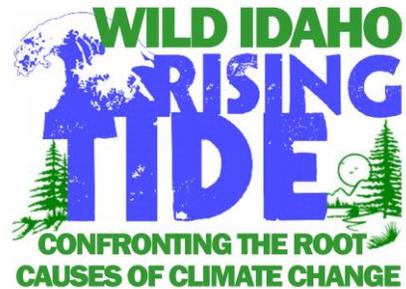


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January 17, 2019

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**WIRT Comments on Navigation Impacts of Proposed BNSF Bridges
in Sand Creek & Lake Pend Oreille, Idaho**

On behalf of Wild Idaho Rising Tide (WIRT) and its over 3,200 climate activist collective members, friends, supporters, and allies, including potentially impacted, concerned, north Idaho residents and other, U.S. citizens owning property, working, and/or residing in or near Sandpoint, Bonner County, Idaho, and the surrounding watershed, we respectfully offer these written comments in opposition to Burlington Northern Santa Fe (BNSF) Railway's proposed, Sandpoint Junction Connector project construction of railroad bridges across Sand Creek and almost one mile over Lake Pend Oreille, and subsequent, project impacts on reasonable, public needs of navigation, as described in December 19, 2018, U.S. Coast Guard (USCG), public notices D13-PN05-18 and D13-PN06-18 and other government documents [1-5].

Into these comments, we incorporate by reference the written and oral comments of all persons and organizations objecting to this project, through all local, state, and federal, public input processes, and we request inclusion of our comments in the public record for this winter-inappropriate, navigation comment period offering limited, public information, and in the public record for the forthcoming environmental assessment (EA) or more community-preferred, scientifically rigorous, draft environmental impact statement (EIS) for the BNSF Sandpoint Junction Connector project. Although the Coast Guard has not yet completed this separate, environmental review document nor published public and Federal Register notices announcing its availability for review, we also ask that the USCG directly alert WIRT when the agency releases it, so we can contribute further, effective comments on the socioeconomic and environmental factors and implications of this industrial invasion of the Pend Oreille lake and river ecosystem.

Soon after WIRT filed our opening brief challenging the Idaho Department of Lands/Idaho Board of Land Commissioners encroachment permit for this BNSF project, in Idaho First District Court in Bonner County, U.S. Coast Guard District 13 bridge program chief Steven Fischer released public notices on December 19, 2018, acknowledging that the USCG has received applications from BNSF, which request approval of proposed construction locations and plans for second, parallel bridges across Sand Creek and Lake Pend Oreille, both navigable waterways of the United States. Because the lead, federal agency regulating this project is currently asking for public comments exclusively on the “reasonable needs of navigation” potentially affected by the new railroad bridges, we have carefully reviewed the USCG notice and bridge expansion project summary, plans, diagrams, maps, and locations, the official versions of BNSF applications presented to the USCG, and the USCG bridge permit application guide [6, 7].

Accordingly, we have encouraged WIRT associates and the public who are boaters, maritime stakeholders, and affected parties to consider and comment on these documents, expressing their views by writing, calling, and sending email and/or mail to the USCG on or before January 17, 2019, and have publicly offered WIRT’s draft comment suggestions describing information missing from the Coast Guard-provided documents and navigation impacts of the proposed, BNSF bridges [8-11]. In our following comments, we specifically address the compromised viability, safety, and enjoyment of navigation around proposed bridge structures, and explain other, possible, BNSF bridge effects on navigation in “sufficient detail to establish a clear understanding of reasons for...opposition to the proposed work.” [2, 3]

MISSING INFORMATION

The U.S. Coast Guard 13th District headquartered in Seattle should withdraw its public input announcement and information for this project and comment period, and reopen them with an extended, summer comment period, due to the numerous inadequacies and discrepancies of the extremely minimal information that the USCG presently provides about the construction plans of BNSF’s Sandpoint Junction Connector project. Essential to citizen assessment of the navigational impacts of FOUR new bridges EACH over Sand Creek and Lake Pend Oreille, all potentially during the next decade, this missing information is immediately obvious and available on the Idaho Department of Lands (IDL) website page with links to BNSF’s project application, public comments, and hearing testimony and materials [6].

Thus, we request that the USCG also conduct a public hearing on the reasonable needs of navigation impacted by BNSF’s new, permanent and temporary, construction bridges, when most of the navigation community, currently absent from the snowy, frozen, Sandpoint area, is present during the warmer season. As Matt Nykiel of Idaho Conservation League commented on March 7, 2018, for the record on IDL’s encroachment permit issued to BNSF, federal laws obligate the USCG to include hearings in its public input and agency decision processes, when a proposed bridge project raises “substantial issues” about its effects on the reasonable needs of navigation.

