



# Conference Call Minutes

## Aquatic Settlement Work Group

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To: Aquatic SWG Parties

Date: December 13, 2023

From: John Ferguson, Chair, Anchor QEA, LLC

**Re: Final Minutes of the November 8, 2023, Aquatic SWG Conference Call**

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The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, November 8, 2023, from 10:00 a.m. to 11:20 a.m. Attendees are listed in Attachment A of these conference call minutes.

### Summary of Action Items

1. Douglas PUD will notify the Aquatic SWG once the winter maintenance dates for Wells Dam are confirmed, and Aquatic SWG members will reach out if there is interest in attending a tour of the dewatered east fishway (Item II-F). (*Note: John Rohrback provided this notification on November 20, 2023, which Kristi Geris distributed to the Aquatic SWG that same day. A tour is scheduled for December 7, 2023.*)
2. The Aquatic SWG meeting on December 13, 2023, will be held by conference call (Item III-C).

### Summary of Decisions

1. Aquatic SWG members present approved the *Statement of Agreement Regarding Evaluation and Implementation of White Sturgeon Adult Passage Measures (WSMP Objective 5; Section 4.4)*, as revised (Item II-A).

### Agreements

1. Aquatic SWG members present agreed to install perforated plates below the orifices of the weirs where lamprey traps are installed in the east and west fish ladders at Wells Dam (Item II-F).

### Review Items

1. The draft *Total Dissolved Gas Water Quality Attainment Plan Year 10 Report* was distributed to the Aquatic SWG by Kristi Geris on November 14, 2023, and is available for review with edits and comments due to Douglas PUD by December 13, 2023 (Item II-G).
2. The draft report, *Bull Trout Movement and Life History Investigation 2022-2023*, including *Appendix A. FERC Order Granting Variance from Radio Telemetry Study Pursuant to Bull Trout*

*Stranding, Entrapment, and Take Study Plan and Article 402 Issued October 12, 2021, Appendix B. 2022-2023 Bull Trout Detection History Plots of Individual Study Fish, and Appendix C. Genetic Analysis for Bull Trout Prepared by Washington Department of Fish and Wildlife Dated June 2023*, were distributed to the Aquatic SWG by Kristi Geris on December 13, 2023, and are available for a 45-day review with edits and comments due to Chas Kyger by Friday, January 26, 2024. Douglas PUD will request approval of the draft report documents during the Aquatic SWG conference call on February 14, 2024.

## Documents Finalized

1. The final *Statement of Agreement Regarding Evaluation and Implementation of White Sturgeon Adult Passage Measures (WSMP Objective 5; Section 4.4)*, as revised, was distributed to the Aquatic SWG by Kristi Geris following the Aquatic SWG conference call on November 8, 2023 (Item II-A).

## I. Welcome

### A. Review Agenda (John Ferguson)

John Ferguson welcomed the Aquatic SWG members (Attachment A) and reviewed the agenda. Ferguson asked for any additions or changes to the agenda. The following revisions were requested:

- Ralph Lampman added the following: 1) Pacific Lamprey Conservation Initiative (PLCI) Lamprey Information Exchange and annual meeting; and 2) Yakama Nation (YN) Aquatic SWG representation designation.
- Andrew Gingerich added Water Quality Attainment Plan 10-Year Report.

### B. Meeting Minutes Approval (John Ferguson)

The revised draft October 11, 2023, conference call minutes were reviewed. Kristi Geris said no comments or revisions were received from members of the Aquatic SWG. Geris corrected one date for next year's meetings under Item III-A., Administration. Aquatic SWG members present approved the October 11, 2023, conference call minutes, as revised.

### C. Review of Action Items (John Ferguson)

Action items from the Aquatic SWG conference call on October 11, 2023, are as follows (*Note: The following italicized item numbers correspond to agenda items from the October 11, 2023, meeting*):

1. *Douglas PUD will populate the Microsoft Excel file titled "Upper Columbia Juvenile Lamprey Source Datasheet" with Pacific Lamprey count data for their respective locations identified in the "PUD table" tab (Item II-D).*

Mariah Mayfield provided these data to Ralph Lampman following the Aquatic SWG conference call on October 11, 2023.

