cocolalla Double Track Project, Idaho Department of Environmental Quality, last accessed Apr. 30, 2018 (available at http://www.deq.idaho.gov/news-public-comments-events/public-comment-opportunities/draft-401-certification-bnsf-railway-company-cocolalla-double-track-project/); see also Joint Application for Permits, NWW-2018-128 (available at http://www.deq.idaho.gov/media/60181411/westmond-creek-unnamed-tribs-cocolalla-lake-bnsf-railway-401-certification-application-0418.pdf).

²⁶ "BNSF to double track on line linking Spokane Valley to Hauser, Idaho," The Spokesman-Review, Feb. 26, 2018 (available at http://www.spokesman.com/stories/2018/feb/26/bnsf-to-double-track-on-line-linking-spokane-valle/).

Public Involvement

We request that if the ACOE or USCG decline to require an EIS, that the permitting agencies make the EA available to the public and facilitate a public comment period and hearing on the EA.

Both the facts and law involved in BNSF's SJC proposal obligate the production of an EIS, but in the case the ACOE or USCG do not require an EIS, we request the ACOE and USCG afford our community an opportunity to review and comment on the EA and FONSI. Further, due to the complexity, broad range of impacts, and long time-line of BNSF's SJC proposal, it would also be prudent and reasonable for the ACOE and USCG to hold a public hearing and answer questions the public might have, before finalizing any decision pertaining to an EA or FONSI.

Soliciting further public comment and addressing public concerns may not be required in as robust a way for the ACOE's purposes in processing an EA and FONSI, but as the agencies overseeing the protection of our local environment and the maintenance of our public safety, it would be appropriate in this case to grant additional public involvement. We hope that BNSF, as the permit applicant and corporate neighbor to our communities in this case, would agree on this point too.

Federal Rail Administration Subject Matter Expertise

The Federal Rail Administration should provide subject matter expertise on the relationship between rail safety and public/environmental safety with the USCG.

The USCG is less familiar than the FRA with the impacts associated with railroads and the transportation of crude oil, coal, and other hazardous materials by rail. The FRA should help mitigate this deficiency by providing resources to USCG that will assist in the USCG evaluation of impacts likely to result from the SIC project.

Certificate of Service

Idaho Conservation League delivered the Comments dated April 30, 2018 regarding the BNSF Sandpoint Junction Connector, NWW-2007-01303 via electronic mail:

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Chris Bromley
Hearing Coordinator
Idaho Department of Lands

Submitted via email to: comments@idl.idaho.gov

May 23, 2018

RE: ERL-96-S-0096E - BNSF Railway Co.

Dear Mr. Bromley:

Since 1973, the Idaho Conservation League has been Idaho's leading voice for clean water, clean air and wilderness—values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest state-based conservation organization, we represent over 25,000 supporters, many of whom have a deep personal interest in protecting Idaho's human health and environment.

Attached, please find my comments on behalf of the Idaho Conservation League regarding BNSF's Sandpoint Junction Connector Proposal.

Please do not hesitate to contact me at (208) 265-9565 or mnykiel@idahoconservation.org if you have any questions regarding our comments or if we can provide you with any additional information on this matter.

Thank you for your time and consideration.

Sincerely,

Matthew Nykiel

Rether Mykel

Conservation Associate

ICL Comments

Idaho Code and Rules

According to Idaho Statute, Title 58, Chapter 13, IDL must process applications for encroachments on and in navigable lakes in Idaho. In processing an application for such an encroachment, IDL must also consider and apply Idaho Statute, Title 67, Chapter 43, as well as IDAPA 20.03.04.012 and 030.

In particular, IDL rules require that all encroachments upon, in or above the beds or waters of navigable lakes of the state be regulated in order that the protection of property, navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality be given due consideration and weighed against the navigational or economic necessity or justification for, or benefit to be derived from the proposed encroachment.

IDAPA 20.03.04.012.01.

In addition, IDL rules require that approval of encroachments not in the aid of navigation in navigable lakes be authorized only when consistent with the public trust doctrine and when there is no other feasible alternative with less impact on public trust values.

IDAPA 20.03.04.030.02.

Environmental Protection and Navigational or Economic Necessity

We request IDL consider all the potential impacts to property, navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, and water quality. We have identified some of the potential impacts to these values in comments we submitted on April 30, 2018, which we incorporate here by reference and have attached to the present comment submittal. We request IDL give due consideration to these potential impacts, including but not limited to:

- Impacts to the values stated above both during the construction of the SJC proposal and after installation;
- Impacts to water quality from coal dust emissions from uncovered coal rail cars, mercury deposition from train exhaust, and contamination from potential derailments.
- Impacts to the aesthetic beauty of the lake and surrounding area from increases in train noise, including from the movement of trains and train horns;
- Impacts to wildlife and fish habitat, including impacts to bull trout habitat and impacts to bird species that utilize trees and other flora near the segment of rail proposed for construction; and
- Impacts to the value of private property directly adjacent to the SJC proposal and private property in the surrounding area that will be impacted by the construction and continued operation of the SJC proposal.

We also request IDL analyze and identify the economic necessity and/or justification for the SJC proposal. In particular, we request IDL identify with particularity how the SJC proposal is economically necessary, justified, and/or provides benefits for Bonner County. And, we request IDL explain how IDL weighted the potential impacts to resource values against the navigational, economic necessity, or justification for the SJC proposal.

Furthermore, we request IDL identify and explain all other feasible alternatives IDL analyzed in considering the SJC proposal. We request IDL analyze other alternatives to building a second rail bridge across Lake Pend Oreille including but not limited to:

- 1. Addressing rail congestion by using the BNSF rail line between rail mile posts 75 and 72 (through Dover) and contracting with Union Pacific to utilize and/or build additional track that would cross the Pend Oreille River at rail mile post 69;¹
- Addressing rail congestion by adjusting and improving rail traffic management (i.e. we request IDL and BNSF analyze whether BNSF could direct and control rail traffic in a way that would reduce rail congestion without necessitating the build out of more rail infrastructure.); and
- 3. A no action alternative that analyzes whether or not the SJC proposal will result in permanent and long-term benefits to Bonner County.

State Trust Lands

We request IDL analyze and evaluate the ownership of the beds and banks of Lake Pend Oreille and Sand Creek in which BNSF intends to construct new rail infrastructure for the SJC proposal. BNSF has claimed that the lake bed and land on which it intends to install pilings and other rail infrastructure is not state trust land owned by the people of Idaho because this land was granted to BNSF before Idaho statehood. It may be the case that BNSF exercises a right-of-way over these lands, but it may also be the case that BNSF's right-of-way does not grant BNSF title over the beds and banks of Lake Pend Oreille and Sand Creek.

We request IDL make a finding as to the ownership of the lands on which BNSF intends to install rail infrastructure, according to the SJC proposal. If IDL discovers that BNSF does not own title to the beds and banks of Lake Pend Oreille and Sand Creek, we request IDL re-open this application for further review and public comment.

Defer a Final Decision

We request IDL defer its final decision on this matter unless and until BNSF secures a Department of Army Permit (DA), permitting the SJC proposal. We are concerned that if BNSF initiates work on the SJC proposal before securing a bridge permit and other permits associated with the SJC proposal, it would risk unnecessary destruction or encroachment upon state trust lands and the navigable waters of the state of Idaho. As such, we request IDL delay a final decision on the SJC proposal until all other permitting agencies have had the opportunity to review the proposal and weigh in.

¹ See http://fragis.fra.dot.gov/GISFRASafety/.

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 23, 2018 8:02:50 PM

Name: State Senator Shawn Keough

Contact Phone number: 208-263-1839

E-mail address: skeough@senate.idaho.gov

Mailing address: P.O. Box 101

City: Sandpoint

State: ID

Records Request Description: I write in support of the application by BNSF Railroad to construct a 2nd rail bridge through Sandpoint. I believe that construction of an additional bridge will alleviate safety and congestion issues on either side of the bridge currently in place. Thank you for considering my comments. Sincerely, Shawn Keough Idaho State Senator District One: Boundary & Bonner Counties

USCG0043453/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 23, 2018 9:13:08 PM

Name: Ken Carter

Contact Phone number: Exemption 6

E-mail address:

Mailing address:

City: Naples

State: ID

Records Request Description: concerning The BNSF permit application to add a second railroad bridge across Lake Pend Orielle. Thank you for this opportunity to comment. In 1862 the United States Government granted right of way to the Northern Pacific to build a Transcontinental Railroad across the country including across Lake Pend Orielle. that should be enough said, there is no reason for delay all necessary permits should be issued as rapidly as possible so that construction can begin

USCG0043463/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 23, 2018 11:40:18 PM

Name: David Stamation

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Sandpoint

State: ID

Records Request Description: Dear Moderator, RE: Request for Full & Independent Environmental Impact Study After attending the Idaho Dept of Lands public hearing on May 23 in Ponderay I learned of the scope of project and have the following request. I respectfully request that the Coast Guard commission an independent EIS. The proposed project is too large and too multifaceted to skip this critical step. Two points: As a permanent Sandpoint resident I want to know all risks have been carefully and fully evaluated. Second, we owe our friends downriver from this project the respect to look out after their interests in a clean environment. An a full environmental impact study addresses these points. Warm regards, David Stamation Sandpoint, ID

USCG0043473/27

From: <u>State of Idaho WebMaster</u>

To: <u>Comments</u>
Subject: IDL Comment

Date: Wednesday, May 23, 2018 11:48:26 PM

Name: Cynthia Goerig

Contact Phone number:

Exemption 6

E-mail address:

Mailing address:

City: Sandpoint

State: ID

Records Request Description: Dear Moderator, When I learned that there is no planned EIS for proposed second rail bridge in Sandpoint I was shocked. Please reverse this decision by the Coast Guard and commission an independent EIS. We owe this to the members of our community and the natural environment. I cannot imagine how those with power to render these short-cut decisions can justify it, when there are THREE bridges and two of them over water, and one of them will drive over 800 pilings into the lake bed. If this is not a textbook example of when an EIS serves it's role to perfection, I do not know what is. The current proposal by the Coast Guard is not adequate and if they proceed ahead without a full and independent study I will protest their decision and hold them accountable to explain why they did not. Regards, Cynthia Goerig Permanent resident of Sandpoint





2110 Ironwood Parkway • Coeur d'Alene, Idaho 83814 • (208) 769-1422 www.deq.idaho.gov

C.L. "Butch" Otter, Governor John H. Tippets, Director

April 13, 2018

Matthew Keim, Manager Engineering BNSF Railway Company Northtown GOB 80-44th Ave NE Minneapolis, MN 55421

Subject: Draft §401 Water Quality Certification for Sandpoint Junction Connector Project; NWW-2007-01303

Dear Mr. Keim.

Section 401 of the Federal Clean Water Act requires states issue certifications for activities that are authorized by a Federal permit and that may result in a discharge to surface waters. In Idaho, the Department of Environmental Quality (DEQ) is responsible for reviewing these activities and evaluating whether the activity will comply with Idaho Water Quality Standards; including any applicable water quality management plans (e.g. Total Maximum Daily Loads). A federal permit cannot be issued until DEQ has provided a certification or waived certification either expressly or by taking no action.

Enclosed is the draft water quality certification for the above referenced railroad bridge project. Our draft certification process allows the public to examine the draft document and provide written comments to DEQ for 30 days, however due to public interest in this project the comment period will be 45 days. At the end of this comment period, DEQ will consider the comments and provide our final certification decision.

If you have any questions or concerns, please contact June Bergquist at 208.666.4605 or via email at june.bergquist@deq.idaho.gov.

Sincerely,

Daniel Redline

Regional Administrator

Coeur d'Alene Regional Office

Enclosure

c: Shane Slate, Corps of Engineers - Coeur d'Alene Regulatory Office

Loren Moore, DEQ State Office

Pierre Bordenave, Jacobs 101 North Fourth Ave, Suite 203 Sandpoint, ID 83864

Proceed or Despelant Capaci



Idaho Department of Environmental Quality Draft §401 Water Quality Certification

April 13, 2018

404 Permit Application Number: NWW-2007-01303; BNSF Sandpoint Junction Connector (SJC) Project – Second Rail Crossing Pend Oreille Lake **Applicant/Authorized Agent:** Matthew Keim, Manager Engineering, BNSF Railway Co. Northtown GOB 80-44th Ave NE, Minneapolis, MN 55421; Authorized Agent: Pierre Bordenave, Director –Rail Jacobs Engineering, 101 North Fourth Ave, Suite 203 Sandpoint, ID 83864

Project Location: Latitude 48° 15' 54.81"N; Longitude 116° 32' 11.3"W The north end of the SJC project begins where Montana Rail Link tracks join BNSF tracks. This is located immediately north of the end of Sandpoint Road in Sandpoint. The project extends south to a point approximately 2.12 miles north on Bottle Bay Road, Sandpoint. Note all access to the BNSF Right of Way must be coordinated with BNSF.

Receiving Water Body: Pend Oreille Lake

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities receiving Section 404 dredge and fill permits and issue water quality certification decisions.

Based upon our review of the joint application for permit, received on February 26, 2018, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the activity will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits.

Project Description

Overview

BNSF proposes to discharge 14,900 cubic yards of rock into 1.54 acres of waters of the U.S. including wetlands, associated with the construction of a 2.2 mile long second mainline track located 50 feet to the west of the existing BNSF mainline. The second mainline track proposes to connect the North Algoma Siding track located south of Sandpoint, to the Sandpoint Junction switch located in Sandpoint where the BNSF and Montana Rail Link mainlines converge. The second track is proposed to cross over Bridge Street in Sandpoint (Bridge 3.0), cross over Sand

Creek (Bridge 3.1) and cross Pend Oreille Lake (Bridge 3.9). Proposed work in waters of the U.S. is related to Bridges 3.1 and 3.9 construction, a wetland fill, and nearshore transition zones. A temporary work bridge is proposed for work related to Bridges 3.1 and 3.9. The work bridge will have "set-outs" every 500 feet which are widened areas along the work bridge for materials and equipment staging and worker safety. The project is proposed to start in fall 2018 and take approximately 3 to 3.5 years to complete.

Regulatory Background

As stated above, section 401 of the Clean Water Act (CWA) provides states with the opportunity to determine if federally issued licenses or permits will violate state water quality standards. This 401 certification requested by the U.S. Army Corps of Engineers, addresses activities related to the BNSF construction project within the scope authorized by the CWA. Other federal permits related to this project are the U.S. Coast Guard's (USCG) bridge permit and U.S. Environmental Protection Agency's (EPA) Construction General Permit (CGP).

The applicant indicated they will obtain coverage under the CGP. This federal permit has a 401 certification from DEQ dated December 22, 2016 (Appendix A) with conditions that apply to project activities on land where discharges from the construction site could enter waters of the U.S.

Under the National Environmental Policy Act, the USCG is the lead federal agency. Their permit, issued under the authority of the General Bridge Act of August 2, 1946, will be in order of issuance, the last federal permit issued for this project. The USCG permit will include this final 401 certification, provisions of the CGP, and the final Corps permit as conditions to be met.

Proposed BMPs

Listed below are the major BMPs proposed by BNSF (in italics but not verbatim) for this project and related certification condition(s). Please note that this list is not all inclusive:

- 1. Fills in nearshore and wetland locations will occur at the earliest stages of the project to take advantage of performing that work while lake levels are lower and wetland areas are relatively dry. This BMP has been modified by the certification conditions to conduct nearshore filling activities during low pool (see Condition 7). A stormwater swale will treat runoff displaced by the wetland fill.
- 2. All roads, staging areas, and access pads will be rock covered. Vehicle entrance/exits will have rocked track-out control. The need for track out control is further addressed by Condition 20 which requires other BMPs be used if the proposed rocked exits do not function adequately.
- 3. Limits of activities will be clearly marked to protect existing vegetation.
- 4. Sediment filtering fencing or equivalent BMPs will be installed at the work perimeter/limits to protect adjacent undisturbed surface water and wetland resources.
- 5. Erosion control BMPs will be inspected daily. The 401 certification conditions also require maintenance of BMPs and modification of inspection frequency (see Conditions 14, 15, 16, 27, 28, and CGP part 9.7.1).
- 6. Work boats or barges will be inspected for invasive species prior to deployment into Pend Oreille Lake. See Condition 39 for more details regarding cleaning of equipment.

- 7. Open soil areas will be seeded with native grass species and weed-free mulch within seven days of work completion and during periods of seasonal shutdown. See the CGP part 2.2.14 for modifications to this proposed BMP.
- 8. Dust control by means of watering or clean rock cover.
- 9. Portable toilets and garbage containers will be located in upland staging area, on work bridge set-outs and regularly maintained. Garbage containers and toilets on the bridge will be secured to the bridge. See Condition 40 for more details.
- 10. Petroleum spill containment materials will be on-site at all times and staged to be within immediate direct access of machinery and vehicles on site. Fuel containers will not be stored on work bridges or within 50 feet of surface water. All equipment parked on the work bridge will have appropriately sized containment beneath it in the event of a spill or leak.
- 11. Equipment operating near or adjacent to Pend Oreille Lake or Sand Creek will have spill containment booms and/or other spill retention and containment materials deployed under and around the location of the work. See Conditions 35-39 and 41 for more details.
- 12. Temporary work bridges (for both Bridge 3.1 and 3.9) will be constructed using steel pilings that are vibrated into the lake or creek bed and removed upon project completion. One pile per bent will be impact proofed which requires striking the pile repeatedly. Vibratory installation of piles is used as a BMP to minimize acoustic impacts to aquatic life. The frequency of use of an impact hammer to drive piles has been minimized and is further mitigated by use of a bubble curtain when it must be used.
- 13. Bubble curtains and silt curtains are proposed to be used for pile driving associated with the temporary and permanent Bridge 3.9 for depths that are 8 feet and greater. For depths less than 8 feet only a silt curtain is proposed to be used. There are no bubble or silt curtains proposed for pile driving for Bridge 3.1 due to shallow conditions and current that renders these BMPs unable to function correctly. Conditions 21-25 modify the use of these BMPs.
- 14. Containment BMPs will be used to capture inadvertent fall of construction materials or debris into the lake or creek.
- 15. Isolation of in-water work areas via temporary coffer dams and installation of turbidity curtains for in-water work is proposed. See Conditions 9, and 21-25 for more details.
- 16. Monitoring and compliance with Idaho Water Quality Standards for turbidity is proposed. See Conditions 26-28 for more details.
- 17. Concrete pours will be associated with work on top of the precast bridge decks. Pilings may be filled with concrete but as yet has not been determined. There will be no cement in-water pours or contact with surface waters, however, final designs may require handling and transport of cement over surface waters. In this event, Condition 9 requires a concrete best management plan be developed for DEQ review and approval.

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered
 high quality and ensures that no lowering of water quality will be allowed unless deemed
 necessary to accommodate important economic or social development (IDAPA
 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The primary pollutants of concern for this project are sediment and phosphorus. As part of the Section 401 water quality certification, DEQ is requiring the applicant comply with various conditions to protect water quality and to meet Idaho WQS, including the water quality criteria applicable to sediment.

Receiving Water Body Level of Protection

This project is located on Pend Oreille Lake within the Pend Oreille Lake Subbasin assessment unit (AU) 17010214PN018L_0L (Pend Oreille Lake). This AU has the following designated beneficial uses: cold water aquatic life, salmonid spawning, primary contact recreation, and domestic water supply. In addition to these uses, all waters of the state are protected for agricultural and industrial water supply, wildlife habitat, and aesthetics (IDAPA 58.01.02.100).

The water intake for the City of Sandpoint is located approximately 0.67 mile north of the proposed construction activity. The intake pipe is placed at a depth of 14-25 feet depending on water levels, and the general flow pattern of water in the vicinity of the intake is south towards the proposed construction. Therefore, DEQ has reasonable assurance that WQS for this domestic water supply use will be met.

5

Although Bridge 3.1 is being constructed over what is locally known as Sand Creek, the Pend Oreille Lake assessment unit includes the lower portion of Sand Creek upstream to near where Highway 2 crosses the creek. Therefore, beneficial uses and water quality impairments in this lower portion of Sand Creek are the same as the lake. This certification refers to Sand Creek as a location in an effort to avoid confusion.

According to DEQ's 2014 Integrated Report, this AU is not fully supporting one or more of its assessed uses. The aquatic life use in this receiving water body AU is not fully supported. Causes of impairment include mercury, other flow regime alterations, and phosphorus. The contact recreation beneficial use is also not fully supported. Causes of impairment include mercury. As such, DEQ will provide Tier I protection for both the aquatic life and contact recreation uses (IDAPA 58.01.02.051.01).

Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. Once a TMDL is developed, discharges of causative pollutants shall be consistent with the allocations in the TMDL (IDAPA 58.01.02.055.05). Prior to the development of the TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect uses (IDAPA 58.01.02.055.04).

During the construction phase, the applicant will implement, install, maintain, monitor, and adaptively manage best management practices (BMPs) directed toward reducing erosion and minimizing turbidity levels in receiving water bodies downstream of the project. In addition, permanent erosion and sediment controls will be implemented, which will minimize or prevent future sediment contributions from the project area.

As long as the project is conducted in accordance with the provisions of the project plans, Section 404 permit, and conditions of this certification, then there is reasonable assurance the project will comply with the state's numeric and narrative criteria. These criteria are set at levels that protect and maintain designated and existing beneficial uses. In addition, the project will be consistent with the *Total Maximum Daily Load (TMDL)* for Nutrients for the Nearshore Waters of Pend Oreille Lake, Idaho. This TMDL focuses on the prevention of additional phosphorus added to the lake. Because significant amounts of phosphorus can be found in soils, limiting sources of sedimentation and turbidity should adequately prevent significant amounts of phosphorus from entering Pend Oreille Lake and Sand Creek. This project will comply with the TMDL by application of BMPs such as silt fences, silt curtains, straw wattles, and other BMPs (see list under Project Description) that minimize or prevent soil erosion and in-water turbidity.

There is no available information indicating the presence of any existing beneficial uses aside from those that are already designated and discussed above; therefore, the permit ensures that the level of water quality necessary to protect both existing and designated uses is maintained and

protected in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

General Conditions

- 1. This certification is conditioned upon the requirement that any modification (e.g., change in BMPs, work windows, etc.) of the permitted activity shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401. Such modifications may not be implemented until DEQ has determined whether additional certification is necessary.
- 2. DEQ reserves the right to modify, amend, or revoke this certification if DEQ determines that, due to changes in relevant circumstances—including without limitation, changes in project activities, the characteristics of the receiving water bodies, or state WQS—there is no longer reasonable assurance of compliance with WQS or other appropriate requirements of state law.
- 3. A copy of this certification must be kept on the job site and readily available for review by any contractor working on the project and any federal, state, or local government personnel.
- 4. Project areas shall be clearly identified in the field prior to initiating land-disturbing activities to ensure avoidance of impacts to waters of the state beyond project footprints.
- 5. The applicant shall provide access to the project site and all mitigation sites upon request by DEQ personnel for site inspections, monitoring, and/or to ensure that conditions of this certification are being met.
- 6. The applicant is responsible for all work done by contractors and must ensure the contractors are informed of and follow all the conditions described in this certification and the Section 404 permit.

Fill Material

- 7. Fill activities affecting the shoreline, stream banks or wetland shall take place only during periods of low flow and/or low pool.
- 8. Fill material subject to suspension shall be free of easily suspended fine material. The fill material to be placed shall be clean material only from an Idaho Department of Lands permitted source.
- 9. If concrete is placed inside pilings or if cofferdams require dewatering, the permittee shall submit to DEQ plans for review and approval, for the over-water handling and transport of uncured concrete that prevents spillage into water and/or a dewatering plan that meets WQS.
- 10. All temporary fills shall be removed in their entirety on or before construction completion.
- 11. Excavated or staged fill material must be placed so it is isolated from the water edge or wetlands and not placed where it could re-enter waters of the state.

Erosion and Sediment Control

- 12. BMPs for sediment and erosion control suitable to prevent exceedances of state WQS shall be selected and installed before starting construction at the site. One resource that may be used in evaluating appropriate BMPs is DEQ's Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, available online at http://www.deq.idaho.gov/media/494058-entire.pdf. Other resources may also be used for selecting appropriate BMPs.
- 13. Permanent erosion and sediment control measures shall be installed in a manner that will provide long-term sediment and erosion control to prevent excess sediment from entering waters of the state.
- 14. Erosion and sediment control measures shall be installed at the earliest practicable time consistent with good construction practices and shall be maintained as necessary throughout project operation.
- 15. A BMP inspection and maintenance plan must be developed and implemented. At a minimum, BMPs must be inspected and maintained daily during project implementation.
- 16. BMP effectiveness shall be monitored during project implementation. BMPs shall be replaced or augmented if they are not effective.
- 17. All construction debris shall be properly disposed of so it cannot enter waters of the state or cause water quality degradation.
- 18. Disturbed areas suitable for vegetation shall be seeded or revegetated to prevent subsequent soil erosion.
- 19. Maximum fill slopes shall be such that material is structurally stable once placed and does not slough into the stream or lake during construction, during periods prior to revegetation, or after vegetation is established.
- 20. Sediment from disturbed areas or able to be tracked by vehicles onto pavement must not be allowed to leave the site in amounts that would reasonably be expected to enter waters of the state. Placement of clean aggregate at all construction entrances or exits and other BMPs such as truck or wheel washes, if needed, must be used when earth-moving equipment will be leaving the site and traveling on paved surfaces.
- 21. Silt curtains (turbidity curtains) must be implemented and properly maintained to minimize in-water sediment suspension and resulting turbidity, in accordance with all monitoring and compliance requirements of this certification.
- 22. Silt curtains shall be reliable and function correctly. Curtain design and materials (product) must have been previously and scientifically field tested to determine effectiveness in water quality protection. Manufacturers' specifications and deployment instructions shall be followed. If there is flowing water, curtains must have been designed, tested and recommended by the manufacturer for this condition (velocity rating). Curtains that drag back and forth along the bottom of the lake or stream due to wave action are incorrectly installed and are a violation of this certification, unless a manufacturer who has scientifically field tested this design recommends this type of placement. The silt curtain shall function in such a manner as to meet WQS. Silt curtains shall be deployed so as to minimize the area within the curtain while still maintaining

- optimum function. Curtains shall hang so the fabric is smooth allowing sediment to slide down its face rather than becoming trapped in folds.
- 23. Total containment curtains are not required unless conditions are conducive to them functioning without themselves creating turbidity that exceeds WQS from movement of the curtain bottom against the lake or stream bed.
- 24. Bubble curtains shall be deployed as directed by Idaho Fish and Game and U.S. Fish and Wildlife Service to protect aquatic life. If bubble curtains create turbid plumes, they shall be enclosed with a silt curtain or similar BMP.
- 25. The use of silt/turbidity curtains in various depths and water velocities shall be guided by manufacturer's suggested uses, and shall be used to protect all aquatic life and habitat, not limited by just considering protections for bull trout.

Turbidity Monitoring and Compliance Requirements

- 26. Sediment resulting from this activity must be mitigated to prevent violations of the turbidity standard as stipulated under the Idaho WQS (IDAPA 58.01.02). Any violation of this standard must be reported to the DEQ regional office immediately by calling (208)666-4605 and leaving a message.
- 27. Visual observation is acceptable to determine whether BMPs are functioning properly unless a plume is observed. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must inspect the condition of the projects BMPs and initiate turbidity monitoring consistent with Table 1 with a properly and regularly calibrated turbidimeter. These turbidity monitoring requirements do not replace or supersede any monitoring or other requirements of the CGP.
 - a. Turbidity Sampling Location. Choose, identify, and document the following locations for each plume observed:
 - i. <u>Background locations</u>
 Collect background samples at relatively undisturbed locations unaffected by the construction activity, up-current from the permitted activity.
 - ii. Compliance locations

 For Sand Creek and shoreline activity along Pend Orcille Lake choose a location 50 feet down-current from the permitted activity, within any visible plumes. For plumes associated with work in and over open waters of Pend Orcille Lake (bridge work), choose a location in the plume that is immediately outside of any containment measures such as silt curtains.
 - b. Turbidity measurements must be representative of stream or lake turbidity when the activity is being conducted. *Measurements cannot be taken during a cessation of activity.*

Table 1. Turbidimeter Monitoring When a Plume is Observed				
Turbidity Amount Above Background ²	Monitoring Frequency	Action Required		
0 to 24 NTU	Monitor every 2 hours	None		
25 to 49 NTU	Monitor every 2 hours	STOP work after 8 hours in every 24-hour period		
≥50 NTU (first occurrence)	Monitor after Instructions ¹ are followed	STOP work and follow Instructions ¹		
≥50 NTU (second occurrence)	Monitor after Instructions ¹ are followed	STOP work, follow Instructions ¹ and notify DEQ Regional Office at (208) 666-4605		

¹ Instructions: If BMPs appear to be functioning to their fullest capability, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs) until additional monitoring indicates turbidity standards are met. Monitoring can cease when a plume is no longer observed.

- 28. Reporting. Beginning with observation of a plume, provide a written description of the information required in 28a and 28b. Copies of these reports must be made available to DEQ and other local, state and federal regulatory agencies upon request. The reports must include:
 - a. Background NTUs, compliance location NTUs and their difference in NTUs, a mapped location, time, and date for each sample.
 - b. A narrative discussing BMPs in use when the plume was observed (27.a.ii), all exceedances, controls applied and their effectiveness, subsequent monitoring, work stoppages, and any other actions taken.

In-water Work

- 29. Work in open water is to be kept at a minimum and conducted only when necessary.
- 30. Fording of the channel is not permitted. Temporary bridges or other structures may be built if crossings are necessary.
- 31. Activities in spawning areas must be avoided to the maximum extent practicable.
- 32. Work in waters of the state shall be restricted to areas specified in the application.
- 33. Practices must prevent wet concrete from entering into waters of the state.
- 34. Stranded fish found in dewatered cofferdams should be safely moved to a location (preferably downstream) with water.

Management of Hazardous or Deleterious Materials

35. Petroleum products and hazardous, toxic, and/or deleterious materials shall not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of waters of the state. Adequate measures and controls must be in place to ensure that those materials will not enter waters of the state as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third-party activities.

² Turbidity shall be sampled three times at each location and reported. Use the maximum value of the three samples for determining compliance and following Table 1 direction.

- 36. Vegetable-based hydraulic fluid should be used on equipment operating in or directly adjacent to the channel if this fluid is available.
- 37. Daily inspections of all fluid systems on equipment to be used in or near waters of the state shall be done to ensure no leaks or potential leaks exist prior to equipment use. If equipment leaks fluids as a normal part of operation it shall have an absorbent drip pad (diaper) that captures all leaks. A log book of these inspections shall be kept on site and provided to DEQ upon request.
- 38. Equipment and machinery must be removed from the vicinity of the waters of the state prior to refueling, repair, and/or maintenance.
- 39. Equipment and machinery used in or over water shall be steam cleaned of oils, grease, and invasive species in an upland location or staging area with appropriate wastewater controls and treatment prior to entering on or over a water of the state. Any wastewater or wash water must not be allowed to enter a water of the state. Cleaning shall be adequate enough to remove all life stages of aquatic invasive species.
- 40. Portable toilets placed on land shall be securely anchored to prevent tipping.
- 41. Emergency spill procedures shall be in place and include spill response kits (e.g., oil absorbent booms or other equipment) located where heavy equipment is being operated.
- 42. In accordance with IDAPA 58.01.02.850, in the event of an unauthorized release of hazardous material to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must
 - Make every reasonable effort to abate and stop a continuing spill.
 - b. Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or ground waters of the state.
 - c. Call 911 if immediate assistance is required to control, contain, or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office during normal working hours or Idaho State Communications Center after normal working hours (1-800-632-8000). If the spilled volume is above federal reportable quantities, contact the National Response Center (1-800-424-8802).
 - Coeur d'Alene Regional Office: 208-769-1422 / 877-370-0017
 - d. Collect, remove, and dispose of the spilled material in a manner approved by DEQ.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to June Bergquist, Coeur d'Alene Regional Office at 208-666-4605 or via email at june.bergquist@deq.idaho.gov.

