



Bi-State Bridge Replacement Working Group Agenda

Meeting Date: March 06, 2023

Meeting Time: 2:00-4:00p

Location: 1000 E. Port Marina Drive, Hood River, OR

Zoom Meeting

<https://us06web.zoom.us/j/88490950292?pwd=c3RLaXZWMzFUR2JzOGtNZDFDMjk5UT09>

Meeting ID: 884 9095 0292

Passcode: 396314

Members: Chair, Mike Fox (Commissioner), Port of Hood River; Vice Chair, Jake Anderson (Commissioner), Klickitat County; Catherine Kiewit (Mayor), City of Bingen; Marla Keethler (Mayor), City of White Salmon; Paul Blackburn (Mayor), City of Hood River; Arthur Babitz (Commissioner), Hood River County

Alternates: Kristi Chapman (Commissioner), Port of Hood River; Jennifer Euwer (Commission Chair), Hood River County; Joe Sullivan (Councilor), City of Bingen; Jason Hartmann (Councilor), City of White Salmon; David Sauter (Commissioner), Klickitat County; Jessica Metta (Councilor), City of Hood River.

Staff/Consultants: Kevin Greenwood (Executive Director), Port of Hood River; Genevieve Scholl (Deputy Executive Director), Port of Hood River; Michael Shannon (Project Manager – Bridge Replacement), HNTB.

1) Welcome

2) Approval of Minutes (2 Min)

- Bi-State Working Group Meeting Minutes 02/06/2023

3) Review Action Items (10 Min)

Priority	Description/ Expected Outcome	Assigned To	Date Assigned	Due Date	Resolution/ Current Status	Status
Med	Track progress of BO following ODOT's commitment to have a draft in Mid-October Primary Contacts: Dennis Reicht: ODOT Tom Loynes – NMFS Liaison and Cash Chesselet – ODOT Environmental Program Coordinator – NMFS Liaison	Mike Shannon	9/19/2022	10/17/2022 10/31/2022 11/14/2022 12/12/2022 01/09/2023 01/23/2023 3/2/2023 no update from ODOT	10/17/2022 Staff will follow up with ODOT next week on Draft Document 10/31/2022 – Dennis said that Tom and Cash met with QC and NMFS and that it was their priority to get most of the draft completed this week. 11/14/2022 – Dennis ODOT indicated continued delays due to staff working on Abernathy Bridge issues 12/12-2022 – Carol ODOT emailed that the draft is 2-3 weeks out due to workload delays associated with Abernathy Bridge and Training 1/9/2023 - ODOT has requested for the information related to Temporary Work Bridges and Barges to be updated an increase in our information can calculations based on recent events on similar projects.	In Progress

Contact: Michael Shannon, (425) 577-8071 or mwshannon@hntb.com



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					<p>The information is being coordinated with ODOT 1/23/22 – The project team met with ODOT on 1/13/23 to discuss modifications need to the BiOp. ODOT is meeting with FHWA on 1/19/23 to get direction on how to proceed with modifications. Team is working on modifications to progress the work pending the information from FHWA 2/6/23 BA information has been updated and provided back to ODOT. A meeting is scheduled for 2/7 with FHWA to determine next steps.</p> <p>3/2/23 - C Callahan FHWA provided comments on the BA/BO on 2/21 to ODOT for comment. C Snead requested final comments from ODOT by 2/28. No comments/responses have been provided by ODOT – WSP has been directed to address FHWA comments and resend information by 3/6</p>	
Med	Track Progress of the Final BO	Mike Shannon	9/19/2022	1/31/2023	No Update	In Progress

4) Informational Items

Time	Discussion Topic	Owner/Presenter
5 Min	<p>Communications Update</p> <ul style="list-style-type: none"> • January Communication update • February Communication outlook • Coordination of a Facebook Live event • Website is Live Hood River Bridge Replacement Project 	Jessica/Alice
5 Min	<p>GR Update</p> <p>Washington Oregon DC</p> <ul style="list-style-type: none"> • Late April Trip • Monthly Update Calls 	Mike Shannon
5 Min	<p>Hood River – White Salmon Bridge Authority (HRWSBA)</p> <ul style="list-style-type: none"> • POHR has signed the CFA • Local board approvals are pending 	Mike Shannon
30 Min	<p>Funding Finance & Tolling</p> <p>WSTC Presentation Update on T&R Study</p>	Carl See

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5 Min	<p>Pending Grant Submittals</p> <ul style="list-style-type: none"> • MPDG (INFRA/Rural/Mega) • BIP • SS4A • Grant Reporting Update (April) • CDS Appropriations Submittals <p>Grant Submittals</p> <ul style="list-style-type: none"> • Raise Planning 2023 - \$3.6M submitted on 2/28/23 <p>Current Grant Funding</p> <ul style="list-style-type: none"> • WA • ARPA (Oregon) • Build 20 	Mike Shannon
10 Min	<p>Treaty MOA's</p> <ul style="list-style-type: none"> • Treaty Tribe MOA Sub-Schedule • Yakama • Nez Perce • Umatilla (CTUIR) • Warm Springs 	Mike Shannon
15 Min	<p>RBMC</p> <ul style="list-style-type: none"> • Request for Proposal (RFP) Progressive Design Build (PDB) Sub-Schedule Review • PDB Procurement/Preliminary Engineering • Key Stake Holder Coordination • Geotechnical Investigation • Survey • Right of Way • Permitting 	Mike Shannon/Brian Munoz
5 Min	<p>NEPA/FEIS/ROD</p> <ul style="list-style-type: none"> • Sec. 106 MOA • BiOp • Schedule 	Mike Shannon

5) Upcoming Actions (2 Min)

Description/ Expected Outcome	Anticipated Action Date
ODOT Tech Services IGA	TBD
CFA Approval	March
BiOp	?
Treaty Tribe MOA's	May

6) New Action Items

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Priority	Description/ Expected Outcome	Assigned To	Due Date

Next Meeting, March 20, 2023



BRIDGE REPLACEMENT PROJECT

Bi-State Working Group Meeting Summary

Monday, February 6, 2023 | 2:00 p.m. – 4:00 p.m.
Port of Hood River – Via Zoom
1000 E Port Marina Drive, Hood River OR 97031

In Attendance:

Members: Chair, Mike Fox (Commissioner), Port of Hood River; Vice Chair, Jake Anderson (Commissioner), Klickitat County; Marla Keethler (Mayor), City of White Salmon.

Alternates: Arthur Babitz (Commissioner), Hood River County; Kristi Chapman, (Commissioner) Port of Hood River; Grant Polson, City of Hood River.

Staff/Consultants: Kevin Greenwood (Executive Director), Port of Hood River; Michael Shannon (Project Manager), HNTB; Jessica Pickul, JLA; Alice Hodge, JLA; Brian Munoz, HNTB; Steve Siegel, Siegel Consulting; Brad Boswell, Boswell Consulting; Hal Hiemstra, Summit Strategies; Kate Trimble, HNTB; Chris Kopp, HNTB.

Guests: Abigail Elder, City of Hood River; Ebony Wortham; Kelly O’Grady-Smith; Mary Francoeur; Pete Shellenberger; Rian Windsheimer; Drew Clark; Sean O’Connor, Story Gorge; Tamar Schurian; Thomas Wilson, COWI; Sam Hunaidi, ODOT; Carol Snead, ODOT.

Welcome

Michael Shannon called the meeting to order at 2:07 p.m.

Approval of Minutes

The Bi-State Working Group (BSWG) minutes for January 23 were approved by consensus.

Informational Items

- a. **Communications Update** – Alice Hodge, JLA, provided an overview of January and February communications. Hodge noted that the one-page legislative update sheets have been created for Washington and Oregon and are included in the packet for review. The new website (hoodriverbridge.org) is live. Upcoming communication materials will include an overview of Progressive Design Build, as well as roles and responsibilities for the Port of Hood River (“Port”) and the new bridge authority. Jessica Pickul, JLA, introduced Sean O’Connor of Story Gorge who creates video content for the bridge replacement project. O’Connor commented that he is looking forward to finding stories throughout the community to help demonstrate the need for a new bridge.
- b. **Government Affairs Update** – Shannon noted that Gorge-Ous Night will be on February 8 from 5:30 p.m. to 7:30 p.m. Legislative outreach meetings have also been set up for February 8. Shannon commented that the hearing for SB 431 will take place on February 7 in Salem, Oregon. Some

members of the BSWG will be attending the hearing. Hal Hiemstra, Summit Strategies, will be setting up monthly virtual meetings with key congressional members starting in February.

- c. **Hood River-White Salmon Bridge Authority (HRWSBA)** – Shannon reported that the Primary Place of Business (PPB) has been finalized as Oregon. Both Hood River County and Klickitat County are working through the appointment process for the Commission Formation Agreement (CFA). Commissioner Anderson noted that an addendum to the CFA regarding the appointees will be added. A final draft of the CFA is included in the packet. There was consensus from the BSWG to present the final draft with the noted addendum to the 6 parties for approval. Shannon commented that there are three legal counsel recommendations for consideration in the packet. The BSWG will review and provide a final recommendation that will ultimately represent HRWSBA.
- d. **Funding Finance & Tolling** – Chris Kopp, HNTB, provided an overview of the preliminary toll rate scenarios. Kopp discussed the history of tolls on the current bridge, compared tolls with other similar bridges, and defined general parameters and criteria for toll rates. Kate Trimble, HNTB, presented Operations and Maintenance and Renewal and Replacement costs for the current bridge. A discussion ensued regarding the role of tolls in reference to the new bridge. Commissioner Fox requested to see an additional toll scenario with a \$1 increase.
- e. **Biological Opinion (BiOp)** – Shannon summarized the status of the BiOp and turned to Carol Sneed, Oregon Department of Transportation (ODOT), for an update. Sneed noted that ODOT will use what WSP has submitted to update the Biological Assessment. ODOT is trying to coordinate with FHWA to discuss how it should be formatted and presented as part of the National Environmental Policy Act (NEPA) process and move it forward into the BiOp. A discussion followed regarding the BSWG’s concern to complete the BiOp as soon as possible to stay on schedule with the Bridge Replacement Project.
- f. **Funding Finance & Tolling Continued** – A discussion ensued regarding the Ports use of the tolls. The BSWG concluded that the Port must commit to weaning itself completely from the tolls as soon as possible. A joint meeting was requested with the Port Commission and the BSWG to discuss this matter.
- g. **Biological Opinion (BiOp) Continued** – Rian Windsheimer, ODOT, proposed a meeting with National Marine Fisheries Service (NMFS), FHWA, ODOT and the BSWG. Windsheimer will work with Shannon to coordinate the meeting.
- h. **Pending Grant Funding Updates** – Shannon noted that HNTB is still working on the RAISE grant that is due February 28. The Build grant is also in process.
- i. **Treaty Tribe MOA’s** – Shannon reported that the draft MOA has been submitted to Yakama Nation, Nez Perce, and the Umatilla Tribe. Roy Watters will follow up with Yakama Nation and try to set up a meeting. There was a discussion with Nez Perce legal counsel on February 2. There were also a couple discussions with the Umatilla Tribe and a follow-up meeting is scheduled for February 22. Umatilla provided a letter of support for the Bridge Replacement Project. Commissioner Fox noted that someone from Umatilla will be attending the Port Commission meeting on February 7 to formally acknowledge their letter of support and to authorize non-revenue bridge passage for the

Umatilla Tribe. The MOA has not been submitted to Warm Springs and HNTB is working towards setting up a meeting. Commissioner Arthur Babitz suggested obtaining a letter of support from Friends of the Gorge.

- j. **RBMC** – Shannon noted that they are working through the Request for Proposal (RFP) for Progressive Design Build. The Oregon land borings have begun. HNTB did receive the right of entry from the private owner in Washington for the land borings. Surveys are underway to capture the control points, identify existing utilities, and map the parcels.

New Action Items

- a. Create an additional toll scenario with a \$1 increase.
- b. Coordinate a joint meeting with the Port and BSWG to discuss tolling.
- c. Coordinate a joint meeting with NMFS, ODOT, FHWA and BSWG to discuss the BiOp schedule.
- d. Obtain a letter of support from Friends of the Gorge.

Adjourn

Next meeting is on February 20. The meeting was adjourned at 4:06 p.m.

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HOOD RIVER-WHITE SALMON BRIDGE REPLACEMENT

Project Director Report
March 06, 2023

The following summarizes Replacement Bridge Project activities from February 06, 2023 to March 06, 2023:

PROJECT MANAGEMENT

- *RBMC team is continuing to meet with WSP, ODOT and Federal Highway Administration (FHWA) related to the NEPA/FEIS process and Treaty Tribe Memorandum of Agreement (MOA's).*
- *RBMC team is meeting with ODOT, WSDOT and FHWA on the RFP for the Progressive Design Build Procurement.*
- *Grant Tracking for WA, ARPA, Build Grants will be on going each quarter.*
- *Legislative Outreach in continuing with Oregon, Washington and DC*

COMMUNICATIONS

- *The web site has been launched [Hood River Bridge Replacement Project](#) and is seeing regular updates*
- *Since Jan 1, 2023, the bridge replacement has been covered in the media 11 times, primarily by Columbia Gorge News.*
- *In the last month, we discussed project needs with legislators at both state capitols at the Gorgeous Night events, increasing visibility and recognition of the project need.*
- *Even with a soft launch of the website, the site has had 907 unique visitors to date.*
- *Thanks to the 1,925 public responses to the Primary Place of Business survey, the BSWG was able to make a decision to locate the PPB in Oregon.*
- *Social media accounts are now active and actively we're building followers.*

GOVERNMENT AFFAIRS UPDATE

- *State Legislative Activities*
 - *Oregon*
 - *Letter was signed by the BSWG members and is ready to be sent to labor unions to obtain support for the project.*
 - *Washington*
- *Federal Legislative Activities*
 - *CDS Appropriations requests are being coordinated*
 - *Virtual update meetings held with:*
 - *2/17*
 - *Sen. Cantwell*
 - *Rep. Blumenauer*
 - *Sen. Merkley*
 - *2/22*

- Sen. Murray
 - 2/24
 - Rep. Newhouse
 - Rep. Perez
 - Sen. Wyden
- We are planning to make two trips per year to DC in support of funding requests
 - Looking at the end of April for the first trip
- We will be working with Oregon and Washington and Federal lobbyist to update the Legislative Strategy for the next 3 years.