2. *Washington State Department of Ecology (Ecology) will ask internally about possible causes for isolated exceedances of the 110% total dissolved gas (TDG) tailrace water quality standard during non-spill and low-flow conditions (Item II-F).*

Breean Zimmerman said she discussed this with the Ecology Hydropower Managers. No one had a definitive answer, but there were additional questions, such as what time of day the exceedances occurred, because respiration levels can be higher during the mid-to-late morning period. Was there a connection between other parameters, such as flow, temperature, or turbidity? Some questions already discussed last month included whether there was a high TDG event upstream, what the forebay TDG was, and whether this could have been a malfunction with the probes. Slide 9 of Attachment D of last month's minutes shows that during different times of the year there were other isolated spikes in TDG. Therefore, she suggested looking for any relationships between these events or between events from past years. Mariah Mayfield said the 2023 spikes did occur during mid-to-late morning, which is why she thought it might be aquatic respiration. Additionally, this cycling of mid-morning increases in TDG was observed the entire week of that mid-September exceedance. Also of note, this was a record low water year at Wells Dam. John Ferguson asked whether it would be helpful to review Slide 9 now. Mayfield said she plans to revisit this in the annual report and suggested closing out the action item for now. Zimmerman agreed.

## II. Summary of Discussions

### A. DECISION: Statement of Agreement Regarding Evaluation and Implementation of White Sturgeon Adult Passage Measures (WSMP Objective 5; Section 4.4) (Chas Kyger)

Chas Kyger said the only edits received on the draft *Statement of Agreement Regarding Evaluation and Implementation of White Sturgeon Adult Passage Measures (WSMP Objective 5; Section 4.4)* were from the Confederated Tribes of the Colville Reservation (CTCR), and the edits were distributed to the Aquatic SWG by Kristi Geris on November 6, 2023. Geris shared on WebEx the CTCR's edits.

Jason McLellan said most edits were just grammatical clarifications. The more substantial changes were to No. 2, No. 3, and No. 5.

- 2) Document the status of sturgeon passage measures and plans at ~~downstream Mid-Columbia Dams and Snake river dams.~~
- 3) ~~Develop a draft~~ Complete a literature review on ~~adult White Sturgeon~~ sturgeon passage at hydro-electric and dam facilities prior to the end of 2024.
- 5) Collect and ~~catalog archive~~ DNA-tissue samples ~~of from~~ White Sturgeon encountered in the Wells Project during M&E activities ~~for genetic analysis~~, with an emphasis on sampling fish released from the Wells Fish Hatchery during 2014-2023. ~~These data~~ Data derived from these samples will be used to ~~determine estimate~~ the genetic diversity (e.g., allelic diversity) of the existing White Sturgeon population in the Wells Project. Genetic samples may be analyzed at the request and approval of the Aquatic SWG no sooner than 2025 and may include ~~up to~~ 400 unique individuals in the Wells Project area. Results of this analysis will be ~~used to~~ considered in the assessment of the biological merit of fish passage in the context of connectivity with other White Sturgeon populations in the Columbia River. This step will be completed and approved following the review and approval of steps 1 & 2 above.

For No. 2, as discussed last month, it would be beneficial to not limit documenting sturgeon passage measures and plans to just Mid-Columbia dams; rather, include all Columbia River dams and Snake River dams. He does not believe there is a lot going on, so this should not be a heavy lift.

For No. 3, he does not want to limit the literature review to just adults; rather, also consider other life stages. Again, this should not be a heavy lift. John Ferguson that recalled last month, McLellan also suggesting considering work from all over, such as Europe. McLellan said that yes, there is work ongoing in the tributaries of the Danube River Basin, as well as other places.