DRAFT

Daniel Redline Regional Administrator Coeur d'Alene Regional Office

WEBSITE POSTING INFORMATION

(For internal DEQ use only and to be removed from the 401 certification prior to posting)

County: Bonner

ACOE Permit Application Number: NWW-2007-01303

Project Description: BNSF proposes to construct a bridge across Sand Creek and Pend Oreille

Lake

ACOE Nationwide Permit Number: individual permit

Applicant's Name: BNSF Railway Company Impacted Water Body: Pend Oreille Lake Public Comment Period Duration: 45 days

Appendix A



Idaho Department of Environmental Quality Final §401 Water Quality Certification

December 22, 2016

NPDES Permit Number(s): General Permit for Stormwater Discharge from Construction Activities (CGP) IDR100000

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review National Pollutant Discharge Elimination System (NPDES) permits and issue water quality certification decisions.

Based upon its review of the draft Construction General Permit (CGP) and associated fact sheet, received from EPA on April 1, 2016, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permit along with the conditions set forth in this water quality certification, then there is reasonable assurance the discharge will comply with the applicable requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits, including without limitation, the approval from the owner of a private water conveyance system, if one is required, to use the system in connection with the permitted activities.

The draft CGP authorizes discharges associated with construction activity, including clearing, grading, and excavation, if the construction activity:

- Will result in the disturbance of 1 or more acres of land; or
- Will result in the disturbance of less than one acre of land but is part of a common plan of development or sale that will ultimately disturb 1 or more, acres of land; or
- Has been designated by EPA as needing permit coverage under 40 CFR 122.26(a)(1)(v) or 40 CFR 122.26(b)(15)(ii)

Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

 Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).

- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).
- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

Pollutants of Concern

The primary pollutant of concern associated with storm water discharges from construction activities is sediment, typically measured as total suspended solids and turbidity. Other potential pollutants include the following: phosphorus, nitrogen, pesticides, organics, metals, PCBs, petroleum products, construction chemicals, and solid wastes.

Receiving Water Body Level of Protection

The CGP provides coverage to construction activities throughout the entire State of Idaho. Because of the statewide applicability, all of the jurisdictional waters within Idaho could potentially receive discharges either directly or indirectly from activities covered under the CGP. DEQ applies a water body by water body approach to determine the level of antidegradation protection a water body will receive.

All waters in Idaho that receive discharges from activities authorized under the CGP will receive, at minimum, Tier I antidegradation protection because Idaho's antidegradation policy applies to all waters of the state. Water bodies that fully support their aquatic life or recreational uses are considered to be high quality waters and will receive Tier II antidegradation protection.

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs) designated, it is possible for a water body to be designated as an ORW during the life of the CGP. Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy.

To determine the support status of the receiving water body, persons filing a Notice of Intent (NOI) for coverage under this general permit must use the most recent EPA-approved Integrated Report, available on Idaho DEQ's website: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/.

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified in Category 3 of DEQ's Integrated Report. These waters require a case-by-case determination to be made by DEQ based on available information at the time of the application for permit coverage. If a water body is unassessed, the applicant is directed to contact DEQ for assistance in filing the NOI.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired", for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a healthy, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i)

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: http://www.deq.idaho.gov/assistance-resources/maps-data/.

Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, the applicant is directed to make contact with the appropriate DEQ regional office or the State Office (Table 1).

Table 1. Idaho DEO Regional and State Office Contacts

Regional and State Office	Address	Phone Number	Email
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene 83814	208-769-1422	june.bergquist@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	mark.sellet@deg.idaho.gov
Pocatello	444 Hospital Way, #300 Pocatello 83201	208-236-6160	lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls 83301	208-736-2190	balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	nicole.deinarowicz@deq.idaho.gov

Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and

protected. In order to protect and maintain designated and existing beneficial uses, a permitted discharge must comply with narrative and numeric criteria of the Idaho WQS, as well as other provisions of the WQS such as Section 055, which addresses water quality limited waters. The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses. The effluent limitations and associated requirements contained in the CGP are set at levels that ensure compliance with the narrative and numeric criteria in the WQS.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment. A central purpose of TMDLs is to establish wasteload allocations (WLA) for point source discharges, which are set at levels designed to help restore the water body to a condition that supports existing and designated beneficial uses. Discharge permits must contain limitations that are consistent with wasteload allocations in the approved TMDL. A permit with effluent limitations consistent with TMDL wasteload allocations will provide the level of water quality necessary to support existing and designated uses and therefore satisfies Tier I antidegradation requirements.

The non-numeric effluent limitation requirements in the CGP address erosion and sediment controls, soil stabilization requirements, de-watering procedures, pollution prevention measures, prohibited discharges and surface outlets. Further, the 2017 CGP imposes the same additional requirements for construction activities where the discharge will occur on water bodies identified as "impaired" for sediment or a sediment-related parameter, such as total suspended solids (TSS) or turbidity, and/or nutrients, including impairments for nitrogen and/or phosphorus as in the 2012 CGP. The permittee will be responsible for identifying such waters in the NOI.

Those additional control measures to be taken if the affected water body is impaired for sediment and/or nutrients are:

- Increased frequency of site inspections;
- Compliance with the deadline for complete stabilization; and
- Any additional State or Tribal requirements.

In order to ensure compliance with Idaho WQS, DEQ has included a condition requiring that the permittee(s) must comply with Idaho's numeric turbidity criteria, developed to protect aquatic life uses. The criterion states, "Turbidity shall not exceed background turbidity by more than 50 NTU instantaneously or more than 25 NTU for more than 10 consecutive days" (IDAPA 58.01.02.250.02.e). When there is a direct discharge from an unstabilized portion of the site to a water of the United States, DEQ is requiring the permittee to conduct turbidity monitoring as described below in the "Conditions" section of this certification.

As written in the CGP, if EPA determines that the controls outlined in Parts 2, 3, and 9 of the permit will not be sufficient to control discharges in a manner which is consistent with the assumptions and requirements of any applicable wasteload allocation set forth in an applicable TMDL, then additional water quality-based limitations will be imposed on a site-specific basis, or EPA will require the permittee to obtain an individual permit. An individual permit necessitates an individual certification by the state.

Lastly, per section 3.2 of the CGP, if a discharge to a water body that is impaired for a parameter other than a sediment-related parameter or nutrients, EPA will inform the permittee if any

additional limits or controls are necessary for the discharge to be controlled as necessary to meet water quality standards.

The effluent limitations, including non-numeric technology based and water quality-based effluent limits, frequent site inspections, visual monitoring requirements, and associated requirements contained in the CGP, coupled with the conditions in this certification, ensure compliance with the narrative and numeric criteria in the Idaho WQS. In addition, the permit ensures compliance with any applicable WLA in any applicable TMDL. Therefore, DEQ has determined the permit will protect and maintain existing and designated uses in compliance with the Tier I provisions of Idaho's WQS (IDAPA 58.01.02.051.01 and 58.01.02.052.07).

Protection of High-Quality Waters (Tier II Protection)

Water bodies that fully support their beneficial uses are recognized as high-quality waters and are provided Tier II protection in addition to Tier I protection. Water quality parameters applicable to existing or designated beneficial uses must be maintained and protected under Tier II, unless a lowering of water quality is deemed necessary to accommodate important economic or social development. Although EPA is not proposing any significant modifications to the draft CGP as compared to the 2012 CGP, they are including several minor new or modified requirements that will further protect water quality. Such modifications include, but are not limited to:

- Implementing the 2014 amendments to the Construction and Development Rule (C&D rule);
- 2. Including information on public notices on how to contact EPA if stormwater pollution is observed in the discharge;
- 3. Requiring all inactive stockpiles and land clearing debris piles be covered or temporarily stabilized;
- 4. Requiring waste containers remain covered when not in use and;
- 5. Implementing controls to minimize the release of PCBs from demolition.

Further, the draft CGP will continue to provide additional protection for high quality waters. Those additional protection measures include: maintaining natural buffers in riparian areas, more frequent site inspections, and a more stringent timeline for implementing stabilization measures. In cases where information submitted with the NOI, or available from other sources, indicates that further Tier II analysis is necessary and/or additional conditions are needed, either for a new project or an existing project with a significantly increased discharge, EPA will conduct this review and require any appropriate additional controls. DEQ is requiring, as a condition of this certification, that EPA consult DEQ during any such review. If during this review, EPA and DEQ decide that an additional Tier II protection is warranted, then EPA may either change the terms of coverage or terminate coverage under the CGP and require an individual permit. This individual permit will then necessitate an individual review and certification by the state.

With respect to existing sites that were covered under the 2012 CGP, the 2017 CGP imposes permit limits at least as stringent as the 2012 permit. Therefore, there will be no lowering of water quality as a result of existing sites covered under the new CGP.

For new sites, DEQ believes the effluent limitations and associated requirements in the CGP, coupled with the conditions set forth in this certification, provide reasonable assurance that there

will be no lowering of water quality in any high quality waters. Therefore, DEQ concludes that the activities authorized will comply with the provisions of IDAPA 58.01.02.051.02 and IDAPA 58.01.02.052.08.

Protection of Outstanding Resource Waters (Tier III Protection)

Idaho's antidegradation policy requires that the quality of outstanding resource waters (ORWs) be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03). To date, no water bodies in Idaho have been designated as ORWs. In the event that water bodies are designated as ORWs during the term of this permit, DEQ believes that the terms of the CGP and the conditions in this 401 Certification, provide reasonable assurance there will be no lowering of water quality. In addition to the requirements that apply to all work covered by the CGP, Part 3.2 of the CGP requires more frequent site inspections and a more stringent timeline for implementing stabilization measures for activities on ORWs. In addition, on a case-by-case basis, EPA may require additional analyses, stormwater controls, or other permit conditions that are necessary to comply with applicable antidegradation requirements, or require an individual permit be obtained. As a condition of this certification, DEQ is requesting that EPA coordinate with the appropriate DEQ Regional Office prior to authorizing any work on an ORW to ensure there is no lowering of water quality.

In sum, DEQ concludes that the authorized activities will comply with Idaho antidegradation provisions should waters become designated ORWs during the term of the CGP.

Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

Turbidity Monitoring

The permittee must conduct turbidity monitoring during construction activities and thereafter on days when there is a direct discharge of pollutants from an unstabilized portion of the site which is causing a visible plume to a water of the United States.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field (preferred method), but grab samples may be collected and taken to a laboratory for analysis. If the permittee can demonstrate that there will be no direct discharge from the construction site, then turbidity monitoring is not required. When monitoring is required, a sample must be taken at an undisturbed area immediately upstream of the project area to establish background turbidity levels for the monitoring event. Background turbidity, location, date and time must be recorded prior to monitoring downstream of the project area. A sample must also be taken immediately downstream from any point of discharge and within any visible plume. The turbidity, location, date and time must be recorded. The downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the compliance point sampling or observation¹ must be compared to the background levels to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more than the upstream turbidity, then the project is causing an exceedance of the WQS. Any exceedance of the turbidity standard must be reported to the appropriate DEQ regional office within 24 hours. The following six (6) steps should be followed to ensure compliance with the turbidity standard:

- 1. If a visible plume is observed, quantify the plume by collecting turbidity measurements from within the plume and compare the results to Idaho's instantaneous numeric turbidity criterion (50 NTU over the background).
- 2. If turbidity is less than 50 NTU instantaneously over the background turbidity; continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities and proceed to Step 3.
- Take immediate action to address the cause of the exceedance. That may include
 inspecting the condition of project BMPs. If the BMPs are functioning to their fullest
 capability, then the permittee must modify project activities and/or BMPs to correct the
 exceedance.
- 4. Notify the appropriate DEQ regional office within 24 hours.
- 5. Possibly increase monitoring frequency until state water standards are met.
- 6. Continue earth disturbing construction activities once turbidity readings return to within 50 NTU instantaneously and 25 NTU for more than ten consecutive days over the background turbidity.

Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

High Quality Waters

For any high quality waters that require a further Tier II analysis and or additional conditions, either for a new project or an existing project with a significantly increased discharge, DEQ requires that EPA consult with the appropriate DEQ regional office during any such review.

Outstanding Resource Waters

Should waters become designated as ORWs during the term of the CGP, DEQ is requiring that EPA coordinate with the appropriate DEQ regional office prior to authorizing any work on an ORW to ensure there is no lowering of water quality.

¹ A visual observation is only acceptable to determine whether BMPs are functioning properly. If a plume is observed, the project may be causing an exceedance of WQS and the permittee must collect turbidity data and inspect the condition of the projects BMPs. If the BMPs appear to be functioning to their fullest capability and the turbidity is 50 NTUs or more than the upstream turbidity, then the permittee must modify the activity or implement additional BMPs (this may also include modifying existing BMPs).

Equivalent Analysis Waiver

Prior to granting a waiver from the permitting requirements of the CGP, EPA must coordinate with the appropriate DEQ regional office to conduct a joint review of the equivalent analysis waiver submitted by the permittee to ensure there will be no lowering of water quality.

Reporting of Discharges Containing Hazardous Materials or Petroleum Products

All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in Table 2 during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Response Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

Table 2. Idaho DEO Regional Contacts

Regional Office	Toll Free Phone Number	Phone Number
Boise	888-800-3480	208-373-0550
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	877-541-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

Other Conditions

This certification is conditioned upon the requirement that any material modification of the permit or the permitted activities—including without limitation, significant changes to the draft CGP, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site-specific criteria, variances, or other new information—shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative

Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Nicole Deinarowicz, DEQ State Office, at 208-373-0591 or via email at nicole.deinarowicz@deq.idaho.gov.

Barry N. Burnell

Water Quality Division Administrator

Baro M. Bermell

Idaho Department of Lands

U.S. Coast Guard

U.S. Army Corps of Engineers

May 23, 2018

I have always loved the railroads. As a child my uncle would always attach a drawing of the Great Northern goat to his letters. The trains went from Hope to Paradise

But times have changed. The trains are longer, faster, and carrying more volatile Balkan oil and coal. Small towns like Hope and Sandpoint were built by the railroads but now these towns are recreational hubs. Can you imagine double track by City Beach? NOW THE RR IS ASKING US TO CARRY ALL THE RISK WITH NO REWARD.

I speak for the health of the Clark Fork River, Lake Pend Oreille, the creatures and the peoples who live here. Can Burlington Northern build a double track over the biggest fresh water Lake in the Northwest and keep it clean and safe? We need an Environmental Impact Statement to answer that question. LPO is a significant recharger of the Sole Source Aquifer serving The Rathdrum Prairie and Spokane. It is Sandpoint's principal Resource.

NOW WE CARRY ALL THE RISK AND NO REWARD.

Why isn't the Balkan oil refined before it is carried long distances over rail? If an explosion were to occur, Sandpoint fire chief said we would have to wait for equipment from Spokane. Why isn't the Railroad required to provide emergency personnel and equipment to handle fires? The money the RR spent on the many full page ads in the Spokesman Review supporting the new bridge would have made better publicity if spent on new equipment, or more safety personnel.

In the last few years fire danger has been extremely high. Last August it was stage three when a train derailment occurred near the Clark Fork. Heavy equipment which I was told was "exempt" from the fire rules cleared the lines quickly. But the risk of spontaneous combustion from wet coal required the Heron firemen to monitor the coal for a matter of months before it was cleaned up. How long would Sandpoint have to wait?

CITIZENS ARE ASKED TO CARRY ALL THE RISK AND SHAREHOLDERS REAP THE REWARDS.

Construction is expected to last 3 years. It is a big project. Please require an EIS for all our sakes.

Judy Butler Judy Butler

Exemption 6

Hope, Idaho



Crude Oil Movement by Rail and Pipeline

Quarterly Report: January 1, 2018 through March 31, 2018

April 2018 Publication 18-08-005

Publication and Contact Information

This report is available on the Department of Ecology's website at https://fortress.wa.gov/ecy/publications/SummaryPages/1808005.html

For more information contact:

Spill Prevention, Preparedness, and Response Program P.O. Box 47600 Olympia, WA 98504-7600 Phone: (360) 407-7455

Washington State Department of Ecology — www.ecology.wa.gov

•	Headquarters, Olympia	360-407-6000
•	Northwest Regional Office, Bellevue	425-649-7000
•	Southwest Regional Office, Olympia	360-407-6300
•	Central Regional Office, Union Gap	509-575-2490
•	Eastern Regional Office, Spokane	509-329-3400

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-7455 or visit https://ecology.wa.gov/accessibility. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

Crude Oil Movement by Rail and Pipeline

Quarterly Report: January 1, 2018 through March 31, 2018

Spill Prevention, Preparedness, and Response Program Washington State Department of Ecology Olympia, Washington This page is purposely left blank.

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Introduction

To enhance crude oil spill preparedness and response in Washington State, on August 24, 2016, Ecology adopted the rule, Oil Movement by Rail and Pipeline Notification. The rule establishes reporting standards for facilities that receive crude oil by rail and pipelines that transport crude oil in or through the state. Additionally, the rule identifies reporting standards for Ecology to share information with emergency responders, local governments, tribes, and the public.

This rule is the result of 2015 Legislative direction to provide a better understanding of the changing risk picture for crude oil transported in Washington State as a result of the introduction of crude oil transport by rail and the associated changes in both the volume and properties of crude moving through Washington.

Timely notice of oil movement information is necessary for emergency responders and planners to effectively prepare for and respond to oil spills and other incidents associated with transporting crude oil by rail and pipeline. Providing adequate information about the dates, routes, and properties of crude oil can help protect people living and working near railroads and pipelines, the economy, and environmental resources of Washington State.

Ecology is required to publish information collected under the rule to its website on a quarterly basis. The quarterly reports provide:

- Aggregated information on crude oil transported by rail to facilities in Washington.
- Information about crude oil movement by pipeline in or through the state.
- Reported spills during transport and delivery of crude by rail and pipeline.
- Volume of crude oil transported by vessel.

The reports are intended to inform the public about the nature of crude oil movement through their communities.

The reporting period for this quarterly report is January 1, 2018 through March 31, 2018.

¹ Chapter 173-185 WAC

Crude Oil by Rail Summary

Movement of crude oil by rail in Washington State began in 2012 and has continued to increase since that time. Rail routes transporting crude oil enter the state from Idaho near Spokane and from British Columbia near Bellingham, and Ecology continues to monitor other potential routes. Large segments of the rail routes travel along the I-5 corridor, and cross or run next to major waterways, including the Columbia River and Puget Sound. (See Appendix A for a map of railroad routes in the state.)

Capturing information on the properties of crude oil, the volume transported, and the routes used to transport it allows for proper planning, placement of resources, and opportunities to provide detailed information to responders in the event of a spill, ensuring a more effective overall response. The rule directs Ecology to gather this information by requiring facilities receiving crude oil by rail to report all scheduled crude oil deliveries to be received by the facility each week for the succeeding seven-day period. Facilities enter this information into Ecology's Advance Notice of Transfer (ANT) database.

Information reported by facilities on scheduled crude oil deliveries includes the region of origin of crude oil, the railroad route taken to the facility within the state (if known), scheduled time and volume in barrels (bbls) of the delivery, and gravity of the oil. Ecology uses the standard American Petroleum Institute (API) gravity ranges to define the Crude Type in the ANT database. (See Appendix B for the API gravity definition and Crude Type ranges.)

Ecology is required to aggregate the information provided on a statewide basis by route, week, and type of crude oil. Aggregate information from the ANT database is provided in Table 1 for the period January 1, 2018 through March 31, 2018, representing the 1st quarter of 2018. Each week is numbered by calendar week and is aggregated by route and type of crude. The information provided includes:

- Total weekly volume in barrels (bbls) of crude oil transported by rail
- Route
- Region of origin
- Crude type
- Route volume
- Estimated number of railcars per route delivering crude oil (assumes each car holds 680 bbls)

Thirteen calendar weeks are reported in the 1st quarter of 2018 starting at calendar week 1 and ending at calendar week 13.

Table 1: Crude Oil Movement by Rail

Calendar Week 1

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3, 4	North Dakota	Light Crude	325,000	477
1A, 2, 3, 4, 5	North Dakota	Light Crude	214,500	315
1B, 2, 3	Alberta	Heavy Crude	118,036	173
	The first consequence of the con	Weekly totals:	657,536	965

^{*} Week 1 contains six days of reported ANT volumes due to the dates of the reporting period.

Calendar Week 2

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	206,343	303
1A, 2, 3, 4	North Dakota	Light Crude	325,000	477
1A, 2, 3, 4, 5	North Dakota	Light Crude	496,500	730
1B, 2, 3	Alberta	Heavy Crude	117,662	173
5	Alberta	Light Crude	64,000	94
		Weekly totals:	1,209,505	1,777

Calendar Week 3

Route Segments	Region of Origin	Crude Type	Volume (bbis)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	206,006	302
1A, 2, 3, 4	North Dakota	Light Crude	390,000	573
1A, 2, 3, 4, 5	North Dakota	Light Crude	356,000	523
1B, 2, 3	Alberta	Heavy Crude	59,028	86
	- Indiana	Weekly totals:	1,011,034	1,484

Calendar Week 4

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est# Cars
1A, 2, 3	North Dakota	Light Crude	131,076	192
1A, 2, 3, 4	North Dakota	Light Crude	390,000	573
1A, 2, 3, 4, 5	North Dakota	Light Crude	485,300	713
1B, 2, 3	Alberta	Medium Crude	172,809	254
	Hed .	Weekly totals:	1,179,185	1,732

Calendar Week 5

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	208,226	306
1A, 2, 3, 4	North Dakota	Light Crude	390,000	573
1A, 2, 3, 4, 5	North Dakota	Light Crude	567,000	833
1B, 2, 3	Alberta	Medium Crude	59,061	86
4, 5	Saskatchewan	Heavy Crude	7,980	11
	1	Weekly totals:	1,232,267	1,809

Calendar Week 6

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	138,556	203
1A, 2, 3, 4	North Dakota	Light Crude	390,000	573
1A, 2, 3, 4, 5	North Dakota	Light Crude	355,000	522
1B, 2, 3	Alberta	Medium Crude	58,000	85
4, 5	Saskatchewan	Heavy Crude	9,120	13
5	Saskatchewan	Light Crude	68,000	100
		Weekly totals:	1,018,676	1,496

Calendar Week 7

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	68,353	100
1A, 2, 3, 4	North Dakota	Light Crude	329,550	484
1A, 2, 3, 4, 5	North Dakota	Light Crude	71,500	105
1B, 2, 3	Alberta	Heavy Crude	117,334	172
4, 5	Saskatchewan	Heavy Crude	570	0
		Weekly totals:	587,307	861

Calendar Week 8

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	203,300	298
1A, 2, 3, 4	North Dakota	Light Crude	399,100	586
1A, 2, 3, 4, 5	North Dakota	Light Crude	286,000	420
		Weekly totals:	888,400	1,304

Calendar Week 9

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	200,417	294
1A, 2, 3, 4	North Dakota	Light Crude	399,100	586
1A, 2, 3, 4, 5	North Dakota	Light Crude	272,500	400
1B, 2, 3	Alberta	Heavy Crude	119,350	175
		Weekly totals:	991,367	1,455

Calendar Week 10

Route Segments	Region of Origin	Crude Type	Volume (bbis)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	132,055	194
1A, 2, 3, 4	North Dakota	Light Crude	403,650	593
1A, 2, 3, 4, 5	North Dakota	Light Crude	363,000	533
		Weekly totals:	898,705	1,320

Calendar Week 11

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	203,370	299
1A, 2, 3, 4	North Dakota	Light Crude	390,000	573
1A, 2, 3, 4, 5	North Dakota	Light Crude	505,500	743
1B, 2, 3	Alberta	Medium Crude	118,677	174
		Weekly totals:	1,217,547	1,789

Calendar Week 12

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est # Cars
1A, 2, 3	North Dakota	Light Crude	337,898	496
1A, 2, 3, 4	North Dakota	Light Crude	399,100	586
1A, 2, 3, 4, 5	North Dakota	Light Crude	716,300	1,053
1B, 2, 3	Alberta	Medium Crude	59,115	86
		Weekly totals:	1,512,413	2,221

Calendar Week 13

Route Segments	Region of Origin	Crude Type	Volume (bbls)	Est# Cars
1A, 2, 3	North Dakota	Light Crude	133,513	196
1A, 2, 3, 4	North Dakota	Light Crude	338,650	498
1A, 2, 3, 4, 5	North Dakota	Light Crude	563,500	828
1B, 2, 3	Alberta	Medium Crude	59,366	87
		Weekly totals:	1,095,029	1,609

Note: The data provided in Table 1 was reported to Ecology by the receiving facility into the ANT database as required by Chapter 173-185 WAC. Ecology cannot confirm the data or verify its accuracy.

2018 Quarter 1 Total Volume (bbls): 13,498,971

A summary of the data shows:

- Three regions of origin were reported: Alberta, North Dakota, and Saskatchewan.
- Three types of crude oil were reported: heavy, medium, and light.
- Routes 1A, 1B, and 2 through 5 were used to transport crude by rail.
- The total volume of crude oil transported by rail during the quarter was 13,498,971 barrels (566,956,782 gallons).
- The average weekly volume of crude oil transported by rail was 1,038,382 barrels (43,612,060 gallons).
- The total number of rail cars moving crude oil by rail was 19,822 cars.
- The average number of rail cars per week moving crude oil by rail was 1,525 cars.
- 92.0% of crude oil transported by rail was light crude, 4.1% was heavy crude, and 3.9% was medium crude.
- North Dakota was the region of origin for 91.1% of crude oil transported by rail. Alberta was the region of origin for 8.3% of crude oil transported by rail, and Saskatchewan was the region of origin for 0.6% of crude oil transported by rail.

400,000 200,000

0

1

2

3

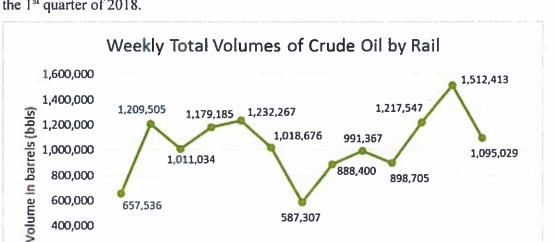


Figure 1 shows the weekly total volumes of crude transported by rail for each calendar week in the 1st quarter of 2018.

Figure 1: Weekly Total Volumes of Crude Oil by Rail for the 1st Quarter of 2018

5

The lowest weekly volume was 587,307 barrels (24,666,894 gallons) in Week 7. The highest weekly volume of crude transported by rail was 1,512,413 barrels (63,521,346 gallons) in Week 12.

587,307

Calendar Week

10

11

12

13

^{*} Week 1 contains six days of reported ANT volumes due to the dates of the reporting period.

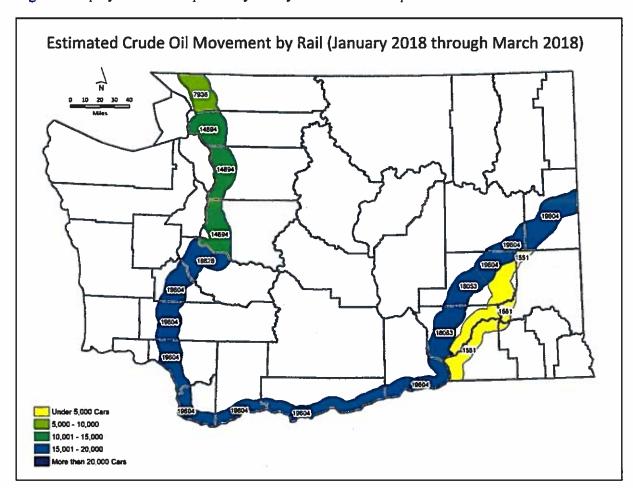


Figure 2 displays crude transported by rail by route for the 1st quarter of 2018.

Figure 2: Crude Oil Movement by Route for the 1st Quarter of 2018

April 2018

Crude Oil by Pipeline Summary

Pipelines exist inland and may be located near waterbodies and populated areas. Knowing the types and quantities of crude oil transported through pipelines in Washington State helps Ecology properly plan for and execute a rapid, aggressive, and well-coordinated response to a spill.

Under the rule, transmission pipelines that transport crude oil in or through the state must provide Ecology biannual notice of all crude oil transported in or through the state.² Biannual notice must be submitted each year by July 31 for the period from January 1 through June 30 and by January 31 for the period from July 1 through December 31. Biannual notice provided by pipelines includes contact information for the pipeline and the total volume of crude oil transported in or through the state during the reporting period by state or province of origin.

The most recent biannual notices from pipelines covered the period from July 1, 2017 through December 31, 2017. Table 2 below provides the total volume of crude oil transported in or through the state by pipelines during this period.

Table 2: Crude Oil Movement by Pipeline

Period	State or Province of Origin	Volume (bbls)
July 1, 2017 - December 31, 2017	Alberta	31,273,477

Note: The data provided in Table 2 was reported to Ecology by the pipelines transporting crude oil in or through the state, as required by Chapter 173-185 WAC. Ecology cannot confirm the data or verify its accuracy.

The next biannual notices from pipelines will cover the period from January 1, 2018 through June 30, 2018 and must be submitted to Ecology by July 31, 2018.

Publication 18-08-005 8

April 2018

² Chapter 173-185 WAC, Oil Movement by Rail and Pipeline Notification

Crude Oil Spills - Rail and Pipeline

Oil spills can have significant impacts to the public, environment, and economy. Ecology strives to protect Washington's environment, economy, and public health and safety through a comprehensive spill prevention, preparedness, and response program.

The rule directs Ecology to provide the number and volume of spills to the environment during the transport and delivery of crude oil by rail and pipeline in each quarterly report.³ For the period of January 1, 2018 through March 31, 2018, zero crude oil spills to the environment were reported. In the event there are spills to report in the future, Ecology will provide this information and include the date of the spill, the county where the spill occurred, the source, material, and volume of the spill.

³ Chapter 173-185 WAC, Oil Movement by Rail and Pipeline Notification

Crude Oil Movement by Vessel

In 2006, the state adopted rules for advance notice of oil transfers for vessels and facilities. Ecology has been receiving advance notice of transfer data for all transfers to or from vessels in Washington State since that time.

