



Williams, Marshall <marshall\_williams@fws.gov>

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## [EXTERNAL] Draft Minutes - 7/20/2018 USFWS Pre-BA Technical Assistance Meeting (BNSF - SJC Project)

2 messages

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**PaDelford, Sue S.** <Sue.PaDelford@jacobs.com>

Thu, Aug 2, 2018 at 1:40 PM

To: "Sugarman, Shelly CIV" <Shelly.H.Sugarman@uscg.mil>, "Greene, John J CTR" <John.J.Greene@uscg.mil>, "Steven Fischer (Steven.M.Fischer3@uscg.mil)" <Steven.M.Fischer3@uscg.mil>, "McReynolds, Danny G CIV" <Danny.G.McReynolds@uscg.mil>, "Moore, James M CIV" <James.M.Moore2@uscg.mil>, "Keim, Matthew" <Matthew.Keim@bnsf.com>, "Swanson, Kristopher" <Kristopher.Swanson@bnsf.com>, "Austin Hurst, BNSF-Structures" <austin.hurst@bnsf.com>, "Bordenave, Pierre" <Pierre.Bordenave@jacobs.com>, "Smith, Jason (Seattle)" <Jason.Smith6@jacobs.com>, "Dunn, Brian CIV" <Brian.Dunn@uscg.mil>, "marshall\_williams@fws.gov" <marshall\_williams@fws.gov>, "katy\_fitgerald@fws.gov" <katy\_fitgerald@fws.gov>, "Williams, Diane M." <Diane.Williams@jacobs.com>, "Broadhead, Craig" <Craig.Broadhead@jacobs.com>, "katherine.o'dell@ecstech.com" <katherine.o'dell@ecstech.com>

Cc: "PaDelford, Sue S." <Sue.PaDelford@jacobs.com>

Attached are minutes we've compiled from the 7/20/2018 USFWS Pre-BA Technical Assistance meeting for the BNSF Sandpoint Junction Connector Project.

Please review and reply with confirmation of no exception, or with comments to correct and/or include.

Thank you,

Sue.

Sue PaDelford | Jacobs | Senior Biologist – Project Manager Environmental - Rail | [REDACTED]  
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**Williams, Marshall** <marshall\_williams@fws.gov>

Fri, Aug 3, 2018 at 1:48 PM

To: "PaDelford, Sue S." <Sue.PaDelford@jacobs.com>

Cc: "Sugarman, Shelly CIV" <Shelly.H.Sugarman@uscg.mil>, "Greene, John J CTR" <John.J.Greene@uscg.mil>, "Steven Fischer (Steven.M.Fischer3@uscg.mil)" <Steven.M.Fischer3@uscg.mil>, "McReynolds, Danny G CIV" <Danny.G.McReynolds@uscg.mil>, "Moore, James M CIV" <James.M.Moore2@uscg.mil>, "Keim, Matthew" <Matthew.Keim@bnsf.com>, "Swanson, Kristopher" <Kristopher.Swanson@bnsf.com>, "Austin Hurst, BNSF-Structures" <austin.hurst@bnsf.com>, "Bordenave, Pierre" <Pierre.Bordenave@jacobs.com>, "Smith, Jason (Seattle)"

<Jason.Smith6@jacobs.com>, "Dunn, Brian CIV" <Brian.Dunn@uscg.mil>, "katy\_fitgerald@fws.gov" <katy\_fitgerald@fws.gov>, "Williams, Diane M." <Diane.Williams@jacobs.com>, "Broadhead, Craig" <Craig.Broadhead@jacobs.com>, "katherine.o'dell@ecstech.com" <katherine.o'dell@ecstech.com>

Hi Sue, thanks for the draft. There are a few points of clarification points that I'd like to make:

**1. From Proposed Action Area:** While the only listed species likely to be impacted by the project is bull trout, please retain section 2.1.1. Listed Species/Designated Critical Habitat in Action Area, and following information in your Biological Assessment. You will however, need to determine effects under the Migratory Bird Treaty Act (MBTA) and Bald and Gold Eagle Protection Act ( BGEPA) in your NEPA document (See #2)

**2. Migratory Bird Treaty Act (MBTA) and Bald and Gold Eagle Protection Act ( BGEPA):** While there are no listed species, other than bull trout, in the action area that are likely to be affected in the project action area, you still need to address impacts to migratory birds, under the MBTA, and impacts to eagles that fall under the BGEPA, within the NEPA document. I recommend that you contact Katie Powell, 208-378-5293, [katie\\_powell@fws.gov](mailto:katie_powell@fws.gov), at the Idaho Fish and Wildlife Office with regard to the FWS's M-Opinion for migratory birds, and analyzing potential impacts to eagles under the BGEPA. If there are impacts to eagles, direct or indirect, permits may be required. You may have already done this.