McLellan said that for No. 5, as discussed last month, genetics are important, but are not the be-all end-all.

Kyger said Douglas PUD can accept these edits. Andrew Gingerich agreed, but noted that for No. 3, the White Sturgeon Management Plan (MP) does include specificity to adults. He has no consternation about including juveniles and agrees this is likely not a heavy lift, but wanted to note that this is outside of the framework of the MP.

Aquatic SWG members present approved the *Statement of Agreement Regarding Evaluation and Implementation of White Sturgeon Adult Passage Measures (WSMP Objective 5; Section 4.4)*, as revised (Item II-A).

The final statement of agreement was distributed to the Aquatic SWG by Geris following the Aquatic SWG conference call on November 8, 2023.

## **B. Brood Year 2023 Wells White Sturgeon Rearing Update (Chas Kyger)**

A brood year (BY) 2023 White Sturgeon Rearing Update (Attachment B) was distributed to the Aquatic SWG by Kristi Geris on November 7, 2023. Chas Kyger said mortalities have dropped off since the high numbers in September 2023 and continue to remain low. If this continues, stocking targets might be met for both the Chelan PUD and Douglas PUD programs. Fish are growing well, but there are a few tanks with runts. No fish have graduated to the magnum tanks. When fish reach that size, fish will be separated into the magnum tanks for Chelan PUD, and 325 fish will be set aside for Douglas PUD.

John Ferguson asked about Chelan PUD's revised program numbers. Kyger said the revised target is 2,000 fish ( $\pm 10\%$ ), so at least approximately 1,800 fish.

Stuart Fety joined the conference call.

## **C. Juvenile Pacific Lamprey Downstream Passage Study (Ralph Lampman)**

### Upper Columbia Juvenile Lamprey Source Datasheet

Ralph Lampman shared on WebEx the Microsoft Excel file titled "Upper Columbia Juvenile Lamprey Source Datasheet," which was originally distributed on October 6, 2023, and an updated file was distributed by Lampman during the conference call on November 8, 2023.

*(Note: Last month, Lampman asked each responsible party [i.e., Douglas PUD, Chelan PUD, Grant PUD, and the YN] to populate the "PUD table" tab with Pacific Lamprey count data for their respective locations, including the mean, minimum, and maximum for all years, the last 3 years, and 2023 only, for the ratio of juveniles versus larvae, juvenile counts only, and fish lengths.)*

Lampman said he received some data from Douglas PUD and Chelan PUD, and he added YN data to the spreadsheet. He also requested data from Pacific Northwest National Laboratory (PNNL) for McNary and John Day dams. There is still some discussion about where traps can be deployed at Wanapum, Priest Rapids, and Wells dams. In the Okanogan and Methow basins, the data so far show low rates of juveniles collected, which is surprising because in the Yakima basin, the vast majority of individuals collected are juveniles. The lengths of juveniles in the Okanogan, Methow, and Yakima basins are similar.

Mariah Mayfield asked whether the rotary screw traps (RSTs) in these locations are a similar design. Lampman said that yes, the RSTs are a standard 8-foot or 5-foot designs. John Ferguson said the difference between the sites is the location, depth, and environmental conditions. Mayfield thought that one explanation for the difference is that the Methow River may be flashier than the Yakima River and is pushing ammocoetes out.

John Rohrback recalled working for the CTCR, who operate the Okanogan RST. He noted that he believes this location recorded “macrophthalmia” or “juveniles,” not “larvae/ammocetes.” He said that prior to translocation, the last instance of Pacific Lamprey encountered in the Okanogan was in 2008 or 2010. The ratio of juveniles to larvae in the Okanogan at the present time could be related to translocated Pacific Lamprey progeny that have not yet matured to great numbers of outmigrating juveniles. Perhaps in future years, this could shift. Lampman said this is a good point. Translocation in the Methow and Okanogan started in 2015, and these adults would have spawned in 2016, so the progeny would be 7 years old now, which is about the time juveniles start transforming and outmigrating. Some systems are colder. In the Snake River basin, juveniles begin outmigrating around 8 to 9 years old. Maybe a wave of juveniles is yet to come.