As the USCG evaluates whether or not to issue a bridge permit to BNSF under the General Bridge Act of 1946 (33 U.S.C. 525 et seq.), the USCG must hold public

meetings when there are substantial issues concerning the effect that the proposed bridge will have on the reasonable needs of navigation. 33 CFR 115.60(b)(1) [12]

The USCG does not offer diagrams and descriptions of the temporary, work bridges over Sand Creek and Lake Pend Oreille, which reduce most of the horizontal, navigational clearances of both spans and create additional impediments and wave turbulence for navigation around the piers of three bridges over each water body during the construction period [13].

And we believe there [are] navigational dangers as well, in the construction of this [lake] bridge. BNSF has gone to great lengths to line up the piers of the new bridge with the existing bridge, but they neglect to note that their construction bridge, the widths between the piers is only half the length of the existing bridge and the permanent bridge, so that people approaching from, let's say, the City Beach side, from the east side, and going under the bridge might not see piers that are in the middle of the existing bridge [clearances] – the construction bridge piers [14].

The USCG does not mention that the majority of the piles driven into Lake Pend Oreille (700 of a total 988) and into Sand Creek (48 of 112 total) would erect temporary, work bridges, which could dangerously impede navigation and need not be complete to start permanent bridge construction and to hold cranes weighing up to one half-million pounds [15]. Imposing further navigation hazards around these bridges during several months, BNSF contractors would either permanently remove these temporary piles from the lake, or temporarily pull them during summer, then replace them in the creek, to continue construction in the fall.

The USCG does not provide the BNSF bridge applications submitted to the Coast Guard on December 21, 2017, and embedded in the joint application to the Idaho departments of Lands and Water Resources and the U.S. Army Corps of Engineers, part of the record currently under judicial review by the Idaho First District Court [16]. These initial applications, however and obviously, do not fully constitute the EA or draft EIS presently in progress.

The USCG does not offer the 35 pages of navigational analyses supplied by BNSF as three addenda to its joint application, referenced by Idaho Land Board, May 23, 2018, hearing officer Chris Bromley, in his considerations of protection of navigation and recreation values from BNSF bridge project impacts, as articulated and required by the Idaho Lake Protection Act (Idaho Code 58-1301), but improperly implemented by Mr. Bromley [17-20].

As to protection of navigation and recreation, and as stated in the application and shown in the PowerPoints, the new spans and piers will be greater than the existing spans and piers in width, and will be equal to or greater than existing vertical clearances. These construction standards should not hinder navigation or recreation, as the area is already occupied by bridges and piers. An addendum to the application, submitted by BNSF pursuant to IDAPA 20.03.04.015.13.g, further addresses navigational concerns [17].

The USCG does not state that bridge construction will entail “year-round, in-water work,” and that the “the project will occur over an approximate 3- to 3.5-year time period,” thus impacting navigation under and around the Sand Creek and Lake Pend Oreille bridges for perhaps up to five years, evidenced in the duration of the IDL encroachment permit: “The application for encroachment permit No. L-96-S-0096E is approved, with a five-year sunset period for construction,...dated this 21st day of June, 2018.” [21] Specifically (and ideally, as most construction projects extend longer than the initially anticipated schedule),

The [lake] Bridge 3.9 temporary construction bridge is expected to remain in place for approximately three years, and removal will take approximately three months. The [creek] Bridge 3.1 temporary construction bridge is expected to remain in place for up to one year, and removal will take approximately two weeks [22].

The USCG does not suggest that BNSF may be pushing the five currently proposed bridges of its Sandpoint Junction Connector project, so it can later replace its three present, early-1900s, railroad bridges over the lake, creek, and Bridge Street, without hindering its increasing fossil fuels, hazardous materials, and other train traffic. Pierre Bordenave of Jacobs Engineering in Sandpoint, the contracted company writing BNSF’s applications and environmental review statements, testified about the new, Sand Creek bridge at a Sandpoint hearing about the project: “The plan is for wider and higher permanent spans...That sets up for a future – if the other bridge can be replaced in the future, then you actually increase the navigational width of that...area.” [23] WIRT can horrifically imagine the same BNSF goals applying to Lake Pend Oreille.