In order to provide a full picture of crude oil movement in Washington State, a summary of crude oil movement by vessel is provided below, which is in addition to the requirement for this quarterly report as described in the rule.⁴

Table 3 below provides the total volume of crude oil in barrels of inbound and outbound vessel transfers for the period of January 1, 2018 through March 31, 2018. Inbound vessel transfers refers to crude oil movement from vessels to facilities, while outbound vessel transfers refers to crude oil movement from facilities to vessels.

Table 3: Crude Oil Movement by Vessel

Vessel Transfers	Volume (bbls)
Inbound	24,135,617
Outbound	475,679

Note: The data provided in Table 3 was reported to Ecology into the ANT database as required by Chapter 173-180 WAC and Chapter 173-184 WAC. Ecology cannot confirm the data or verify its accuracy.

A summary of vessel transfer data for the quarter shows:

- The total volume of crude oil transferred to or from vessels for the 1st quarter of 2018 was 24,611,296 barrels (1,033,674,430 gallons).
- The total volume of crude oil transferred inbound from vessels to facilities was 24,135,617 barrels (1,013,695,930 gallons).
- The total volume of crude oil transferred outbound from facilities to vessels was 475,679 barrels (19,978,500 gallons).
- There were 75 total vessel transfers of crude oil (inbound or outbound).
- The average volume of crude oil transferred to or from vessels per week was 1,893,177 barrels (79,513,418 gallons).⁵

⁴ Chapter 173-185 WAC, Oil Movement by Rail and Pipeline Notification

⁵ The quarterly average was calculated using 13 calendar weeks instead of 14 calendar weeks because Calendar Week 53 contains only one day of reported ANT volumes due to the dates of the reporting period.

An Overview of Crude Oil Movement in Washington

A broad view of crude oil movement in Washington State can be seen when comparing the movement of crude oil transported into the state by vessel, rail, and pipeline.

Figure 3 shows the estimated percentage of crude oil transported by vessel (inbound only), rail, and pipeline for the last four quarters, covering the period of April 1, 2017 through March 31, 2018.*

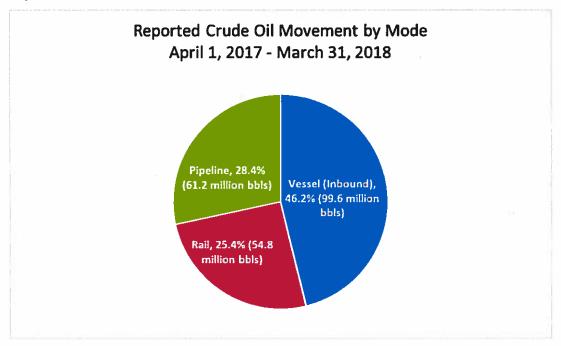


Figure 3: 12-Month Crude Oil Movement by Mode

*Note: The most recent biannual notices from pipelines were submitted to Ecology for the period from July 1, 2017 through December 31, 2017. The next biannual notices submitted by pipelines will cover the period from January 1, 2018 through June 30, 2018 and must be submitted to Ecology by July 31, 2018. For Figure 2, Ecology estimated crude oil movement by pipeline for the period based on data provided in previous biannual notices.

Between April 1, 2017 and March 31, 2018, vessels were responsible for 46.2% of reported crude oil movement into the state, while rail was responsible for 25.4% and pipeline for 28.4%.

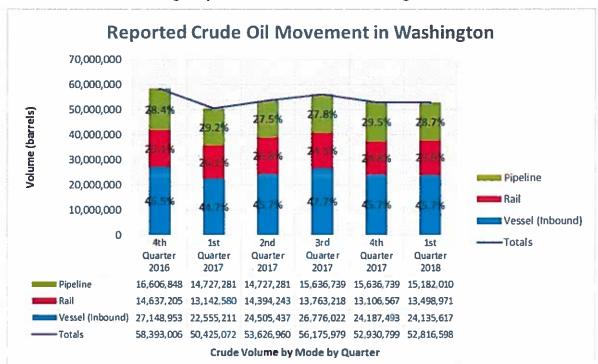


Figure 4 shows crude oil movement by mode for each quarter that rail and pipeline crude oil data has been collected, covering the period of October 1, 2016 through March 31, 2018.

Figure 4: Quarterly Crude Oil Movement by Mode

Ecology will continue to receive information about crude oil movement and use the data to summarize changes over time.

Contact Information

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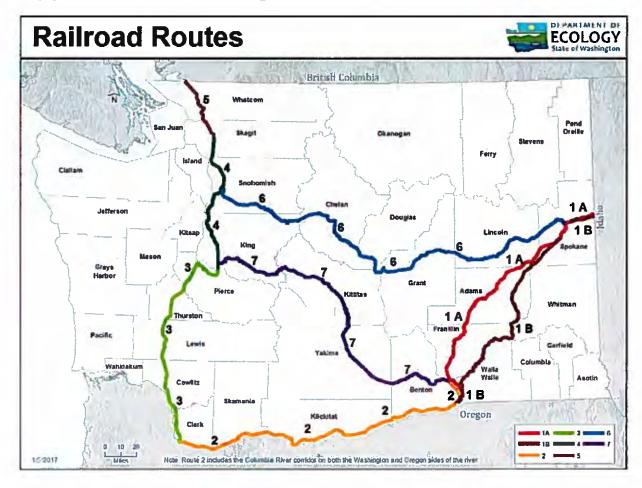
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Appendix A – Washington Railroad Routes



Appendix B – API Gravity and Crude Oil Types

Information reported by facilities on scheduled crude oil deliveries includes the gravity of the oil. Ecology uses the standard American Petroleum Institute gravity (API gravity) ranges to define the Crude Type in the ANT database.

API gravity is the measure of the density of petroleum liquid in relation to the density of water and is used to classify oils as light, medium, heavy and extra heavy. The lower the API gravity, the more likely it is to sink in water. Crude Type by API gravity is shown in the table below.

Table 4: Crude Type by API Gravity

Crude Type	API Gravity Range
Light Crude	31.2-50 API
Medium Crude	22.3-31.1 API
Heavy Crude	10-22.2 API
Extra Heavy Crude	0-9.9 API

A-2

Local

Washington asks if railroads could afford \$700M oil train spill

By Samantha Wohlfeil

February 13, 2016 06:28 AM

Updated February 18, 2016 03:31 PM

Railroads that haul oil trains through Washington state will need to report whether they could afford around \$700 million to pay for a derailment and spill, under a recently finalized state rule.

As announced Feb. 9, the requirement is one of three oil train safety rules the state Utilities and Transportation Commission crafted as required under legislation that state lawmakers passed in 2015.

The new rules, which take effect March 11:

ADVERTISING

inRead invented by Teads

- Require signs with basic safety information be posted at private rail crossings along routes that carry full or empty oil trains.
- Allow certain cities such as Bellingham, Aberdeen, Spokane, Tacoma, and Richland to opt into a state rail crossing inspection program to get free assistance with inspections.
- Require railroads to include financial information in their annual report to the UTC to show if they could address a "reasonable worst case spill" of oil.

Reasonable worst case

The portion of the rule most heavily scrutinized during a months-long comment process was the requirement to show financial ability to pay for a reasonable worst case spill. The rule required commission staff to first define what a "reasonable" worst case spill looks like, and second, calculate what cleaning that up might cost.

They didn't want the worst case. They wanted something reasonable.

Jason Lewis, Utilities and Transportation Commission transportation policy adviser

Railroads objected to the proposed spill scenarios, and argued that the requirement to show whether they could afford cleanup was pre-empted by federal law.

Johan Hellman, on behalf of BNSF, wrote Sept. 21, 2015, that the company was concerned with a draft that had defined the reasonable worst case spill as half the train's contents, and had set minimum cleanup costs at \$400 per gallon.

"We find both the definition and the minimum cost to be greatly exaggerated," Hellman wrote.

The worst case calculation was refined to be based on the fastest speed an oil train travels, but both BNSF and Union Pacific Railroad continued to object to the requirement.

In a Dec. 7 letter to the commission, Melissa Hagan argued on behalf of Union Pacific that requiring the railroad to detail the insurance it carries, along with its ability to pay for the reasonable worst case cleanup, would "compromise the integrity of Union Pacific's confidential business records" and was "blatantly discriminatory."

Other people who commented said the rule didn't go far enough in its estimates for how much oil could spill and how much those damages could cost.

State Sen. Christine Rolfes, D-Kitsap County, told the commission she thought the reasonable worst case spill amount was "far too conservative" and the estimated cleanup cost seemed "excessively low."

Dale Jensen, spill prevention preparedness and response manager for the state Department of Ecology, also wrote to say an estimated \$400 per gallon cleanup cost would cover only a "portion of the overall costs of an oil spill" and "in the event of a worst case spill, the true cost of damages incurred could certainly exceed the level established within the proposed rule."

The commission agreed with Jensen but said the legislation refers to a "reasonable" worst case, not an absolute worst case spill.

Calculating the reasonable worst

In crafting the rule, commission staff looked to federal rule-making by the Pipeline and Hazardous Materials Safety Administration and Federal Railroad Administration, and to the actual worst derailment of ethanol or crude oil in North America, which happened in Lac-Megantic, Quebec.

"Quebec was a terrible tragedy that really put a lot of these types of regulations more in the public eye," said Jason Lewis, who helped craft the rule as transportation policy adviser for the commission.

In Quebec, a parked, unmanned 72-car train loaded with Bakken crude oil rolled downhill, reaching 65 mph before crashing into the downtown and killing 47 people in July 2013. Sixty-three cars derailed and about 1.6 million gallons of oil leaked.

The worst oil train derailment in North America occurred in Lac-Megantic, Quebec, where 63 cars of a 72-car Bakken crude oil train derailed at 65 mph, killing 47 people.

Although Quebec is the worst oil train derailment to date, Washington state legislators specifically asked the commission to find a "reasonable" worst case scenario for the financial reporting requirement, Lewis said.

"They didn't want the worst case. They wanted something reasonable," Lewis said. "It's an ambiguous term that we really had to work to define."

USCG0043963/27

The commission looked to other state rules and used PHMSA and FRA logic to scale down from the incident in Quebec, Lewis said.

The final rule says to take the maximum oil train speed (usually 45 to 50 mph), divide it by 65 (the speed in Quebec), and account for kinetic force to get the estimated percentage of the train's cargo they should be prepared to clean up.

To illustrate, assume the longest BNSF crude oil unit train transported in 2015 was 110 tank cars and that those trains go 45 mph at their fastest.

Under the new formula, the railroad needs to show whether it has the means to pay for a theoretical spill of 47.9 percent of that oil.

Each tank car has a maximum volume of 30,000 gallons, so the train could carry at most about 3.3 million gallons.

At a cleanup cost of \$400 per gallon, the new guidelines want to know if the railroad could pay \$632.3 million.

If that train were to go 50 mph at its fastest, the reporting amount would be closer to \$781 million.

\$632.3 million to \$781 million Amount railroads need to show they could pay for a spill in Washington state if their fastest 110-car oil train goes 45 to 50 mph

UTC staff also took into account that supertanker vessels that can carry 84 million gallons of oil through Puget Sound are required to get certificates of financial responsibility through Ecology that cap out at \$1 billion, Lewis said.

"If we went much higher in terms of total release or cost of cleanup, it would be difficult to justify a higher cap," Lewis said.

BNSF challenged similar legislation in California, claiming in court that federal rules pre-empt state laws that try to regulate rail.

When asked whether BNSF would similarly challenge Washington's rules or still had concerns about the worst case scenarios, BNSF spokeswoman Courtney Wallace wrote that BNSF was committed to work in good faith with Washington to promote safety.

We have never expected taxpayers to assume the expense of a cleanup after a derailment, and we stand by the practices that have allowed us to keep that record to date.

Courtney Wallace, BNSF spokeswoman

"Nothing is more important to us than safely moving all of the commodities we carry, including crude oil. BNSF is a common carrier and our operations are governed by the Interstate Commerce Commission Termination Act, which generally pre-empts state and local regulations of railroads," Wallace wrote to The Bellingham Herald.

"BNSF has a strong record of corporate responsibility," Wallace wrote. "We have never expected taxpayers to assume the expense of a cleanup after a derailment, and we stand by the practices that have allowed us to keep that record to date. BNSF is financially sound with a long history, substantial assets and a track record of being a responsible corporate citizen."

USCG0043973/27

Because the rule only requires railroads to show whether they could afford that level of spill in their annual report to the commission, rather than requiring they carry a certain level of coverage, the commission believes the rule does not conflict with federal laws.

Annual reports from the railroads are due to the UTC in May.

Read more here: http://www.bellinghamherald.com/news/local/article60156446.html#storylink=cpy

USCG0043983/27

Laura Ackerman

A-2.

From:

Laura Ackerman

Sent:

Thursday, May 17, 2018 5:32 PM

To:

Laura Ackerman

Subject: LPO GRP

Page 26 and 27. Hazardous materials transported. 52.5% Bakken Crude Class 3 hazard. 11.6% Flammable Gasses, butane and alcohol, 2.1 hazard, 21.1% Other Hazard Class 3 and Combustible Liquid and 14.8% Hazard Class 9 and other hazardous material.

3 RRs carry it, and 300,000 rail or tank car. 24 unit trains per week through Sandpoint.

Pg. 30 "Railroad accidents in Bonner county are common" 1995 to 2014 BNSF had 13, MRL had 8 and UP had 15, and PE Valley has 1.

Why have oil spill contingency plan if you have a GRP? Pg. 38 response strategies were designed for use with persistent heavy oils that float on water and may not be suitable for other petroleum products or hazardous substances.

Pg. 61 19 Public Registered water systems of surface water. 11 draw straight from the lake.

Pg. 63 Average time between derailment and onset of fire is less than 20 minutes. Often quicker.

Pg. 98. LPO is part of Rathdrum Prairie Aquifer. 100,000 in Kootenai county and another 400,000 in Spokane County. DEQ classifies RPA a sensitive resource.

Critical Important in protecting it." aquifer. Remediating an underground spill is more complex than above ground.

Appendices: Responding to release. Not the level of detail needed, especially with another bridge over the lake.

Vulnerabilities ID' d in June 2017. Training, Equipment, Geographic and evacuation and procedural. Schools and nursing homes have to have evacuation plans, so why shouldn't railroads have contingency plans? Lake Pend Oreille area is listed as vulnerable. Half of Sandpoint could be required to evacuate if there is a fire. And Bonner County needs to update their plans (check on this). GRPs are guides, they are really important, but they are like the bread in a sandwich, the railroads should provide to state agencies and the public what is in the inside. It's all works together. It will help mitigate some of the vulnerabilities mentioned in the GRP.

diggio letto

SANDPOINT PUBLIC PRE-HEARING SUPPORT

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ATE: MAY 23RD 2018 - 1700PT PRE-HEARING / 1800PT PUBLIC P

A-2

Laura Ackerman

From:

-Laura Ackerman

Sent: To: Monday, May 21, 2018 4:03 PM

Subject:

Laura Ackerman

Regulatory fees in annual report. WA UTC http://apps.leg.wa.gov/wac/default.aspx?cite=480-62&full=true_RR Companies

operation

480-62-300

Annual reports-Regulatory fees.

- (1) The surface transportation board annual report form R1 must be used by Class I railroad companies in addition to the annual report form published by the commission. Class II and Class III railroad companies must use report forms periodically published by the commission.
- (2) Any railroad company that transports crude oil in Washington must submit to the commission, in addition to its annual report, a statement that contains:
 - (a) All insurance carried by the railroad company that covers any losses resulting from a reasonable worst case spill.
 - (b) Coverage amounts, limitations, and other conditions of the insurance identified in (a) of this subsection.
- (c) Average and largest crude oil train, as measured in barrels, operated in Washington by the railroad company in the previous calendar year.
- (d) Information sufficient to demonstrate the railroad company's ability to pay the costs to clean up a reasonable worst case spill of oil as defined in (e) of this subsection including, but not necessarily limited to, insurance, reserve accounts, letters of credit, or other financial instruments or resources on which the company can rely to pay all such costs. For the purposes of this section, the railroad company must calculate the total cleanup costs for a reasonable worst case spill based on a minimum cost of sixteen thousand eight hundred dollars per barrel multiplied by the percentage of the largest train of crude oil described in (e) of this subsection.
- (e) For the purposes of this section, a reasonable worst case spill for railroads shall mean the percent of the largest train load of crude oil, as measured in barrels, moved by that company in the previous calendar year, as described below:

[(Maximum Operating Speed/65)2 = Reasonable Worst Case Percent]

- (f) For the purposes of this section, maximum operating speed shall mean the top speed that the railroad company operates any train carrying crude oil in the state.
- (3) Each year every railroad company is responsible for obtaining the proper report form from the commission. Reports must be completed for the preceding calendar year's operations. One copy of the completed annual report, along with the regulatory fee, must be submitted to the commission no later than May 1st of each year.
- (4) **Regulatory fees.** The railroad company regulatory fee for Class I railroads and companies that haul crude oil is set by statute at two and one-half percent of gross intrastate operating revenue. The regulatory fee for all other railroad companies shall be set at one and one-half percent of gross intrastate operating revenue.
- (a) The maximum regulatory fee is assessed each year, unless the commission issues an order establishing the regulatory fee at an amount less than the statutory maximum.
 - (b) The minimum regulatory fee that a railroad company must pay is twenty dollars.
- (c) The twenty dollar minimum regulatory fee is waived for any railroad company with less than one thousand three hundred dollars in gross intrastate operating revenue.
 - (d) The commission does not grant extensions for payment of regulatory fees.
- (e) If a company does not pay its regulatory fee by May 1st, the commission will assess an automatic late fee of two percent of the amount due, plus one percent interest for each month the fee remains unpaid. [Statutory Authority: RCW 80.01.040, 80.04.160, 81.24.010, 81.53.010, 81.53.240, and chapter 81.44 RCW. WSR 16-05-032 (Docket TR-151079, General Order R-584), § 480-62-300, filed 2/9/16, effective 3/11/16. Statutory Authority: RCW 80.01.040, 80.04.160, 81.04.160, and 2003 c 296. WSR 04-05-031 (Docket No. A-031232, General Order No. R-512), § 480-62-300, filed 2/11/04, effective 3/13/04. Statutory Authority: RCW 80.01.040, 81.04.160, 81.24.010, 81.28.010,

81.28.290, 81.40.110, 81.44.010, 81.44.020, 81.44.101- 81.44.105, and chapters 81.48, 81.53, 81.54, 81.60, and 81.61
RCW. WSR 01-04-026 (Docket No. TR-981102, General Order No. R-477), § 480-62-300, filed 1/30/01, effective 3/2/01.]
Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.

480-62-305

Railroad community notice requirements.

This rule is not intended to cover immediate safety hazards or emergencies.

- (1) At least ten days prior to taking any planned action that may have a significant impact on a community, railroad companies must notify, in writing, the governing authority of the community and the commission of the planned action. Note: Maintenance practices, such as replacing broken planks if the opportunity to do so is unexpectedly presented, are not considered to be planned actions and would likely prevent safety hazards. In such situations, advance notice would not be required.
- (2) Examples of actions that may have significant impact on a community include disrupting the use of a crossing for track inspection, reconstruction, maintenance, or blocking a crossing.
- (3) The notice must contain a heading with the words "important notice" in prominent type and contain, at a minimum, the following:
 - (a) Date the notice is issued;
 - (b) A clear explanation of the type of planned event;
 - (c) Specific location of the event;
 - (d) An estimation of the start and completion date of the event;
 - (e) Any additional information that will assist the community to plan for the event;
 - (f) Railroad company contact person and phone number; and
- (g) A statement substantially as follows: "If you have questions about the regulatory process, you may contact the Washington Utilities and Transportation Commission at: WUTC, 1300 S. Evergreen Park Dr. S.W., P.O. Box 47250, Olympia, WA 98504-7250; 1-800-562-6150 (toll-free). Also, you may contact the Federal Railroad Administration at 1-800-724-5998 (toll-free)."
- (4) Whenever a highway authority plans to perform maintenance that will affect a crossing, it must notify the railroad company and local jurisdiction at least ten days before performing the maintenance.
- (5) Whenever a railroad company plans to perform maintenance that involves changing the type of material used as a grade crossing surface, it must also notify the commission at least ten days prior to performing the replacement. [Statutory Authority: RCW 80.01.040, 81.04.160, 81.24.010, 81.28.010, 81.28.290, 81.40.110, 81.44.010, 81.44.020, 81.44.101-81.44.105, and chapters 81.48, 81.53, 81.54, 81.60, and 81.61 RCW. WSR 01-04-026 (Docket No. TR-981102, General Order No. R-477), § 480-62-305, filed 1/30/01, effective 3/2/01.]

480-62-310

Accident reports.

- (1) A railroad company must make a telephone report to the commission's designee, the Washington state emergency operations center's twenty-four-hour duty officer (duty officer) at 1-800-258-5990 of any event connected to the operation of the railroad company that results in the:
- (a) Release of any hazardous material (i.e., materials that are corrosive, flammable, explosive, reactive with other materials, or toxic);
 - (b) Death of any person;

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- (c) Injury to any person involved in a railroad-highway crossing accident that requires medical treatment in addition to first aid; or
 - (d) Property damage, amounting to fifty thousand dollars or more to property.
- (2)(a) Telephone reports of events listed in subsection (1) of this section must be made by the railroad company within thirty minutes of when it learned of the event. The report must provide detailed information of the event to the duty officer. After receiving the telephone report from the railroad company, the duty officer will identify the necessary critical response and remediation resources and agencies on an initial and continuous basis through the completion of the response to the event; and
- (b) The duty officer will notify the commission, the affected county or city emergency management office and other appropriate agencies of the event report.
- (c) Provisions contained in (a) and (b) of this subsection must be carried out in accordance with the state's twenty-four hour duty officer standard procedures and the Washington Emergency Management Act, chapter 38.52 RCW.
- (3) Each event report made under subsection (1) of this section by a railroad company must state, to the extent known, the:
 - (a) Name of the railroad(s) involved;
 - (b) Name and position of the reporting individual;
 - (c) Time and date of the event;
 - (d) Circumstances of the event;
 - (e) Number and identity of persons suffering injuries;
 - (f) Number of fatalities and the identities of the deceased;
 - (g) The type and amount of hazardous material spilled; and
 - (h) Other details that will assist in identifying the necessary response, as prompted by the duty officer.
- (4) Accidents involving joint railroad company operations must be reported by the railroad company that controls the track and directs the movement of trains where the accident has occurred.
- (5) Whenever a railroad company submits an event report to the Federal Railroad Administration, it must submit a copy to the commission at the same time.
- (6) Whenever a railroad submits a report to the United States Department of Transportation concerning a hazardous materials incident or accident, it must submit a copy of the report to the commission at the same time. [Statutory Authority: RCW 80.01.040, 81.04.160, 81.24.010, 81.28.010, 81.28.290, 81.40.110, 81.44.010, 81.44.020, 81.44.101-81.44.105, and chapters 81.48, 81.53, 81.54, 81.60, and 81.61 RCW. WSR 01-04-026 (Docket No. TR-981102, General Order No. R-477), § 480-62-310, filed 1/30/01, effective 3/2/01.]

Chapter 173-186 WAC OIL SPILL CONTINGENCY PLAN—RAILROAD

PART I: PURPOSE, APPLICABILITY, AUTHORITY AND DEFINITIONS

NEW SECTION

WAC 173-186-010 Purpose. The purpose of this chapter is to establish railroad oil spill contingency plan requirements, drill and equipment verification requirements, and provisions for inspection of records, effects of noncompliance, and enforcement, which:

(1) Ensure maximally effective and rapid responses to oil spills by plan holders and response contractors;

(2) Ensure constant readiness, well-maintained equipment and trained personnel;

(3) Support coordination with state, federal, local, tribal and other contingency planning efforts;

(4) Provide for the protection of Washington waters, and natural, cultural and significant economic resources by minimizing the impact of oil spills; and

(5) Provide the highest level of protection that can be met through the use of best achievable technology and those staffing levels, training procedures, and operational methods that constitute best achievable protection (BAP) as informed by the BAP five year review cycle (WAC 173-186-410) and as determined by ecology.

NEW SECTION

WAC 173-186-020 Applicability. (1) This chapter applies to:

- (a) Railroad facilities required to submit oil spill contingency plans under chapter 90.56 RCW except for facilities as described in subsection (2) of this section.
- (b) Railroad facility owners or operators who lease access to state owned railroad tracks.
- (c) Any person submitting a contingency plan on behalf of a fall cility regulated under this chapter.
- (d) Primary response contractors (PRCs) under contract to railing road contingency plan holders.
 - (2) This chapter does not apply to:
 - (a) A railroad that is owned and operated by the state.
- (b) Pipelines or facilities other than railroads. Contingency planning regulations for pipelines and facilities other than railroads are described in chapter 173-182 WAC.

WAC 173-186-030 Authority. RCW 88.46.160, 90.48.080, 90.56.005, 90.56.050, 90.56.060, 90.56.210, 90.56.240, 90.56.260, 90.56.270, 90.56.280, 90.56.300, 90.56.310, 90.56.320, 90.56.340, and 90.56.570 provide statutory authority for the contingency plan preparation and review requirements and drill standards established by this chapter for railroads.

NEW SECTION

WAC 173-186-040 Definitions. Unless the context clearly reliquires otherwise, the definitions in chapters 90.56 RCW, 173-182 WAC and the following apply to this chapter.

"Bulk" means material that is stored or transported in a loose, unpackaged liquid, powder, or granular form capable of being conveyed by a pipe, bucket, chute, or belt system.

"Cargo" means goods or services carried as freight for commerce.

"Facility" means:

- (a) Any structure, group of structures, equipment, pipeline, or device, other than a vessel, located on or near the navigable waters of the state that transfers oil in bulk to or from a tank vessel or pipeline, that is used for producing, storing, handling, transferring, processing, or transporting oil in bulk.
- (b) For the purposes of oil spill contingency planning in RCW 90.56.210, facility also means a railroad that is not owned by the state that transports oil as bulk cargo.
- (c) Except as provided in (b) of this subsection, a facility does not include any:
- (i) Railroad car, motor vehicle, or other rolling stock while transporting oil over the highways or rail lines of this state;
- (ii) Underground storage tank regulated by the department or a local government under chapter 90.76 RCW;
 - (iii) Motor vehicle motor fuel outlet;
- (iv) Facility that is operated as part of an exempt agricultural activity as provided in RCW 82.04.330; or
- (v) Marine fuel outlet that does not dispense more than three thousand gallons of fuel to a ship that is not a covered vessel, in a single transaction.
- "Oil" or "oils" means oil of any kind that is liquid at twentyfive degrees Celsius and one atmosphere of pressure and any fractional
 tion thereof including, but not limited to, crude oil, bitumen, syn
 thetic crude oil, natural gas well condensate, petroleum, gasoline,
 fuel oil, diesel oil, biological oils and blends, oil sludge, oil relif
 fuse, and oil mixed with wastes other than dredged spoil. Oil does not
 include any substance listed in Table 302.4 of 40 C.F.R. Part 302
 adopted August 14, 1989, under Section 102(a) of the federal Compressive Environmental Response, Compensation, and Liability Act of
 1980, as amended by P.L. 99-499.

"Owner" or "operator" means, in the case of a railroad, any per son owning or operating the railroad. Operator does not include any person who owns the land underlying a railroad if the person is not involved in the operations of the railroad.

"Planning standards" means goals and criteria that ecology will use to assess whether a plan holder is prepared to respond to the maximum extent practicable to a worst case spill. Ecology will use planting standards for reviewing oil spill contingency plans and evaluating drills.

"Rail plan holder" means a person who submits and implements a railroad contingency plan consistent with RCW 90.56.210 on the per son's own behalf or on behalf of one or more persons.

"Tank car" means a rail car, the body of which consists of a tank

for transporting liquids.

"Worst case spill" means, in the case of a railroad, a spill that includes the entire fuel capacity of the locomotive and the entire cargo capacity of the largest number of cargo rail cars carried by the railroad, based on seven hundred fourteen barrels per tank car, combined by adverse weather conditions unless ecology determines that a larger or smaller volume is more appropriate given a particular fail cility's site characteristics and storage, unique operations, industry spill history and transfer capacity.

PART II: OIL SPILL CONTINGENCY PLANS

Section A Plan Submittal and Maintenance

NEW SECTION

WAC 173-186-100 Authority to submit contingency plan. (1) A plan may be submitted by any of the following:

(a) The owner or operator of the railroad; or

- (b) A person who has contracted with the railroad to provide containment and cleanup services and who has been approved by ecology.
- (2) A person may submit a single integrated plan for more than one railroad provided that all requirements of this chapter are met.
- (3) A contingency plan prepared for an agency of the federal government or another state that satisfies the requirements of this chapter may be accepted by ecology.

WAC 173-186-110 Submitting a railroad contingency plan. (1) The rail plan holder shall submit two copies of the plan and all appendimentation of plans is encouraged, provided it is in an electronic format acceptable to ecology. In the case of electronic submission, only one copy is necessary.

(2) Once the initial plan is approved, rail plan holders shall resubmit their plans to ecology every five years for review and approved.

val.

(3) Ecology will maintain mailing address and electronic submit tal instructions on the agency web site.

NEW SECTION

WAC 173-186-120 Phase-in dates for this chapter. (1) Railroads that transport crude oil, currently operating in Washington, shall submit plans to ecology no more than ninety days after the effective date of this chapter; however, no later than within thirty days after the effective date of this chapter the rail plan holder shall provide ecology either a federal plan or the following information to demonstrate capability for response to oil spills:

(a) Contact information for the railroad.

(b) Notification procedures in case of spills to water.

(c) Description of rail operations in the state.

(d) Letter of intent with a primary response contractor.

If the plan covers operations in areas where geographic response plans do not currently exist, the plan will be submitted without that information and a timeline to develop interim resources at risk data

will be developed together by the plan holder and ecology.

- (2) Railroads exclusively transporting oils other than crude oil, currently operating in Washington, shall submit a plan to ecology or have enrolled in an integrated plan no more than one hundred eighty days after the effective date of this chapter; however, no later than within ninety days after the effective date of this chapter the rail plan holder shall provide ecology either a federal plan or the following information to demonstrate capability for response to oil spills:
 - (a) Contact information for the railroad.
 - (b) Notification procedures in case of spills to water.
 - (c) Description of rail operations in the state.
 - (d) Letter of intent with a primary response contractor.
- (3) If upon initial plan review ecology determines that there is insufficient access to equipment described in WAC 173-186-310, railly roads shall have no more than eighteen additional months after initial plan review to reach full compliance with the equipment planning standards.
- (4) For rail plan holders exclusively transporting oils other than crude oils, a letter of intent with a contractor shall initially be sufficient to meet WAC 173-186-220. The rail plan holders shall then have an additional twelve months to secure a contract with a prilimary response contractor after initial plan approval.

WAC 173-186-130 Annual plan maintenance. At least once annual ly, rail plan holders shall review the entire plan for accuracy and either:

(1) Update and submit the amended page(s) of the plan to ecology for review and approval; or

(2) If no plan changes are needed, provide a letter to ecology confirming that the existing plan is still accurate.

NEW SECTION

Significant changes to approved plans. WAC 173-186-140 any point during the five year approval period, if there is a temporal ry or permanent significant change in the personnel or response equiplib ment described in the plan, the rail plan holder shall:

(a) Notify ecology in writing within twenty-four hours of the

change; and

(b) Provide both a schedule for the prompt return of the plan to full operational status and a proposal for any backfill to compensate for the temporary significant change. This proposal shall be reviewed and approved by ecology.