**3. Species/Critical Habitat PBFs in Action Area:** I don't think the FWS agreed that using TSS to tie to sediment levels in the action area was an appropriate approach, in so much as we agreed that BNSF could look at that as an option - it's your choice. Before you do, however, I recommend you consider the following: TSS vs SCC: The U.S. Geological Survey had determined that that total suspended solids (TSS) used to quantify concentrations of suspended solid-phase material in surface water are "fundamentally unreliable for analysis of natural-water samples" (USGS, 2000). The study notes that suspended sediment concentration (SCC) produces reliable results and the two methods are not comparable. I have provided the reference for both the USGS Water Resources Report, 00-4191 (2000), and the Federal Interagency Sediment Project (FISP) Technical Committee Memorandum 2007.01, that requires concurrent TSS and SCC collection is needed to demonstrate that TSS is an adequate surrogate for SCC. If this was not done, then using TSS as the sole basis for analysis will provide inaccurate conclusions.

[Comparability of Suspended-Sediment Concentration and Total Suspended Solids Data, 2000 Collection and Use of Total Suspended Solids \(TSS\) Data, 2006](#)

I'm also curious how tying current suspended sediment levels will provide any relevant data of heavy metals in sediments of the action area that could be disturbed by pile driving or pile extraction activities. Let's examine for a moment that Cabinet Gorge Dam was completed in 1952, and likely has a high efficiency sediment capture rate that limits sediment transport below the dam. Albeni Falls construction was completed in 1955, and the dams together have changed the hydrology and sediment transport in the rivers and lake. But it's not current levels of sediment carried by the Clark Fork River and subsequently into the lake that is of primary concern; it's what was transported down the river prior to the construction of Cabinet Gorge Dam that is more concerning.

The Clark Fork River has historic mining and smelting complexes at the headwaters as early as 1864. Looking at the discharge record from USGS 12395500 PEND OREILLE RIVER AT NEWPORT WA with a hydrologic record that goes back to 1903, shows that mean daily discharge prior to 1951 could be above 70,000 cubic feet per second (cfs) in June; after 1955 the mean daily discharge was about 10,000 cfs less in the same month. A study by Axtmann and Luoma (1991), that examined metals contamination in the fine grain sediment of the Clark Fork River, found elevated levels of Ag, Cd, Cu, Pb and Zn in the size fraction of <60 um in bed sediments were 18-115 times that of tributaries to the Clark Fork River. The researchers' model predicted that elevated metals concentrations should occur 550 km downstream in Lake Pend Oreille. This study suggests that metals migration downstream before the Cabinet Gorge Dam was constructed, and became a sediment trap, could potentially contributed to Lake Pend Oreille sediments from the period water was free flowing with a natural hydrograph.

Alternatively, consider that perhaps slow vibratory removal of the temporary piles results in sediments sloughing off at the mudline, which results in low levels of suspended sediment and contaminants; place clean sand in a ring around the pile to help prevent sediment suspension; use a sediment curtain during removal. If these mitigation measures are not an option, then perhaps cutting the the temporary bridge piles off at the sediment surface and abandoning them in place will prevent sediment suspension. Whatever BNSF decides, support the decision with best available science. Appendix A, of the FEIS *Essential fish habitat designation and minimization of adverse impacts, Pacific coast groundfish fishery management plan : environmental impact statement., Dv.4*, has some conservation recommendations, some of which I mention above, for pile removal that you might consider (p.30).

**4. Proposed Minimization Measures:** The FWS recommends that you include a comparison of in-situ hydroacoustic data that BNSF collected from driving 24-inch piles on Lake Pend Oreille to reference table data on 24-inch piles to help determine if the reference data is close to actual conditions; this is not to be considered as a surrogate for hydroacoustic analysis for the 36-inch piles. If the comparison of the hydroacoustic data from the 24-inch pile driving sound elevation

levels (SEL) are not similar, it would be appropriate to measure SELs during the 36-inch pile installation to determine actual affects, and their extent.

Thanks for sending out the draft.

Marshall Williams

#### References

Axtmann, E. V., & Luoma, S. N. (1991). Large-scale distribution of metal contamination in the fine-grained sediments of the clark fork river, montana, U.S.A. *Applied Geochemistry*, 6(1), 75-88. //doi.org/10.1016/0883-2927(91)90064-V  
Retrieved from <http://www.sciencedirect.com/science/article/pii/088329279190064V>

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