HOOD RIVER-WHITE SALMON BRIDGE AUTHORITY

- The Final Draft of the Commission Formation Agreements (CFA) has been distributed to the BSWG with a recommendation to move forward with obtaining signatures from the 6 parties of the agreement.
- Port of Hood River signed CFA on 2/7/23, anticipate other members signing in March
- HRWSBA Legal Counsel Recommendations for consideration:
 - Stacey Lewis at Pacifica Law Group in Seattle, as recommended by Steve Siegel.
 - Eileen G. Eakins, who provided Port Commission training back in 2021 - 5285 Meadows Road, Suite 400, Lake Oswego, OR 97035, (503) 607-0517, eileen@lgl-advisors.com;
 - Clark Balfour at Cable Huston, who I have worked with over the years on municipal utility projects: <https://www.cablehuston.com/attorneys/clark-i-balfour/>;
 - Anna Cavaleri, Jerry's partner <http://hoodriverlaw.com/attorney-profiles/anna-c-cavaleri/>

FUNDING FINANCE & TOLLING

- Washington State Transportation Commission (WSTC) T&R Analysis
 - HNTB and the PORT continue to coordinate with WSTC
 - WSTC next meeting is on March 14th – 15th
 - They will be discussion around the two scenarios on agenda related to the T&R Study for the Replacement Bridge
 - Link to agenda <https://wstc.wa.gov/news/2023/02/27/meeting-agenda-march-14-15-2023>
 - Link to register for meeting WSTC Zoom Meeting Registration – [March 14](#)
 - WSTC team will be updating the Transportation Commission at 1:30pm .
 - WSTC will provide an update on the project to the BSWG on March 6th and March 20th.
 - WSTC will provide an update on the project to the Port Comm on March 21st
 - Schedule Milestones:
 - March 2023 – WSTC approves two refined tolling scenarios for further analysis
 - May 2023 – Draft Study findings and recommendations presented to WSTC

- *June 2023 – Final Report of findings and recommendations presented to WSTC and submitted to Washington State Legislature*
- *BSWG Tolling Study*
 - *Funding Finance and Tolling team is developing a model that will support the consideration of different tolling scenarios and their impacts on the financial plan to support the construction of a new bridge.*

PENDING GRANT FUNDING UPDATES

- *Raise Planning Grant (2023)*
 - *Notice of Funding Opportunity (NOFO) issued: 11/30/22, Update to NOFO received on 12/14/22*
 - *Application Submitted: 2/28/23*
 - *Requested amount of funding: \$3.6M*
 - *Our application focused on a planning grant that will evaluate Bike/Ped connections and Transit services access/connections to the new bridge. With a focus on how the bridge is a vital part of a transportation system.*
 - *Over 20 Letters of Support were included with our application*
- *Safe Streets and Roads for All Grant Program (SS4A)*
 - *Next Opening April 2023*
 - *2023 NOFO Spring 2023*
- *Multimodal Project Discretionary Grant (MPDG)*
 - *Next Opening – Spring 2023*
 - *2023 NOFO not released*
 - *INFRA (\$8 B available over 4 years FY22 to FY26)*
 - *MEGA (\$5 B available over 4 years FY22 to FY26)*
 - *Rural (\$2 B available over 4 years FY22 to FY26)*
 - *The project was notified that it was not successful in obtaining any 2022 grant funding from the MPDG. A Debrief is being targeted for April 2023 in DC.*
 - *MPDG Comments from USDOT*
 - *C. The project will be cost-effective (49 USC 6701(f))*
 - *D. With respect to related non-Federal financial commitments, 1 or more stable and dependable sources of funding and financing are available to (i) construct, operate, and maintain the project; and (ii) cover cost increases (49 USC 6701(f))*
 - *E. The applicant has, or will have, sufficient legal, financial, and technical capacity to carry out the project (49 USC 6701(f))*
- *Bridge Investment Program (BIP)*
 - *Next Opening – Summer 2023*
 - *2023 NOFO – Summer 2023*
- *CDS Appropriation*
 - *Requests is being submitted for a total of \$8M between the delegations for Preliminary Engineering/Design, Right of Way Acquisition, Mitigation identified as part of the NEPA process.*
 - *Murray request was submitted on 2/28/23*

- *Merkley/Wyden request was submitted on 3/3/23*
- *Cantwell request will be submitted on 3/10/23*
- *Blumenauer and Newhouse are anticipated to be on 3/17/23*

EXECUTED GRANT FUNDING UPDATES

- **Build20**
 - *Grant Awarded 9/23/22*
 - *Funding: \$5M – Federal Share, \$1.25M Local Match (Washington Grant) – Total \$6.25M with an Expenditure Deadline of 12/31/2024*
 - *Total Submitted for Reimbursement: \$0*
 - *Total Reimbursement received to date: \$0*
 - *Remaining Funds: \$5 million*
 - *We have received our certification from FHWA on 12/21/22. We have received access to the RADs quarterly reporting system for FHWA on 1/26/22. Training with FHWA is still pending.*
 - *Q4 2022 reporting has been submitted through RADs to FHWA*
- **ARPA (Oregon Grant)**
 - *Grant Awarded 5/12/22*
 - *Funding: \$5M with an Expenditure Deadline of 12/31/26*
 - *Total Submitted for Reimbursement: \$225,353.30*
 - *Total Reimbursement received to date: \$225,353.30*
 - *Remaining Funds: \$4,774,646.70*
 - *4th Quarter reimbursement submitted on January 10th, 2023. Next reimbursement submittal April 2023*
- **WA SB 5165 Grant**
 - *Grant Awarded 2/2/22*
 - *Funding: \$5M with an Expenditure Deadlines of 6/30/23 (\$3M) and 6/30/23 (\$2M)*
 - *Total Submitted for Reimbursement: \$1,341,149.25*
 - *Total Reimbursement received to date: \$384,693.39*
 - *Remaining Funds: \$3,658,850.75*
 - *4th Quarter reimbursement submitted for \$956,455.86. Next reimbursement submittal will be April 2023.*

TREATY TRIBE MOA'S

- *A Semi-weekly meeting has been set up with ODOT and FHWA specific to advancing the Treaty Tribe MOA's. A collaboration space has been created on the Project Portal site.*
 - **Yakama Nation (YN).**
 - *Draft MOA was submitted by Roy Watters to the Yakama Nation on 1/26/23*
 - *A meeting to discuss the Section 106 MOA and Treaty Fishing MOA was held on 3/3/23. Meeting was positive and they were very appreciative of the work that was done in the draft Treaty MOA. Yakama Nation will review the draft MOA with a tentative date to provide responses in two weeks. Tribal*

members agreed that ODOT could move forward with the next steps in the 106 MOA process

- **Nez Perce**
 - *The Draft MOA was submitted to ODOT on 1/17/23*
 - *ODOT approved us to move forward with sending the Draft MOA on 1/24/23.*
 - *2/2/23 – Project update call with Amanda Rogers of Nez Perce and Herb Fricke (Project Tribal Coordinator), Roy Watters (ODOT). MOA was sent to Amanda on 2/2/23.*
 - *We are coordinating a project update meeting with them in the next couple months.*
 - *Port attorney is coordinating with Nez Perce tribe as they requested*

- **Umatilla (CTUIR).**
 - *The Draft MOA was submitted to the Umatilla Tribe on 1/25/23*
 - *Meeting and Presentation were held with CTUIR Fish and Wildlife commission on 1/24/23*
 - *Topics covered*
 - *Project Update,*
 - *Request for Letter of Support – Treaty to a vote and was approved 4/0 to provide a letter of support for the project.*
 - *Update on CTUIR toll exemption request – exemption is being finalized and will be presented to the Port Commission on Feb 7th for approval. Umatilla tribal members will be at the meeting.*
 - *Treaty MOA – a hard copy of the Draft MOA was provided to the Tribal legal counsel and a electronic copy supplied also. A follow up meeting is being schedule for the third week in February.*
 - *Work Force Development – Follow up meetings are being scheduled the tribes and TERO offices for input into the Work Force Development criteria that will be provided in our RFP.*
 - *Attendees: ODOT, FHWA, Commissioner Fox, RBMC*
 - *Meeting was cancelled for 2/22 with Umatilla due to weather, looking at March 23 to as rescheduled date*
 - *We have received a letter of support for the bridge project from CTUIR.*

- **Warm Springs.**
 - *Our team has made contact with Warm Springs and a meeting is being coordinated for March.*

RBMC

PROGRESSIVE DESIGN BUILD RFQ/RFP

- *Sub-schedule has been developed for the procurement of the Progressive Design Build Team (See Packet) – opportunities to advance the schedule are being reviewed.*
- *A meeting was held with ODOT on 2/10 to discuss their role on the upcoming PDB Procurement and a follow up meeting is scheduled for 3/7*
- *A meeting was held with FHWA on 2/16 to discuss their role on the upcoming PDB Procurement and a monthly recurring meeting has been set up to start on 3/16*
- *A meeting was held with WSDOT on 2/23. WSDOT has provided a point of contact for the PDB team to work with on the RFP development.*

KEY STAKE HOLDERS

RAILROAD

- *Kickoff/Update meeting was held with BNSF on 1/25/23, they indicated the new bridge should accommodate a future triple track and a 30' vertical clearance. At this time these are not seen as major impacts to the project.*
- *Coordination of work activities over the track will be critical do to the high volume of usage.*
- *BNSF did not anticipate long review periods given their current workload, they indicated that they had adequate capacity to support the coordination needed on this project.*

GEOTECHNICAL

- *The two Oregon on land borings were completed on Feb 6th and the report is being developed. Cultural Resource monitoring was done and no cultural resources were found.*
- *Coordination with the tribes will work through ODOT but it is likely the PORT will be asked to fund the tribal monitoring costs.*

SURVEY

- *A sub-schedule for survey activities has been developed and attached. The activities will include development of a base map, verifying and setting control points, identification and mapping of exiting utilities, identification of jurisdictional ownership lines for ODOT, WSDOT and local agencies, location and mapping of Geotechnical Borings.*
- *Completed mapping checks on Oregon side of bridge*
- *Completed monument search on Oregon side of bridge*
- *Completed records research in Oregon*

RIGHT OF WAY

- *Coordination has begun with WSDOT and ODOT to define the jurisdictional limits for both agencies.*
- *Our right of way team is coordinating with the two property owners in Washington that will need to provide Right of Entry for the geotechnical borings. The two owners are a private owner and Klickitat County. We have received the ROE letters from both.*
- *The SDEIS preferred alternative does indicate a potential whole take of the private landowner and we will need to coordinate with the BSWG and PORT on when to move forward with discussion with the landowner on this action.*

PERMITTING

- **SHPO Permit for Upland Work in Oregon** – This permit was issued on 1/19/23. CTOGR included some standard stipulations in their permit comments. The Oregon UPLAND boring work can proceed and is scheduled for next week.
- **USACE Permit** – USACE issued a provisional permit in late December. They will finalize the permit once DEQ provides the 401 C water quality certification. All SHPO/tribal coordination for the in-water and WA. Borings has been completed by USACE.
- **DEQ Permit** – The permit application was submitted to DEQ on 1/13/23. Expect DEQ to issue the 401 C in the next 2-3 months. As noted above, once DEQ issues their permit USACE will issued their final permit verification. USACE is just waiting on DEQ.
- **DSL Short Term Access Agreement** – This approval was issued in September 2022.
- **DSL No Permit Needed Letter** – This letter was issued January 18, 2023 confirming the work does not require a DSL Removal-Fill Permit.
- **WDFW Hydraulic Permit Approval** – The original HPA was modified with new project information and schedule on January 11th. The HPA includes several standard BMPs and notification requirements. Notification must be made at least three days prior to in-water work on WA. Side.
- **City of White Salmon SEPA and SMP Exemption Letter** – The final letter from City confirming 7eotech work is except from SEPA and SMP was issued on January 23, 2023.
- **WDNR Aquatic Lands ROE Permit** – We received the requisite signatures from Klickitat Co. and Shin Jin Ko on February 2, 2023. We will submit the application (JARPA) to WDNR by COB February 3, 2023. Expect two months for DNR to issues the ROE permit.
- **NMFS Slopes V Compliance** – The USACE has determined that the work as proposed will result in No Effect on listed fish based on the standard BMPs to be included (SLOPES V BMPs) and the short duration, confined nature of the work. We were able to avoid getting NMFS involved.