(2) Changes which are considered significant include:

(a) Loss of equipment that results in being out of compliance

with any planning standard;

(b) Movement of greater than ten percent of available boom, stor age, recovery, in situ burn or shoreline cleanup equipment out of the home base as depicted on the western regional response list (WRRL);

(c) Transfers of equipment to support spill response for out-of-

region spills;

(d) Permanent loss of initial response personnel listed in com mand and general staff incident command system (ICS) positions provil ded in the plan;

(e) Permanent loss of personnel designated as the binding agreel缸

ment signer;

(f) Changes in the oil types handled; permanent changes in storlil age capacity; changes in handling or transporting of an oil product;

(q) Changes in equipment ownership if used to satisfy a rail plan

holder planning standard; or

- (h) Modification or discontinuation of any mutual aid, letter of intent or contract or letter of agreement.
- (3) Notification by facsimile or e-mail will be considered writ

ten notice.

- (4) Failure to report significant changes in the plan could relil sult in the loss of plan approval.
- (5) If the proposed change to the plan is to be made permanent, the rail plan holder then shall have thirty calendar days from notifil cation to ecology to distribute the amended page(s) of the contingency plan to ecology for review and approval.

(6) If ecology finds that, as a result of a change, the plan no longer meets approval criteria; ecology may place the plan into condilil

tional approval or disapprove the plan.

WAC 173-186-150 Post-spill review and documentation procedures. Rail plan holders are required to conduct post-spill review procedures to review both the effectiveness of the plan and make plan improved ments. Debriefs with ecology and other participating agencies and ordinarizations may be appropriate if unified command has been established during a spill, and are required when significant plan updates are identified or significant lessons can be recorded and implemented.

Section B—Contingency Plan Format, Content and Implementation

NEW SECTION

WAC 173-186-200 Contingency plan format requirements. (1) Rail plan holders shall format and maintain plans to maximize their useful ness during a spill. Information shall be readily accessible and plans shall contain job aids, diagrams and checklists for maximum utility. Plans shall be formatted to allow replacement of pages with revisions without requiring replacement of the entire plan.

(2) Plans shall be divided into a system of numbered, tabbed chapters, sections and annexes/appendices. Each plan shall include a detailed table of contents based on chapter, section, and annex/appendic

dix numbers and titles, as well as tables and figures.

(3) Where provided by ecology, an easy-to-use boilerplate plan for rail plan holders may be used.

NEW SECTION

- wac 173-186-210 Binding agreement. (1) Each plan shall contain a written statement binding the rail plan holder to its use. Form number ECY 070-550 may be used.
- (2) The binding agreement shall be signed by each of the following: (a) The rail plan holder, (b) the owner or operator, or a designing with authority to bind the owners and operators of the railroad covered by the plan.
- (3) The plan holder shall submit the agreement with the plan and shall include the name, address, phone number, and if appropriate the e-mail address, and web site of the submitting party.

(4) In the statement, the signator shall:

(a) Verify acceptance of the plan and commit to a safe and immediate response to spills and to substantial threats of spills that och

cur in, or could impact Washington waters or Washington's natural, cultural and economic resources;

(b) Commit to having an incident commander in the state within

six hours after notification of a spill;

(c) Commit to the implementation and use of the plan during a spill and substantial threat of a spill, and to the training of per sonnel to implement the plan;

(d) Verify authority and capability to make necessary and approlit

priate expenditures in order to implement plan provisions; and

(e) Commit to working in unified command within the ICS to ensure that all personnel and equipment resources necessary to the response will be called out to cleanup the spill safely and to the maximum existent practicable.

NEW SECTION

WAC 173-186-220 Contingency plan general content. (1) Continuing gency plans shall include all of the content and meet all the require ments in this section.

- (2) In Washington state, the Northwest Area Contingency Plan (NWACP) serves as the statewide master oil and hazardous substance contingency plan required by RCW 90.56.060. Rail plan holders shall write plans that refer to and are consistent with the NWACP.
 - (3) All contingency plans shall include the following:
- (a) Each plan shall state the name, location, type and address of the facility and the federal or state requirements intended to be met by the plan.
- (b) Each plan shall state the size of the worst case spill volume. If oil handling operations vary on different rail routes, more than one worst case spill volume may be submitted to ecology for confideration.
- (c) Each plan shall have a log sheet to record revisions and up dates to the plan. The log sheet shall identify each section amended, including the date and page of the amendment and the name of the authorized person making the change.

(d) Each plan shall have a table of contents and a cross-refer in ence table reflecting the locations in the plan of each component residents.

quired by this chapter.

(e) Each plan shall provide a list and map of expected rail routes in Washington and a description of the operations covered by the plan, including locations where fueling occurs and an inventory of above ground storage tanks and the tank capacities.

An inventory of above ground storage tanks and tank capacities is not required if the total above ground storage capacity from contain ers with capacity of at least fifty-five gallons is less than one thousand three hundred twenty gallons.

- (f) Each plan shall list all oil cargo transported, including religion of origin, oil types, physical properties, and health and safety hazards of the oil cargo. A safety data sheet (SDS) or equivalent in formation may satisfy some of these requirements; the plan shall identify where the SDS or equivalent is kept for emergency response use.
- (g) Each plan shall have the PRC's name, address, phone number or other means of contact at any time of the day, and include:

(i) A contract or letter summarizing the terms of the contract signed by the PRC, shall be included in the plan. If the entire con tract is not submitted, that document shall be available for inspection tion, if requested by ecology.

(ii) For mutual aid agreements that a rail plan holder relies on to meet the planning standards, the plan shall include a copy of the agreement and describe the terms of that document in the plan.

(h) Each plan shall contain information on the personnel (including ing contract personnel) who will be available to manage an oil spill response. This includes:

(i) An organizational diagram depicting the chain of command for

the spill management team for a worst case spill.

(ii) An organization list of one primary and one alternate person to lead each ICS spill management position down to the section chief and command staff level as depicted in the NWACP standard ICS organi zational chart. If a response contractor is used to fill positions, they shall agree in writing to staff the positions. If the entire con tract for additional spill management team support is not included in the plan, that document shall be made available for inspection, if rell quested by ecology.

(iii) A detailed description of the planning process and job de 11 scription for each spill management position; except if the rail plan holder follows without deviation the planning process or job descrip tions contained in the NWACP. If the planning process or job description tions are consistent with those contained in the NWACP, then the rail plan holder may reference the NWACP rather than repeat the informal

(iv) Include a description of the type and frequency of training that the spill management team receives, which shall include at a min [1] imum ICS, NWACP policies, use and location of geographic response plans (GRPs), the contents of the plan and worker health and safety. New employees shall complete the training program prior to being as signed job responsibilities which require participation in emergency response situations.

(v) Identify a primary and alternate incident commander's repress sentative that can form unified command at the initial command post, and if located out-of-state, a primary and alternate incident command

er that could arrive at the initial command post within six hours.

(i) Each plan shall include procedures for immediately notifying appropriate parties that a spill or a substantial threat of a spill has occurred. The procedures shall establish a clear order of priority

for immediate notification and include:

- (i) A list of the names and phone numbers of required notifica tions to government agencies, response contractors and spill managelil ment team members. The notification section shall include names and phone numbers, except that the portion of the list containing internal call down information need not be included in the plan, but shall be available for review by ecology upon request and verified during spills and drills.
- (ii) Identify the central reporting office or individuals respon! sible for implementing the notification process.

(iii) Include a form to document those notifications.

(j) Each plan shall contain the procedures to track and account for the entire volume of oil recovered and oily wastes generated and disposed of during spills. The responsible party shall provide waste disposal records to ecology upon request.

- (k) Each plan shall state how an oil spill will be assessed for determining product type, potential spill volume, and environmental conditions including tides, currents, weather, river speed and initial trajectory as well as a safety assessment including air monitoring.
- (i) Each plan shall list procedures that will be used to confirm the occurrence, and estimate the quantity and nature of the spill. An updated notification report is required if the initially reported estimated quantity or the area extent of the contamination changes sight nificantly. Rail plan holders and responsible parties are required to document their initial spill actions and the plan shall include the forms that will be used for such documentation.
- (ii) The plan shall contain a checklist that identifies signifill cant steps used to respond to a spill, listed in a logical progression of response activities.
- (1) Each plan shall include a description of the methods to be used to promptly assess spills with the potential to impact groundwall ter, including contact information in the plan for resources typically used to investigate, contain and remediate/recover spills to groundwall ter.
- (m) Each plan shall include concise procedures to manage oil spill liability claims of damages to persons or property, public or private, for which a responsible party may be liable.
- (n) Each plan shall include a description of the sensitive areas and a description of how environmental protection will be achieved, including containment, enhanced collection and diversion tactics.
- (i) The plan shall include information on natural, cultural and economic resources, coastal and aquatic habitat types and sensitivity by season, breeding sites, presence of state or federally listed entitional species, and presence of commercial and recreational species, physical geographic features, including relative isotional species, physical geographic features, including relative isotional species, physical geographic features, including relative isotional species, physical geographic features, and other geological characteristics; public beaches, water intakes including both drinking and agricultural water supplies, private and public wells that supply drinking water, and marinas; shellfish resources, significant economic resources and vulnerable populations to be protected in the geographic area covered by the plan.
- (ii) The GRPs have been developed to meet these requirements and plans may refer to the NWACP to meet these requirements. If railroad facilities occur in areas where descriptions of the sensitive areas and a description of how environmental protection will be achieved do not exist, railroad plan holders will submit summary descriptions of the sensitive areas and prepare booming strategy "control points" for waterways in the vicinity of the railroad tracks.
- (o) Each plan shall identify potential initial command post localitions.
- (p) Each plan shall contain a description of how the rail plan holder meets each applicable planning standard in Section C of this chapter.

WAC 173-186-230 Field document. (1) Each plan shall contain a field document which lists time critical information for the initial emergency phase of a spill or a substantial threat of a spill. The

owner or operator of the railroad shall make the field document avail able to personnel who participate in oil handling operations and shall keep the field document in key locations for use during an initial response. The locations where field documents are kept shall be listed in the plan.

(2) At a minimum, the field document shall contain:

(a) Procedures to detect, assess and document the presence and size of a spill;

(b) Spill notification procedures; and

(c) The checklist that identifies significant steps used to reward spond to a spill, listed in a logical progression of response activities.

NEW SECTION

WAC 173-186-240 Plan implementation procedures. Every rail plan holder is required to implement the ecology approved plan in any rewsponse to an oil spill and drill. A decision to use a different plan shall first be approved by the state and federal on-scene coordinations.

Section C—Planning Standards

NEW SECTION

WAC 173-186-300 Planning standards. (1) Ecology shall apply a planning standard when determining the ability of a rail plan holder to meet the requirements of these regulations. The planning standards described in this chapter do not constitute cleanup standards nor religious standards that must be met by the holder of a contingency plan. Failure to remove a discharge within the time periods set out in this chapter does not constitute failure to comply with a contingency plan, for purposes of this section or for the purpose of imposing administrative, civil, or criminal penalties under any other law.

In an actual spill event, initial deployment shall be guided by safety considerations. The responsible party shall address the entire volume of an actual spill regardless of the planning standards.

(2) Ecology will use the procedures described in WAC 173-182-345 and 173-182-348 to evaluate recovery capability required in these planning standards.

WAC 173-186-310 Equipment planning standards. (1) The equipment necessary to address the worst case spill volume is brought to an in cident over a period of time. The methodology to determine this is deligible of the scribed in WAC 173-186-380 and 173-186-400. The spreadsheet referred to in WAC 173-186-380 will be used to demonstrate compliance with these equipment requirements.

(2) The following planning points shall be used to calculate the equipment access and timelines, as applicable to the plan holder. There shall be at least one planning point for each plan. If rail op! erates in an area where a planning point does not exist, ecology will develop one or more planning points during the plan review process.

Within a five mile radius of a point at Latitude/ Longitude	
48°45'7.003"N, 122°29'2.115"W	
47°58'15.401"N, 122°13'44.976"W	
47°35'32.642"N, 122°19'49.044"W	
47°14'39.119"N, 122°24'23.921"W	
46°41'26.620"N, 122°58'9.712"W	
46°9'15.778"N, 122°54'57.501"W	
46°58'32.008"N, 123°48'33.378"W	
45°40'29.530"N, 122°41'31.781"W	
47°36'38.209"N, 119°17'43.416"W	
46°12'34.024"N, 119°6'14.065"W	
46°52'38.350"N, 117°21'10.692"W	
46°25'53.599"N, 117°3'25.114"W	
47°39'57.991"N, 117°23'24.746"W	
48°38'18.875"N, 118°4'48.810"W	
48°45'54.659"N, 117°24'9.704"W	
48°21'52.386"N, 119°34'28.344"W	
47°27'16.949"N, 120°20'0.204"W	
46°32'1.385"N, 120°28'23.376"W	
47°6'41.058"N, 119°17'0.334"W	

Location	Within a five mile radius of a point at Latitude/ Longitude	
Bingen	45°43'15.298"N, 121°29'4,066"W	

(3) All rail plan holders shall demonstrate access to the equipment in the table below within the time frames identified based on the areas rail plan holders operate.

Time (hours)	Boom/Assessment	Minimum Oil Recovery Rate % of WCS volume per 24 hours	Minimum Storage in Barrels
crew and a have arriv 5,000 feet containme	A safety assessment of the spill by trained crew and appropriate air monitoring could have arrived	Capacity to recover the lesser of 10% of worst case spill volume or 4,100 barrels within 24-hour period could have arrived	1 times the effective daily recovery capacity (EDRC)
	5,000 feet of boom available for containment, recovery or protection could have arrived		appropriate to operating environment
	Alternatively, resources identified to deploy a site specific strategy to keep oil from entering surface waters or penetrating into the ground could have arrived		
12	Additional 20,000 feet of boom to be used for containment, protection or recovery could have arrived	Capacity to recover the lesser of 15% of worst case spill volume or 12,000 barrels within 24-hour period could have arrived	1.5 times the EDRC appropriate to operating environment
24	More boom as necessary for containment, recovery or protection	Capacity to recover the lesser of 20% of worst case spill volume or 16,000 barrels within 24-hour period could have arrived	2 times the EDRC appropriate to operating environment
48	More boom as necessary for containment, recovery or protection	Capacity to recover the lesser of 25% of worst case spill volume or 20,000 barrels within 24-hour period could have arrived	More as necessary to not slow the response

WAC 173-186-320 Maintenance records for oil spill response equipment. Rail plan holders that own oil spill response equipment shall develop schedules, methods, and procedures for response equipment ment maintenance. Maintenance records shall be kept for at least five years and made available if requested by ecology. Equipment shall be listed on the WRRL or equivalent spreadsheet included in the continuation of the plan.

NEW SECTION

WAC 173-186-330 Planning standards for crude oils. (1) Rail plan holders carrying, handling, storing, or transporting crude oils shall have a letter of intent with a primary response contractor that maintains the resources and/or capabilities necessary to respond to a spill of oil that may weather, and sink or submerge. Such equipment shall include, but is not limited to, the following:

(a) Sonar, sampling equipment or other methods to locate the oil on the bottom or suspended in the water column;

(b) Containment boom, sorbent boom, silt curtains, or other meth ods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(c) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(d) Equipment necessary to assess the impact of such discharges; and

(e) Other appropriate equipment necessary to respond to a distribution charge involving the type of oil handled, stored, or transported.

(2) The equipment shall be capable of being on scene within twelve hours of spill notification.

NEW SECTION

WAC 173-186-340 Planning standards for in situ burning. Based on the NWACP, plan holders operating in areas where in situ burning could be approved shall identify equipment for the use of in situ burning including locations of fire booms, air monitoring equipment, firefighting foam, igniters and aircraft or vessels to be used to deliploy the igniters. These resources shall be capable of being on scene within twelve hours of spill notification.

NEW SECTION

WAC 173-186-350 Planning standards for shoreline cleanup. Each rail plan holder shall identify and ensure the availability of religious resources necessary to perform shoreline cleanup operations call pable of being on scene within twenty-four hours of spill notifical tion.

- WAC 173-186-360 Planning standards for air monitoring to protect oil spill responders and the public. Rail contingency plans shall in clude a narrative description of applicable federal, state, and local requirements and the plan holder's resources for conducting air monitoring to protect oil spill responders and the public, including:
- (1) A description of how initial site characterization for restriction for res
- (2) A description of air monitoring instruments and detection limits that will be used when monitoring for public safety;
- (3) A description of action levels for various oil constituents of concern based on products handled by the railroad (benzene, H2S, etc.);
- (4) A description of how data management protocols and reporting time frames will be managed under unified command;

- (5) A description of how communication methods to at-risk populal tions will be managed under unified command;
- (6) A description of how evacuation zones and shelter-in-place criteria are established under unified command.

WAC 173-186-370 Planning standards for wildlife rescue and rehalf bilitation. Each plan shall identify applicable federal, state and NWACP requirements for wildlife rescue and rehabilitation, and delignate the equipment, personnel, resource and strategies for complifinance with the requirements. These resources shall have the capability to arrive on scene within twenty-four hours of spill notification.

NEW SECTION

- wac 173-186-380 Documenting compliance with the planning stand ards. (1) The rail plan holder shall describe how the planning stand ards found in this chapter are met.
- (2) The rail plan holder shall include in the plan, a spreadsheet provided by ecology on the resources to meet the planning standards as described in this chapter. This spreadsheet shall account for boom, recovery systems, storage, and personnel by type, quantity, home base and provider.
- (3) Ecology will use the process and criteria found in WAC 173-182-350 to analyze the spreadsheet.

Section D-Plan Evaluation

- wac 173-186-400 Plan evaluation criteria and alternative method of evaluating planning standards. (1) Rail plan holders shall prepare a plan that demonstrates capability, to the maximum extent practical ble, of promptly and properly removing oil and minimizing environmental damage from a variety of spill sizes, up to and including worst case spills. Ecology will evaluate plans using the process and criteria contained in WAC 173-182-610.
- (2) A rail plan holder may request that ecology review and approve a plan using an alternative planning standard. Such requests should be submitted with the plan and shall be subject to a thirty day

public review period and comment period which includes, but is not limited to, interested local and tribal governments and other stake!!! holders.

- (a) The proposal shall include, at a minimum:
- (i) A reference to which planning standard(s) in this chapter the proposal will be substituted for;
- (ii) A detailed description of the alternative proposal including equipment, personnel, response procedures, and maintenance systems that are being proposed; and
- (iii) An analysis of how the proposal offers equal or greater protection or prevention measures as compared to the requirement in this chapter.
- (b) Ecology may approve the alternative compliance proposal if, based upon the documents submitted and other information available to the agency, it finds that:
- (i) The alternative compliance proposal is complete and accurate;
- (ii) The alternative compliance proposal provides an equivalent or higher level of protection in terms of spill preparedness and response when compared with the planning standards found in this chaps ter.
- (c) Ecology may reconsider an approval at any time, in response to lessons learned from spills, drills, and significant plan changes which indicated that the requirements of this section for approval are not met.

NEW_SECTION

WAC 173-186-410 Oil spill contingency plan best achievable problem tection five-year review cycle. Using the procedures and criteria outlined in WAC 173-182-621, ecology will review the planning standing ards at five-year intervals to ensure the maintenance of best achievable protection to respond to a worst case spill and provide for continuous operation of oil spill response activities to the maximum extent practicable and without jeopardizing crew safety.

- WAC 173-186-420 Process for plan approval. Rail owners or oper ators for new railroad operations shall submit plans to ecology no less than sixty-five days prior to their planned date for beginning of operations in Washington.
- (1) Upon receipt of a plan, ecology shall evaluate whether the plan is complete, and if not, the rail plan holder shall be notified of any deficiencies within five business days. The public review and comment period does not begin until a complete plan is received.
- (2) Once a plan has been determined to be complete, ecology shall notify interested parties, including local and tribal governments and make the plan available for public review and comment. Ecology will accept comments on the plan for a period of thirty days after the plan has been made publicly available. No later than sixty-five days from

the date of public notice of availability, ecology will make a written determination either approving, conditionally approving, or disapproving the plan. The written determination will be provided in the form of an order and subject to appeal as specified in chapter 43.21B RCW.

(a) If the plan is approved, the rail plan holder will receive a certificate of plan approval and the plan expiration date. Approved

plans shall be valid for five years.

(b) If the plan is conditionally approved, ecology may require a rail plan holder to operate under specific restrictions until unaction ceptable components of the plan are revised, resubmitted and approved. In the conditional approval ecology will describe:

(i) Each specific restriction and the duration for which it ap 111

plies;

(ii) Each required item to bring the plan into compliance; and

(iii) The schedule for rail plan holders to submit required up dates, including a reference to the regulatory standard in question.

Restrictions may include, but are not limited to, additional in formation for the plan or additional requirements to ensure availability of response equipment.

Conditional approval expires no later than eighteen months from date of issue at which time the rail plan holder shall need to request

an extension, which is subject to public review.

Ecology shall revoke its conditional approval prior to the expill ration date when a rail plan holder fails to meet the terms of the conditional approval. The revocation will be in the form of an appeal able order.

(c) If the plan is disapproved, the rail plan holder shall re

ceive an explanation of the factors.

(3) Ecology may review a plan following an actual spill or drill

of a plan and may require revisions as appropriate.

(4) Public notice will be given of any approval, conditional apuroval, or disapproval of a plan.

NEW SECTION

WAC 173-186-430 Process for public notice and opportunity for public review and comment period. (1) The purpose of this section is to specify the procedures for notifying the public which includes in terested local and tribal governments about contingency plan status and decisions in order to provide opportunities for the public to relieve and comment.

(2) In order to receive notification of the public review and comment period, interested public, local, and tribal governments should sign up on the ecology e-mail list (listserv) for posting notice about plan review and comment. Ecology's web site will also be used to post notice of public review and comment periods.

(3) Public comment periods shall extend at least thirty days. Public notice, review, and comment periods are required in the following

ing circumstances:

(a) Plan submittals for railroads that have never submitted a plan in Washington;

(b) Plan updates required by WAC 173-186-130;

(c) The submittal of plans for five-year review as required by WAC 173-186-110;

- (d) Requests for an alternative planning standard in accordance with WAC 173-186-400;
- (e) Rail plan holder requests for drill requirement waivers in accordance with WAC 173-186-540; and
 - (f) A permanent significant change to an approved plan.
- (4) Public notice, review, and comment period are not required in the following circumstances:
- (a) Routine updates to names, phone numbers, formatting, or forms that do not change the approved content of the plan;
- (b) Plan updates to resubmit the binding agreement based on changes to the binding agreement signer; and
- (c) Annual plan reviews that result in a letter to ecology con firming that the existing plan is still accurate.

PART III: DRILL AND EQUIPMENT VERIFICATION PROGRAM

- WAC 173-186-500 Drill participation, scheduling and evaluation. (1) Rail plan holders and PRCs shall participate in a drill and equip is ment verification program for the purpose of ensuring that all continuity gency plan components function to provide, to the maximum extent practicable, prompt and proper removal of oil and minimization of damage from a variety of spill sizes. In Washington, a modified triennial cylicle for drills, as found in the National Preparedness for Response Existencise Program (NPREP), is relied on to test each component of the plan.
- (2) Ecology's participation in drills: Rail plan holders and PRCs shall ensure ecology is provided an opportunity to help design and evaluate all tabletop and deployment drills for which the rail plan holder desires drill credit.
- (3) **Scheduling drills**: Rail plan holders shall schedule drills on the NWACP area exercise calendar. Drill scheduling requirements are listed in the table in WAC 173-186-510.
- (4) **Evaluating drills:** Ecology shall provide a written drill evaluation report to the rail plan holder following each drill. Credit will be granted for drill objectives that are successfully met.
- (5) Objectives that are not successfully met shall be tested again and successfully demonstrated within the triennial cycle, except that significant failures will be retested within thirty days.
- (6) Where plan deficiencies have been identified in the written evaluation, rail plan holders may be required to make specific amend ments to the plan or conduct additional trainings to address the defill ciencies.
- (7) A rail plan holder may request an informal review with ecology of the ecology drill evaluation within thirty days of receipt of the report.

WAC 173-186-510 Type and frequency of drills. To receive the credit from ecology for performing a required drill, the plan holder shall conduct the following drills within each triennial cycle.

Type of Drill	Frequency Within the Triennial Cycle	Special Instructions	Scheduling Instructions
Tabletop drills	3 - One in each year of the cycle	One of the three shall involve a worst case discharge scenario. The worst case discharge scenario drill shall be conducted once every three years.	Scheduled at least 60 days in advance, except the worst case discharge scenario at least 90 days in advance.
Deployment drills	6 - Two per year	These drills include notification, safety assessments, GRP and equipment deployments.	Scheduled at least 30 days in advance.
Ecology initiated unannounced drills	As necessary	This drill may involve testing any component of the plan, including notification procedures, deployment of personnel, boom, recovery and storage equipment.	No notice.
Wildlife Deployment Drill	I - One in each three year cycle. This is an additional drill unless it is incorporated into a large multiobjective deployment drill	This drill will be a deployment of wildlife equipment and wildlife handlers.	Scheduled at least 30 days in advance.

- (1) **Tabletop drills:** Tabletop drills are intended to demonstrate a rail plan holder's capability to manage a spill using the ICS. Role playing shall be required in this drill.
- (a) During all required tabletop drills rail plan holders shall provide a master list of equipment and personnel identified to fill both command post and field operations roles.
- (b) Once during each three year cycle, the rail plan holder shall ensure that key members of the regional/national "away" team as identified in the plan shall be mobilized in state for a tabletop drill. However, at ecology's discretion, team members that are out-of-state may be evaluated in out-of-state tabletop drills if ecology has suffition cient notice, an opportunity to participate in the drill planning process, and provided that the out-of-state drills are of similar scope and scale to what would have occurred in state. In this case, key away team members shall be mobilized in this state at least once every six years.
- (2) **Deployment drills:** Rail plan holders shall use deployment drills to demonstrate the actions they would take in a spill, including: Notifications, safety actions, environmental assessment, land-based tactics and equipment deployment.
- (a) During the triennial cycle, deployment drills shall include a combination of rail plan holder owned assets, contracted PRC assets, and nondedicated assets.
- (b) Rail plan holders should ensure that each type of dedicated equipment listed in the plan and personnel responsible for operating the equipment are tested during each triennial cycle.
- (c) Rail plan holders shall design drills that will demonstrate the ability to meet the planning standards, including recovery systems

and system compatibility and the suitability of the system for the op! erating environment. Drills shall be conducted in all operating envi! ronments that the rail plan holder could impact from spills.

- (d) At least twice during a triennial cycle, rail plan holders shall deploy a GRP or sensitive area strategy identified within the
- (e) Rail plan holders may receive credit for deployment drills conducted by PRCs if:
 - (i) The PRC is listed in the plan; and
- (ii) The rail plan holder operates in the area, schedules on the drill calendar, and participates in or observes the drill.
- (3) Unannounced drills: Unannounced drills may be initiated by ecology when specific problems are noted with individual rail plan holders, or randomly, to strategically ensure that all operating envision ronments, personnel and equipment readiness have been adequately testiled.
- (a) Immediately prior to the start of an unannounced drill, rail plan holders will be notified in writing of the drill objectives, exil pectations and scenario.
- (b) Rail plan holders may request to be excused from an unan mounced drill if conducting the drill poses an unreasonable safety or environmental risk, or significant economic hardship. If the rail plan holder is excused, ecology will conduct an unannounced drill at a full ture time.
- (4) Wildlife deployment drills: Once every three years rail plan holders shall deploy regional mobile wildlife rehabilitation equipment and personnel necessary to set up the wildlife rehabilitation system found in the plan.

NEW SECTION

- WAC 173-186-520 Drill evaluation criteria. The ecology drill evaluation process is based on the 2016 NPREP guidance document. The NPREP guidance document lists fifteen core components that shall be demonstrated by the rail plan holder during the triennial cycle. Ecolid ogy adopts the fifteen core components as the criteria used to evaluate rail plan holder tabletop and deployment drills. The core composition nents are as follows:
- (1) **Notifications:** Test the notifications procedures identified in the plan.
- (2) **Staff mobilization:** Demonstrate the ability to assemble the spill response organization identified in the plan.
- (3) Ability to operate within the response management system de scribed in the plan: This includes demonstration of the ICS staffing and process identified in the plan.
- (4) **Source control:** Demonstrate the ability of the spill response organization to control and stop the discharge at the source, and to effectively coordinate source control activities within the response.
- (5) Assessment: Demonstrate the ability of the spill response or spanization to provide an initial assessment of the discharge, or possible tential discharge, and provide continuing assessments of the effectiveness of the planning and tactical operations.

- (6) **Containment:** Demonstrate the ability of the spill response organization to contain the discharge at the source or in various low cations for recovery operations.
- (7) Mitigation: Demonstrate the ability of the spill response or ganization to recover, mitigate, and remove the discharged product. This includes mitigation and removal activities such as dispersant use, in situ burn use, and bioremediation use, in addition to mechani cal oil recovery.
- (8) **Protection:** Demonstrate the ability of the spill response or ganization to protect the environmentally, culturally and economically sensitive areas identified in the NWACP and the plan.
- (9) **Disposal:** Demonstrate the ability of the spill response or ganization to dispose of the recovered material and contaminated debir is in compliance with guidance found in the NWACP.
- (10) Communications: Demonstrate the ability to establish an eft fective communications system throughout the scope of the plan for the spill response organization.
- (11) **Transportation:** Demonstrate the ability to provide effective multimodal transportation both for execution of the discharge and sup port functions.
- (12) **Personnel support:** Demonstrate the ability to provide the necessary logistical support of all personnel associated with the reliable.
- (13) Equipment maintenance and support: Demonstrate the ability to maintain and support all equipment associated with the response.
- (14) **Procurement:** Demonstrate the ability to establish an effective procurement system.
- (15) **Documentation:** Demonstrate the ability of the rail plan holder's spill management organization to document all operational and support aspects of the response and provide detailed records of decilisions and actions taken.

NEW SECTION

- WAC 173-186-530 Other ways to get drill credit. (1) Drill credities for actual spills: Rail plan holders may request drill credit for a response to an actual spill, provided that ecology has an opportunity to participate during the spill and evaluate the spill response. Credit from spills shall not entirely alleviate the rail plan holder's responsibility to drill. To obtain credit:
- (a) The plan holder shall submit a written request to ecology within sixty days of completion of the cleanup operations.

The request shall include documentation supporting the components of WAC 173-186-520.

- (b) Within ninety days, the rail plan holder shall submit a les is sons learned summary supporting the request for drill credit.
- (2) Rail plan holders may request drill credit for out-of-state tabletop drills if:
 - (a) Ecology has been invited to attend the drill;
- (b) Ecology has an opportunity to participate in the planning process for the drill. There shall be a meeting to discuss the scope and scale of the exercise, the drill objectives and the types of crill teria for which Washington credit may be applicable;

(c) Documentation of the drill and self-certification documentall tion shall be provided to ecology within thirty days of the drill; and

(d) Rail plan holders seeking credit for a scheduled out-of-state drill shall use the drill calendar to schedule the drill at least ninety days in advance, to provide ecology an opportunity to particilizate.