NAVIGATION IMPACTS

Again, why is the USCG requesting public input regarding the navigation impacts of this project, during the frigid, low-water, navigation-challenging, winter season, when a majority of the navigation community is either absent from the Sandpoint, project area and/or has removed personally- and commercially-owned boats from these navigable waters of the U.S.? As concerned citizens, we request that the USCG close this current, winter, comment period, and re-open it in summer, in accordance with its recently published, bridge application guide:

The Coast Guard will make every effort to involve members of the navigation community and other interested or affected parties early in the Coast Guard Bridge Program consideration of navigational needs. It is also imperative that dialogue be maintained with the navigational community all throughout project development and approval processes, so that changes in waterway usage, particularly during lengthy project developments, are documented and included in design decision making [7, page A1-2].

Installing and removing up to 1000 piles in Lake Pend Oreille and almost 50 piles in Sand Creek, close to its outlet into the lake and nearby marinas in the creek and lake, for permanent, railroad and temporary, construction bridges, can only significantly, adversely, and cumulatively impact the freedom of navigation that the public trusts the U.S. Coast Guard to uphold and protect. Some of these effects include heightened hazards to boaters from bridge-altered current, wave,

and flooding patterns, from blocked, small watercraft navigation channels under and around bridges, from lost recreational opportunities and investments during the years-long, bridge construction period, and from construction bridges and activities, about which the Coast Guard has not supplied enough public information for this comment period.

Over time, Lake Pend Oreille sediment displaced around the existing and additional bridge piers, from both the downstream flow of lake outlet waters narrowing into the Pend Oreille River and temporary, lakebed sediment re-suspension during bridge construction activities, would alter lake bed topography around bridge piers, and raise the lake bed and reduce navigable lake depth down-current of railroad and associated construction bridges. This dynamic is apparent in sand bars that have formed and emerge during low water west of the BNSF bridge, and in the lake bed topographical maps included in the BNSF joint application [13].

Lake currents more obstructed by a greater number of piers, as well as sediment deposition and heightened lake beds west of the railroad bridges, would cause more turbulent wave action around and downstream of railroad bridge piers, making navigation more difficult, especially in lightweight, human-powered watercraft that float closer to surface waters and more vulnerable to wave inundation. The enclosed, north-facing photo of the current railroad bridge displays rougher water west than east of it, and the linked video provides a modeling simulation of scour development around submerged bridge piers [11, 24].

Hundreds of new piles across the lower reaches of Lake Pend Oreille and dozens of added piles in and around the navigational channel of Sand Creek, close to the outlets of both of these waterways, would compound restriction of their flow, narrow and strengthen currents between piers, and exacerbate flooding conditions, all hazardous situations for small watercraft:

The presence of bridge piers across a stream causes constricted flow in the openings, because of the decrease of width of stream owing to the presence of the piers. Moreover, it creates the following problems from a hydraulic point of view:

- * Local scouring at the piers and bed erosion may take place. To avoid the damage to the foundation of piers, some protective layers of stone or concrete apron could be provided around the piers.
- * The head loss induced by the bridge piers causes the backwater effect, so that the water level upstream is increased. Consequently, this may result in flooding in upstream areas [25].

In Sand Creek, small, non-motorized watercraft, like canoes, kayaks, and paddleboards, often navigate the stream passages closest to shore, to avoid the existing, BNSF, and U.S. Highway 95 bridge piers and the wakes, noise, pollution, and possible collisions with larger watercraft in the main navigational channel. The uneven and confusing constriction of horizontal, navigation clearances among the piers of four Sand Creek bridges (current and new rail bridges, temporary construction span, and Highway 95 bridge) would complicate potentially dangerous, navigational encounters between motorized and human-powered boats. As previously mentioned herein, in WIRT “Missing Information” comments, the USCG has not provided sufficient, bridge expansion project plans, diagrams, and maps for the public to knowledgeably comment on the

navigation impacts of this four-bridge configuration. See Figure 3: Navigational Channels, Existing Bridge 3.1, for images depicting this constriction of small watercraft navigation [26].

There are two small side channels between the [existing rail] bridge's in-water piers and the [bank] abutments, with approximate clearances of 20 to 30 feet horizontal and 16 feet vertical in the summer. Depths range from approximately 10 feet adjacent to the in-water pier, sloping up to one foot or less along the rip-rap shoreline edge, during summer pool. There is no water between the abutments and piers in the winter [26].