When USACE issues the verification, it will also include the necessary ESA/NMFS compliance. The provisional verification discusses this and application of SLOPES V. So this task/compliance need will get completed when USACE issues the permit (without NMFS involvement), which will happen once the DEQ permit lands.

- All permits are in hand except for the three approvals highlighted above. The DEQ permit application was submitted to DEQ on 1/13/23 after they issue their permit USACE will

immediately take the “provisional” moniker off of the provisional verification. Once submitted WDNR should be able to turn around the permit within two months. There is a \$25 fee for this permit.

FINAL EIS/RECORD OF DECISION

- Environmental Impact Statement technical reports are available at <https://cdxapps.epa.gov/cdx-enepa-ll/public/action/eis/details?eisId=314171>
- Multiple meetings have been held with ODOT and FHWA and commitments have been made from leadership in ODOT and FHWA NW Region that this project is a priority.
- Recurring meetings have been set up and comment tracking system to help manage the process through completion.
- Min from coordination meetings on 2/7 and 2/16 with ODOT and FHWA are attached in packet
- WSP provided updated documents to FHWA and ODOT on 2/13/23
- FHWA provided additional minor comments to the BA on 2/21/23 with a request for ODOT to provide any additional comment. ODOT Carol Snead sent a request to ODOT Liaisons on 2/22/23 for additional comments by 2/28. No comments or responses have been provided by ODOT. WSP has been instructed to make the changes proposed by FHWA and resubmit to ODOT by 3/6/23.
- A meeting was requested with the ODOT Region 1 leadership as a follow up to the lack of response from ODOT.

OTHER ITEMS

KEY MEETINGS

Date:	Subject:
2/7/23	Meeting with FHWA/ODOT on BA edits
2/7/23	Meeting with ODOT on Treaty Tribe MOA Coordination
2/7/23	SB 431 hearing in Salem for \$125 M in funding for bridge project
2/8/23	Gorge-ous Night event in Salem
2/8/23	Multiple one on one meetings with Oregon State Legislature
2/9/23	Cultural Resource coordination with ODOT and FHWA
2/9/23	Meeting with POHR new attorney to review Treaty Tribe MOA’s

2/9/23	Meeting with local union representative on workforce development approach and letter of support for the project
2/10/23	Progressive Design Build kickoff meeting with ODOT
2/10/23	Coordination meeting with Nohemi from Oregon Parks and Recreation Division OPRD on 6F impacts
2/13/23; 2/27/23	Weekly coordination meeting with Port and WSP
2/13/23; 2/27/23	Weekly coordination meeting with Port
2/13/23	Monthly RBMC Task Lead Coord meeting
2/13/23	Contractor Debrief with Kiewit
2/14/23; 2/28/23	Weekly PORT Staff Meeting
2/15/23	Gorge-ous Night event in Olympia
2/15/23	Multiple one on one meetings with Washington Legislature
2/16/23	BA/BO Coordination meeting with ODOT and FHWA
2/16/23	Coordination meeting with ODOT Region 1 leadership, POHR and RBMC
2/16/23	Progressive Design Build Coordination meeting with FHWA
2/17/23	Coordination and project update meeting with Friends of the Gorge
2/17/23	Project update with Sen. Cantwell; Rep. Blumenauer; Sen. Merkley
2/20/23	Funding/Finance/Tolling workshop with BSWG
2/21/23	POHR Comm Meeting
2/22/23	Project update with Sen. Murray
2/22/23	Consultant Debrief with COWI
2/23/23	NEPA coordination meeting with FHWA/ODOT/WSP
2/23/23	MPDG (Infra/Rural/MEGA) Grant debrief with Office of Secretary of Transportation (OST)
2/24/23	Project update with Rep Newhouse; Rep Perez; Sen Wyden
2/27/23	CDS appropriations coordination meeting with Community College
2/27/23	Consultant Debrief with Emerio











<i>2/28/23</i>	<i>2023 RAISE Planning Grant Submittal</i>
<i>2/28/23</i>	<i>Sen. Murray CDS appropriations submittal</i>
<i>2/28/23</i>	<i>Treaty Fishing Mitigation MOA coordination meeting with Yakama Nation/FHWA/ODOT</i>
<i>2/28/23</i>	<i>Funding/Finance/Tolling workshop with BSWG</i>
<i>2/28/23</i>	<i>Consultant Debrief with LMN Architects</i>
<i>3/3/23</i>	<i>Treaty Fishing Mitigation meeting with FHWA/ODOT</i>
<i>3/3/23</i>	<i>Coordination meeting with WSTC T&R Study</i>

Meeting Date: 2/23/2023 12:30 PM

Link to Outlook Item: [click here](#)

Invitation Message

Participants

-  [Manganaris, Marina \(OST\)](#) (Meeting Organizer) - USDOT MPDG
-  [Michael Shannon](#) (Accepted in Outlook)
-  [Kevin Greenwood](#)
-  [Mike Fox](#)
-  jacoba@klickitatcounty.org
-  Paul Baumer - OST - manager for MPDG.
-  Kary Witt
-  Tony Gross - Gov Affair
-  Hal
-  Naseem Mehyar (Cantwell)

Notes

Verbal only

Overview;

- Combine 3 programs
- 450 applications
- \$40B in funding
- \$2B available

Applied to all 3 programs

- 250 Applications - \$1.5B Infra - 20 selected
- 130 Applications \$1B 9 selected
- 241 Applications \$300 12 selected

Infra

- Large/Small
- \$100M
- !5% small 21% awarded

Large must meet 7 statutory requirements

- 50% is reserved for each
- Less than \$100M not elligable
- Large Category - \$500M

Infra Rural

- 25% required
- 43% awarded

Mega no set aside for rural
30%

Question on if we meet the criteria for rural - yes we met the criteria for rural

Process

Intake - evaluation team review program eligibility
Analysis review phase - several teams - received ratings in 6 phases
Cost effectiveness
Economic analysis (high medium low)
Readiness
Statutory requirements
3rd. Leadership review

3 rating categories:

Not recommended
Recommended
Highly recommended

We received a not recommended rating for our project - due primarily to not meet statutory requirements

How many did not meet statutory requirements

Not recommended - majority is not meeting statutory requirements
MEGA and INFRA
100 or more Mega received not recommended

Project Outcome Review Rating

Med High overall

6 areas of evaluation

Must score at least a 1 - Scale is 0 to 3 - cannot have any 0 ratings in these areas

Safety - 1

State of good repair - 3

Economic/Freight Impacts - 2

Climate Change/Resiliency - 3

Equity/Multi-Modal/Quality life - 2

Innovation - 2

Safety - 1

Did not show a significant safety benefit on the project.

State of Good Repair - 3

Structurally Deficient, Functionally Obsolete, Will not withstand Seismic event, Does not meet current load ratings

Economic Analysis - 2

**They Review BCA for consistency with their guidance and methodology
Review the assumptions and projections of what is expected to happen
They arrive at their own estimate of a BCA**

We received a low rating from economic analysis - benefit cost analysis (BCA)

Our calculated BCA was a 1.05

They made adjustments to account for

Residual life is typically calculated on a 30 year analysis

Adjustments for Truck Traffic counts and travel time savings due to speed - they reduced our savings

Large share of our benefit was the increase in toll revenue - they do not agree with this as a benefit in the development of a BCA

They did not agree with our analysis period of 60 year - their recommendation was a 30 year time

This element caused us to miss a statutory requirement that resulted in the not recommended

0.3 was their number after making their adjustments

Project Readiness

Environmental where they Review Risk

Financial Compacity

Technical Compacity

Environmental - Moderate score - noted that we were in process of completing the SFEIS with a due date

Traditional cultural properties impacts

Right of Way Acquisition - complexity of it being led by Washington State

Status of Tribal Consultation with Treaty Tribes

Financial Compacity

- Looking for:
 - Finance Plan - all other funding on the project is stable and dependable
 - Funding in control of applicant - high likely to be there - partial complete - initial determination
 - Standard that projects are evaluated against is whether the project has all the money needed, if the agency has tax authority to raise money, if not then how committed are the other sources of funding like state funding - is the project in a STIP/TIP - will it be available in next few years - if it is in a bill that helps make the case
 - Will the funding be available when needed
- There was risk on status of tolling authority - granted by Oregon
- \$110M from Oregon was not in any type of state bill

Technical capacity rating - FHWA was clear - PORT has delivered projects and should be able to deliver this project - no issues

Meeting Notes

Hood River BA Edits Meeting

February 7, 2023, 10:00 – 11:00 AM

Join via [Microsoft Teams Meeting](#) link in Outlook invitation

Attendees:

FHWA: Cindy Callahan

ODOT: Carol Snead, Rian Windsheimer, Cash Chesselet, Denis Reich, Thomas Loynes, John Raasch, Rod

Port of Hood River: Kevin Greenwood

WSP: Dan Gunderson, Brian Carrico

HNTB: Mike Shannon, Julie Hampden, Maki Dalzell

- Rian indicated that completing the BO is a critical path and asked the group to come up with a strategy for getting to completion and a better timeline. He understands this process takes time but wants the group to be prepared when questions on timeline/progress come up.
- Rod responded to Rian saying that we can get the BO complete, but the lack of design is driving the delay. He said they can expedite the process if they have a constructable design, but due to lack of design information, they need to put lots of assumptions in the BO.
- Kevin asked if anyone from NMFS was in attendance. There was not. Kevin appreciates FHWA engagement throughout this process, but he is concerned that we're putting too much pressure/weighing heavy on liaisons.
- Kevin is also unsure if the key issue is only about temp trestle. He raised a question: are there any other issues that we are unaware of?
- Kevin also responded on the lack of design. He said he was sitting on a workshop at the SW region office 5 years ago when we were discussing about this project. We knew that early on that this is going to be the level of design 5 years ago when we did the workshop. That never changed, and we should have been told this is going to be an issue 5 years ago.
- Cindy's response to Kevin's comments:
 - Cindy has been involved with this project from the beginning. She doesn't see how NMFS being part of the call would change anything. Cindy has been having direct conversations with NMFS to hear their concerns about the BA. She'll continue to have that conversation. When the information is ready, she will make sure that the supplement is adequate. Liaisons play a critical role here, so Cindy maintains trust and adequate communication flow with NMFS.
 - Lack of design wasn't necessarily an issue because FHWA has that with many projects. Key is to make a good assumption. For this project, there are issues with the design. Pile support that came up with other project is just part of awareness. You learn from other projects and apply it throughout the consultation. NMFS was aware of this because of their involvement with other projects, needing a larger pile. When the liaisons asked the question about feasibility, we didn't have a good answer from the project team. We need to provide a project that is constructable that would pass the test.

- Change of leadership is something we have no control on. We need to make sure we're building relationships with new folks. Cindy had 2 conversations with Nancy [Munn at NMFS](#), and she'll have a 3rd one with her next week.
- Temporary piles/trestle is the only issue Cindy is aware of. In Oregon, there are many other changes, but this is the only big one that needs to be addressed for this project as far as she understands.
- Dan shared the BA update with the group. The design team felt comfortable with this new update. There are changes to the number of steel piles, temp work platform bents, and refinements of the size of the work bridge, and larger size of temp piles, more barges (15 to 25 barges) - See the table below.

Table 4. Summary of Temporary Work Structure Types and Quantities

Project Element	Approximate Dimensions (ft)	Approximate Total Quantities	Temporary Benthic Impact (sq ft)	Temporary Overwater Coverage (sq ft)	Approximate Duration
Temporary Impacts					
Temporary Work Bridge (OR)	70-45 x 475 <u>(+ fingers)</u>	95120 , 24-inch steel pipe piles	298 <u>378</u>	20,825 <u>30,000</u>	3-4 years
Temporary Material Handling Work Bridge (OR)	375 x 45	68 , 24-inch steel pipe piles	214	17,000	5 years
Temporary Work Platforms Bents 4-11 (8 total)	25 x 40	44 , 24-inch steel pipe piles	139	8,000	18 months (each)
Temporary Work Bridge (WA)	70-45 x 675 <u>(+ fingers)</u>	115156 , 24-inch steel pipe piles	361 <u>491</u>	28,875 <u>39,000</u>	3-4 years
Temporary Demo Work Bridge (WA)	70-40 x 700	120112 , 24-inch steel pipe piles	377 <u>353</u>	31,850 <u>28,000</u>	3 years
Cofferdams (Demolition) (<u>up</u> to 22 total)	Varies by bent 16 x 30 to 50 x 86	Up to 3,422 linear feet steel sheet pile	17,950	-	12-16 months (each)
Cofferdam (Spread footing)	30 x 38	136 linear feet of sandbags or similar	580	-	12-16 months
Drilled Shaft Shoring Casings	84-inch and 108-inch diameter	29, 84-inch-diameter casings and 13, 108-inch-diameter casings	426	-	4 months (each)
Other (non-load-bearing) Temporary Piles	2436 -inch diameter	200270 , 3624 -inch steel pipe piles	628 <u>1,883</u>	-	4 -months <u>2</u> years (each)
Barges – Years 2, 3 (15 - <u>max. 25</u> total)	45' x 140'	15 - <u>max. 25</u> barges, including spud piles and anchors	283 <u>471</u>	100 <u>175,000 max.</u>	6-2 years
Barges – Years 1, 4, 5, 6 (<u>max. 15</u> total)	45' x 140'	<u>max. 15</u> barges, including spud piles and anchors	<u>283</u>	<u>100,000 max.</u>	<u>4</u> years

- Dan mentioned figures have also been updated. Cash said Services were not convinced 15 barges would be feasible, so he asked if it is realistic to have 25 barges. Michael said this is the best guess we had. The design team had 2 contractors review the constructability, and the team is comfortable with the #s and assumptions.
- Michael said that this project is using a combined DB/Progressive Design approach. Dan said the max of 25 is likely a reasonable worst-case assumption. Dan also said that changes in numbers don't really change the analysis or change the effect determinations. The revised version of pile driving calculators (to determine impact areas) were also updated.