NEW SECTION

WAC 173-186-540 Drill requirement waivers. (1) Rail plan hold ers may request a waiver for deployment or tabletop drill require ments.

- (2) The request shall be in writing and shall describe why a waiver should be considered and how the rail plan holder is meeting the purpose and intent of the drill program.
- (3) Rail plan holder's requests for a drill waiver will be made available for public review and comment, including interested local and tribal governments and other stakeholders, for a period of thirty days.
- (4) Ecology will evaluate the request and respond in writing within sixty calendar days of receipt of the waiver request.

PART IV: INSPECTION OF RECORDS, NONCOMPLIANCE, AND ENFORCEMENT

NEW SECTION

WAC 173-186-600 Inspection of records. Ecology may verify compliance with this chapter by examining:

- (1) Training and equipment maintenance records;
- (2) Drill records;
- (3) Accuracy of call-out and notification lists;
- (4) Spill management team lists;
- (5) ICS forms;
- (6) Waste disposal records; and
- (7) Post-spill reviews and other records on lessons learned.

NEW SECTION

WAC 173-186-610 Enforcement—Noncompliance. (1) If an owner or operator of a railroad, a person, or rail plan holder is unable to

comply with an approved contingency plan or otherwise fails to comply with requirements of this chapter, ecology may, at its discretion:

(a) Place conditions on plan approval.

(b) Require additional drills to demonstrate effectiveness of the plan.

(c) Revoke the approval status.

(2) Approval of a plan by ecology does not constitute an express assurance regarding the adequacy of the plan nor constitute a defense to liability imposed under state law.

(3) Any violation of this chapter may be subject to enforcement

and penalty sanctions.

- (4) Ecology may assess a civil penalty of up to one hundred thould sand dollars against any person who is in violation of this chapter. Each day that a railroad is in violation of this chapter shall be considered a separate violation.
- (5) Any person found guilty of willfully violating any of the provisions of this chapter, or any final written orders or directive of ecology or a court shall be deemed guilty of a gross misdemeanor and upon conviction shall be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment in the county jail for not more than one year, or by both such fine and imprisonment in the discretion of the court. Each day upon which a willful violation of the provisions of this chapter occurs may be deemed a separate and additional violation.

NEW SECTION

WAC 173-186-620 Severability. If any provision of this chapter is held invalid, the remainder of the chapter is not affected.

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 $\frac{1}{A-2}$

CREW VAN BILL BECOMES LAW IN WASH. STATE

PUBLISHED: MAY 22, 2017

After a prolonged five-year battle against the railroad carriers' opposition to legislation to ensure the safety of their own employees, ESHB 1105, the number one priority of the SMART TD Washington State Legislative Board, was finally enacted into statute law May 16, when a large group of railroad workers who traveled to Olympia. Wash, witnessed the signing of this bill into law by Governor Jay Insiee (D).

The impetus for passing this law was the horrific crew van accident that occurred March 24, 2011, that resulted in the death of 22-year BNSF engineer Torn Kenny, 58, conductor-in-training Chris Loehr, 22, and Coach America van driver Steven Sebastian, 60; and the critical injuries sustained by conductor Dwight Hauck, 52. Those present for the enactment of this legislation included Laura Kenny and her family, the spouse and children of engineer Torn Kenny, as well as Hauck and his wife Susan.

"We are especially grateful to both the Kenny's and the Hauck's for their testimony and strong support of this legislation which was instrumental in our ability to eventually win out over the railroads opposition," Washington State Legislative Director Herb Krohn said.

The new Washington State statute is the most stringent railroad contract crew transportation safety law in our nation, with most of the provisions taking effect on Jan. 1, 2018. According to Krohn, this law brings all rail contract transportation vehicles regardless of seating capacity, under the strict regulatory authority of the Washington State Utilities and Transportation Commission (WUTC). This agency has a mandate to regulate all aspects of rail contract crew transportation services including driver qualifications, equipment and operational safety, driver's hours of service, passenger safety, drug testing provisions, as well as mandatory recordkeeping. The WUTC now has been granted the authority to enforce all aspects of this new law including the investigation of passenger complaints and the imposition of penalties. This law increases state insurance requirements from \$1.5 million to \$5 million of liability coverage, and will require coverage of no less than \$1 million in Uninsured and Underinsured Motorist coverage, currently there are no UIM coverage requirements whatsoever

Additionally this legislation requires state-approved notices be posted prominently in every contract crew vehicle to inform railroad employees of their right to safe transportation; the notices will also explain how to file safety complaints with the state for investigation. Drivers will soon be required to undergo a state-approved safety training program, they will be automatically disqualified from driving railroad employees for three years if their drivers license has been suspended more than once in the past three years for anything other than non-payment of a traffic ticket; as well as upon conviction of any alcohol or drug related traffic offense, using a vehicle to commit a felony, leaving the scene of an accident, prohibited passing of another vehicle, any railroad grade crossing traffic violations as well as driving with a suspended license

The WUTC now has the authority to inspect all railroad and contractor passenger transportation vehicles, they are required by the new law to develop a periodic state inspection program for all contract transport vehicles. Lastly, to prevent attempts by railroad officers or contract crew transport companies from retaliating against our members, this new law includes a special confidentiality clause that prohibits agency public disclosure of the identity of any employee who submits a crew transportation safety complaint to the WUTC. While passage of this law is a major advancement, according to Krohn the WUTC rule making process to enforce the provisions of this statute is even more critical. *this is where the rubber really meets the road as the regulations the commission finally adopts will determine precisely how this new law will actually be applied and enforced and will impose the specific expectations on these contract operators.* Krohn is already actively engaged in participating in the regulatory development process of the WUTC.



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A-2

BNSF whistleblower who exposed safety violations worries others won't come forward

by Michelle Esteban



A former locomotive engineer just won a legal battle in the 9th circuit court of appeals against Burlington Northern Santa Fe railroad after blowing the whistle in 2011 over safety violations. (Photo: KOMO News)





VIEW PHOTO GALLERY

5 photos

TACOMA, Wash. - A former locomotive engineer just won a legal battle in the 9th circuit court of appeals against Burlington Northern Santa Fe railroad after blowing the whistle in 2011 over safety violations.

The Tacoma man says he's worried the dispute with the railroad, which has now continued for years, may silence others from warning of potential trouble on the tracks.

"The public needs to hear this," said Mike Elliott.

He says for seven long years he's been in a battle with BNSF over safety concerns.

Elliott insists he got fired for blowing the whistle on BNSF.

The railroad contends they parted ways with Elliott for 'unrelated' reasons.

He sued the railroad under the Whistleblower Act and won a \$1.25 million verdict.

That was three years ago, but he's yet to see a penny and the court battle continues to this day.

Seven years after he first reported concerns, he worries what message that sends other railroad workers.

"If they don't feel they can come forward and express their concerns and report things, without some type of retaliation, then an important complaint may go by the wayside," said Elliott.

A-3

Sandpoint, ID April 22, 2018 Exemption 6

Burlington Northern Santa Fe Railroad

Army Corps of Engineers

All other parties involved with the development and implementation of additional railroad tracks over Lake Pend O'Reille

To Whom It May Concern:

I oppose the installation of and have great concern regarding Burlington Northern Santa Fe Company's proposal to build a second 2.2 mile long railroad bridge in Sandpoint, Idaho over Lake Pend O'Reille. My concerns are many.

Currently, 37 to 58 trains travel through Sandpoint daily on to Spokane and then along the Columbia River en route to either Longview or Cherry Point in Washington. Much of the cargo on these trains is the highly volatile oil from the Bakken Fields in North Dakota or coal from the Powder River Basin in Wyoming. Fifty-four million tons of goods go to those ports; forty eight millions tons of the "goods" are coal bound for foreign ports, primarily China. China is currently building one new coal fired power plant per week. They do not have the same air pollution regulations that most developed nations practice; hence air currents bring that air pollution to the western coast of North America. Each train loses up to 31 tons of coal/coal dust en route; eighteen trains equal 205,000 tons of coal dust per year. Coal dust contains arsenic and mercury, both elements cause pulmonary issues affecting people with asthma, COPD, often leading to lung cancer. My ongoing concern is the inevitable increase of trains that will come through Sandpoint carrying the undesirable cargo of oil and coal bound for China.

Another concern with building a second track is the additional traffic snarls that will happen in Sandpoint and our surrounding communities. Currently, daily road closures near Sandpoint and the funnel span from one hour 47 minutes to four hours per day. If BNSF builds the additional tracks, as train traffic increases more stoppage will occur particularly for automobiles many of which come to our area to enjoy and recreate in its beauty...which will be polluted by diesel particulates from the trains, coal dust from uncovered coal cargo, noise pollution, including effects on fish in and wildlife near our lake. The possibility of effecting first responders stopped by trains, especially as train traffic increases, is also of grave concern.

Accidents are another concern. In December 2013, 2400 people needed to be evacuated in Casselton, ND due to a train wreck with oil. July 2013 saw the deaths of 47 people in Quebec from a runaway oil train. Northern Idaho had two derailments in 2017 luckily neither of those were coal or oil spills. But will the next derailment be oil or coal?

Infrastructure costs are passed on to taxpayers. Many of our residents barely make it as it is and to add additional taxes for the greed of others just does not sit well with our values.

Chief Seattle said many years ago, we must plan for seven generations into the future. The owners of the oil and coal companies, and perhaps BNSF, are thinking only in the present and filling their coffers, pleasing their investors. WE have only one precious planet. Please consider thoughtfully the full import of your decisions.

I do not want a second rail going over our lake or through our town and surrounding community traveling over our aquifers and water resources. Environmental impact studies are crucial. Thank you for making the right decision: NO SECOND BRIDGE!

Sincerely,

Ann M. Giantvalley

To whom it may concern regarding the proposed permit for Second Rail Bridge over Lake Pend Orielle:

My name is Rebecca Holland + I live on 20 acres in Selle Valley next to the Pack River. My husband + I moved here in 1975 (43 years ago) primarily to raise a family with the benefits of a pristine Lake between 2 beautiful mountain chains. Our 3 sons grew-up boating on Lake Pend Oreille and now as adults have built a successful water sport business here in Sandpoint. The water quality of LPO is of extreme importance to us.

A constant message given in our home was "Risk vs Reward". Anytime the boys adventured into a bold activity, they were cautioned to gauge the risks they were taking against the thrill of accomplishing some gutsy experience. I'd like to mention, to characterize the extent of their escapades, one of my sons is a 3-time Snowboard Winter Olympian.

We drive into town on Hwy 200 parallel to the RR tracks + have seen increased numbers of long coal trains over the last couple years. Recently, its been very worrisome that there has been numerous derailments in our area, including one on the east shoreline near Hope. Fortunately, the over-turned cars there did not contain dirty coal or crude oil or dump any other hazardous contaminates into our Lake.

Our family employs you to call for a Environment Impact Statement to assess the RISKS regarding this proposed Second Rail Bridge over LPO. We do not know the projected number of increased trains that this project could bring across our Lake or into our community. It is prudent to operate with an understanding of "Risk vs Reward" in this situation that involves a good-size population of people in recreational-based economy here in Bonner County.

Thank you for your consideration on this matter.

Rebecca Holland

Exemption 6

Sandpoint, ID

Comment submitted by: Robin "Sparrow" Ivy, Bonner county resident. 5/23/18

B-1

Hi my name is Robin Ivy but people know me by Sparrow.

I want to thank you gentleman for being here today and listening to us. Doesn't matter what side you are on, it's just important to hear us as a community speak. So thank you!

I first off want to state I support the railroad. I support the good jobs and those hard-working men and women who do their best to make sure we stay safe. This isn't about them. This is about us.

I live in Samuels area which is about 13 miles north of Sandpoint. I live about 1 mile away from a track. It's the track east of the main highway rail at 95 and Samuels.

Last year we had a rail car leak at that track where we walk our dog 3-4 times per week. Beans spilled, I believe and it was a mess. But we were just grateful it was beans. It could have been a derailment of ammonia, or odorless natural gas or oil/crude that exploded on impact. We were lucky . From my neighbors who live on that track to us. We all ducked a bullet. There would have been no way we would have survived, say if it would have been a large odorless natural gas derailment/spillage. We have no siren system or civil defense warning in place, and our only first responders, mostly volunteer firefighters, would take at least 25-30 minutes to even begin to get equipped and respond. There would be no evacuation possible. And if an accident happened at our substation, located at highway 95 & Samuels, our fire station is right next door to it. They potentially couldn't even have access to life saving equipment or vehicles due to the hazards.

This is a very real threat to us every day. Last year we had 4 derailments in one spring, in north Idaho/Montana. And if you would have called BNSF a week before these derailments they would have said it wasn't possible for that to happen. That they have safety features in place. Their rails are checked. They're prepared. Yet all four of those derailments could have been toxic. It could have happened over our long bridge.

So with this reality, I respectfully ask that you please make sure that at least a full environmental impact study is done and that no permitting of any kind is allowed until it is done. It seems such a simple thing to ask when your kids, friends and neighbors, wildlife, businesses, tourism, fishing and hunting are at risk. So simple yet potentially life-saving for us and our wildlife.

Please include these comments for the record.

Robin Sparrow Ivy

Exemption 6

Sandpoint, ID

TO: Idaho Department of Lands

U. S. Coast Guard

U. S. Army Corps of Engineers

RE: BNSF additional railroad bridges

3 copies letter from John Anderson 12

I have lived on the Sunnyside peninsula, northeast of Sandpoint, for 38 years. I am writing to express my strong opposition to the proposed three new railroad bridges. A thorough and complete environmental impact report, which includes an assessment of the option of removing the existing railroad and automobile bridges and replace them with a "western bypass" located west of Sandpoint at a site where the lake is considerably narrower.

Some of my concerns with any new bridges in existing bridge locations are the following:

- 1. Blocking Traffic: The railroads have not shown consideration of Sandpoint residents in the past, and I do not expect that to change in the future. A second bridge will only double the trains passing through Sandpoint. Maximizing profits will motivate the railroads to schedule additional trains, continuing to block motor vehicles at crossings.
- 2. Increased Fire Danger: When I drove to town the other day, a waiting black oil train stretched for what seemed a mile, blocking me from shopping at the Bonner Mall. It is depressing to see these trains of fracked oil endangering our community with inadequately funded fire and evacuation programs in place.

Living on the Sunnyside peninsula, I and my neighbors will be trapped if a derailed oil train ignites and starts a massive fire. Even if we learn of a spreading fire in time, we have only three escape routes by car - all go over or under the railroad. The worst bottleneck is the railroad underpass, which, due to the railroad's past indifference to proper safety standards, has only one lane of escape for cars going under the railroad! A two-way underpass was a viable option some years ago when the underpass/overpass was 'improved' (rebuilt), but the railroad saved money by still leaving only one lane.

Please mandate a complete environmental impact report on these bridges.

Thank you.

John M. Anderson

Sandpoint, Idaho,

Exemption 6

TO: Idaho Department of Lands

U. S. Coast Guard

U. S. Army Corps of Engineers

RE: BNSF additional railroad bridges

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Exemption 6

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TO: Idaho Department of Lands

U. S. Coast Guard

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- 1. The environmental impact study should include impacts on present town culture and economy, not merely on archeological "artifacts." This town is known for its scenic beauty. The economic impact on Sandpoint will be negative due to deteriorating visuals and noise pollution. More bridges will encourage additional train traffic. I am concerned that Sandpoint will begin to look and feel like an industrial railroad town.
- The environmental impact study should include the effects of additional oil and coal freight funneling through Sandpoint. BNSF has said we need more bridges to address the increased train traffic that is in our future. I believe these additional trains will primarily be carrying nonrenewable, soon-to-be obsolete, sources of energy. We do not need more oil and coal trains going through Sandpoint. In addition to the threat to water quality of our lake and rivers in the event of a derailment, as well as to public safety, BNSF should not rely on carbon-based freight for its future profits.

3 copies letter from Lell Tink

Thank you

Jill Trick

Sandpoint, Idaho,

Exemption 6

Trick

TO: Idaho Department of Lands

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U. S. Army Corps of Engineers

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Truck

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/Jill Trick

Sandpoint, Idaho,

Exemption 6

Testimony of Steven C. Morgan, an Idaho resident, to the Idaho Land Board's Public hearing on 23 May, 2018 regarding the BNSF Sandpoint Connector Junction Project

I am respectfully asking the agencies involved in permitting this project to consider my comments addressed to each individually below. I am asking that each of you make no determination or decision approving a permit until a full and final Environmental Impact Statement has been completed.

To the Idaho Land Board: I moved to Bonner County two years ago after visiting for this beautiful area for many years. I moved here for the beauty of the environment, the wonderful water sport activities, the pristine water and the fishing. I bring my grandchildren here every summer to fish and hopefully to gain an appreciation for nature and to gain a healthy respect for our environment. I am very concerned that the impact of this project on all those things I cherish has not been fully studied.

This project is about more than just the construction, which is far too narrow a view. In reality, this project is about a way of life, a culture, and a potential nightmare scenario for communities and residents all along not just Bonner County's waterways, but extending the entire length of every downstream waterway as well should there be a hazardous chemical spill.

Lastly, I ask you to consider if "feasible alternatives" have truly been considered as required by Idaho Statutes concerning Public Lands and encroachment. By law, actual alternatives must have been considered, not just which side of the old Railroad Bridge is "best". Those are merely design and construction variables, not true alternatives as required by the Statutes. A true alternative to study is whether there are other sites and routes that can avoid critical paths over Idaho waters as much as possible. Take Sandpoint and a bridge over the main channel of the Pend Oreille River and Lake out of consideration entirely. THAT is a true alternative that should be studied.

To the U.S. Coast Guard: I am a property owner, a recreational boater and a fisherman. I am also a disabled veteran having served 30 years. My wife served 22 years and she is also a disabled veteran. We moved to Bonner County about 2 years ago. We came here to visit for many years before that and we both love to boat and fish, especially when our children and grandchildren visit.

My daughter bought a Townhouse that is directly connected to where some of this project will be constructed. She just bought a new fishing boat for our use and has a slip at a Sandpoint Marina. We also kayak and enjoy many water sports here. The existing bridges already impede and limit maritime traffic and safe navigation, especially by novices, can be challenging to negotiate at times. Adding yet another challenge and more limits should be better assessed.

Water and air quality are obviously important to us, as are the fish, and their habitat. We want our grandchildren to enjoy the same waters in safety for their future.

As we age, and as disabled veterans, we are also very concerned that the rail traffic will dramatically increase making it even more difficult for us to obtain emergency response as rail traffic will obviously increase with this new bridge. We have one way in and out of the subdivision where we live and more trains blocking that access is not something we desire. Despite some lip service to improved response times in some areas of Bonner County, this bridge project will definitely cause us more delay and all 103 families who live in Ponder Point as well.

My family is very concerned about the impact on property values. We didn't purchase property here in order to live at a rail yard or a primary rail junction. The vibration, noise, and other impacts on property have not even been studied or addressed. A full EIS will help put our concerns into the spotlight and we ask you to do just that.

To the U.S. Army Corps of Engineers: As a 30 year Marine I have traveled the world. I've been in every U.S. State, all but 2 provinces in Canada and I have seen the impacts on our fragile ecosystems of industrialization. Every single speck of wetlands is absolutely essential to our health and environment. Despite the small size of this proposed fill in this project, the impact to native species and endangered ones especially must be evaluated. I ask for a full EIS before ANY permitted activity begins.

Testimony of John C. Garton to the Idaho Land Board's Public hearing on 23 May, 2018 regarding the BNSF Sandpoint Connector Junction Project

I have been coming to Sandpoint every summer for well over a decade. I hope to continue that in the future. I visit old friends who live here, I've stayed at the beautiful Season's Resort and I fish the lakes and rivers all that I can. When I discovered the proposed BNSF bridge project, I was very concerned. When I learned that there was no current plan to perform a full EIS before that construction I was appalled. Friends here tell me that when the by-pass for Highway 95 was proposed, a full EIS was conducted. That highway seems to be far less an impact on the environment than these proposed bridges. Surely a higher risk like this rail bridge deserves more scrutiny?

I am asking the agencies involved to please do a full Environmental Impact Statement before proceeding any further. BNSF should look elsewhere to improve their service, someplace that avoids all these river and lake crossings, who really knows how bad a hazardous waste or oil spill could be on water quality, the fishing and God forbid on the residents who drink these waters.

DIVISION OF LANDS AND WATERWAYS
RESOURCE PROTECTION & ASSISTANCE BUREAU
300 N 6™ STREET, SUITE 103
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BOISE, ID 83720-0050
PHONE (208) 334-0200
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DAVID GROESCHL, DIRECTOR

STATE BOARD OF LAND COMMISSIONERS

C. L. "Butch" Otter, Governor Lawerence E. Denney, Secretary of State Lawrence G. Wasden, Attorney General Brandon D Woolf, State Controller Sherri Ybarra, Sup't of Public Instruction

May 23, 2018

Hand Delivered

Chris Bromley, Hearing Coordinator Sandpoint, Idaho

Re: Encroachment Permit Application L-96-S-0096E, BNSF Railway Company

Dear Mr. Bromley,

The Idaho Department of Lands (IDL) would like to offer testimony on the Joint Application for Permits (Joint Application) received from the Burlington Northern Santa Fe Railway Company (BNSF), specifically related to the IDL Non-Navigational Encroachment Permit portion of the application concerning a new bridge (3.1) over Sand Creek, a new bridge (3.9) over Lake Pend Oreille, and several fills in Sand Creek and Lake Pend Oreille. This testimony is intended to provide you with specifics on the application process, the right of way owned by BNSF, pertinent authorities or standards that IDL believes are relevant to a decision on the application, and IDL's opinion on how the application does or does not meet the applicable standards.

Application Processing

IDL received the Joint Application on February 22, 2018. IDL sent notification of the application to eleven different parties consisting of federal, state, and local government agencies as well as non-governmental organizations. IDL also sent notifications to seven adjacent littoral landowners. While twelve adjacent owners are listed in the Joint Application, eight of those owners are adjacent to the total project area but not the specific portions of the project that are over navigable waters. In addition, while four adjacent littoral owners were listed in the Joint Application, IDL identified three additional littoral owners that could also be affected by the proposed project, which brought the total number of adjacent littoral owners notified by IDL to seven.

In addition, IDL caused a notification of the application receipt by IDL to be published in the Bonner County Daily Bee for two consecutive weeks on February 28 and March 7, 2018. All notifications and publications stated that application ERL-96-S-0096E-BNSF Railway Co. was for installation of a second railroad bridge across Sand Creek and Lake Pend Oreille, that a copy of the application could be obtained from the IDL public website, and requested that submittal of written public comments be received by March 30, 2018. On or about March 12, 2018, IDL posted the application, related documents, and comments received to-date on our public website. IDL periodically updated the website with public comments as received.

On March 14, 2018, IDL Acting Director David Groeschl issued a Notice of Appointment of Hearing Coordinator and Hearing for the hearing conducted today. IDL caused a notification of the hearings to be published in the Bonner County Daily Bee for two consecutive weeks on March 20 and March 27, 2018. The publication stated that IDL would accept written comments

Chris Bromley, Hearing Coordinator May 23, 2018 Page 2

through close of this hearing on May 23, 2018. All public and agency comments were posted to IDL's website as quickly as possible.

With roughly 1,100 comments submitted, the IDL webpage was updated on a periodic basis and IDL acknowledges a time delay in posting of comments due to the number of comments received. To ensure ample time given for receipt of public comment, IDL accepted comments on this application for nearly 90 days from February 26 through May 23, extending beyond the thirty-day requirement under Idaho Code § 58-1306(c) and IDAPA 20.03.04.030. All notification and publication requirements were met for processing of this application, as outlined under IDAPA 20.03.04.030. Written public comments are due today at the closing of our evening hearing.

BNSF Railroad Company Right of Way

Upon statehood in 1890, the State of Idaho obtained title to the beds and banks of navigable lakes and rivers within Idaho. It is the express policy of the State of Idaho that the public health, interest, safety and welfare requires that all encroachments upon, in or above the beds or waters of navigable lakes of the state be regulated in order that the protection of property, navigation, fish and wildlife habitat, aquatic life, recreation, aesthetic beauty and water quality be given due consideration and weighed against the navigational or economic necessity or justification for, or benefit to be derived from the proposed encroachment. Moreover, it is the responsibility of the State Board of Land Commissioners to regulate and control the use or disposition of stated owned lakebeds to provide for their commercial, navigational, recreational or other public use (IDAPA 20.03.04.012).

During the initial review of the Joint Application, IDL requested from BNSF a copy of the BNSF right of way referenced in Block 23 of the Joint Application. A copy of the right of way document is attached to this testimony. This document states that in 1864, the United States granted a right of way to Northern Pacific Railroad Company, predecessor in interest to BNSF. The right of way was therefore granted prior to statehood in 1890 when the State of Idaho obtained title to the beds and banks of navigable lakes and rivers within Idaho. An 1890, Rand McNally map of the right of way is also attached that shows the railroad crossing over Lake Pend Oreille near Sand Point.

The State of Idaho does not claim ownership of the lakebed within the BNSF railroad right of way, as this is privately owned submerged lands. In addition, no state easement exists for the current railroad bridge over Sand Creek or Lake Pend Oreille, and no state easement would be required for the two proposed railroad bridges, or fills, covered under this permit application and placed within the existing railroad right of way. As I will discuss below, an encroachment permit will be required from IDL, pursuant to the Lake Protection Act.

IDL Authorities and Standards

The Lake Protection Act, Idaho Code § 58-1301 etc., requires the State to review and approve an application before any encroachment can be placed on, in, or above the beds or waters of any navigable lakes. Lake Pend Oreille is a navigable lake as established by the Idaho Supreme Court (Gasman v. Wilcox, 54 Idaho 700, 35 P.2d 265 (1934)). Bridge 3.0 shown in the application is over Bridge Street, and does not require an encroachment permit from IDL. Bridge 3.9 and associated fills, as well as the fill for the East Algoma Turnout shown in the application, are subject to the Lake Protection Act. IDL has issued encroachment permits for

Chris Bromley, Hearing Coordinator May 23, 2018 Page 3

work on the existing bridge in the past. The lake also extends up into the mouth of Sand Creek, which makes Bridge 3.1, the temporary bridge, and associated fills as shown in the application, subject to the Lake Protection Act. IDL has issued encroachment permits for docks and other structures placed in the Sand Creek slough. This includes the bridge and associated fills for the Highway 95 Sand Creek Byway.

Privately owned submerged lands are still subject to the Lake Protection Act and associated administrative rules, as affirmed by the Idaho Supreme Court in <u>State v. Hudson</u>, 162 Idaho 888, 407 P.3d 202 (2017).

IDAPA 20.03.04.030.02 states:

"Encroachments not in aid of navigation in navigable lakes will normally not be approved by the Department and will be considered only in cases involving major environmental, economic, or social benefits to the general public. Approval under these circumstances is authorized only when consistent with the public trust doctrine and when there is no other feasible alternative with less impact on public trust values."

In addition, IDAPA 20.03.04.030.10 states in part:

"In recognition of continuing private property ownership of lands lying between the natural or ordinary high water mark and the artificial high water mark, if present, the department shall consider unreasonable adverse effect upon adjacent property and undue interference with navigation the most important factors to be considered in granting or denying an application for either a non-navigational encroachment or a commercial navigational encroachment not extending below the natural or ordinary high water mark."

While this does not exactly describe the BNSF bridge application due to BNSF's right of way ownership below both the artificial and ordinary high water marks, it is good guidance for review of this application.

Those two rule subsections, IDAPA 20.03.04.030.02 and 20.03.04.030.10, are the primary guidance for review of this permit application under the Idaho Lake Protection Act and associated IDAPA rules.

IDL Analysis

Per the Joint Application submitted by BNSF, all permanent fill and structures would occur within the authorized BNSF right of way. About 250 feet of the temporary bridge, and a few square feet of temporary fill on the north side of the Sand Creek bridge area, would be outside the right of way. IDL considers this a temporary impact to the area between the Sand Creek shoreline and the existing Highway 95 Bridge, and it is not expected to impact the adjacent property managed by the Idaho Transportation Department for Highway 95. No other adjacent properties are expected to be impacted by the proposed project due to the width of the BNSF right of way.

The existing bridge across Sand Creek has a 42-foot span for boat navigation, and the proposed new bridge would have a 72-foot span. This is not likely to hinder navigation. The proposed permanent nearshore fill is only 0.01 acres on the south abutment, and is not likely to impact navigation.

Chris Bromley, Hearing Coordinator May 23, 2018 Page 4

The proposed bridge across Lake Pend Oreille is designed to have wider boat traffic spans than the existing railroad bridge. BNSF has proposed an alignment of the boat traffic spans between the existing bridge and the proposed bridge. As a result, IDL does not expect navigation hindrance by the proposed bridge.

The proposed permanent nearshore fills associated with the new bridge across Lake Pend Oreille are also not likely to hinder navigation. The proposed fill on the north end is the largest one proposed at 0.57 acres, but it is between the existing railroad bridge and the Highway 95 Bridge in shallow water. The proposed fill on the south end is only 0.01 acres and extends about 15 feet into a very shallow portion of the lake.

The proposed fill for the Algoma Turnout covers about 0.29 acres and only extends about 40 feet into the lake. The existing shoreline is already dominated by the BNSF tracks, so navigation along this 500 feet of shoreline is likely minimal. The impact of this fill on navigation is therefore also likely minimal.

In summary, IDL has processed this encroachment permit application in accordance with IDAPA 20.03.04.030 and deemed the application complete. Permanent encroachments in the proposed project fall within the privately owned submerged lands of the BNSF right of way that was granted 26 years prior to statehood. Consistent with the standards in IDAPA 20.03.04.030.10 for privately owned submerged lands, the proposed project does not appear to have unreasonable adverse effects to adjacent littoral landowners or interfere with navigation.

The proposed project also appears to meet the standards for non-navigational encroachments in IDAPA 20.03.04.030.02 by providing economic and social benefits to the public. IDL believes that the hearing record shows that the additional bridge would potentially relieve rail freight bottleneck and improve interstate commerce.

I appreciate this opportunity to provide testimony on behalf of IDL.

Sincerely.