Besides obstacles to reasonable needs of public navigation on Sand Creek and Lake Pend Oreille, the three-year-plus construction period of the Sandpoint Junction Connector project would negatively affect the peaceful and aesthetic enjoyment of not only navigation, but all of the recreational, economic, and environmental activities and values directly resulting from public navigational access to these waterways. Bridge construction sights, sounds, pollution, and navigation restrictions would decrease public motivations to boat, fish, swim, and pursue recreational experiences in and near the project area:

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...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 [27].

Year-round and seasonal, Lake Pend Oreille area residents have invested countless, lifetime earnings and savings in their opportunities to reasonably and enjoyably navigate the watershed, generally as a reprieve and refuge from the over-busy lifestyles and over-developed landscapes that the Sandpoint Junction Connector project promises to perpetuate:

It's more than just two bridges and maybe some traffic delays or navigation delays. This project is going to change everything we care about in Bonner County. Everything. This is going to impact everything downstream if there's a spill. It's going to impact our water, our drinking water, the way that we navigate our bridges, operate our boats. And these things have to be considered.

...I'm a property owner, a recreational boater, and a fisherman...We moved to Bonner County, as I said, two years ago. And when we came to visit, we always boated and fished, especially when our children and grandchildren came. My daughter recently bought a townhouse at The Seasons. This is directly connected to some of this project and wherever constructed. She just bought a new fishing

boat for our use. And she has a slip in Sandpoint. We also kayak, and we enjoy almost all the water sports we can here.

The existing bridges already impede and limit maritime traffic, safe navigation, and especially for novices. And this can be challenging to navigate at times. Adding yet another challenge and more limits should be better assessed... [28]

WIRT activists and associates heartily appreciate your consideration of these comments expressing collective objection to navigation impaired by, and U.S. Coast Guard permit approval of, dangerous, BNSF-proposed, railroad bridges in Sand Creek and Lake Pend Oreille, Idaho. We request that you permanently reject related BNSF applications, as they do not accurately and effectively offer protections of navigational and other interests of Idaho and American citizens, required by federal and state rules and laws and the U.S. Constitution. In support of this WIRT letter of resistance, we thoroughly concur with, contribute toward, and incorporate in this input the concerns, testimony, and comments of all BNSF Sandpoint Junction Connector project opponents.

We expect our federal and state government employees regulating these and other intrusive, railroad industry actions in Idaho to fully utilize every opportunity to protect and defend the navigation, safety, and health of interior Northwest communities, air, water, and resources, from the significant impacts of railroad infrastructure construction, operation, and facilitated, hazardous materials and fossil fuels transportation, pollution, and risks already suffered by citizens in north Idaho and around the country. As you study all available information about this proposed project, drawn from documents, research, statements, and hearings, to determine its broad scope and effects, please contact us with any questions or responses to these comments, or for further information about the predictable, harmful impacts of these BNSF bridges on public navigation and resources and citizen rights.

Thank you,

/s/ Helen Yost, MSEE
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[1] *Public Notices for Bridges: BNSF Proposal*, U.S. Coast Guard
PN N05-18 Sand Creek, Bonner County, Idaho
PN N06-18 Lake Pend Oreille, Bonner County, Idaho
<https://www.navcen.uscg.gov/?pageName=pnBridges&Active=1®ion=13>

[2] *Public Notice D13-PN05-18: Sand Creek, Bonner County, Idaho, BNSF Bridge Proposal*, U.S. Coast Guard

https://www.navcen.uscg.gov/pdf/bridges/publicNotices//D13-PN05-18_SandCreekBonnerCountyIdaho_BNSFProposal.pdf

[3] *Public Notice D13-PN06-18: Lake Pend Oreille, Bonner County, Idaho, BNSF Bridge Proposal*, U.S. Coast Guard

https://www.navcen.uscg.gov/pdf/bridges/publicNotices//D13-PN06-18_LakePendOreilleBonnerCountyIdaho_BNSFProposal.pdf

[4] *USCG Seeks Bridge Comments*, December 20, 2018 Bonner County Daily Bee

https://www.bonnercountydailybee.com/local_news/20181220/uscg_seeks_bridge_comments

[5] *Coast Guard Seeks Comments on Rail Bridge Navigation*, January 11, 2019 Sandpoint Reader

<http://sandpointreader.com/coast-guard-seeks-comments-on-rail-bridge-navigation>

[6] *BNSF Railway Company Application*, Idaho Department of Lands

<https://www.idl.idaho.gov/lakes-rivers/lake-protection/index.html>

[7] *Bridge Permit Application Guide*, July 2016 U.S. Coast Guard Office of Bridge Programs