- Cash asked if the pile driving duration is going to be tight and asked if it's going to be realistic. Dan and Michael said yes, and these durations have been checked by the engineers. Michael said that the team increased assumptions, which would create some safety nets for the design team.
- Reissuing a BA - Cindy said FHWA does not send an updated BA once it's submitted. She said that the action agency typically submits a supplement to the BA. She said we need to make sure to incorporate Cash's input in the supplement so that it provides the information needed for Cash to finish the BO.
- Michael suggested on using a comment/response form so the team can make sure all of the comments are being addressed and track the progress.
- Cash said he needs a better description of the platform. He said it's easier/quicker to just update the existing BA instead of a supplement. Cindy said she'll have to see the update because FHWA doesn't typically update the BA.
- Cash said Nancy wanted to delete the mitigation discussion. If there are unknown activities, we shouldn't have it in the BA.
- Cindy said if there are questions beyond specific design changes, Cindy asked Cash to send via email. Cindy said that we need to capture the design changes in the supplement, but Cash has additional questions, so we need to vet that out before we submit officially. Cindy said Cash and she should do a concurrent review, so he knows how to drop the info in the BO. She sees this as an iterative process. Goal would be to provide a complete supplemental package to avoid further back and forth.
- Dan will have changes to project description and additional info that NMFS needs. Brian asked what those additional needs are. Cash said he needs description of proposed actions to include how those platforms play into work flow or construction sequence and a description of design updates with the impacted numbers. Dan said the original BA has included most of these changes already, so it's mostly going to be number updates. Dan will add the cofferdam/work area isolation in these updates.
- Cindy asked for clarification on why that work window needs to be changed. Cash said because juvenile outmigration overlaps with the cofferdam installation. Branch chief wanted analysis on assessing how many fish to be affected, so they asked the design team to cut that window back by a couple weeks. Cindy said we need to document these things by addressing the work windows through minimization measures. Cindy suggested Cash to discuss with Nancy so we can document what needs to be addressed in the supplement.

ACTION ITEMS:

- Cash to meet with Nancy to go over this project description and information provided by WSP to make sure that the supplement will address his and Nancy's concerns (Complete by 2/21)
- Cash to send Cindy an email listing all of the information he needs to complete the BO. Ideally this transmittal would also include a compilation of the comments on the BA. Once Cindy gets that list of information needs, she will share that with the Mike Shannon, Carol Snead and Brian Carrico (Complete by 2/28)
- Dan to develop a list of requested items and start tracking responsible parties/responses. The list should include the changes to the coffer/dam work area isolation, updated descriptions that include the platform information and updated impact numbers (Complete by 2/21)

- Commit to regular updates/communications on status – do we want to set up a bi-weekly check-in with Cash (this is more of a question for Denis, if Denis confirms we should have one, HNTB can complete this task within a week from the date of confirmation)?



Memorandum

Date: February 13, 2023

Subject: Hood River-White Salmon Bridge Replacement Project – Proposed Action Update

From: Dan Gunderson, PWS, Senior Scientist

To: Cindy Callahan, Federal Highway Administration (FHWA)

INTRODUCTION

WSP prepared a Biological Assessment (dated September 10, 2020) on behalf of the Port of Hood River (the Port) and the Federal Highway Administration (FHWA) as part of the National Environmental Policy Act (NEPA) documentation process for the Hood River-White Salmon Bridge Replacement Project. FHWA submitted the Biological Assessment (BA) to The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) on September 20, 2020 along with a request for formal consultation under Section 7 of the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Based on recent communications from the Port's design consultant and the Oregon Department of Transportation (ODOT), the Port is proposing some minor changes to the proposed action as it was described in the 2020 Biological Assessment. Specifically, the proposed changes represent a refinement of the assumptions relating to the size, type, and quantity of temporary in-water and overwater structures that are anticipated to be necessary during construction. The updates were based on experience of similar bridge projects that required more extensive temporary structures than presented in the original BA.

The purpose of this memorandum is to document the specific updates to the Proposed Action that are proposed, and the extent of any resulting change to the analysis or effect determinations presented in the BA.

PROPOSED UPDATES TO THE PROPOSED ACTION

This section describes the proposed updates to the proposed action, with reference to the specific sub-section of the BA in which the changes occur.

In-Water Work Window (BA Section 3.3.1)

The following change to the in-water work timing for cofferdam installation is proposed:

- Cofferdam installation will be restricted to a window from October 1 through February 29.

This change will further avoid and minimize potential effects to outmigrating juvenile salmonids by avoiding the need to conduct fish salvage activities in early March.

Temporary Work Structures (BA Section 3.3.3)

As described in the 2020 BA, the Proposed Action will require the installation of multiple temporary in-water structures during the course of construction. These structures will include temporary work bridges and platforms, cofferdams, drilled shaft shoring casings, and temporary piles. Multiple barges will also be required to support construction.

In early 2023, the Port's design team conducted a constructability review, which concluded that some of the assumptions regarding temporary work structures could be overly restrictive, and could limit the means and methods available to construct the bridge. For this reason, the Port is proposing the following updates to the temporary work structures:

- Changes in the approximate dimensions and estimated number of piles expected to be required for temporary work bridges.
- Adding a temporary material-handling work bridge on the Oregon side of the river.
- Adding eight (8) 1,000 square foot temporary work platforms to support construction at Bents 4-11 (one at each bent).
- An increase in the size and number of additional temporary piles that may be needed. It is assumed that up to 270, 36-inch diameter steel pipe piles could be required.
- An increase in the maximum number of barges anticipated during years 2 and 3, when it is expected that construction activity will be at its peak.

The specific changes are documented in the Table 1 below, which updates and replaces Table 4 in the BA.

Table 1. Temporary Work Structure Types and Quantities

Project Element	Approximate Dimensions (ft)	Approximate Total Quantities	Temporary Benthic Impact (sq ft)	Temporary Overwater Coverage (sq ft)	Approximate Duration
Temporary Impacts					
Temporary Work Bridge (OR)	45 x 475 (+ fingers)	120, 24-inch steel pipe piles	378	30,000	4 years
Temporary Material Handling Work Bridge (OR)	375 x 45	68, 24-inch steel pipe piles	214	17,000	5 years
Temporary Work Platforms Bents 4-11 (8 total)	25 x 40	44, 24-inch steel pipe piles	139	8,000	18 months (each)
Temporary Work Bridge (WA)	45 x 675 (+ fingers)	156, 24-inch steel pipe piles	491	39,000	4 years
Temporary Demo Work Bridge (WA)	40 x 700	112, 24-inch steel pipe piles	353	28,000	3 years
Cofferdams (Demolition) (up to 22 total)	Varies by bent 16 x 30 to 50 x 86	Up to 3,422 linear feet steel sheet pile	17,950	-	12-16 months (each)
Cofferdam (Spread footing)	30 x 38	136 linear feet of sandbags or similar	580	-	12-16 months
Drilled Shaft Shoring Casings	84-inch and 108-inch diameter	29, 84-inch-diameter casings and 13, 108-inch-diameter casings	426	-	4 months (each)
Other Temporary Piles	36-inch diameter	270, 36-inch steel pipe piles	1,883	-	2 years (each)
Barges – Years 2, 3 (max. 25 total)	45' x 140'	max. 25 barges, including spud piles and anchors	471	175,000 max.	2 years
Barges – Years 1, 4, 5, 6 (max. 15 total)	45' x 140'	max. 15 barges, including spud piles and anchors	283	100,000 max.	4 years

Impact and Vibratory Pile Driving (BA Section 3.3.6)

Section 3.3.6 of the 2020 BA requires a minor update to include a discussion of the larger diameter temporary 36-inch diameter piles that are proposed. The assumptions regarding installation and removal will be the same as those for the 24-inch temporary piles.

Temporary piles (both 24-inch and 36-inch diameter) for non-load-bearing structures (such as those for pile templates, temporary falsework, and temporary barge mooring applications) will be installed and removed solely with a vibratory hammer and will not require impact hammer to proof bearing capacity. Temporary piles (both 24-inch and 36-inch diameter) for load-bearing structures (such as those that will be used on the temporary work bridges and platforms, falsework supports, oscillator supports, and tower crane supports) will be installed to the extent practicable with a vibratory hammer before being finished and/or proofed, as necessary, with an impact hammer.

The description of vibratory installation of drilled shaft casings in Section 3.3.6 also requires a minor update to clarify that the discussion applies only to installation of the temporary drilled shaft shoring casings. It is estimated that installation and removal of the temporary drilled shaft shoring casings could occur on up to approximately 228 (nonconsecutive) days.

Table 2 documents the additional size class of temporary pile, and the updates to the drilled shaft shoring casing duration, and updates and replaces Table 6 in the BA.

Table 2. Pile Driving Summary

Pile Type	Size/ Dimensions	Hammer Type	Estimated Duration				
			Estimated Time/Pile	Estimated Impact Strikes/Pile	Maximum Impact Strikes/Day	Estimated Piles/Casings per Day	Total Days of Pile Driving (Nonconsecutive)
Temporary Piles	24-inch and 36-inch- diameter steel pipe piles	Vibratory	5-30 min.	-	-	20 piles	300
		Impact	10-20 min.	150-300	1,500 (One Pile Driver) 3,000 (Two Pile Drivers)	10 piles	100
Sheet Piles	Steel sheet piles	Vibratory	10-60 min.	-	-	50 linear feet	100
Drilled Shaft Shoring Casings	108-inch- diameter steel casings	Vibratory	10-60 min.	-	-	5 shafts	228
Permanent Piles	48-inch- diameter steel pipe piles	Vibratory	10-45 min.	-	-	10 piles	85
		Impact	30-45 minutes	1,000-1,500	3,000 (One Pile Driver) 6,000 (Two Pile Drivers)	6 piles	100

ACTION AREA DEFINITION

Pile driving data from Caltrans (Caltrans 2020) indicates that impact installation of 36-inch diameter steel pipe piles typically generates underwater noise levels of approximately 210 dB_{PEAK}, 183 dB_{RMS}, and 193 dB_{SEL} (sound exposure level) (measured at a distance of 33 feet or 10 meters from the pile) prior to any attenuation. This represents a lower peak level of sound pressure than the larger diameter 48-inch piles that were used to establish the limits of the action area.

For this reason, the extent of the action area for the proposed action will not change.

PROPOSED UPDATES TO THE EFFECTS ANALYSIS

The proposed changes to the proposed action require minor updates to the effects analysis presented in Section 8 of the BA. The two sections that require updates are the Hydroacoustic Impacts Section (Section 8.2) and the Aquatic Habitat Impacts Section (Section 8.4)

Hydroacoustic Impacts (BA Section 8.2)

The addition of a larger 36-inch diameter size class for temporary piles require a minor update to the analysis presented in Section 8.2 of the BA, and an update to Table 23. As described previously, the assumptions regarding installation and removal will remain the same for both the 24-inch and the 36-inch temporary piles. Non-load bearing piles of both classes will be installed and removed via vibratory pile driver. Load-bearing temporary piles of both size classes will be installed with a vibratory hammer to the extent practicable, and then finished or proofed with an impact hammer.

It is estimated that between 100 and 300 impact strikes may be required to finish driving and/or proofing a given temporary 24-inch or 36-inch pile. This number of strikes will require a maximum of approximately 10-20 minutes of impact hammer activity. It is further estimated that up to 10 such piles per day may be installed and/or proofed with an impact hammer, with an estimated total maximum number of 1,500 impact strikes per day if a single impact pile driver is in operation, or up to 3,000 impact strikes per day if two pile driving rigs are operated concurrently.

The number of anticipated strikes per day, and approximate duration for the 36-inch diameter piles is the same as for the 24-inch diameter piles. The distance to the established injury and behavioral effect noise level thresholds for the 36-inch piles would be greater than the distances associated with the 24-inch piles, but less than the distances associated with the larger 48-inch piles.

Table 3 below provides the updated hydroacoustic data for the 36-inch diameter temporary piles, and updates and replaces Table 23 in the BA. An updated version of the NOAA Fisheries hydroacoustics calculator is included as Attachment B to this memo.