Diane French

Land and Waterways Division Administrator

Idaho Department of Lands

uare trench

United States Statutes at Large Volume 13, Pages 365 - 372

An Act granting Lands to aid in the Construction of a Railroad and Telegraph Line from Lake Superior to Puget's Sound, on the Pacific Coast, by the Northern Route.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Richard D. Rice, John A. Poore, Samuel P. Strickland, Samuel C. Fessenden, Charles P. Kimball, Augustine Haines, Edwin R. W. Wiggin, Anson P. Morrill, Samuel J. Anderson of Maine; Willard Sears, I. S. Withington, Josiah Perham, James M. Becket, A. W. Banfield, Abiel Abbott, John Newell, Austin L. Rogers, Nathaniel Greene, jnr., Oliver Frost, John A. Bass, John O. Bresbrey, George Shiverick, Edward Tyler, Filander J. Forristall, Ivory H. Pope, of Massachusetts; George Opdyke, Fairley Holmes, John Huggins, Philander Reed, George Briggs, Chauncy Vibbard, John C. Fremont, of New York; Ephraim Marsh, John P. Jackson, Jr., of New Jersey; S. M. Felton, John Toy, O. J. Dickey, B. F. Archer, G. W. Gass, J. Edgar Thompson, John A. Green, of Pennsylvania; T. M. Allyn, Moses W. Wilson, Horace Whittaker, Ira Bliss, of Connecticut; Joseph A. Gilmore, Onslow Stearns, E. P. Emerson, Frederick Smyth, William E. Chandler, of New Hampshire; Cyrus Aldrich, H. M. Rice, John McKusick, H. C. Waite, Stephen Miller, of Minnesota; E. A. Chapin, John Gregory Smith, George Merrill, of Vermont; James Y. Smith, William S. Slater, Isaac H. Southwick, Earl P. Mason, of Rhode Island; Seth Fuller, William Kellogg, U. S. Grant, William B. Ogden, William G. Greene, Leonard Sweat, Henry W. Blodgett, Porter Sheldon, of Illinois; J. M. Winchell, Elsworth Cheesebrough, James States of America in Congress assembled, That Richard D. Rice, John A. William B. Ogden, William G. Greene, Leonard Sweat, Henry W. Blodgett, Porter Sheldon, of Illinois; J. M. Winchell, Elsworth Cheesebrough, James S. Emery, of Kansas; Richard F. Perkins, Richard Chenery, Samuel Brannan, George Rowland, Henry Platt, of California; William F. Mercer, James W. Brownley, of Virginia; John H. B. Latrobe, W. Prescott Smith, of Maryland; Greenbury Slack, A. J. Boreman, of West Virginia; Thomas E. Bramlette, Frank Shorin, of Kentucky; John Brough, John A. Bingham, Oran Follett, John Gardner, S. S. L'Hommedieu, Harrison G. Blake, Philo Chamberlin, of Ohio; John A. Duncan, Samuel M. Harrington, of Delaware; Thomas A. Morris, Jesse L. Williams, of Indiana; Samuel L. Case, Henry L. Hall, David H. Jerome, Thomas D. Gilbert, C. A. Trowbridge, of Michigan; Edward H. Broadhead, Alexander Mitchell. Benjamin Ferguson. Levi Sterling, ----- Marshal, of Wis. Alexander Mitchell, Benjamin Ferguson, Levi Sterling, ----- Marshal, of Wisconsin; J. C. Ainsworth, Orlando Humason, H.W.Corbett, ---- Henry Failling, of Oregon; J. B. S. Todd, M. K. Armstrong, J. Shaw Gregory, J. Le Berge, of Dekota Territory; John Mullan, Anson G. Henry, S. D. Smith, Charles & Terry, of Washington Territyor; H. W. Starr, Platt Smith, Nixon Denton William Leighton, B. F. Allen, Reuben Noble, John L. Davies, of Joya; Willard P. Hall, George R. Smith, H. Gayle King, John C. Sargent, of Missouri; -------Willism H. Wallace of Idaho Territory; J. H. Lathrop, Henry D. Cooke, Merrick, of the District of Columbia, and all such other persons who shall or may be associated with them, and their successors, are hereby created and erected into a body corporate and politic, in deed, and in law, by the name, style, and title of the "Northern Pacific Railroad Company," and by that name shall have perpetual succession, and shall be able to sue and to be sued, plead and be impleaded, defend and be defended, in all courts of law and equity within the United States, and may make and have a common seal. And said corporation is hereby authorized and empowered to lay out, locate, construct, furnish, maintain, and enjoy a continuous railroad and telegraph line, with the appurtenances, namely, beginning at a point on Lake Superior, in the State of Minnesota or Wisconsin; thence westerly by the most eligible railroad route, as shall be determined by said company, within the territory of the United States, on a line north of the fortyfifth degree of latitude to some point on Puget's Sound, with a branch,
via the valley of the Columbia River, to a point at or near Portland, in
the State of Oregon, leaving the main trunk-line at the most suitable place
not more than three hundred miles from its western terminus; and is hereby vested with all the powers, privileges, and immunities necessary to carry into effect the purposes of this act as herein set forth. The capital stock of said company shall consist of one million shares of one hundred dollars each, which shall in all respects be deemed personal property, and shall be transferable in such manner as the by-laws of said corporation shall provide. The persons hereinbefore named are hereby appointed commissioners, and shall be called the board of commissioners of the "Northern

Pacific Railroad Company," and fifteen shall constitute a quorum for the transaction of business. The first meeting of said board of commissioners shall be held at the Melodion hall, in the city of Boston, at such time as any five commissioners herein named from Massachusetts shall appoint, not more than three months after the passage of this act, notice of which shall be given by them to the other commissioners by publishing said notice in at least one daily newspaper in the cities of Boston, New York, Philadelphia, Cincinnati, Milwaukee, and Chicago, once a week at least four weeks previous to the day of meeting. Said board shall organize by the choice from its number of a president, vice-president, secretary, and treasurer, and they shall require from said treasurer such bonds as may be deemed proper, and may from time to time increase the amount thereof as they may deem proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, proper. The secretary shall be sworn to the faithful performance of his duties, and such oath shall be entered upon the records of the company, signed by him, and the oath verified thereon. The president and secretary of said board shall in like manner call all other meetings, naming the time and place thereof. It shall be the duty of said board of commissioners to open books, or cause books to be opened, at such times and in such principal cities or other places in the United States, as they, or a quorum of them, shall determine, within six months after the passage of this act, to receive subscriptions to the capital stock of said corporation, and a cash payment of ten per centum on all subscriptions, and to receipt therefor. So soon as twenty thousand shares shall in good faith be subscribed for, and ten dollars per share actually paid into the treasury of the comfor, and ten dollars per share actually paid into the treasury of the company, the said president and secretary of said board of commissioners shall appoint a time and place for the first meeting of the subscribers to the stock of said company, and shall give notice thereof in at least one newspaper in each state in which subscription books have been opened, at newspaper in each state in which subscription books have been opened, at least fifteen days previous to to the day of meeting and such subscribers as shall attend the meeting so called, either in person or by lawful proxy, then and there shall elect by ballot thirteen directors for said corporation; and in such election each share of said capital stock shall entitle the owner thereof to one vote. The president and secretary of the board of commissioners, and, in case of their absence or inability, any two of the officers of said board, shall act as inspectors of said election, and shall certify under their hands the names of the directors elected at said meeting; and the said commissioners, treasurer, and secretary, shall then deliver over to said directors all the properties, subscription books, and cther books in their possession, and thereupon the duties of said commissioners, and the officers previously appointed by them, shall cease and determine forever, and thereafter the stockholders shall constitute said body politic and corporate. Annual meetings of the stockholders of the said corporation for the choice of officers (when they are to be chosen) and for the transaction of business shall be holden at such time and place and upon such notice as may be prescribed in the by-laws.

Section 2. And be it further enacted, That the right of way through the public lands be, and the same is hereby, granted to said "Northern Pacific Railroad Company," its successors and assigns, for the construction of a railroad and telegraph as proposed; and the right, power and authority is hereby given to said corporation to take from the public lands, adjacent to the line of said road, material of earth, stone, timber, and so forth, for the construction thereof. Said way is granted to said railroad to the extent of two hundred feet in width on each side of said railroad where it may pass through the public domain, including all necessary ground for station buildings, workshops, depots, machine shops, switches, side tracks, turn-tables, and water-stations; and the right of way shall be exempt from taxation within the territories of the United States. The United States shall extinguish, as rapidly as may be consistent with public policy and the welfare of the said Indians, the Indian titles to all lands falling under the operation of this act, and acquired in the donation to the road named in this bill.

Section 3. And be it further enacted, That there be, and hereby is, granted to the "Northern Pacific Railroad Company," its successors and assigns, for the purpose of aiding in the construction of said railroad and telegraph line to the Pacific coast, and to secure the safe and speedy transportation of the mails, troops, munitions of war, and public stores, over the route of said line of railway, every alternate section of public

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land, not mineral, designated by odd numbers, to the amount of twenty alternate sections per mile, on each side of said railroad line, as said company may adopt, through the territories of the United States, and ten alternate sections of land per mile on each side of said railroad whenever it passes through any state, and whenever on the line thereof, the United States have full title, not reserved, sold, granted, or otherwise appropriated, and free from preemption, or other claims or rights, at the time the line of said road is definitely fixed, and a plat thereof filed in the office of the commissioner of the general land-office; and whenever, prior to said time, any of said sections or parts of sections shall have been granted, sold, reserved, occupied by homestead settlers, or preempted, or otherwise disposed of, other lands shall be selected by said company in lieu thereof, under the direction of the Secretary of the Interior, in alternate sections, and designated by odd numbers, not more than ten miles beyond the limits of said alternate sections: Provided, That if said route shall be found upon the line of any other railroad route to aid in the construction of which lands have been heretofore granted by the United States, as far as the routes are upon the same general line, the amount of land heretofore granted shall be deducted from the amount granted by this act: Provided, further, That the railroad company receiving the previous grant of land may assign their interest to said "Northern Pacific Railroad Company," or may consolidate, confederate, and associate with said company upon the terms named in the first section of this act: Provided, further, That all mineral lands be, and the same are hereby, excluded from the operations of this act, and in lieu thereof a like quantity of unoccupied and unappropriated agricultural lands, in odd numbered sections, nearest to the line of said road may be selected as above provided; And provided, further, That the word "mineral," when it occurs in this act, shall

Section 4. And be it further enacted, That whenever said "Northern Pacific Railroad Company" shall have twenty-five consecutive miles of any portion of said railroad and telegraph line ready for the service contemplated, the President of the United States shall appoint three commissioners to examine the same, and if it shall appear that twenty-five consecutive miles of said road and telegraph line have been completed in a good, substantial, and workmanlike manner, as in all other respects required by this act, the commissioners shall so report to the President of the United States, and patents of lands, as aforesaid, shall be issued to said company, confirming to said company the right and title to said lands, situated opposite to, and coterminous with, said completed section of said road; and, from time to time, whenever twenty-five additional consecutive miles shall have been constructed, completed, and in readiness as aforesaid, and verified by said commissioners to the President of the United States, then patents shall be issued to said company conveying the additional sections of land as aforesaid, and so on as fast as every twenty-five miles of said road is completed as aforesaid? Provided, That not more than ten sections of land per mile, as said road shall be completed, shall be conveyed to said company for all that part of said railroad lying east of the western boundary of the State of Minnesota, until the whole of said railroad shall be finished and in good running order, as a first-class railroad, from the place of beginning on Lake Superior to the western boundary of Minnesota: Provided, also, That lands shall not be granted under the provisions of this act on account of any railroad, or part thereof, constructed at the date of the passage of this act.

Section 5. And be it further enacted, That said Northern Pacific Railroad shall be constructed in a substantial and workmanlike manner, with all the necessary draws, culverts, bridges, viaducts, crossings, turnouts, stations, and watering places, and all other appurtenances, including furniture, and rolling stock, equal in all respects to railroads of the first class, when prepared for business, with rails of the best quality, manufactured from American iron. And a uniform gauge shall be established throughout the entire length of the road. And there shall be constructed a telegraph line, of the most substantial and approved description, to be operated along the entire line: Provided, That the said company shall not

charge the government higher rates than they do individuals for like transportation and telegraphic service. And it shall be the duty of the Northern Pacific Railroad Company to permit any other railroad which shall be authorized to be built by the United States, or by the legislature of any territory or state in which the same may be situated, to form running connections with it, on fair and equitable terms.

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Section 6. And be it further enacted, That the President of the United States shall cause the lands to be surveyed for forty miles in width on both sides of the entire line of said road, after the general route shall be fixed, and as fast as may be required by the construction of said railroad; and the odd sections of land hereby granted shall not be liable to sale, or entry, or preemption before or after they are surveyed, except by said company, as provided in this act; but the provisions of the act of September, eighteen hundred and forty-one, granting preemption rights, and the acts amendatory thereof, and of the act entitled "An act to secure homesteads to actual settlers on the public domain," approved May twenty, eighteen hundred and sixty-two, shall be, and the same are hereby, extended to all other lands on the line of said road, when surveyed, excepting those hereby granted to said company. And the reserved alternate sections shall not be sold by the government at a price less than two dollars and fifty cents per acre, when offered for sale.

Section 7. And be it further enacted, That the said "Northern Pacific Railroad Company" be, and is hereby, authorized and empowered to enter
upon, purchase, take, and hold any lands or premises that may be necessary
and proper for the construction and working of said road, not exceeding in
width two hundred feet on each side of the line of its railroad, unless a
greater width be required for the purpose of excavation or embankment; and
also any lands or premises that may be recessary and propen for turnouts also any lands or premises that may be necessary and proper for turnouts, standing places for cars, depots, station-houses, or any other structures required in the construction and working of said road. And the said company shall have the right to cut and remove trees and other material that might, by falling, encumber its road-bed, though standing or being more than two hundred feet from the line of said road. And in case the owner of such lands or premises and the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken, or to be taken, for the use of said road, the said company cannot agree as to the value of the premises taken agree to the premise taken agree taken a value thereof shall be determined by the appraisal of three disinterested commissioners, who may be appointed, upon application by either party, to any court of record in any of the terrirories in which the lands or premises to be taken lie; and said commissioners, in their assessment of damages, shall appraise such premises at what would have been the value thereof if the road had not been built. And upon return into court of such appraisement, and upon the payment into the same of the estimated value of the premises taken for the use and benefit of the owner thereof, said premises shall be deemed to be taken by said company, which shall thereby acquire full title to the same for the purposes aforesaid. And either party feeling aggrieved at said appraisement may, within thirty days after the same has been returned into court, file an appeal therefrom, and demand a jury of twelve men to estimate the damage sustained; but such appeal shall not interfere with the rights of said company to enter upon the premises taken, or to do any act necessary and proper in the construction of its road. And said party appealing shall give bonds, with sufficient surety or sureties, for the payment of any cost that may arise upon such appeal; and in case the party appealing does not obtain a verdict, increasing or diminishing, as the case may be, the award of the commissioners, such party shall pay the whole cost incurred by the appelcommissioners, such party shall pay the whole cost incurred by the appellee, as well as his own, and the payment into court, for the use of the owner of said premises taken, of a sum equal to that finally awarded, shall be held to vest in said company the title of said land, and of the right to use and occupy the same for the construction, maintenance, and operation of said road. And in case any of the lands to be taken, as aforesaid, shall be held by any infant, femme covert, non compos, insane person, or persons residing without the territory within which the lands to be taken lie, or persons subjected to any legal liability, the court may appoint a guardian for any party under any disqualification, to appear in proper person, who shall give bonds, with sufficient surety or sureties, for the proper and faithful execution of his trust, and who may represent in court the person disqualified, as aforesaid, from appearing, when the same proceedings shall be had in reference to the appraisement of the premises to be taken for the use of isaid company, and with the same effect as has been already described; and the title of the company to the lands taken by virtue of this act shall not be affected or impaired by reason of any failure by any guardian to discharge faithfully his trust. And in case any party shall have a right or claim to any land for a term of years, or any interest therein, in possession, reversion, or remainder, the value of any such estate, less than a fee simple, shall be estimated and determined in the manner hereinbefore set forth. And in case it shall be necessary for the company to enter upon any lands which are unoccupied, and of which there is no apparent owner or claimant, it may proceed to take and use the same for the purposes of said railroad, and may institute proceedings, in manner described for the purpose of ascertaining the value of, and of acquiring title to, the same; but the judge of the court hearing said suit shall determine the kind of notice to be served on such owner or owners, and he may in its discretion appoint an agent or guardian to represent such owner or owners in case of his or their incapacity or non-appearance. But in case no claimant shall appear within six years from the time of the opening of said road across any land, all claims to damages against said company shall be barred.

Section 8. And be it further enacted, That each and every grant, right and privilege herein are so made and given to, and accepted by, said Northern Pacific Railroad Company, upon and subject to the following conditions, namely: That the said company shall commence the work on said road within two years from the approval of this act by the President, and shall complete not less than fifty miles per year after the second year, and shall construct, equip, furnish, and complete the whole road by the fourth day of July, anno Domini eighteen hundred and seventy-six.

Section 9. And be it further enacted, That the United States make the several conditioned grants herein, and that the said Northern Pacific Railroad Company accept the same, upon the further condition that if the said company make any breach of the conditions hereof, and allow the same to continue for upwards of one year, then, in such case, at any time hereafter, the United States, by its congress, may do any and all acts and things which may be needful and necessary to insure a speedy completion of the said road.

Section 10. And be it further enacted, That all people of the United States shall have the right to subscribe to the stock of the Northern Pacific Railroad Company until the whole capital named in this act of incorporation is taken up, by complying with the terms of subscription; and no mortgage or construction bonds shall ever be issued by said company on said road, or mortgage, or lien made in any way, except by the consent of the congress of the United States.

Section 11. And be it further enacted, That said Northern Pacific Railroad, or any part thereof, shall be a post route and a military road, subject to the use of the United States, for postal, military, naval, and all other government service, and also subject to such regulations as congress may impose restricting the charges for such government transportation.

Section 12. And be it further enacted, That the acceptance of the terms, conditions, and impositions of this act by the said Northern Pacific Railroad Company shall be signified in writing under the corporate seal of said company, duly executed pursuant to the direction of its board of directors first had and obtained, which acceptance shall be made within two years after the passage of this act, and not afterwards, and shall be served on the President of the United States.

Section 13. And be it further enected, That the directors of said company shall make an annual report of their proceedings and expenditures, verified by the affidavits of the president and at least six of the directors, and they shall, from time to time, fix, determine, and regulate the fares, tolls, and charges to be received and paid for transportation of persons and property on said road, or any part thereof.

Section 14. And be it further enacted, That the directors chosen in pursuance of the first section of this act shall, so soon as may be after their election, elect from their own number a president and vice-president; and said board of directors shall, from time to time, and so soon as may be after their election, choose a treasurer and secretary, who shall hold their offices at the will and pleasure of the board of directors. The treasurer and secretary shall give such bonds, with such security as the said board from time to time may require. The secretary shall, before entering upon his duty, be sworn to the faithful discharge thereof, and said oath shall be made a matter of record upon the books of said corporation. No person shall be a director of said company unless he shall be a stockholder, and qualified to vote for directors at the election at which he shall be chosen.

Section 15. And be it further enacted, That the president, vice-president, and directors shall hold their offices for the period indicated in the by-laws of said company, not exceeding three years, respectively, and until others are chosen in their place, and qualified. In case it shall so happen that an election of directors shall not be made on any day appointed by the by-laws of said company, the corporation shall not for that excuse be deemed to be dissolved, but such election may be holden on any day which shall be appointed by the directors. The directors, of whom seven, including the president, shall be a quorum for the transaction of business, shall have full power to make and prescribe such by-laws, rules, and regulations as they shall deem needful and proper touching the disposition and management of the stock, property, estate, and effects of the company, the transfer of shares, the duties and conduct of their officers and servants touching the election and meeting of the directors, and all matters whatsoever which may appertain to the concerns of said company; and the said board of directors may have full power to fill any vacancy or vacancies that may occur from any cause or causes from time to time in their said board. And the said board of directors shall have power to appoint such engineers, agents, and subordinates as may from time to time be necessary to carry into effect the object of the company, and to do all acts and things touching the location and construction of said road.

Section 16. And be it further enacted, That it shall be lawful for the directors of said company to require payment of the sum of ten per centum cash assessment upon all subscriptions received of all subscribers, and the balance thereof at such times and in such proportions and on such conditions as they shall deem to be necessary to complete the said road and telegraph line within the time in this act prescribed. Sixty days previous notice shall be given of the payments required, and of the time and place of payment, by publishing a notice once a week in one daily newspaper in each of the cities of Poston, New York, Philadelphia, and Chicago; and in case any stockholder shall neglect or refuse to pay, in pursuance of such notice, the stock held by such person shall be forfeited absolutely to the use of the company, and also any payment or payments that shall have been made on account thereof, subject to the condition that the board of directors may allow the redemption on such terms as they may prescribe.

Section 17. And be it further enacted, That the said company is authorized to accept to its own use any grant, donation, loan, power, franchise, aid, or assistance which may be granted to, or conferred upon, said company by the congress of the United States, by the legislature of any state, or by any corporation, person, or persons; and said corporation is authorized to hold and enjoy any such grant, donation, loan, power, franchise, aid, or assistance to its own use for the purpose aforesaid.

Section 18. And be it further enacted, That said Northern Pacific Railroad Company shall obtain the consent of the legislature of any state through which any portion of said railroad line may pass, previous to commencing the construction thereof; but said company may have the right to put on engineers and survey the route before obtaining the consent of the legislature.

Section 19. And be it further enacted, That unless said Northern Pacific Railroad Company shall obtain bona fide subscriptions to the stock of said company to the amount of two millions of dollars, with ten per centum paid within two years after the passage and approval of this act, it shall be null and void.

Section 20. And be it further enacted, That the better to accomplish the object of this act, namely, to promote the public interest and welfare by the construction of said railroad and telegraph line, and keeping the same in working order, and to secure to the government at all times (but particularly in time of war) the use and benefits of the same for postal, military, and other purposes, congress may, at any time, having due regard for the rights of said Northern Pacific Railroad Company, add to, alter, amend, or repeal this act.

APPROVED, JULY 2, 1864.

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REGORD OF TITLE TO RIGHT OF MAY ACQUIRED BY ACTS OF CONGLESS AND DIGISTORS AFFECTING SAME

1. ACT OF CONCRESS APPROVED JULY 2, 1864 (15 V.S.Stabs. 535)

Charter of Morthern Pacific R.R. Co. - Land grant; also right of way grant of 400 ft. strip across vacant government. lands from Lake Superior to Paget Sound.

- 1-A. Joint Esselution of April 10, 1859 (16 Stat.57)
 Similar to arrow 400 ft. right or way for rmin
 line from Fortland to Tacoma.
 Note:- Railway Company never accepted the resolution.
- 1-B. Joint Resolution of May 31, 1670; (16 Stat. 378)
 400 ft. right of way for main line from Portland
 to Tacoma.

2. RATLEOAD COMPANY v. BALDWIN (103 U.S. 426) Docided in October 1880.

This was an action by Baldwin to recover of the St. Joseph and Denver City R.R. Co. damages for entering upon his land in Nobraska in the construction of its road, a strip 200 feet in width. The Company claimed a right of way over the land of that width under the Act of Congress on July 25, 1836, C.212, entitled "An Act for a grant of lands to the State of Mansas to aid in the construction of the Northern Mansas Railroad and Telegraph." 14 Stat. 210.

When the grant was made by Congress the land claimed by Beldwin was vacant and unoccupied land of the United States. The line of road over it was not definitely located until October 1871. He acquired whatever rights he possessed in October 1839. The defendant railroad contended the plaintiff took the land subject to its right of way. Plaintiff contended that the grant of right of way took effect only from the date of filling the maps. The Court held that the Act was a present grant and that all persons acquiring any portion of the public lands after the passage of the Act in question took the same subject to the right of way conferred by it for the proposal road.

The syllabus radia as follows:

RATLROAD COMPANY v. BALDWIN (103 U.S. 426)

The grant which the act of July 23, 1856, c.212 (14 Stat.210), makes to the St. Joseph and Denver City Railroad Company, "to the extent of one hundred feet in width on each side of suid read where it may pass through the public domain," is absolute and "In pressenti", and a party subsequently acquiring a parcel of such lands takes it subject to that right.

2. NORTHERN PACIFIC RAILWAY v. TOWNSEND (190 U.S. 257) Decided Hay 4,1903.

This action was brought by the Northern Pacific Railway Company against Townsend to recover possession of a portion of the 400 ft. right-of-way claimed under the Act of July 2, 1864, 15 Stat. 365, in the 1872 Section 24, Township 134 North, Range 35 West, 5th P.M.

In November, 1371, the line of road was definitely located and duly approved map was filed showing said definite location. This line crossed the land involved in this action. This was vacant public land at that time.

Homestead entries were initiated on said N/4 in 1873 and 1832, and patents issued in 1885 and 1839 to Abner Townsend and Goorge H. Brown, which purported to convey the whole of each 40 acre subdivision. During the occupancy of the homesteaders they cultivated up to the ordinary snow fences of the railroad, respectively 50 and 100 feat from the center of the track, and such occupancy continued a sufficient length of time to constitute a title by adverse possession under the limitation statutes of Minnesota.

The Court held that the fee passed by the grant made in Sec. 2 of the Act of July 2, 1834, and was in effect the grant of a limited fee, made on an implied condition of reverter in the event that the Company ceased to use or rotain the land for the purpose for which it was granted, and that no adverse possession title could be acquired by individuals under the State's statutes of Timitation.

Portion of the syllabus reads as follows:

Whore the United States grants a right of way by statute to a railroad company which files a map of definite location, and the road is constructed, the land forming the right of way is taken

out of the category of public land subject to presuption and sale, and the land department is without authority to convey rights therein. Homesteaders filling entries thereafter can acquire no interest in land within the right of way on the ground that the grants to them were of full legal sublivisions the descriptions whereof include part of the right of way.

See Act of Congress of April 28, 1904, validating adverse possession claims and sales of outer 100 ft. charter right of way strips.

3. TOTASEND CASE (190 U.S. 207) See 26 Abore

U.S. Supreme Court hold that no adverse possession title can ripen against the Railway Company on any portion of the 400 ft. charter right of way strip and that the title of the Railway Company is inclienable.

4. ACT OF CONGRESS APPROVED APRIL 23, 1904 (33 Stat. 538)

Validating all conveyances made by the Railroad prior to April 28, 1904, of any portion of the 400 ft. right of way lying outside of a line 100 ft. distant from the center of the main track as then existing.

5. ELY CASE (197 U.S. 1) Decided Feb. 20, 1905

U.S. Supreme Court construed Act of April 28, 1904, to confirm an adverse possession title that had ripened on any portion of the outer 100 it. on either side of the 400 ft. charter right of way strip on April 28, 1904, was confirmed by the Act of April 28, 1904 and the latter decision (Nos. 4 & 5) it will be observed that no adverse possession title can ripen on any part of the inner 200 ft. This Act and decision amends the decision in the Townsend case insofar as the outer 100 ft. right of way is concerned.

In Minnesota the law holds that we cannot eject occupante from the right of way where they can show they have located under some color of title without paying them the value of their improvements.

6. CONCALMON CASE (235 U.S. 382) Decided December 20, 1916.

U.S. Supreme Court decided that an adverse possession on the

outer 100 ft. strips of the charter right of way must have riponed on April 28, 1904; that is, adverse possession on the charter right of way would not run against the company since that date.

The syllabus reads as follows:

The Act of April 28, 1904, c.1782, 55 Stat.558, validating conveyances of land within the lines of the right of way of the Northern Pacific Railway related only to conveyances therotofore made, and did not confer on the Railway Company power in the future to dispose of the right of way nor on others the power to obtain possession of any part thereof by adverse possession. Northern Pacific Ruy. v. Ely, 197 U.S. 1, distinguished.

While title by adverse possession might have been obtained to portions of the right of way of the Northern Pacific Railway under the Act of April 23, 1904, if the adverse possession had ripened into title prior to the passage of the act, title cannot be obtained thereunder if any part of the period of adverse possession is subsequent thereto.

While a remedial statute should be construed so as to embrace remedies which it was intended to afford, its words should not be so extended as to destroy express limitations and cause it to accomplish purposes which its text shows it was not intended to reach.

In this case the judgment of the state court cannot be sustained as resting on a ground independent of the construction of the Federal statute involved.

While an issue remaining open on the remanding of the case may be one arising under state law which should primarily be disposed of by the state court, this court has the ultimate authority to review the decision on such question to the extent essential to the enforcement of Federal rights involved.

75 Washington 591, reversed.

7. ACT OF CONGRESS APPROVED MARCH 8, 1922 (42 U.S. Stats.414)

Act provides for disposition of abandoned portions of right of way granted railroad companies. Right of way the use of which has ceased, whether by forfeiture or by abandonment by the Railway Company declared or decreed by a court of competent jurisdiction or by Act of Congress, the title of the United States shall with certain exceptions for highways be vested in any person or the successor in title to whom title of the United States may have been granted, conveying the subdivision traversed by the railroad, except lands within a municipality which shall vest in such municipality.

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8. ACT OF CONGRESS APPROVED MARCH 3, 1875 (18 U.S. Stata.492)

An Act granting to railreads a 200 it. right of way through the public lands of the United States. This Act differs from the Act of July 2, 1864 in that the Company's title dates from the date that its application for a right of way is filed and approved, instead of from the date of the Act of Congress. See C.F. 16558 and 9216-1.

See No 12

9. ACT OF CONCRESS APPROVED MARCH 2, 1899 (30 U.S. Stats.900)

An Act relating to right of way across Indian Lands.

- 10. FORFEITURE ACTS Act of June 26, 1906 (34 U.S. Stats.482)

 Act of February 25, 1909 (35 U.S. Stats.647)
- 11. ROBERTS CASE (158 U.S. 1) (MURRAY CASE 97 FED. 643 WASK.)

Regarding subsequent vendee taking land subject to burdon of railroad.

The syllabus reads in part as follows:

Where a railroad company, having the power of eminent domain, has entered into actual possession of lands necessary for its corporate purposes, whether with or without the consent of their owner, a subsequent vendes of the latter takes the land subject to the burthen of the railroad, and the right to payment from the railroad company, if it entered by virtue of an agreement to pay, or to damages if the entry was unauthorized, belongs to the owner at the time the railroad company took possession.

If a land owner, knowing that a railroad company has entered upon his land, and is engaged in constructing its road without having complied with a statute requiring either payment by agreement or proceedings to condemn, remains inactive and pormits it to go on and expend large sums in the work, he is estopped from maintaining either trespass or ejectment for the entry, and will be regarded as having acquiesced therein, and will be restricted to a buit for damages.

So far as it was within the power of the State of Wisconsin, through and by its legislature, to authorize the county of Douglas, in that State, to contract with the Morthern Pacific Railroad Company for the construction of its road within that county on a designated line, and to establish a lake terminas within the same, and upon the fulfilment of those conditions to convey to it certain of its unsettled public lands, that power was conferred and the contract between the county and the railroad company in respect thereof was ratified by the act of Earch 25, 1985; and, if there was any want of regularity in the proceedings of the county, it was thereby waived and corrected.

Said grant was made on a valuable consideration, which was fully

performed when the railroad company had constructed its road and had established the lake terminus in the county as it had combracted to do; and the company then become entitled to a conveyance of the lands, and so far as the Supreme Court of Wisconsin can be regarded as Naving held to the contrary, the courts of the United States are not bound to follow its decision when applied to a corporation created by an act of Compress, for Mational purposes, and for interstate commerce.

12: RIO GRANDE WESTERN RAILTRY CO. vs. STRINGHAM (259 U.S. 44 decided nov. 1, 1915.)

This was a sult to quiet the title to a strip of land claimed and used by the plaintiff as a railroad right of way under the Act of Earch 5, 1875 (18 Stat. 482).