[https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Office%20of%20Bridge%20Programs/BPAG%20COMDTPUB%20P16591%203D_Sequential%20Clearance%20Final\(July2016\).pdf](https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5pw/Office%20of%20Bridge%20Programs/BPAG%20COMDTPUB%20P16591%203D_Sequential%20Clearance%20Final(July2016).pdf)

[8] *COAST GUARD #No2ndBridge NAVIGATION COMMENTS DUE 1/17/19!* December 18, 2018 Wild Idaho Rising Tide

<https://www.facebook.com/wildidaho.risingtide/posts/1296112543871583>

[9] *DRAFT USCG COMMENT SUGGESTIONS (1 of 2: MISSING INFORMATION)*, December 20, 2018 Wild Idaho Rising Tide

<https://www.facebook.com/wildidaho.risingtide/posts/1297664613716376>

[10] *DRAFT USCG COMMENT SUGGESTIONS (2 of 2: IMPACTED NAVIGATION)*, January 12, 2019 Wild Idaho Rising Tide

<https://www.facebook.com/wildidaho.risingtide/photos/a.504017086414470/1314048632077974/?type=3&theater>

[11] *Railroad Bridges Navigation Comments to Coast Guard Due January 17*, January 15, 2019 Wild Idaho Rising Tide

<https://wildidahorisingtide.org/2019/01/15/railroad-bridges-navigation-comments-to-coast-guard-due-january-17/>

[12] Matt Nykiel, Idaho Conservation League, March 7, 2018 comment, page 33 of *Comments Received in March 2018*, Idaho Department of Lands

https://www.idl.idaho.gov/lakes-rivers/lake-protection/bnsf-comments/bnsf-comments_march2018_reduced.pdf

[13] Existing Conditions / Proposed Work maps, pages 22 to 27 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[14] Helen Yost, Wild Idaho Rising Tide, May 23, 2018 testimony, page 56, lines 1 to 11 of *Hearing Transcript - Morning Session*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/bnsf-hearing-transcript_HTfull052318-AM.PDF

[15] Biological Assessment...updated February 19, 2018, pages 93 to 95 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[16] USCG Bridge Permit Application – 12/21/2017, pages 163 to 196 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[17] Case No. PH-2018-PUB-20-001 Preliminary Order, page 25 of *Hearing Officer's Preliminary Order*, Idaho Department of Lands
<https://www.idl.idaho.gov/lakes-rivers/lake-protection/bnsf-preliminary-order.pdf>

[18] Addendum 1 Reasonable Needs of Navigation Analysis for Bridge 3.1...January 31, 2018, pages 220 to 223 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[19] Addendum 2 Reasonable Needs of Navigation Analysis for Bridge 3.1...January 31, 2018, updated February 14, 2018, pages 224 to 226 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[20] Addendum 1 Reasonable Needs of Navigation Analysis for Lake Pend Oreille Bridge 3.9...January 31, 2018, updated February 14, 2018, pages 251 to 254 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[21] Case No. PH-2018-PUB-20-001 Final Order, page 6 of *Director's Final Order*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/bnsf_final-order-wcert.pdf

[22] Biological Assessment...updated February 19, 2018, pages 115 and 93 to 95 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[23] Pierre Bordenave, Jacobs Engineering, May 23, 2018, testimony, page 31, lines 9-24 of *Hearing Transcript - Evening Session*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/bnsf-hearing-transcript_HTfull052318_PM.PDF

[24] *Scour Development around Bridge Piers*, May 15, 2014 Flow Science
https://www.youtube.com/watch?v=OXbdLhxv_sM

[25] *What Are the Effects of Bridge Piers Across a Stream?* Civil Engineering Portal
<https://www.engineeringcivil.com/what-are-the-effects-of-bridge-piers-across-a-stream.html>

[26] Reasonable Needs of Navigation Analysis for Bridge 3.1, page 203 of *BNSF Sandpoint Junction Connector Joint Application for Permits*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/ERL96S0096E_application_reduced.pdf

[27] Matt Nykiel, Idaho Conservation League, April 30, 2018 comment, page 305 of *Comments Received in May 2018*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/bnsf-comments/bnsf-comments_may2018_final_reduced.pdf

[28] Steven Morgan, May 23, 2018 testimony excerpts, page 40, line 15, to page 41, line 25 of *Hearing Transcript - Morning Session*, Idaho Department of Lands
https://www.idl.idaho.gov/lakes-rivers/lake-protection/bnsf-hearing-transcript_HTfull052318-AM.PDF