Table 3. Impact Pile-Strike Summary

Number of Pile Drivers	Pile Type and Dimensions	Source Decibel Levels	Max Strikes Per Day	Distance to Established Injury and Behavioral Noise Levels*			
				Single Strike Peak Injury Threshold (206 dB PEAK)	Cumulative Injury Threshold for Fish >2g (187 dB SEL)	Cumulative Injury Threshold for Fish <2g (183 dB SEL)	Behavioral Noise Level (150 dB RMS)
Without Noise Attenuation Device							
Single Impact Pile Driver	Temporary (24-inch Steel)	205 dB PEAK, 175 dB SEL, 190 dB RMS	75	28 ft. (9 m)	92 ft. (28 m)	171 ft. (52 m)	15,228 ft. (4,642 m)
	Temporary (36-inch Steel)	210 dB PEAK, 183 dB SEL, 193 dB RMS	75	59 ft. (18 m)	315 ft. (96 m)	584 ft. (178 m)	24,134 ft. (7,356 m)
	Permanent (48-inch Steel)	214 dB PEAK, 184 dB SEL, 201 dB RMS	75	112 ft. (34 m)	368 ft. (112m)	680 ft. (207 m)	82,411 ft. (25,119 m)
With Noise Attenuation Device (-7dB)							
Single Impact Pile Driver	Temporary (24-inch Steel)	198 dB PEAK, 168 dB SEL, 183 dB RMS	1,500	10 ft. (3 m)	233 ft. (71 m)	430 ft. (131 m)	5,200 ft. (1,585 m)
	Temporary (36-inch Steel)	203 dB PEAK, 176 dB SEL, 186 dB RMS	1,500	20 ft. (6 m)	794 ft. (242 m)	1,467 ft. (447 m)	8,241 ft. (2,512 m)
	Permanent (48-inch Steel)	207 dB PEAK, 177 dB SEL, 194 dB RMS	3,000	38 ft. (12 m)	1,470 ft. (448 m)	2,070 ft. (631 m)	28,140 ft. (8,577 m)
With Noise Attenuation Device (-7dB)							
Two Impact Pile Drivers	Temporary (24-inch Steel)	198 dB PEAK, 168 dB SEL, 183 dB RMS	3,000	10 ft. (3 m)	369 ft. (113 m)	520 ft. (158 m)	5,200 ft. (1,585 m)
	Temporary (36-inch Steel)	203 dB PEAK, 176 dB SEL, 186 dB RMS	3,000	20 ft. (6 m)	1,260 ft. (384 m)	1,775 ft. (541 m)	8,241 ft. (2,512 m)
	Permanent (48-inch Steel)	207 dB PEAK, 177 dB SEL, 194 dB RMS	6,000	38 ft. (12 m)	2,070 ft. (631 m)	2,070 ft. (631 m)	28,140 ft. (8,577 m)

Aquatic Habitat Impacts

The changes in the size and configuration of the temporary structures require a minor update to the analysis presented in Section 8.4 of the BA, and an update to Table 25.

Table 4. Temporary Work Structure Types and Quantities

Project Element	Approximate Dimensions (ft)	Approximate Total Quantities	Temporary Benthic Impact (sq ft)	Temporary Overwater Coverage (sq ft)	Approximate Duration
Temporary Impacts					
Temporary Work Bridge (OR)	45 x 475 (+ fingers)	120, 24-inch steel pipe piles	378	30,000	4 years
Temporary Material Handling Work Bridge (OR)	375 x 45	68, 24-inch steel pipe piles	214	17,000	5 years
Temporary Work Platforms Bents 4-11 (8 total)	25 x 40	44, 24-inch steel pipe piles	139	8,000	18 months (each)
Temporary Work Bridge (WA)	45 x 675 (+ fingers)	156, 24-inch steel pipe piles	491	39,000	4 years
Temporary Demo Work Bridge (WA)	40 x 700	112, 24-inch steel pipe piles	353	28,000	3 years
Cofferdams (Demolition) (up to 22 total)	Varies by bent 16 x 30 to 50 x 86	Up to 3,422 linear feet steel sheet pile	17,950	-	12-16 months (each)
Cofferdam (Spread footing)	30 x 38	136 linear feet of sandbags or similar	580	-	12-16 months
Drilled Shaft Shoring Casings	84-inch and 108-inch diameter	29, 84-inch-diameter casings and 13, 108-inch-diameter casings	426	-	4 months (each)
Other Temporary Piles	36-inch diameter	270, 36-inch steel pipe piles	1,883	-	2 years (each)
Barges – Years 2, 3 (max. 25 total)	45' x 140'	max. 25 barges, including spud piles and anchors	471	175,000 max.	2 years
Barges – Years 1, 4, 5, 6 (max. 15 total)	45' x 140'	max. 15 barges, including spud piles and anchors	283	100,000 max.	4 years

Table 5 summarizes the proposed change in the quantities of temporary piles. The anticipated number of 24-inch piles has been reduced slightly (from 530 to 500), but the proposed action now includes the addition of up to 270 temporary 36-inch piles. The total anticipated number of temporary piles increases from 530 to 770.

Table 5. Temporary Pile Sizes and Quantities

Temporary Piles	2020 BA	2023 Update
24-inch piles	530	500
36-inch piles	0	270
Total	530	770

Table 6 summarizes the change in the temporary aquatic impacts associated with this proposed update.

- The total quantity of temporary benthic impact would increase from 20,903 square feet to 23,168 square feet.
- The total quantity of temporary overwater shading from temporary bridges and platforms would increase from 81,550 square feet to 122,000 square feet.
- The total quantity of temporary overwater shading from barges at any one time would increase during construction seasons 2 and 3 from approximately 100,000 square feet to approximately 175,000 square feet. During all other years of construction the amount would be unchanged from the 2020 BA.

Table 6. Temporary Work Structure Types and Quantities

Temporary Impact	2020 BA (square feet)	2023 Update (square feet)
Benthic Impact	20,903	23,168
Overwater Shading (Bridges and Platforms)	81,550	122,000
Overwater Shading (Barges)	6 yrs: 100,000 (max)	2 yrs: 175,000 (max) 4 yrs: 100,000 (max)

EFFECT DETERMINATIONS

The update to the temporary structures described in this memorandum will result in minor increases in the areas temporarily affected by noise during impact pile driving, and the areas temporarily displaced or shaded by temporary work bridges and platforms and barges.


The increase in the area of hydroacoustic impacts could potentially expose additional fish to elevated underwater noise. This could result in a relative increase in the amount of incidental take related to hydroacoustic effects. However, the BMPs that are incorporated in the proposed action will remain sufficient to appropriately avoid and minimize this potential to the extent

practicable, and exposure to hydroacoustic effects will not jeopardize any ESA-listed species, nor adversely modify any critical habitats.

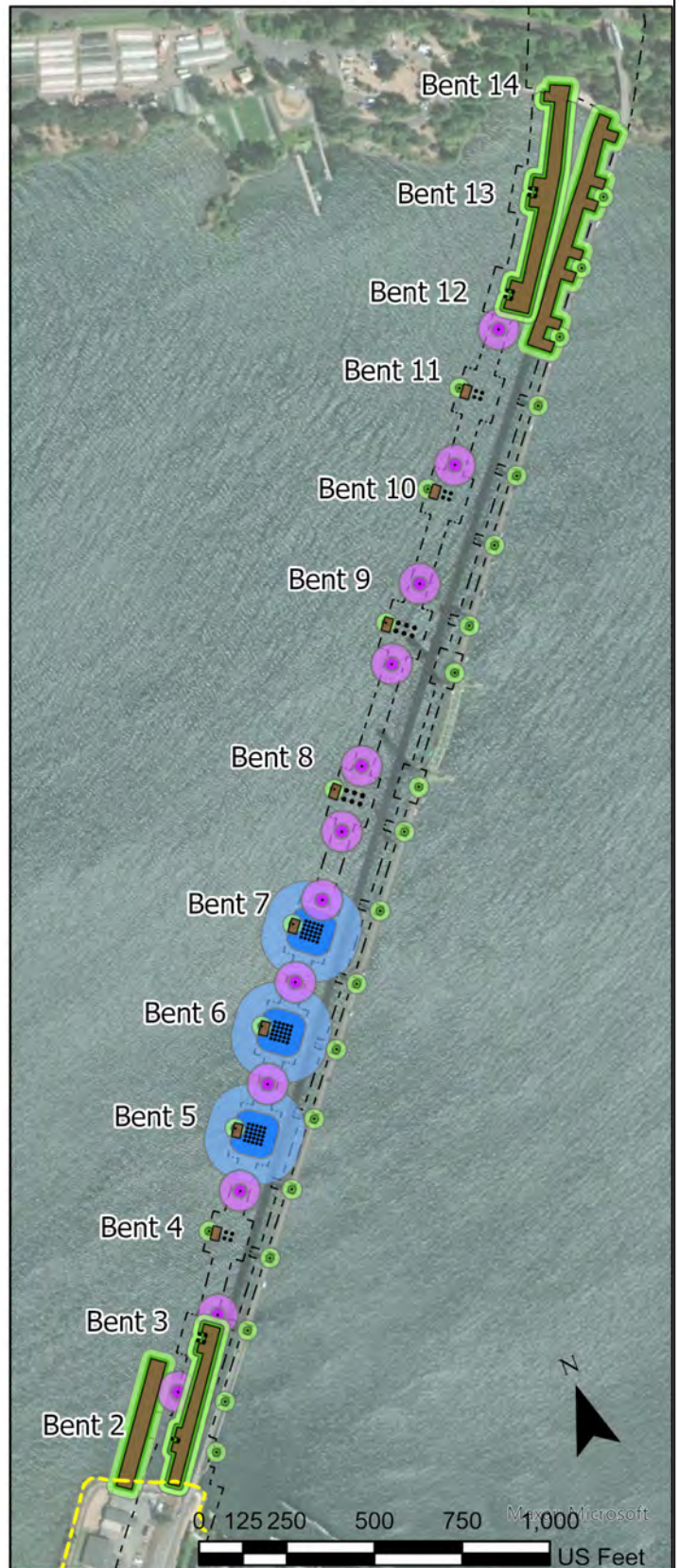
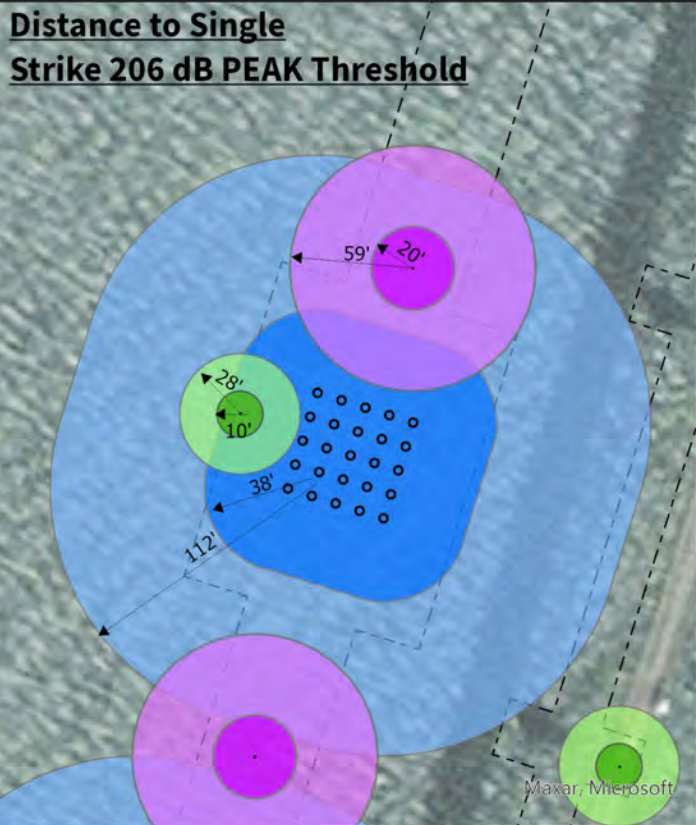
The increase in temporary benthic habitat impacts will represent an additional temporary loss of physical benthic substrate for species that rely on aquatic habitats at the project site. The increase in temporary overwater shading will temporarily reduce habitat suitability within a larger area. However, the temporarily affected habitats will rapidly restore and return to full function once the temporary structures are removed, and the increase in temporary overwater shading will not jeopardize any ESA-listed species, nor adversely modify any critical habitats.

The proposed action updates presented in this memorandum will therefore not result in any change to the effect determinations presented in the 2020 BA.

Attachment A. Updated Biological Assessment Figures (Figures 13-17)

-  Project Footprint
-  Temporary Work Bridges and Platforms
- Distance to Exceedance of Single Strike Injury Threshold (206dB PEAK)**
- Temporary 24" Piles**
 -  Without Attenuation (28 ft. Radius)
 -  With -7dB Attenuation (10 ft. Radius)
- Temporary 36" Piles**
 -  Without Attenuation (59 ft. Radius)
 -  With -7dB Attenuation (20 ft. Radius)
- Permanent 48" Piles**
 -  Without Attenuation (112ft Radius)
 -  With -7dB Attenuation (38 ft Radius)

This is a conceptual diagram only. Threshold distances are not exact. Temporary pile locations are conceptual. Impact pile driving will not take place simultaneously at all piers.