With respect to the title acquired by a Railroad Company under this act the court said -

The right of way granted by this and similar acts is neither a mere casement, nor a fee simple absolute, but a limited fee, made on an implied condition of reverter in the event that the company ceases to use or retain the land for the purposes for which it is granted, and carries with it the incidents and remedies usually attending the fee. (New Mexico v. U.S. Trust Co. 172 U.S. 171,183; Nor. Pac. Ry. v. Townsend 100 U.S. 257,271; U.S. v. Michigan, 100 U.S. 379,398; West. Un. Tel. Co. v. Permsylvania R.R. 195 U.S. 540,570.

It will be noted that the court in this case used the same language with respect to the nature of the title granted under the Act of March 3, 1870 as was used in the Townsend Case (190 U.S. 267 decided May 4, 1905) relating to charter right of way.

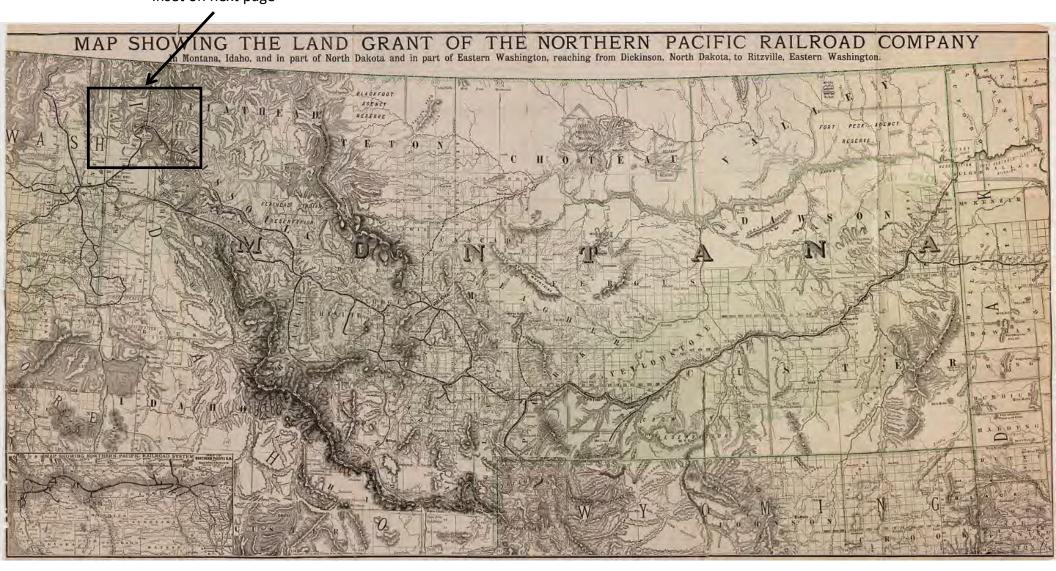
Chap. 197 act authorizing entain R.R. Cos esther accession in interest, to among the purpose stand purposes esthern part of the 18/01.

Opposed Trees 15.1960 - 41 Mars 621

46 Chit 373 acquard under any law of the X.D.

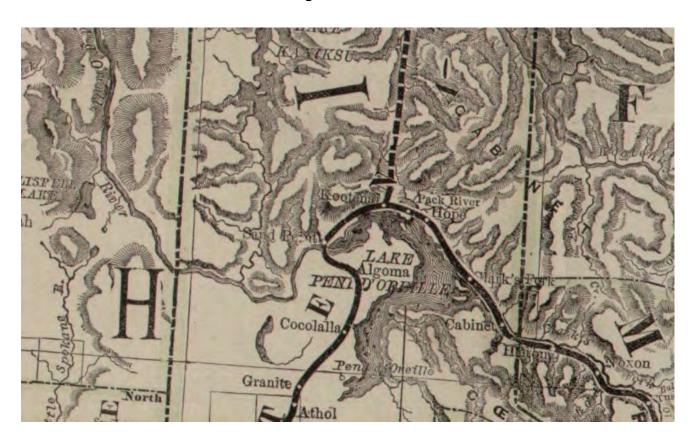
Close up of the Northern Pacific Railroad Company Land Grant Rand McNally & Co, c1890

Inset on next page



Close up of the Northern Pacific Railroad Company Land Grant Rand McNally & Co, c1890

Map shows rail line around the north side of Lake Pend Oreille and crossing the river at Sand Point.



PEND OREILLE SUPERVISORY AREA

2550 Highway 2 West Sandpoint ID 83864-7305 Phone (208) 263-5104

Fax: Area (208) 263-0724 Fax: District (208) 265-7263



GEORGE B. BACON — DIRECTOR EQUAL OPPORTUNITY EMPLOYER

STATE BOARD OF LAND COMMISSIONERS

C. L. "Butch" Otter, Governor Ben Ysursa, Secretary of State Lawrence G. Wasden, Attorney General Donna M. Jones, State Controller Tom Luna, Sup't of Public Instruction

June 1, 2009

Ron Berry Burlington Northern Santa Fe Railway Co. 4515 Kansas Avenue Kansas City, KS 66106-1199

Re: Encroachment Permit ERL-96-S-96D

Dear Mr. Berry:

Enclosed is subject permit in accordance with the application you filed with this office. Please comply with all special terms and conditions. This permit does not preclude you from getting other permits such as one from the Corps of Engineers. You should contact them prior to construction.

This permit is not valid until you provide us with proof of recordation from your county recorder's office. Please note that the original notarized permit must be presented to the recorder; a copy will not be accepted. The encroachment permit number (96) must be displayed upon the most waterward area of your encroachment with metal, plastic (vinyl) or wooden numerals at least three inches in size.

WHAT NEXT

- 1. **Record** the Encroachment Permit with the respective County in which the encroachment is located. The recordation number is then written on line 4 of the YELLOW Work Completion Report. When encroachment is complete, fill in date on the YELLOW form and return to the address indicated on the form.
- 2. The BLUE form Request For Assignment of Encroachment Permit is for when you sell your property. You sign in the appropriate location and give it to the new owner; they complete the form and return it to the Idaho Department of Lands.

Thank you for your cooperation.

Sincerely.

EDWARD ROBINSON

Area Manager

enclosures

c: InterMountain Resources

U. S. Army Corps of Engineers, Coeur d'Alene

Eric Wilson - Boise

WORK COMPLETION REPORT

Ron Berry		
Signature:		
If so, what is the local numbering system number if any?		
Is permitted property accessible by vehicle?	YES	<u>NO</u>
Date work completed:		
Recordation Instrument No.:		
Permit issue date:	June 1, 2	2009
This work to be completed by:	June 1, 2	2012
Name Ron Berry - Burlington Northern Santa Fe Railway Co. Perm	nit # <u>ERL-96-S</u>	-96D

Upon completion of work, please return this report to:

Idaho Department of Lands Pend Oreille Lake Supervisory Area - Jim Brady 2550 Highway 2 West Sandpoint, ID 83864

PEND OREILLE SUPERVISORY AREA 2550 Highway 2 West

2550 Highway 2 West Sandpoint ID 83864-7305 Phone (208) 263-5104

Fax: Area (208) 263-0724 Fax: District (208) 265-7263



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ENCROACHMENT PERMIT NO. ERL-96-S-96D

Permission is hereby granted to Ron Berry - Burlington Northern Santa Fe Railway Co. of 4515 Kansas Avenue, Kansas City, KS 66106-1199 to install and maintain riprap along 1600' of shoreline for erosion control; replacement of 16 pier structures for south end of railroad bridge, temporary fill of 0.3 ac. for access to work site, 30' x 780' temporary work bridge with 2 pullouts, 96 permanent piles, 112 temporary piles and 80' of temporary sheet pile. Located: Pend Oreille Lake, Section 26, Township 57 North, Range 2 West, Boise Meridian, Bonner County.

- All applicable provisions of the Rules for Regulation of Beds, Waters, and Airspace over Navigable Lakes and Streams in the State of Idaho are incorporated herein by reference and made a part hereof.
- 2. Construction will follow details and specifications shown on the approved drawings and data provided by the applicant. Should such information and data prove to be materially false, incomplete and/or inaccurate, this authorization may be modified, suspended, or revoked in accordance with the Administrative Procedures Act, Idaho Code Title 67, Chapter 52.
- 3. This permit does not convey the State's title to nor jurisdiction or management of lands lying below the natural or ordinary high water mark.
- 4. Acceptance of this permit constitutes permission by the Permittee for representatives of the Department of Lands to come upon Permittee's lands at all reasonable times to inspect the encroachment authorized by this permit.
- 5. The Permittee shall indemnify, defend and save harmless, the state, its officers, agents and employees from and against any liability, claims, damages, losses, debts, obligations, judgments, expenses or actions, including reasonable attorneys' fees from action related to this permit. If it becomes necessary for the State to defend any action seeking to impose any such liability, Permittee agrees to pay the State all costs of court and attorneys' fees incurred by the State in effecting such defense in addition to all other sums that the State may be called upon to pay by reason of the entry of a judgment against it in the litigation in which such is asserted.
- 6. *Idaho Code* §58-1305(g) and §58-1306(f) requires recordation of this permit in the records of respective county assessor's office as a condition of this permit.
- 7. This permit is not valid until the identification number is displayed on the outermost area of the encroachment.

ENCROACHMENT PERMIT NO. ERL-96-S-96D June 1, 2009 Page two

- 8. If the activity authorized herein is not completed on or before the 1st day of June, 2012 (three years from the date of issuance), this permit shall automatically expire unless it was previously revoked or otherwise extended.
- 9. This permit does not relieve the Permittee from obtaining additional local or federal permits as required.
- 10. Idaho State Water Quality Standards (IDAPA 58.01.02) shall be maintained at all times during and after project start up.
- 11. Existing piles that are to be replaced shall be cut off. Use of tug or barge to pull or break them from the lakebed is prohibited.
- Construction barges or other watercraft shall not be grounded on the lakebed for stability.
- 13. Piles shall be driven with noise reduction devices.
- 14. In water work areas shall be isolated with functioning silt curtains.
- 15. No demolition debris shall be allowed to fall to the lakebed or be dragged to shore. Demolition debris shall be disposed of at an approved upland location.
- 16. Permittee is responsible for all work done by any contractor. Permittee shall provide contractor with a copy of this permit. Permittee shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this permit.
- 17. No equipment, boats, barges or associated machinery shall create petroleum product sheen on the water due to petroleum products handling, use or storage. The operators shall have petroleum absorbent pads on hand and also have the Emergency Response Team phone number, 1-800-632-8000, on hand should there be a release of any kind.
- 18. Removal and proper disposal of any preexisting or abandoned facilities is a condition of this permit.
- 19. This permit supersedes and voids any permit previously issued for this property.
- 20. Construction materials shall be natural or pressure treated utilizing only those preservative chemicals registered for the specific uses by the U.S. Environmental Protection Agency (EPA). All treated wood materials shall be produced in compliance with "Best Management Practices (BMPs) For the Use of Treated Wood in Aquatic and other Sensitive Environments" issued by the Western Wood Preservers Institute (WWPI), 2006. Treated materials not in contact with the water shall be completely dry before use near navigable waters. Use of CCA treated wood shall adhere to the EPA regulations regarding use of arsenate treated wood. Contact Idaho Department of Environmental Quality at (208)769-1422 for information on acceptable treatment methods and materials.
- 21. No riprap shall be placed in excess of the minimum needed for erosion control.

ENCROACHMENT PERMIT NO. ERL-96-S-96D June 1, 2009 Page three

- 22. All construction material must be stockpiled landward of the artificial high water mark.
- 23. Operation of excavation equipment will not be allowed below the artificial high water mark without prior authorization. Equipment may be operated only on dry land above the present level of the lake.
- 24. Rock for riprap shall consist of sound, dense, durable, angular rock fragments, resistant to weathering and free from large quantities of soil, shale, or organic matter. The length of a stone must not be more than three times its width or thickness. Rounded cobbles, boulders, and streambed gravels are not acceptable as placed riprap material.
- 25. A preconstruction conference must be held on site with the contractor at least one working day prior to construction. The permittee will arrange the meeting that is being held to acquaint the contractor with the terms of this permit.
- 26. The Permittee shall maintain the structure or work authorized herein in a good and safe condition and in accordance with the plans and drawings attached hereto.
- 27. All construction will be done according to the specifications detailed in the attached design plan.
- 28. The disturbed portion of the lakebed shall be shaped to its original contour upon completion of the project.
- 29. Excavated material not replaced shall be removed to an area above the artificial high water mark and in a position such that it will not reenter the lake.
- 30. All construction shall be completed in accordance with descriptions and methods provided unless otherwise specified. Any changes shall be approved in writing by the department prior to construction.
- 31. An adequate supply of petroleum-absorbing products shall be on site in the event of a spill.
- 32. All fill, concrete, wood chips, fabric, pipe and other construction waste shall be removed from the lake upon completion of project.
- 33. If any excavation occurs the operator must comply with the provisions of the Underground Facilities Damage Prevention Law (title 55, chapters 2201-2210, Idaho Code). The one-call locator service number is 1-800-342-1585.
- 34. The Permittee or operator shall have a copy of this permit available on site for inspection at all times during construction.

UPON TRANSFER OF THIS REAL PROPERTY, YOU ARE REQUIRED TO NOTIFY THIS OFFICE OF THE SUBSEQUENT NAME CHANGE (SEE ENCLOSURE).

ENCROACHMENT PERMIT NO. ERL-96-S-96D June 1, 2009 Page four

FOR THE DIRECTOR

Ву:

EDWARD ROBINSON

Area Manager - Pend Oreille Lake Area

STATE OF IDAHO

) ss

COUNTY OF BONNER

On <u>June 1, 2009</u>, personally appeared before me <u>Edward Robinson</u>, whose identity is personally known to me and who by me duly affirmed that he is the <u>Area Manager – Pend Oreille Lake Area</u> of the <u>Idaho Department of Lands</u>, and acknowledged that the foregoing document was signed by him in behalf of said state agency by authority of a Resolution of the State Land Board.

SUSAN L. COPAS NOTARY PUBLIC STATE OF IDAHO

Notary Public for Idahd Department of Lands My commission expires on 2/18/2015



Request for Assignment of Encroachment Permit

I/We, <u>RonBerry-Burlington</u> Department of Lands encroad permit(s) be assigned to	Northern Santa Fe Railway Co., am/are the current permitee(s) of the Ida chment permit(s) listed below. I/We, as Assignor(s), request that the identification	hc ec
	, identified below as "Assignee(s)."	
Encroachment Number (s): _	ERL-96-S-96D	
Body of Water: Pend Oreil	le Lake	
County: <u>Bonner</u>		
ASSIGNOR(S) CURRENT P	PERMITEE(S)	
We hereby swear and affirm th knowledge.	at the information contained herein is true and correct to the best of our	
Assignor	Assignor	
STATE OF	: 66	
County of	_)	
	, in the year 20, before me, a notary public in and for said	
State, personally appeared	, knov	٧n
to me to be the Assignor(s)/Pelescent executed the same.	rmitee(s) that executed the within instrument, and acknowledged to me that	
IN WITNESS WHEREOF,	I have hereunto set my hand and seal on the day and year last above written.	
	Notary Public	
	Residing at: My Commission Expires:	
	My Commission Expires:	
ASSIGNEE(S) NEW PERMI I/We accept and agree to comp	TEE(S) oly with the terms and conditions of the permit(s) as issued.	
Name:	Phone:	
Address:		
Assignor	Assignor Date Date	
	Dale Dale	

✓ You must submit an assignment fee of \$150.00. This fee will be waived if an assignment fee associated with a submerged land lease or cottage site lease has been submitted and both assignments are processed simultaneously.

SUBMIT DOCUMENTATION TO: IDAHO DEPARTMENT OF LANDS, Pend Oreille Lake Supervisory Area, 2550 Highway 2 West, Sandpoint, ID 83864. Please allow six (6) weeks for processing. If you have questions, please call (208) 263-5104. Rev. 4/08

AMMENDED for IDL

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS IDAHO DEPARTMENT OF WATER RESOURCES **IDAHO DEPARTMENT OF LANDS**

DO NOT START WORK UNTIL YOU RECEIVE PERMITS FROM BOTH THE CORPS AND THE STATE

This application may be used to apply for both a Department of the Army permit from the U.S. Army Corps of Engineers (Corps) and for State of Idaho permits. Department of the Army permits are required by Section 10 of the Rivers and Harbors Act of 1899 for any structures or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for discharges of dredged or fill material into waters of the United States, including their adjacent wetlands. State permits are required under the State of Idaho, Stream Channel Protection Act (Title 42, Chapter 38, Idaho Code) and the Idaho Lake Protection Act, Section 58-142 et. seq., Idaho Code. Route Uses: Information provided on this form will be used in evaluating the application. Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor can permits be issued. Applicants should send this completed application, along with one set of good reproducible drawings showing the location and character of the proposed project, to both the Corps of Engineers and the State of Idaho. NOTE: DRAWINGS NO LARGER THAN 8-1/2 X 11 INCHES IN SIZE. The Applicant Information pamphlet provides instructions and a checklist for completing the drawings.

1. Corps of Engineers #	2a. Department of Water Resource	ces#		2b. D	epartment of L	ands [2 - 96	5-961
Date Received	Date Received			1	Date Received		
	Fee Rec'd By: Receipt			F	ee Rec'd By:	Receipt #	
	PLEASE TYPE y Co. (BNSF) Attn: Ron Berry, N		NT				
Structures En						ntain Resour	
3. a. Applicant Or - Jose Ma	res, Project Engineer	4.	4. a. Authorized Agent Attn: Pierre Bordenave		e .		
b. Mailing Address 4515 Kan	sas Avenue		b.	Mailing Address	PO Box 1	724	
Kansas C	ity, KS 66106		Sandpoint, ID 83864		t, ID 83864	1	
Area	Area			Area	<u> </u>	А	rea
(Be	-4164 rry) -4181						
c. Work Phone (913) <u>(M</u> a	res) Home () n/a		c.	Work Phone (20	08) 263-93	391 н	n ome () a
d. Fax Number 913-551-40	99		d.	Fax Number 20	8-263-7013		_
Ronald.Be	rry@bnsf.com or	Pierre@					
e. Email Address Jose.Mare	s@bnsf.com		e.	Email Address in	termountain	resources.co	om
5. Location where proposed activity e	xists or will occur.	5.	e.	Tax Assessor's De	scription	n/a	
a. Waterway Lake Pend (Dreille		Distance/Direction from nearest city/town		8 miles		
Tributary of Pend Oreille	River			SW 1/4	26	57N	2W
b. Distance/Direction from nearest	city or town County/State Approx. 2 miles 'crow		f.	1/4 1/4	Section	Township	Range
	flight'; approx. 8 miles			UTM Coordinate		W	
83864	by road		g.	Grid	N 48°1	5 19.1" 116°	31'33.4"
c. Zip Code	Local jurisdiction (city or county) Bonner Co.	na Dr	ملم:		Zone Northing	Eastin	
	South across the Lo 5 miles to Lutefisk L						
d. Directions to the site	easement.						

The project is the replacement of 100+ year old, concrete pile piers over wood pile footings that have reached their projected viable structural lifetime. The proposed new pile bents will be driven steel pipe piles with concrete pile bent caps upon which the new steel and concrete spans will be placed along with the new track structure. The new pile bents will be constructed between the old concrete piers within the same corridor or footprint of the existing bridge. The old concrete piers will be removed after the new bridge spans are in place and the new bridge spans are supported by the new bridge pile bents.

NPW Form 304 Apr 04 (REV)

DEPT OF LANDS

IDWR Form 3804-B Apr 04 (REV)

APR 16 2009

Work below the ordinary high water mark of Lake Pend Oreille will include:

- 1) The Workshift of a temporary work access pad 65 feet on either side of the existing track structure embankment. These access work pads will require a total temporary fill of 0.30 acres below the OHWM. They are needed for machinery (i.e. cranes) and construction materials access to the work area;
- 2) The construction of one temporary trestle structure for machinery and material access on the west side of the bridge construction area. This trestle will extend 780 feet from the work pad access point (temporary bulkhead at the existing bridge abutment) on the geographic west side of the existing railroad bridge. The temporary work trestle will have a total of 112 piles related to the supports needed for the structure. This will include any needed temporary falsework piles along the length of the work area for use in supporting worker access walkways and for use as mooring piles for securing floating work barges, turbidity curtains, etc.;
- 3) The construction of the 16 permanent replacement steel pipe pile bents. Each new steel pile bent structure will have 6 permanent piles, for a total of 96 permanent piles related to the permanent new pile bent construction; and

4) The demolition (sawcut removal) of the old concrete piers.

There are no changes to the area of regulated fill in the small wetland swale, the seasonal drainageways and the fill below the regulated high water mark of the lake that is required for the temporary access bulkhead construction. Refer to the 11/2008 originally submitted Joint Application for information.

The total area of both temporary and permanent fill is less than ½ acre, thus this application is for coverage under a Nationwide Permit.

Summary of Jurisdictional Work:

Fill: Permanent – 0.06 AC

Temporary – 0.30 AC

TOTAL FILL = 0.36 acres

Steel Pipe Piles: Permanent - 96

Temporary – 112

TOTAL PILES = 208

Steel Sheet Piles: Temporary - 14, 5-ft. wide by 50 ft. long steel sheet piles for temporary access at OHWM

b. Construction methods and equipment

Construction methods and equipment for the upland access and work pad will be done per standard road and building pad development. Equipment used may include, but are not limited to: bulldozers, backhoes, excavator, graders, material haul/dump trucks, light duty trucks, etc. Work sequencing will be identification of work area limits, clearing/logging as minimally needed, grading and filling (clean, structural rock) to achieve the required work surface, etc.

Machinery and equipment to be used for all Jurisdictional Work may include, but not be limited to: hydraulic pile driving hammers, vibratory pile driving, cranes, work boats, floating work barges, welding equipment, generators, various hand power tools, and other support vehicles.

Materials will be delivered to the work area via haul trucks via the established work access and staging areas, floating work barges from the north end of the bridge structure, and by rail. All staging and material stockpile areas will have appropriate Best Management Practices (BMP's) implemented and maintained to ensure that no runoff is discharged from the work area to the lake or other jurisdictional areas. Refer to the attached Water Quality Management Plan for project specific work details to avoid impacts to water quality from this project. The project will also obtain coverage under Section 402 (NPDES) and have a Storm Water Pollution Prevention Plan (SWPPP) to address all construction site specific erosion, sediment and storm water control needs.

The dual temporary access pads will be constructed off of the upland work pad area 50 feet on either side of the existing bridge abutment. The bulkhead wall portion of the access pad will be constructed of steel interlocking sheets approximately 5 feet wide by 50 feet long. They will be vibratory driven about 40 feet into the bed of the lake, joined together, and will have approximately 10 support or falsework piles per side. This will create a flat faced docking surface for work barges, boats, etc. to moor against as needed.

NPW Form 304 Apr 04 (REV)

IDWR Form 38 Apr 04 (Pile driving activities will be done by both vibratory and impact hammer machinery. Generally, the vibratory hammer Will be used for the shallow, steel sheet pile bulkhead construction and for placement / alignment of temporary piles. The temporary trestle bridge piles will be driven to a depth and level of resistance necessary to provide safe, secure work surface for the large cranes (1000 to 2500 Tons) that will be working from the temporary trestle. Temporary falsework piles used for walkways, barge mooring beyond the temporary bridge structure, and pile templates for the replacement pile bents will be placed via vibratory hammer.

For the temporary work trestle structure the temporary piles will range between 40 - 100 feet to driven depth. They will be installed with vibratory hammer. Permanent piles for the replacement pile bent structures have been determined by the project design engineers that the piles will need to be set 80 to 105 feet deep. The site soil characteristics documented by the geotechnical evaluation indicated it will take 1800 to 2000 blows per pile for the replacement pile bent bents to achieve the required level of resistance for normal rail operations on the final bridge structure.

All pile driving will operate with a turbidity curtain surrounding the area being disturbed. Impact hammer pile driving machinery will be equipped with a nylon (MicartaTM or similar) or aluminum buffer block to eliminate direct steel on steel impacts from the hammer to the steel pile. The block serves to attenuate the noise/vibration in the aquatic environment and to reduce the possibility of breaking the pile during the driving operations. Additionally, during all impact hammer pile driving activities, a bubble curtain will be utilized that encircles the driven pile to minimize harmful impacts to aquatic (fish) species possibly within or near to the work area. This will follow the bubble curtain protocol provided to the BNSF by the USF&WS during the summer of 2008. Refer to the attached Biological Evaluation for Impact Minimization and Conservation Measures proposed.

The permanent piling structures will be 24" steel, concrete filled, closed end structural elements. After the 6 piles per pile bent are in place, they will be filled with concrete via pumping trucks from the temporary work trestle or work barges. Pre-cast concrete and steel replacement spans with upgraded rails and ties will be installed and complete the construction of this section of bridge.

Upon completion of the new piling pile bents, the demolition of the old concrete piers will take place. The old piers will be separated from the existing bridge structure and cut into 20 to 30 ton sections with a wire saw cutting machine. The work cranes will remove the pieces to haul trucks that will take them to an upland area for breaking up and removal to an off-site disposal location. Underwater divers will monitor the saw-cutting process and ensure there are no sections of the piers lost during the removal process. Turbidity curtains will be in place during this operation. Based on the monitoring data from the work performed in 2008, water quality standards are easily maintained during the saw cutting process by the use of the turbidity barriers.

When the old concrete piers are removed, the temporary trestle bridge structure and all falsework piles will be removed. This will be done via the vibratory hammer and crane. Turbidity curtains will be in place during this operation. Any residual lake bed material (i.e. sand/muck) within the piles will be removed in an upland area and disposed of in an off-site, upland location.

The temporary below OHWM work access pad will be removed after the work is completed during winter/low water and the shoreline restored to pre-work shoreline configuration and replanted as needed.

Work will be completely within the existing 200 foot wide BNSF right-of-way (ROW - on either side of the centerline of the railroad) and from the geographic south end of the bridge for 806 feet. The temporary, below OHWM work access pads will be a 65 foot footprint on either side of the railroad bridge abutment and between 50 and 165 feet in length from the access pad toe or bulkhead to the Length of project along the stream or extension into access pad. The temporary trestle bridge will be 780 feet from the bulkhead and 810 feet from the OHWM. The width of the temporary bridge structure will be 50 feet wide, with two c. lake or reservoir: safety pullout locations at regular intervals along the bridge length.

d. Size and flow capacity of proposed bridge or culvert and area of drainage served (sq. miles): (Idaho Department of Water Resources requirement.)

Not applicable. Both the temporary work areas and the permanent replacement pile bents will have no effect on the hydrology of Lake Pend Oreille/River. No culverts to be removed or added.

to be placed waterward of the ordinary high water mark (BOTH Total Temp. Fill for Temporary Work Access Pad – 3400 cubic yards (CY) (2200 CY on the east side of the RR; 1200 CY on the west side of the RR) **TEMPORARY AND** 7.a. PERMANENT)? YES Total Perm. Fill for Ephemeral / Seasonal Drainageway - 794 CY Total Perm. Fill for Isolated Wetland - 215 CY Total Jurisdictional Fill - 0.36 AC Clean, angular rock for temporary 0.30 AC - Temp Access Pad (acres) access / work pad development. Will fill be Type of 0.02 AC - Perm. Isolated Wetland 20" to 36" in diameter for base: 3" placed in 0.04 AC - Perm. Seasonal Drainageway material: to 4" for driving/work surface. b. wetlands? YES If yes, area: (i.e. sand, rock, clay, concrete, etc.) c. Will dredging be required waterward of the ordinary high water mark or in wetlands? NO If yes, volume Not applicable (cubic yards) d. Type of dredged material Not applicable e. Disposal site for dredged material: Not applicable Method of dredging: At the interface of the upland staging areas/access and the work pad/bulkhead areas, sediment fencing, filter rolls, and other appropriate BMP's for preventing surface water runoff from the work areas into the lake will be installed at the beginning of earth disturbing activities and maintained throughout the duration of the project until the site is restored and stabilized. During all in-water work, turbidity curtains will be utilized and deployed around the pile driving machinery during pile (temporary and permanent) placement operations. The turbidity curtains will remain in place and maintained as needed, whenever piling work is being done and there is any potential for turbidity resulting from the pile driving. This includes installation and removal of the temporary access trestle bridge structures, the installation of the new pile bent pilings, and the demolition of the old concrete piers. A protocol of turbidity monitoring, that was developed during the 2008 season for Method to control the north end pile bent replacement project for this bridge, will be followed during in-water work turbidity and operations. Refer to the Water Quality Management Plan for details. f. sedimentation: N/A If yes, complete the Engineering "No-Rise" certification form. g. Is project located in a mapped floodway? Project is a mainline, interstate railroad repair of an existing 8.a. Purpose and intended use: Commercial X Public Private Other X Describe serviceable structure b. Reason for project Ensuring continued safe freight and passenger railroad operations via this 100+ year old structure 05/01/09 Estimated Duration 12/10/09 9. Proposed Starting Date The geographic north end of the bridge's pile bents 2 through 12 were replaced with a similar scoped project in 2008 (May thru Dec) 10.List portions of the project that are complete with month and year of completion Label this work on your drawings. 11. Names, addresses, and telephone numbers of all adjoining property owners, lessees, etc. Not applicable; work is completely within BNSF right-of-way Check here if the alteration is located on endowment lands administered by the Idaho Department of Lands 12.LEGAL OWNER IF OTHER THAN APPLICANT Not applicable 13.List applications, approvals, or certifications from other Federal, state, or local agencies for work described in this application. Issuing Agency Type of Approval Identification No. Date of Application Date of Approval At same time of application ID Dept of Lands **Encroachment Permit** Pending to Corps Pending At same time of application ID Dept of Environmental Quality 401 Water Quality Certification Exempt to Corps February 2009 US Environmental Protection Agency NPDES / SW CGP Coverage IDR10BY84 12/05/08 December 2008 NPW Form 304 IDWR Form 3804-B Apr 04 (REV) Apr 04 (REV)

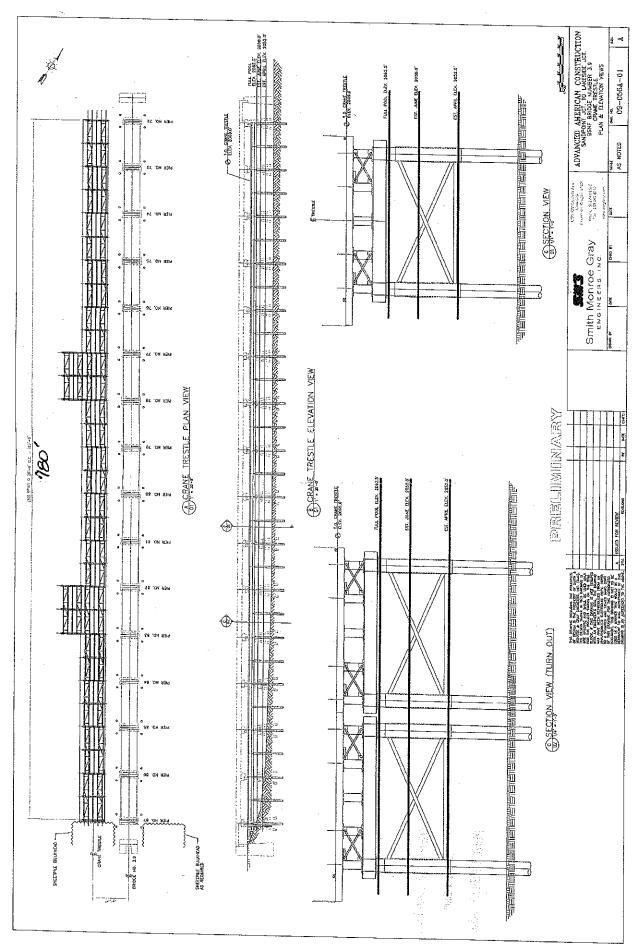
<u>ETE THE FOLLOWING FOR DISCHARGES OF DREDGED OR FILL MATERIAL</u>

Volume dredged or fill material

USCG0044743/27 14.Has any agency denied approval for the prope	osed activity? Yes	No X (If "Yes" explain)	
15.Other comments/information:			
·			
Application is hereby made for a permit or pe contained in this application, and that to the l possess the authority to undertake the proposes. the above-described location to inspect the page 16.	best of my knowledge an sed activities. I hereby g	nd belief, such information is true, comp grant to the agencies to which this appli	plete, and accurate. I further certify that
A.M.	AV	eve A. Millsap, P.E. /P Structures, BNSF Railway	4/15/09
Signature of Applicant (ORIGINAL SIGNATUR 17.If you wish to designate an authorized agent,		ited Name 6 and the following information.	Date /
Pierre Bordenave, I hereby designate InterMountain Reso Federal permit is issued, I must sign the perm		t as my agent in matters related to this	permit application. I understand that if a
Original Signature of Authorized Agent	4/15/09 Date	Original Signature of Appl	7/11/0 4/15/0,
18 U.S.C. Section 1001 provides that: Whose falsifies, conceals, or covers up by any trick, representations or makes or uses any false we be fined not more than \$10,000 or imprisoned	scheme, or device a mate riting or document knowi	in the jurisdiction of any department or a erial fact or makes any false, fictitious, ing same to contain any false, fictitious,	agency of the United States knowingly or fraudulent statements or
		OCESSING FEE WITH APPLICATION	
SEND IDAHO DEPARTMENT OF	WATER RESOURCES OR	RIDAHO DEPARTMENT OF LANDS FILIT	NG FEE WITH APPLICATION
IPW Form 304 .pr 04 (REV)	D	EPT OF LANDS	IDWR Form 3804-B Apr 04 (REV)

APR 16 2009

PEND OREILE LAKE



BNSF

RE: Buschaffer ail road bridge expansion

April 25, 2018 Day 1100 en Sagle ID

Mr. Steven M Fischer

13th Coast Guard District

915 250 Ave Rm 35/0

Seattle, WA 98174

Exemption 6

Dear Mr. Fischer,

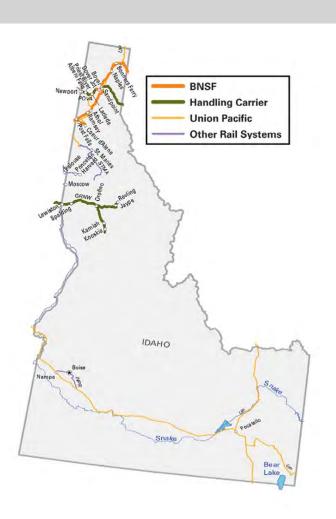
Fram as King that the United States Goast Guard do a full Environmental Impact Statement in the hope that it will Show that three new vailroad bridges adjoeent to the existing ones across hake Pend Oreille near Sandpoint ID will too greatly contaminate the water quality, lake bottom and shoreline and the marine life in the event of an oil or coal spill. Also, such a spill would very negatively impact tourism in the greater Sandpoint arean Further more, un less a regulation is passed to require coal cans to be sufficiently so versel to prevent coal dust from falling into the lake even more cerned that these extra buildes will too aftendant possibility of anoll spill because, as BNSF stated in their permit application, whe project heed is based on continued growth of freight-rail service demands in the northern-tier high-volume traffio corridor between the midwest and the west coast. This is probably due to overpopulation. This existant increase is already increasing the wait times for vehicles at vailroad crossings which supporently complicates train B-3 train scheduling and results in a reduction of train traffic across the lake. I live on the lake and see that, even though trains cross about also every tents fifteen minutes, there are frequirent times when no trains cross for twenty-five to fifty-five winnetes. I think that more trains ent crossings, occurrif BNSF could operate and evendent of the road crossings, Thus, I conclude, that if increased traffic is in evitable then this is noted bridge problem but rather a road-crossing problem, which could be eleviated by building overfunderpasses at near by mose crossings. If this is done then BNSF would be free of any concerns about vehicle delays and could have a more compressed traintyaffic schedule.