BIOLOGICAL ASSESSMENT

In: Columbia River
 Near/At: White Salmon, WA
 State: Oregon and Washington

FIGURE 13. DISTANCE TO 206 dB PEAK INJURY THRESHOLD FOR FISH DURING IMPACT PILE DRIVING



PROJECT: HOOD RIVER BRIDGE REPLACEMENT
 LATITUDE: 45°43'2.99"N
 LONGITUDE: 121°29'44.09"W
 DATUM: NAD_1983_StatePlane_Washington

Single Pile Driver (Unattenuated)

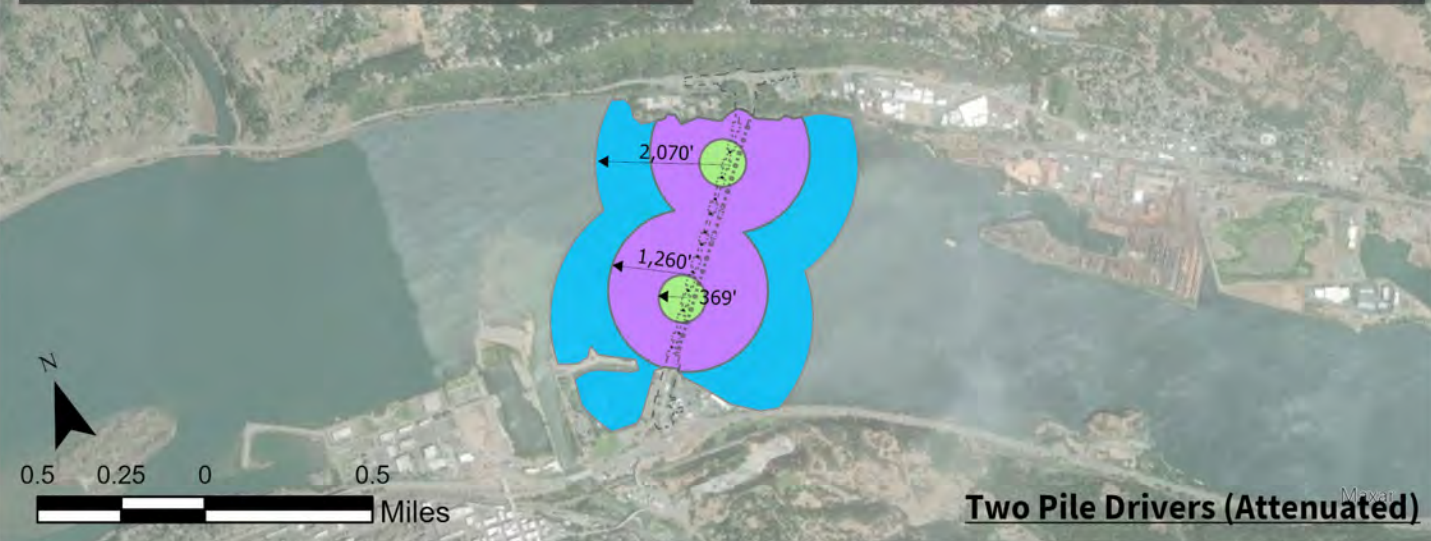
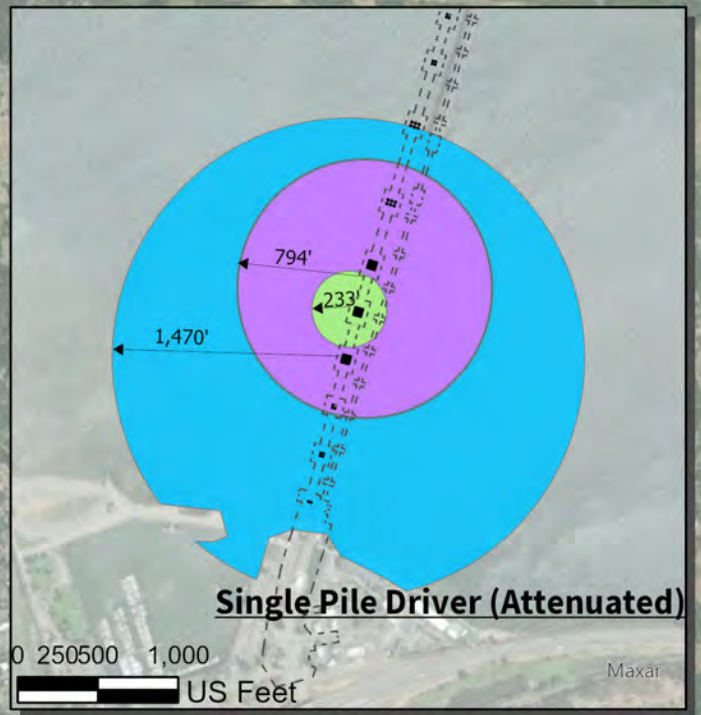
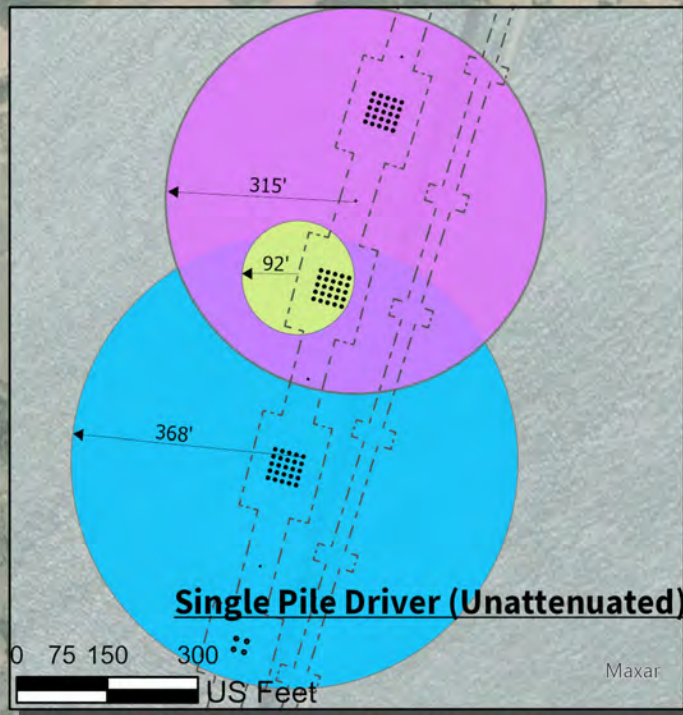
- 24" Pile, 75 Strikes/day (92 ft)
- 36" Pile, 75 Strikes/day (315 ft)
- 48" Pile 75 Strikes/ day (368 ft)

Single Pile Driver (-7dB Attenuation)

- 24" Pile, 1,500 Strikes/day (233 ft)
- 36" Pile, 1,500 Strikes/day (794 ft)
- 48" Pile, 3,000 Strikes/day (1,470 ft)

Two Pile Drivers (Attenuated)

- 24" Pile, 3,000 Strikes/day (369 ft)
- 36" Pile, 3,000 Strikes/day (1,260 ft)
- 48" Pile 6,000 Strikes/ day (2,070 ft)



BIOLOGICAL ASSESSMENT

In: Columbia River
 Near/At: White Salmon, WA
 State: Oregon and Washington

FIGURE 14. DISTANCE TO 187 dB SEL CUMULATIVE INJURY THRESHOLD FOR FISH > 2g DURING IMPACT PILE DRIVING



PROJECT: HOOD RIVER BRIDGE REPLACEMENT
 LATITUDE: 45°43'2.99"N
 LONGITUDE: 121°29'44.09"W
 DATUM: NAD_1983_StatePlane_Washington

Single Pile Driver (Unattenuated)

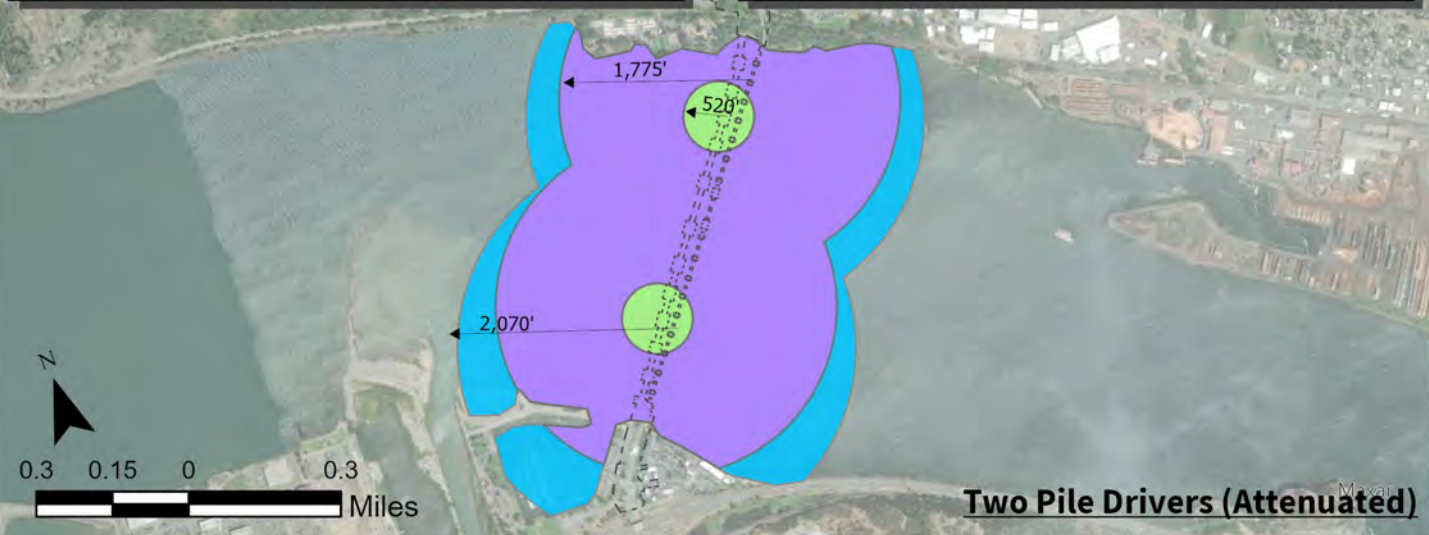
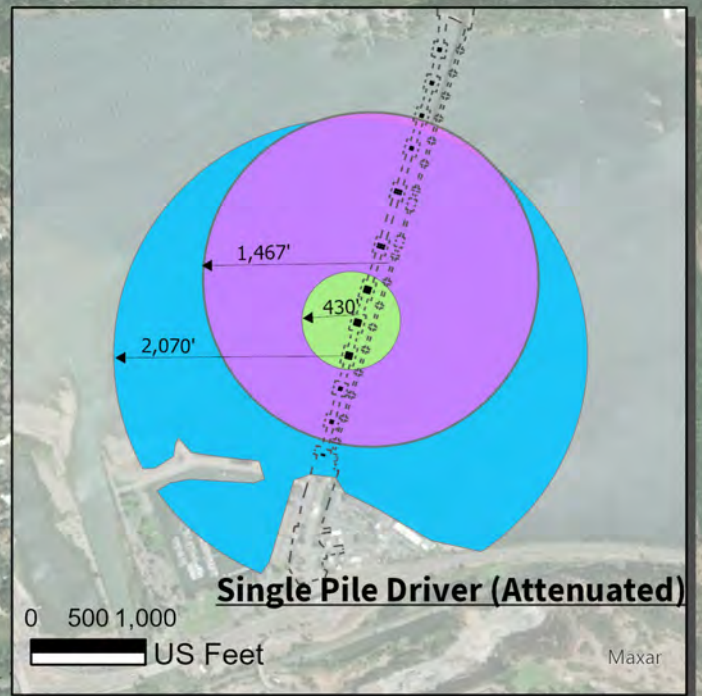
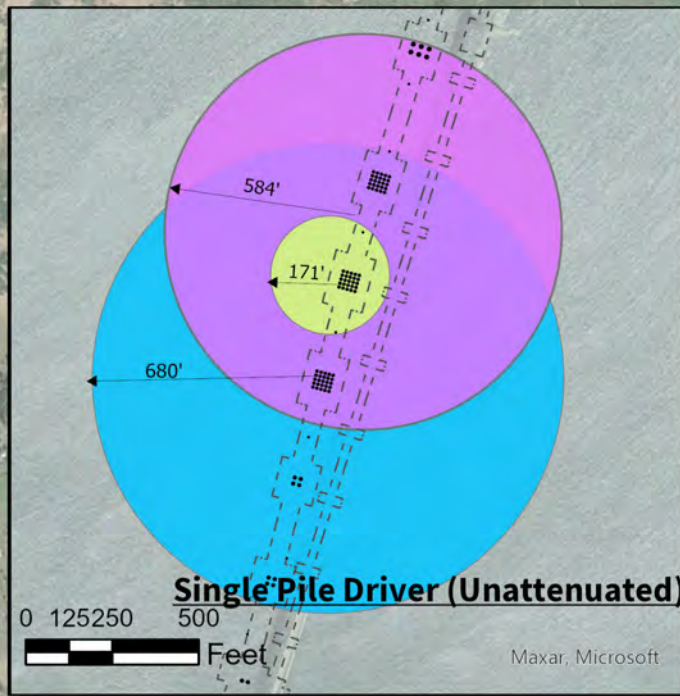
- 24" Pile, 75 Strikes/day (171 ft)
- 34" Pile, 75 Strikes/day (584ft)
- 48" Pile 75 Strikes/ day (680 ft)

Single Pile Driver (-7dB Attenuation)

- 24" Pile, 1,500 Strikes/day (430 ft)
- 36" Pile, 1,500 Strikes/day (1,467 ft)
- 48" Pile, 3,000 Strikes/day (2,070 ft)

Two Pile Drivers (Attenuated)

- 24" Pile, 3,000 Strikes/day (520 ft)
- 36" Pile, 3,000 Strikes/day (1,775 ft)
- 48" Pile 6,000 Strikes/ day (2,070 ft)