Another solution would be to run the railroad along I-90: However, this pseud be extremely expensive and would run into opposition from frimby ites along the router

Sincerely yours. Donald W. Hugan Donald W. Hagen

BNSF in Idaho





- Handles 1.4 million+ carloads in Idaho annually
- Invested \$55 million in 2017 on BNSF infrastructure in Idaho
- BNSF helps deliver to Idaho retailers, businesses a wide variety of consumer products including packaged goods, clothes, appliances, electronics, automobiles
- Employees: approximately 337
 Payroll: approx. \$24 million+
- BNSF owns 106 miles of track

Proposed Bridge Expansion Project





- New parallel bridge across
 Lake Pend Oreille
- New structures at Bridge Street and Sand Creek
- Would improve traffic flow for both passenger and freight trains
- Would help improve delays at grade crossings
- North Idaho is a key location on our Northern Corridor for traffic moving to/from Pacific Northwest

Proposed Action Overview





New Second Track

- North End (MP 2.9)
- South End (MP 5.1)

INCLUDES 3 NEW BRIDGES

- Br 3.0 Over Bridge Street
- Br 3.1 Over Sand Creek
- Br 3.9 Over Lake Pend Oreille

Concept – Bridge 3.0 Bridge Street





Jurisdictional Impacts Overview





TOTAL UNAVOIDABLE IMPACTS TO JURISDICTIONAL AREAS: 1.54 AC

- Nearshore: 1.26 AC
 - PERMANENT: 0.88 AC
 - TEMPORARY: 0.38 AC
- WETLAND: 0.28 AC

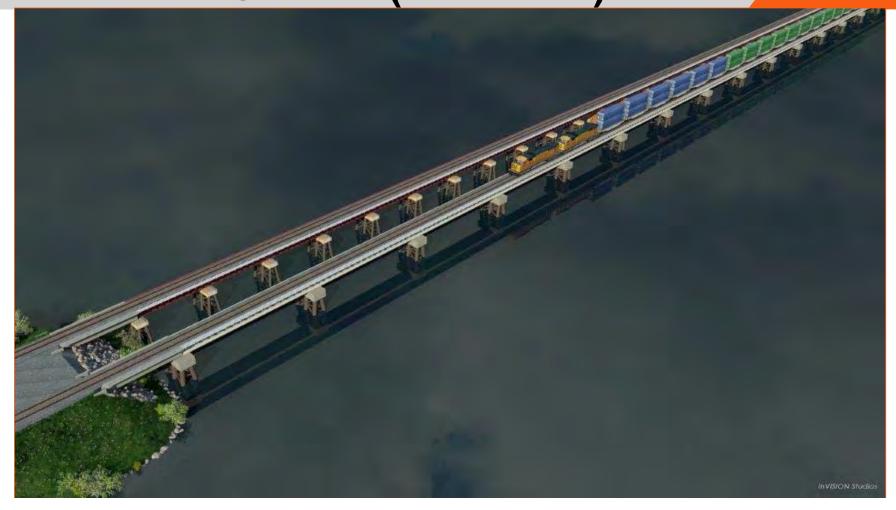
Concept – Bridge 3.1 over Sand Creek





Concept – Bridge 3.9 Lake Pend Oreille (North End)







BNSF is a Leading Railroad

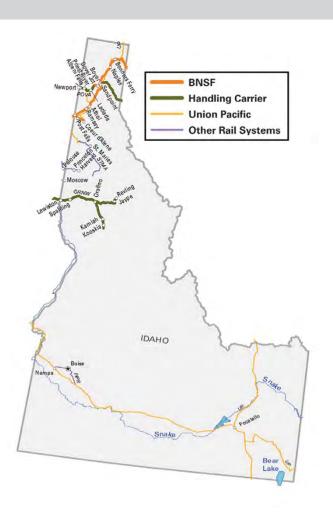


- A Berkshire Hathaway, Inc. company
- 32,500 route miles in 28 states and 3 Canadian provinces
- 42,000 employees
- Approximately 7,600 locomotives
- 12,900 bridges and 91 tunnels
- Moves one-fourth of the nation's rail freight
- Operates over 1,800 freight trains per day
- Serves over 40 ports
- Leads rail industry in technological innovation
- Unlike other forms of transportation, BNSF trains operate on an infrastructure financed almost entirely by the railroad



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Proposed Bridge Expansion Project

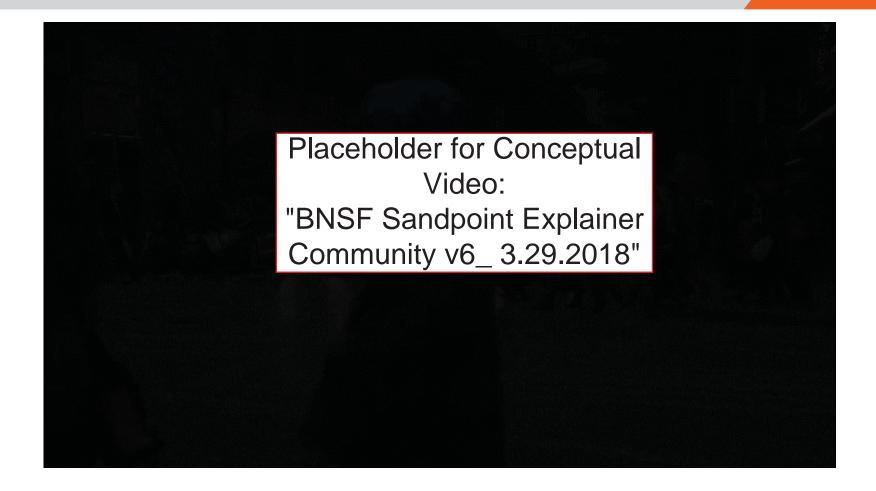




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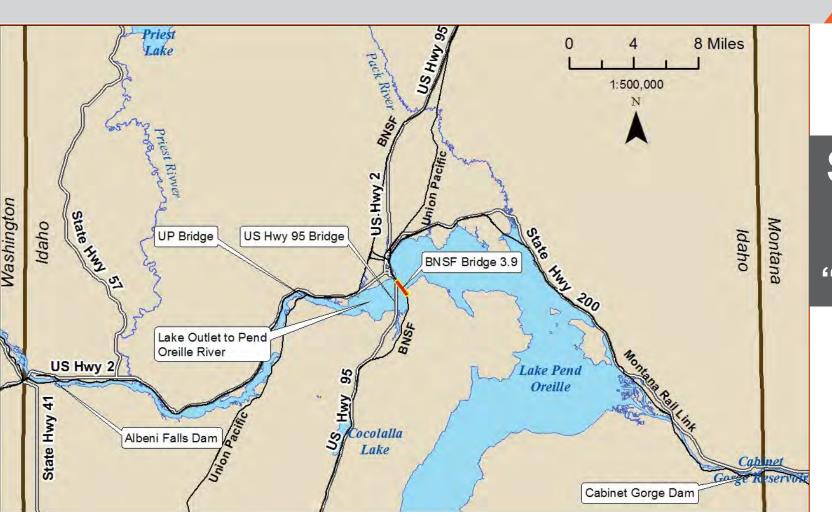
Sandpoint Junction Connector





Existing Conditions Overview





SANDPOINT KNOWN AS "THE FUNNEL"

Proposed Action Overview





THE ANATOMY OF HOW A PROJECT IS SUPPOSED TO BE DONE:

- 1. DEFINE THE NEED
- 2. EVALUATE THE CONDITIONS
- 3. IDENTIFY THE ALTERNATIVES
- 4. AVOID WHAT IS POSSIBLE
- 5. MINIMIZE WHAT CAN'T BE AVOIDED
- 6. MITIGATE THE IMPACTS

Proposed Action Overview





New Second Track

- North end MP 2.9
- SOUTH END MP 5.1

Includes 3 New Bridges

- Br 3.0 over Bridge Street
- Br 3.1 OVER SAND CREEK
- Br 3.9 over Lake Pend Oreille

Sandpoint Junction Turnout (North End)

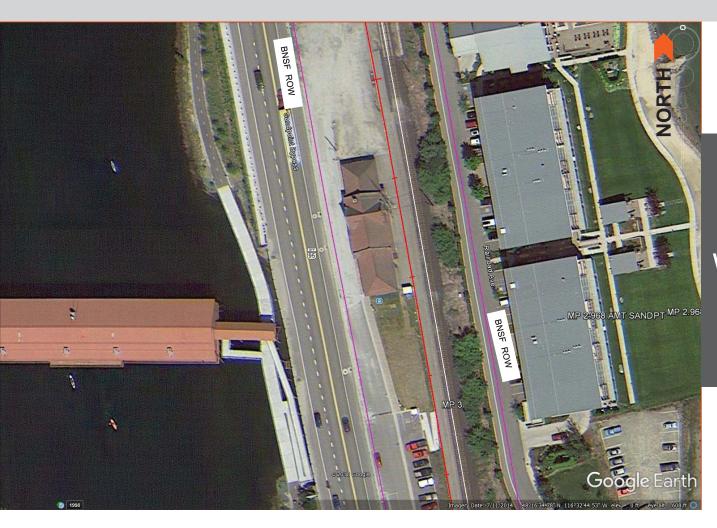




THE JUNCTION OF
TWO RAIL LINES:
BNSF (GREAT
NORTHERN) &
MRL (NORTHERN
PACIFIC)

Amtrak Depot





AMTRAK DEPOT
A SECOND MAIN
WILL NOT ALTER THE
RENOVATED
AMTRAK BUILDING

Concept – Bridge 3.0 Bridge Street





New bridge adjacent to (west of) the existing bridge and will have greater vertical and horizontal clearance than the existing bridge.

Construction plans and timing to minimize traffic impacts and ensure continuous access.



Concept – Bridge 3.1 over Sand Creek





Design and construction approach would minimize in-water jurisdictional and navigational impacts.

Concept – Bridge 3.9 Lake Pend Oreille (North End)





Design and construction approach would minimize in-water jurisdictional and navigational impacts.

Sandpoint Junction Connector (South End)





CONNECTION TO EXISTING ALGOMA DOUBLE TRACK

Jurisdictional Impacts Overview



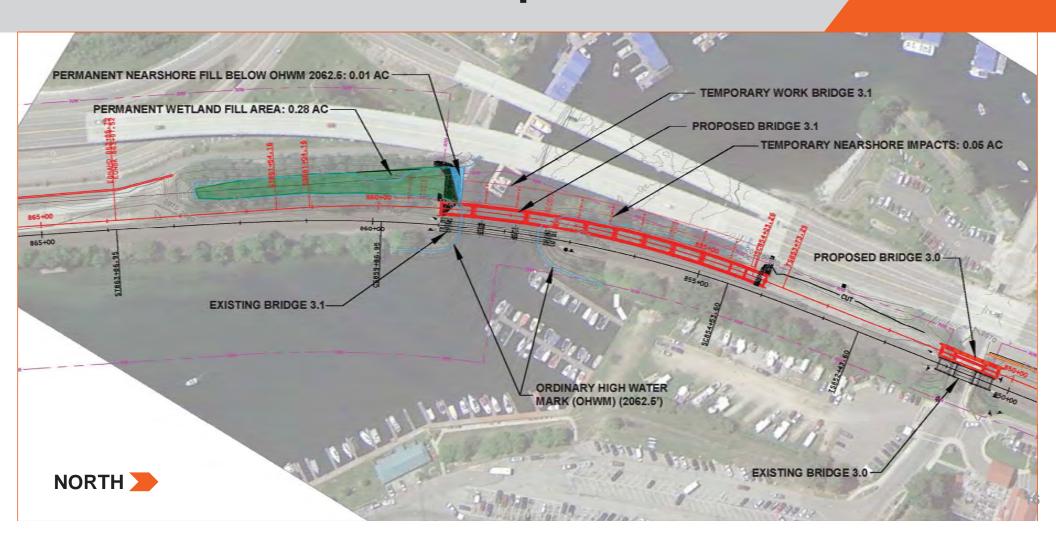


TOTAL UNAVOIDABLE IMPACTS TO JURISDICTIONAL AREAS: 1.54 AC

- NEARSHORE: 1.26 AC
 - PERMANENT: 0.88 AC
 - TEMPORARY: 0.38 AC
- WETLAND: 0.28 AC

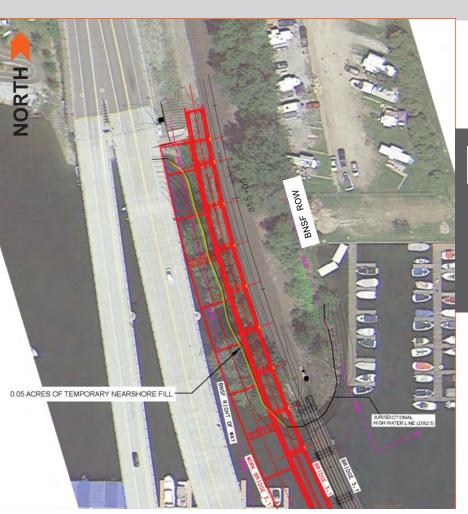
BR 3.1 Sand Creek – Impacts Overview





Jurisdictional Impacts – Sand Creek



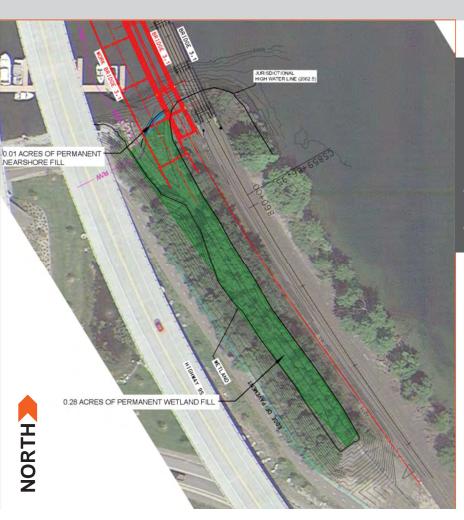


BRIDGE 3.1 — NORTH END

0.05 AC TEMPORARY - NEARSHORE

Jurisdictional Impacts - Sand Creek



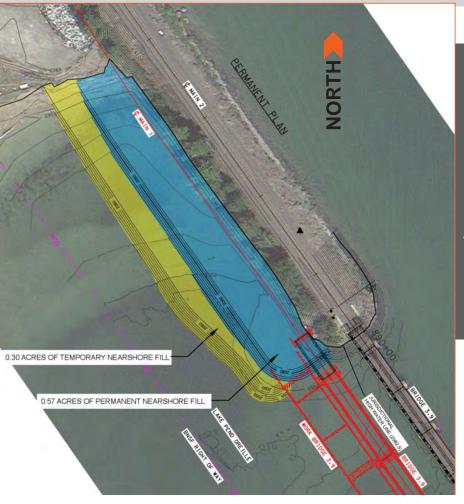


BRIDGE 3.1 — SOUTH END

- 0.01 ACRES PERMANENT NEARSHORE
- 0.28 ACRES PERMANENT WETLAND

Jurisdictional Impacts Lake Pend Oreille Bridge 3.9 North



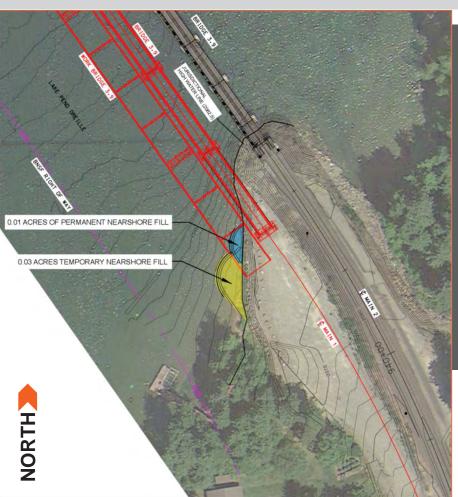


BRIDGE 3.9 — NORTH END

- 1. 0.30 ACRES TEMPORARY NEARSHORE
- 2. 0.57 ACRES PERMANENT NEARSHORE
- 3. TEMPORARY CONSTRUCTION BRIDGE
- 4. PERMANENT NEW BRIDGE

Jurisdictional Impacts – Lake Pend Oreille Bridge 3.9 South



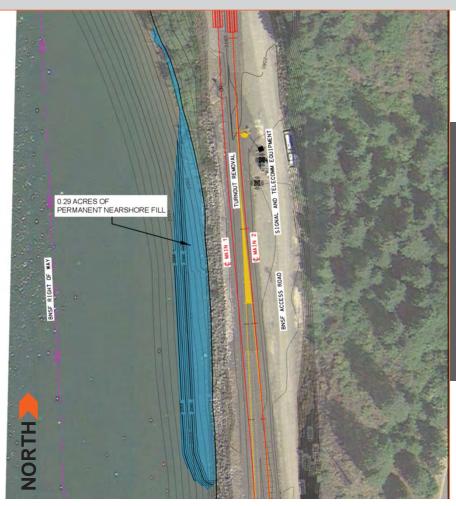


BRIDGE 3.9 — SOUTH END

- 1. 0.03 ACRE TEMPORARY NEARSHORE
- 2. 0.01 ACRE PERMANENT NEARSHORE
- 3. TEMPORARY CONSTRUCTION BRIDGE
- 4. PERMANENT NEW BRIDGE

Jurisdictional Impacts – Lake Pend Oreille – Project South End



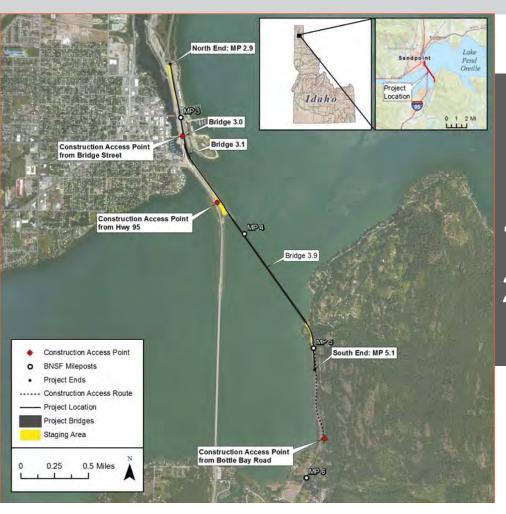


CONNECTION TO ALGOMA MAINLINE DOUBLE TRACK

0.29 AC PERMANENT - NEARSHORE



Construction Staging and Access

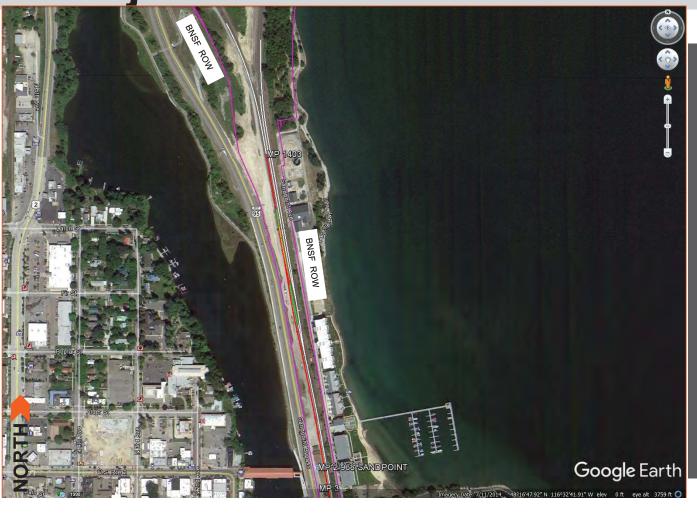


OVERVIEW

- 1. EXISTING ACCESS
- 2. EXISTING STAGING AREAS ON BNSF PROPERTY

Construction Staging – Project North End





STAGING ON
BNSF ROW
NORTH OF DEPOT

EXISTING ACCESS
FROM THE NORTH
& BRIDGE ST

Construction Staging: South Br 3.1 - North Br 3.9





EXISTING UPLAND
STAGING AND
ACCESS BETWEEN
HIGHWAY 95 AND
RAIL LINE.

MULTI USE
PATHWAY TO
REMAIN OPEN

Construction Staging: South End Br 3.9 – Bottle Bay Road





EXISTING UPLAND
STAGING AREA
SOUTH OF
BRIDGE 3.9

EXISTING ACCESS
FROM
BOTTLE BAY ROAD

Bridge 3.1 - Sand Creek Navigation



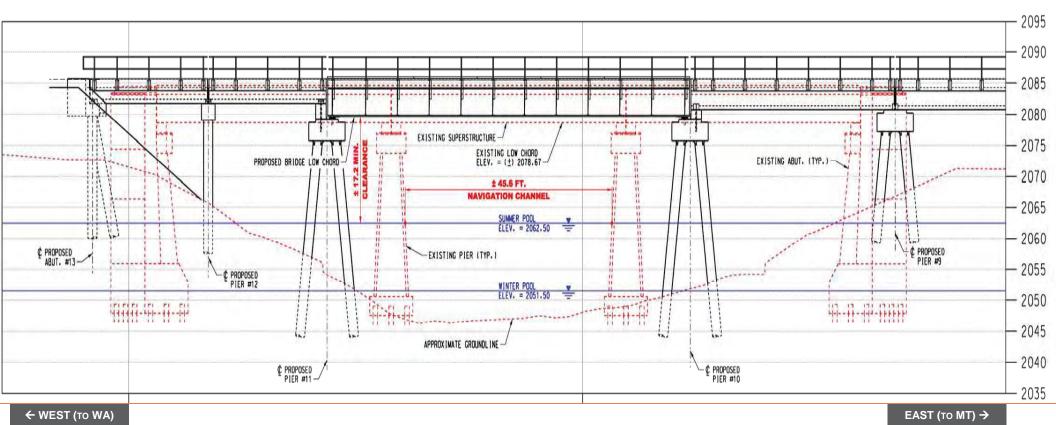


DESIGN AND CONSTRUCTION:

- 1. WIDER AND HIGHER PERMANENT SPANS
- 2. No navigation impairing work during high water
- 3. CONSTRUCTION
 BRIDGE NAVIGATION
 SPANS AND PILINGS
 REMOVED DURING
 BOATING SEASON

Bridge 3.1 – Sand Creek Navigational Profile



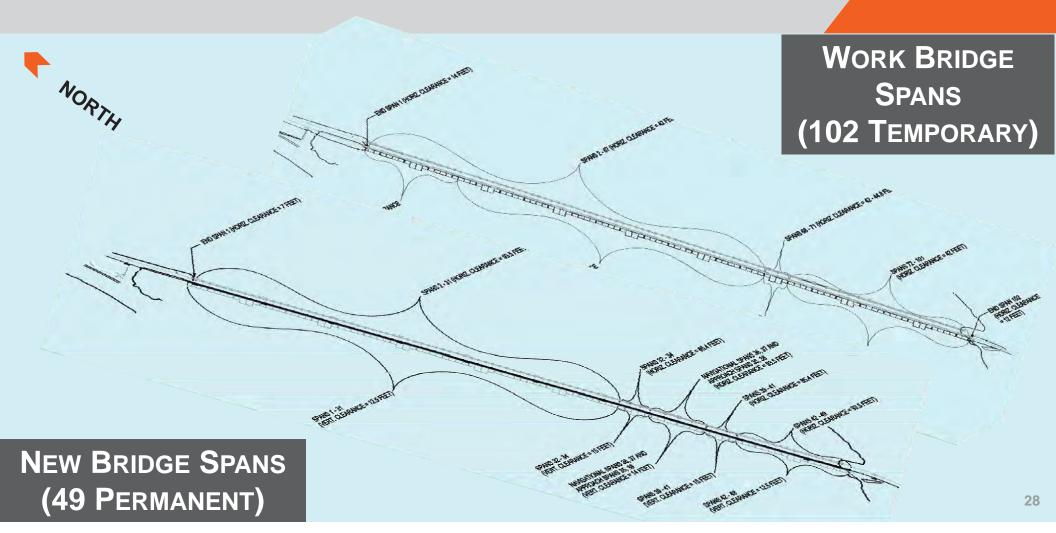


27

BNSF SANDPOINT JUNCTION CONNECTOR PROJECT:

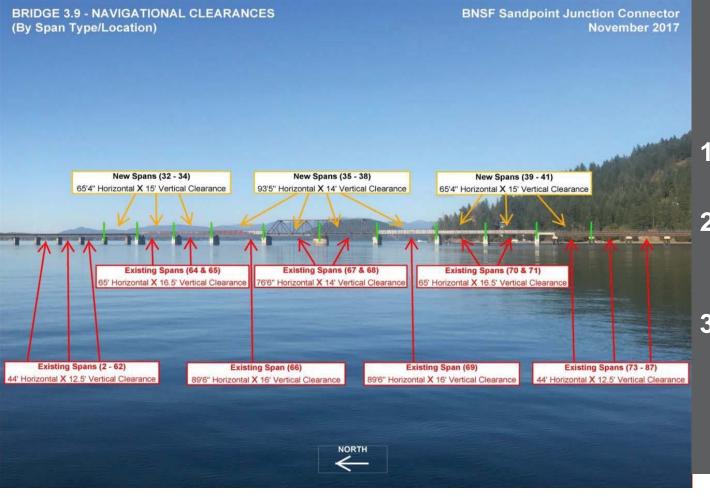
BRIDGE 3.9 - LAKE PEND OREILLE





Bridge 3.9 – Lake Pend Oreille Navigational Profile





DESIGN AND CONSTRUCTION:

- 1. YEAR AROUND WORK PROPOSED
- 2. NAVIGATION TO BE MAINTAINED DURING CONSTRUCTION
- 3. VESSELS THAT CAN PASS UNDER HIGHWAY BRIDGE ABLE TO CLEAR BOTH CONSTRUCTION AND NEW RAIL BRIDGE.

Proposed Action Overview





KEY TAKEAWAYS:

- 1. Project is to meet existing needs.
- 2. Project impacts <u>avoided</u> and <u>minimized</u> to the greatest extent practicable.
- 3. Project will maintain navigation vertical and horizontal clearances for the majority of the bridge spans during construction; and will not be the governing restrictive clearance structures after construction.
- 4. Work is on BNSF property.
- 5. Work is privately funded, no state or federal dollars.
- 6. Access and staging planned to minimize local impacts.

3

Bridge 3.9 – Existing Conditions



END SECTIONS ARE APPROXIMATELY
10 YEARS OLD (STEEL PILINGS)

MAJORITY OF BRIDGE FROM 1950S
(CONCRETE PIERS)





9 SPANS AND PIER STRUCTURES FROM EARLY 1900S





USCG0045183/27

From: Jessica Spencer Comments Bridge Support Monday, May 28, 2018 12:09:13 PM To: Subject:

Date:

I support the second bridge.

Jessica Spencer

Montana Rail Link, Inc.