BIOLOGICAL ASSESSMENT

In: Columbia River
 Near/At: White Salmon, WA
 State: Oregon and Washington

FIGURE 15. DISTANCE TO 183 dB SEL CUMULATIVE INJURY THRESHOLD FOR FISH < 2g DURING IMPACT PILE DRIVING



PROJECT: HOOD RIVER BRIDGE REPLACEMENT
 LATITUDE: 45°43'2.99"N
 LONGITUDE: 121°29'44.09"W
 DATUM: NAD_1983_StatePlane_Washington

Single Pile Driver (Unattenuated)

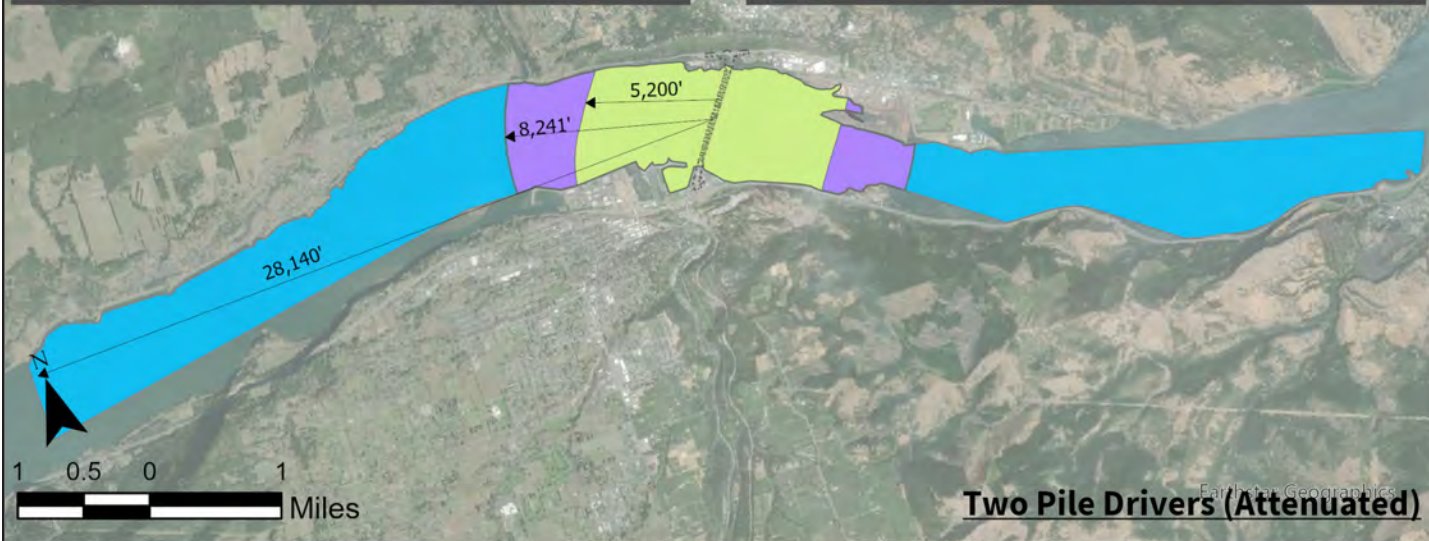
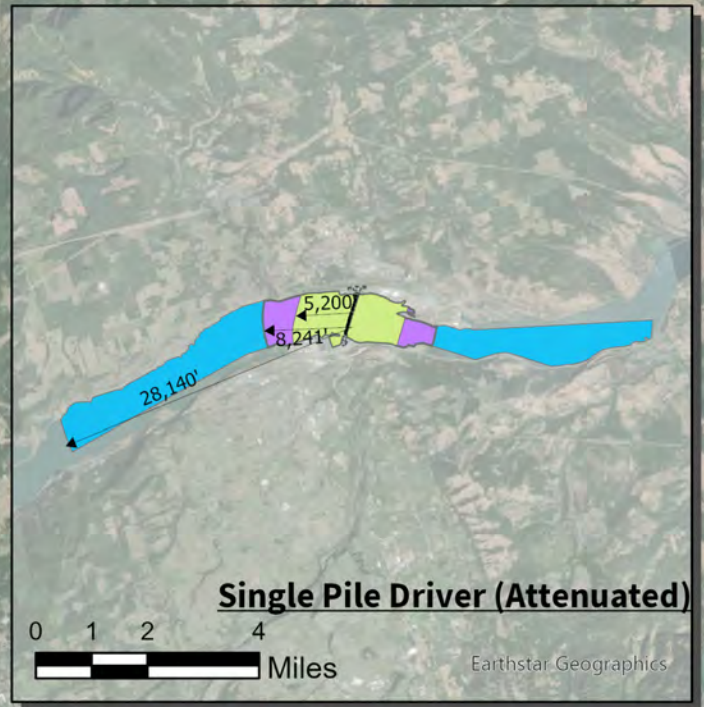
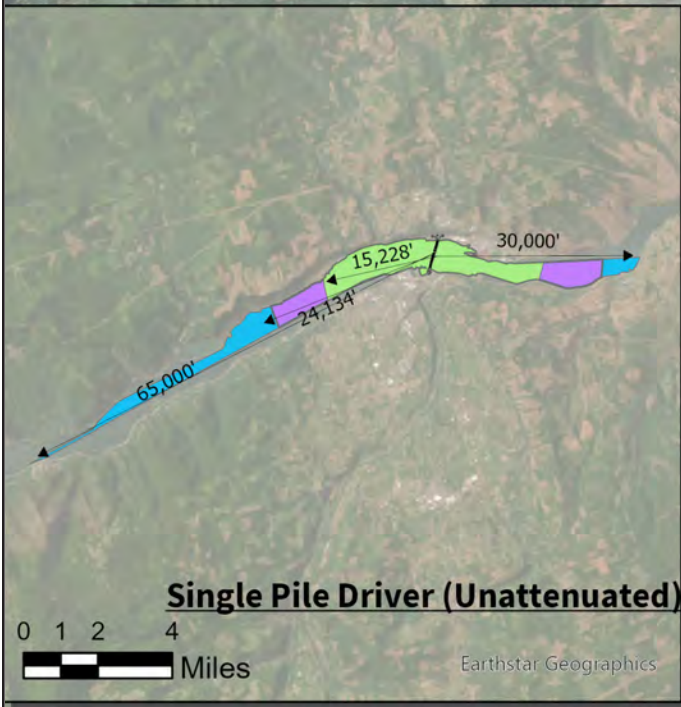
- 24" Pile, 75 Strikes/day (15,228 ft)
- 36" Pile, 75 Strikes/day (24,134 ft)
- 48" Pile, 75 Strikes/day (82,411 ft)

Single Pile Driver (-7dB Attenuation)

- 24" Pile, 1,500 Strikes/day (5,200 ft)
- 34" Pile, 1,500 Strikes/day (8,241 ft)
- 48" Pile 3,000 Strikes/ day (28,140 ft)

Two Pile Drivers (Attenuated)

- 24" Pile, 3,000 Strikes/day (5,200 ft)
- 36" Pile, 3,000 Strikes/day (8,241 ft)
- 48" Pile 6,000 Strikes/ day (28,140 ft)



BIOLOGICAL ASSESSMENT

In: Columbia River
 Near/At: White Salmon, WA
 State: Oregon and Washington

FIGURE 16. DISTANCE TO 150 dB RMS DISTURBANCE THRESHOLDS DURING IMPACT PILE DRIVING



PROJECT: HOOD RIVER BRIDGE REPLACEMENT
 LATITUDE: 45°43'2.99"N
 LONGITUDE: 121°29'44.09"W
 DATUM: NAD_1983_StatePlane_Washington

Bridge Element ¹	Dimensions (ft)	Total Quantities			Benthic Impact (sq ft)	Overwater Coverage (sq ft)	Fill within Floodplain ² (cubic yards)
		48" Steel Pipe Piles	72" Drilled Shaft	96" Drilled Shaft			
Permanent Impacts/Restoration							
Bent 2 (Drilled Shaft)	12 x 30	0	2	0	57	NA	8,449
Bent 3 (Drilled Shaft)	30 x 30	0	4	0	113		
Bent 4 (Drilled Shaft)	30 x 30	0	4	0	113		
Bent 5 (Pile Supported)	56 x 56	25	0	0	314		
Bent 6 (Pile Supported)	56 x 56	25	0	0	314		
Bent 7 (Pile Supported)	56 x 56	25	0	0	314		
Bent 8 (Drilled Shaft)	40 x 64	0	0	6	302		
Bent 9 (Drilled Shaft)	40 x 64	0	0	6	302		
Bent 10 (Drilled Shaft)	30 x 30	0	4	0	113		
Bent 11 (Drilled Shaft)	30 x 30	0	4	0	113		
Bent 12 (Drilled Shaft)	30 x 30	0	4	0	113		
Bent 13 (Drilled Shaft)	30 x 30	0	4	0	113		
Bent 14 (Spread Footing)	20 x 28	0	0	0	560		
Contingency Piles	NA	8	3	1	237		
Bridge Deck (Total)	56 x 4,411 (approx.)	-	-	-	-	230,965	N/A
Total		83	29	13	3,078	230,965	
Existing Bridge to Be Removed (sq ft)					-9,815	-80,462	5,916
Existing Riprap to Be Removed (sq ft)					-16,600	-	-7,800
Net Change (sq ft)					-23,337	+150,503	-5,267

1. Excludes Bents 1 and 15, as these Bents are located in terrestrial areas outside the OHWM of the Columbia River.
 2. Volume of material fill/removal within the 100-year floodplain (below +90.4 feet NAVD88).

Project Element	Approximate Dimensions (ft)	Approximate Total Quantities	Temporary Benthic Impact (sq ft)	Temporary Overwater Coverage (sq ft)	Approximate Duration
Temporary Impacts					
Temporary Work Bridge (OR)	45 x 475 (+ fingers)	120, 24-inch steel pipe piles	378	30,000	4 years
Temporary Material Handling Work Bridge (OR)	375 x 45	68, 24-inch steel pipe piles	214	17,000	5 years
Temporary Work Platforms Bents 4-11 (8 total)	25 x 40	44, 24-inch steel pipe piles	139	8,000	18 months (each)
Temporary Work Bridge (WA)	45 x 675 (+ fingers)	156, 24-inch steel pipe piles	491	39,000	4 years
Temporary Demo Work Bridge (WA)	40 x 700	112, 24-inch steel pipe piles	352	28,000	3 years
Cofferdams (Demolition) (up to 22 total)	Varies by bent 16 x 30 to 50 x 86	Up to 3,422 linear feet steel sheet pile	17,950	-	12-16 months (each)
Cofferdam (Spread footing)	30 x 38	136 linear feet of sandbags or similar	580	-	12-16 months
Drilled Shaft Shoring Casings	84-inch and 108-inch diameter	29, 84-inch-diameter casings and 13, 108-inch-diameter casings	426	-	4 months (each)
Other Temporary Piles	36-inch diameter	270, 36-inch steel pipe piles	1,883	-	2 years (each)
Barges - Years 2, 3 (max. 25 total)	45' x 140'	max. 25 barges, including spud piles and anchors	471	175,000 max.	2 years
Barges - Years 1, 4, 5, 6 (max. 15 total)	45' x 140'	max. 15 barges, including spud piles and anchors	283	100,000 max.	4 years

Legend

--- Ordinary High Water Mark

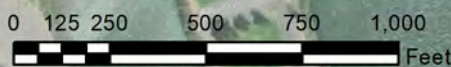
Temporary Work Bridges and Platforms

Work Bridges (OR/WA)

Material Handling Work Bridge (OR)

Work Platforms (Bents 4-11)

Demolition Work Bridge (WA)



BIOLOGICAL ASSESSMENT

In: Columbia River
 Near/At: White Salmon, WA
 State: Oregon and Washington

FIGURE 17. AQUATIC HABITAT IMPACTS



PROJECT: HOOD RIVER BRIDGE REPLACEMENT
 LATITUDE: 45°43'2.99"N
 LONGITUDE: 121°29'44.09"W
 DATUM: NAD_1983_StatePlane_Washington

Attachment B. Updated NOAA Hydroacoustic Spreadsheet

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	24-inch steel pipe piles - Unattenuated Single Pile Driver Max. 75 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	205	175	190	150
Distance (m)	10	10	10	

Estimated number of strikes	75
-----------------------------	----

Cumulative SEL at measured distance	194
-------------------------------------	-----

	Distance (m) to threshold			
	Onset of Physical Injury			Behavior
	Peak dB	Cumulative SEL dB**		RMS dB
		Fish ≥ 2 g	Fish < 2 g	
Transmission loss constant (15 if unknown)	206	187	183	150
	9	28	52	4642

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	36-inch steel pipe piles - Unattenuated Single Pile Driver Max. 75 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	210	183	193	150
Distance (m)	10	10	10	

Estimated number of strikes	75
-----------------------------	----

Cumulative SEL at measured distance	202
-------------------------------------	-----

	Distance (m) to threshold			
	Onset of Physical Injury			Behavior
	Peak dB	Cumulative SEL dB**		RMS dB
		Fish ≥ 2 g	Fish < 2 g	
Transmission loss constant (15 if unknown)	206	187	183	150
	18	96	178	7356

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	48-inch steel pipe piles - Unattenuated Single Pile Driver Max. 75 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	214	184	201	150
Distance (m)	10	10	10	

Estimated number of strikes	75
-----------------------------	----

Cumulative SEL at measured distance	203
-------------------------------------	-----

	Distance (m) to threshold			
	Onset of Physical Injury			Behavior
	Peak dB	Cumulative SEL dB**		RMS dB
		Fish ≥ 2 g	Fish < 2 g	
Transmission loss constant (15 if unknown)	206	187	183	150
	34	112	207	25119

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	24-inch steel pipe piles - W/ 7dB Attenuation Single Pile Driver Max. 1,500 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	198	168	183	150
Distance (m)	10	10	10	

Estimated number of strikes	1,500
-----------------------------	-------

Cumulative SEL at measured distance	200
-------------------------------------	-----

	Distance (m) to threshold			Behavior RMS dB
	Onset of Physical Injury			
	Peak dB	Cumulative SEL dB** Fish ≥ 2 g Fish < 2 g		
Transmission loss constant (15 if unknown)	206	187	183	150
	3	71	131	1585

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	36-inch steel pipe piles - W/ 7dB Attenuation Single Pile Driver Max. 1,500 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	203	176	186	150
Distance (m)	10	10	10	

Estimated number of strikes	1,500
-----------------------------	-------

Cumulative SEL at measured distance	208
-------------------------------------	-----

	Distance (m) to threshold			Behavior
	Onset of Physical Injury		RMS dB	
	Peak dB	Cumulative SEL dB** Fish ≥ 2 g		Fish < 2 g
Transmission loss constant (15 if unknown)	206	187	183	150
	6	242	447	2512

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	48-inch steel pipe piles - W/ 7dB Attenuation Single Pile Driver Max. 3,000 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	207	177	194	150
Distance (m)	10	10	10	

Estimated number of strikes	3,000
-----------------------------	-------

Cumulative SEL at measured distance	212
-------------------------------------	-----

	Distance (m) to threshold			Behavior RMS dB
	Onset of Physical Injury		RMS dB	
	Peak dB	Cumulative SEL dB** Fish ≥ 2 g Fish < 2 g		
Transmission loss constant (15 if unknown)	206	187	183	150
	12	448	631	8577

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	24-inch steel pipe piles - W/ 7dB Attenuation Two Pile Drivers Operating Concurrently Max. 3,000 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	198	168	183	150
Distance (m)	10	10	10	

Estimated number of strikes	3,000
-----------------------------	-------

Cumulative SEL at measured distance	203
-------------------------------------	-----

	Distance (m) to threshold			Behavior RMS dB
	Onset of Physical Injury			
	Peak dB	Cumulative SEL dB** Fish ≥ 2 g Fish < 2 g		
Transmission loss constant (15 if unknown)	206	187	183	150
	3	113	158	1585

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	36-inch steel pipe piles - W/ 7dB Attenuation Two Pile Drivers Operating Concurrently Max. 3,000 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	203	176	186	150
Distance (m)	10	10	10	

Estimated number of strikes	3,000
-----------------------------	-------

Cumulative SEL at measured distance	211
-------------------------------------	-----

	Distance (m) to threshold			Behavior RMS dB
	Onset of Physical Injury			
	Peak dB	Cumulative SEL dB** Fish ≥ 2 g Fish < 2 g		
Transmission loss constant (15 if unknown)	206	187	183	150
	6	384	541	2512

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)

(This model was last updated January 26, 2009)

Project Title	Hood River Bridge Replacement
Pile information (size, type, number, pile strikes, etc.)	48-inch steel pipe piles - W/ 7dB Attenuation Two Pile Drivers Operating Concurrently Max. 6,000 strikes/day

Fill in green cells: estimated sound levels and distances at which they were measured, estimated number of pile strikes per day, and transmission loss constant.

	Acoustic Metric			Effective Quiet
	Peak	SEL	RMS	
Measured single strike level (dB)	207	177	194	150
Distance (m)	10	10	10	

Estimated number of strikes	6,000
-----------------------------	-------

Cumulative SEL at measured distance	215			
	Distance (m) to threshold			
	Onset of Physical Injury			Behavior
	Peak dB	Cumulative SEL dB**		RMS dB
		Fish ≥ 2 g	Fish < 2 g	
Transmission loss constant (15 if unknown)	206	187	183	150
	15	12	631	631
				8577

** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)

Notes (source for estimates, etc.)
(This model was last updated January 26, 2009)

Meeting Notes

Hood River BA/BO Discussion

February 16, 2023, 8:00 – 8:30 AM

Attendees:

ODOT: Carol Snead, Cash Chesselet, Denis Reich, Rod Thompson, Devin Simmons

Port of Hood River: Kevin Greenwood

WSP: Dan Gunderson, Brian Carrico, Stuart Bennion

HNTB: Mike Shannon, Julie Hampden, Maki Dalzell

- Rod led the meeting with a summary of roles and responsibilities:
 - HNTB: Mike is primary POC for Port
 - Port: is represented by Kevin who should be cc'd on communications with Mike
 - ODOT: Rod to be main point of contact with Cash for the BO, Carol and Denis for the NEPA document, Devin is R1 fisheries biologist, Rob Wattman is the Local Agency R1 Lead
 - WSP: Dan is the BA lead, Brian is the NEPA lead

- Rod called the meeting to review constructability of the current plan; i.e., combination for work-bridge and barges. Cash raised a concern that the number of barges proposed (25) would be difficult to obtain and the construction contractor might be more inclined to us work bridges, which would have a larger footprint. The large footprint could be assessed now in the BA and included in the BO. If the change comes later, the ESA consultation would have to be re-opened, which could cause construction delays. Rod asked if the Port would like to consider full temporary work-bridges to provide more flexibility for the construction contractor.

- Stuart: we need to have a reasonable construction method that the contractor can use. It would be nice to have the most flexibility but probably not at the expense of having great impacts. We recognize that new technology is available and it would likely be used, but we can't say what the contractor will want to do. We should try to minimize the risk of having to do re-consultation.

- Rod: you could include full work work-bridge as an option to allow flexibility and the contractor could step back from that (have fewer impacts).

- Stuart: more is not better for all environmental.

- Dan: We looked at a refined design, but now we are talking about a bigger box. Would we be adding complication to the BA now, which would take longer?

- Brian: The larger footprint would have additional impacts that may affect other resources and require revision to the FEIS. While archaeological impacts would likely be avoided, we would still need to check.

- Mike: we should move forward with what we have. The design contractor will be working early in the process and if we need to re-consult there will be time.
 - Question: Cash asked for a shorter cofferdam window. Can we provide that?

- Answer: Dan: we looked at the shorter window and included it in the memo. There would be no impact to overall schedule.
- Question: can we set up a regular meeting?
- Answer: Carol: yes - bi-weekly meeting starting 3/16 with Cash, Brian, Mike, and Carol, cc to Rod, Tom, Devin, Kevin, Maki

NEXT STEPS:

Cindy and Cash to meet and talk about what is appropriate documentation for the BA (addendum? Amendment?)

Cash asked if there is anything new on mitigation, Dan said “no”

Julie recommended changes to language in the memo, will work with Dan after Cindy and Cash provide comments

Michael Shannon

From: Callahan, Cindy (FHWA) <Cindy.Callahan@dot.gov>
Sent: Tuesday, February 21, 2023 1:16 PM
To: REICH Denis A; SNEAD Carol
Cc: Kevin Greenwood; Gunderson, Dan; Findley, Angela; Michael Shannon; Odom, Shaneka (FHWA); Carrico, Brian
Subject: RE: HRB - BA Updates
Attachments: Copy of HRB_BAUpdate_Comment_Response_02_13_2023_clc.xlsx;
HRB_Proposed_Action_Update_Memo_230213.pdf

Good afternoon. My comments are in the spreadsheet. They aren't numerous but it is very important to also hear from Tom and Cash to make sure the information will support completion of the BO. I think you can share my comments with them for their awareness and once they comment and the document is updated, FHWA can submit to NMFS as a supplement. Thank you.

Cindy L. Callahan (she/her)
Senior Biologist
Federal Highway Administration
Washington/Oregon Divisions
(360) 753-9078 Olympia
(360) 481-9988 Cell



U.S. Department of Transportation
Federal Highway Administration

From: Carrico, Brian <brian.carrico@wsp.com>
Sent: Monday, February 13, 2023 1:59 PM
To: SNEAD Carol <Carol.SNEAD@ODOT.Oregon.gov>; Callahan, Cindy (FHWA) <Cindy.Callahan@dot.gov>; REICH Denis A <Denis.A.REICH@odot.oregon.gov>
Cc: Kevin Greenwood <kgreenwood@portofhoodriver.com>; Gunderson, Dan <dan.gunderson@wsp.com>; Findley, Angela <Angela.Findley@wsp.com>; Michael Shannon <mwshannon@HNTB.com>
Subject: HRB - BA Updates

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All – Attached is a memorandum that provides information on the updated temporary structures and work window for cofferdams for the Hood River ESA consultation as discussed last week. I also included a Comment/Response log to formally track comments moving forward.

I assume this group will review and then provide to the liaisons for consideration in drafting the opinion. If you have any requested changes please note them in the Comment/Response log and return. Let me know if you want to discuss further of if have a different understanding of the process.

Regards, Brian



Brian Carrico

Senior Vice President
Environmental Planner/Project Director
he / him / his

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Hood River - White Salmon Replacement Bridge								
BA Update (February 2023)								
Comments Due: XX/XX/2023								
Report Reviewer						Response		
Comment No.	Reviewer Name	Date	Document	Page #	Comment	Name	Response	Status
1	Cash Cheeselet	2/7/2023	Biological Assessment	N/A	Modify work windows related to coffer dams to avoid start of juvenile outmigration	Dan Gunderson	Work window updated to end at end of February	Closed
2	Various	1/13/2023	Biological Assessment	N/A	Update construction methodology to address constructibility issues raised by ODOT.	Dan Gunderson	Updated to add additional work platforms, work bridges and other temporary work elements.	Closed
3	Cindy Callahan	2/21/2023	Biological Assessment	4	Table 2 has a border font that needs fixing.			
4	Cindy Callahan	2/21/2023	Biological Assessment	4	The action area discussion should discuss all noise metrics and pile strikes if a comparison is being made to the largest pile in the BA's analysis. The focus on Peak noise isn't a complete comparison.			
5	Cindy Callahan	2/21/2023	Biological Assessment	7	Hydroacoustic impacts should also discuss change in duration of pile driving assume there will be more overall days of pile driving? Does this change needed in-water work seasons and if not, this should be stated.			
6	Cindy Callahan	2/21/2023	Biological Assessment	8	Table 5 should also be discussed in the hydroacoustic section, not just habitat impacts (see comment above).			
7	Cindy Callahan	2/21/2023	Biological Assessment	N/A	I think the figures should be referenced where appropriate in the memo.			
8								
9								
10								
11								

Michael Shannon

From: SNEAD Carol <Carol.SNEAD@ODOT.Oregon.gov>
Sent: Wednesday, February 22, 2023 1:56 PM
Cc: REICH Denis A; Kevin Greenwood; Gunderson, Dan; Findley, Angela; Michael Shannon; Owens, Shaneka (FHWA); Parker, Thomas (FHWA); Carrico, Brian; SIMMONS Devin
Subject: FW: HRB - BA Updates
Attachments: Copy of HRB_BAUpdate_Comment_Response_02_13_2023_clc.xlsx;
HRB_Proposed_Action_Update_Memo_230213.pdf

Tom/Cash:
See below and attached. Can you get comments to the team by EOM?
Carol

From: Callahan, Cindy (FHWA) <Cindy.Callahan@dot.gov>
Sent: Tuesday, February 21, 2023 1:16 PM
To: REICH Denis A <Denis.A.REICH@odot.oregon.gov>; SNEAD Carol <Carol.SNEAD@ODOT.Oregon.gov>
Cc: Kevin Greenwood <kgreenwood@portofhoodriver.com>; Gunderson, Dan <dan.gunderson@wsp.com>; Findley, Angela <Angela.Findley@wsp.com>; Michael Shannon <mwshannon@HNTB.com>; Odom, Shaneka (FHWA) <shaneka.odom@dot.gov>; Carrico, Brian <brian.carrico@wsp.com>
Subject: RE: HRB - BA Updates

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Good afternoon. My comments are in the spreadsheet. They aren't numerous but it is very important to also hear from Tom and Cash to make sure the information will support completion of the BO. I think you can share my comments with them for their awareness and once they comment and the document is updated, FHWA can submit to NMFS as a supplement. Thank you.

Cindy L. Callahan (she/her)
Senior Biologist
Federal Highway Administration
Washington/Oregon Divisions
(360) 753-9078 Olympia
(360) 481-9988 Cell



U.S. Department of Transportation
Federal Highway Administration

From: Carrico, Brian <brian.carrico@wsp.com>
Sent: Monday, February 13, 2023 1:59 PM

To: SNEAD Carol <Carol.SNEAD@ODOT.Oregon.gov>; Callahan, Cindy (FHWA) <Cindy.Callahan@dot.gov>; REICH Denis A <Denis.A.REICH@odot.oregon.gov>

Cc: Kevin Greenwood <kgreenwood@portofhoodriver.com>; Gunderson, Dan <dan.gunderson@wsp.com>; Findley, Angela <Angela.Findley@wsp.com>; Michael Shannon <mwshannon@HNTB.com>

Subject: HRB - BA Updates

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