Lampman said that at Lower Granite Dam in the Snake River, about 50% of the individuals collected are larvae. This ratio of larvae gradually declines moving downstream. There is a similar trend in the Upper Columbia River, but it is not as drastic. Maybe this is a basin-scale pattern. Maybe Pacific Lamprey in higher reaches know to start migrating as larvae to make the longer trip. Ferguson said it is interesting that this strategy is not observed in the Yakima River.

#### Framework and Implementation Plan for the Upper Columbia Juvenile Pacific Lamprey Passage Acoustic Telemetry Study

Lampman shared on WebEx the YN’s document titled *Framework and Implementation Plan for the Upper Columbia Juvenile Pacific Lamprey Passage Acoustic Telemetry Study*.<sup>1</sup> Last week, he and the Priest Rapids Fish Forum and Rocky Reach Fish Forum revisited the key questions outlined in this document. He said a bit of time was spent discussing precision level (Question No. 3, page 10 of the Framework):

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<sup>1</sup> Distributed to the Aquatic SWG by Kristi Geris on September 16, 2023, and Attachment C to the Aquatic SWG September 13, 2023, conference call minutes. To note, Douglas PUD provided responses to this document, which were distributed on October 9, 2023.

**3. What is the acceptable precision level?**

- a. 10%
- b. 5%
- c. 3%
- d. 2.5%

SE	Half of 95% C.I.	Full 95% C.I.	Min of 50% Survival Rate	Max of 50% Survival Rate	Min of 90% Survival Rate	Max of 50% Survival Rate
0.100	0.196	0.392	30.4%	69.6%	70.4%	109.6%
0.050	0.098	0.196	40.2%	59.8%	80.2%	99.8%
0.030	0.059	0.118	44.1%	55.9%	84.1%	95.9%
0.025	0.049	0.098	45.1%	54.9%	85.1%	94.9%
0.015	0.029	0.059	47.1%	52.9%	87.1%	92.9%

The question came up, "What are our objectives and what are we trying to learn?" Both forums ended the meeting with an action item to share key questions to answer with a study. Based on this, the forums should have a better idea of what precision level is best suited for what the study is trying to learn. He suggested considering PNNL's study objectives (in the Snake River) as a starting point. There was some discussion about a 20% range for a confidence interval and what can be gained by a 50% versus 90% survival rate. He emphasized that conducting a study together, even with a high confidence interval, can inform where the survival bottle necks are in the region and, at dams, which passage routes juveniles are taking and the fates of these fish. Given the small sample sizes, it would be beneficial to share as much data as possible. Fish from upstream can contribute to studying sites downstream. He thinks the goal should be a 3% precision level. He believes Chelan PUD might be interested in 2.5%, the same standard as is required for salmonid survival studies.

Ferguson asked whether these precision levels are for the same sample sizes. Lampman said these are standard errors regardless of sample size.

Mayfield thanked Lampman for providing the final 2022 PNNL study report.<sup>2</sup> She is excited to see how the 2023 study turns out and hopes to hear these results at the U.S. Army Corps of Engineers Anadromous Fish Evaluation Program, or perhaps PNNL could provide a presentation specifically to the Mid-Columbia PUDs. Lampman said this is a good idea, and that perhaps this could happen at a future Pacific Lamprey Subgroup meeting. The final 2023 PNNL study report will likely be available next spring (2024), or perhaps PNNL can present the preliminary results before the final report is ready.

<sup>2</sup> Deng et al., 2023. "Juvenile Pacific Lamprey Passage Behavior and Survival at Lower Granite Dam." Distributed to the Aquatic SWG by Kristi Geris on November 2, 2023.

Lampman said the forums did not spend much time on the models (Question No. 2, page 8 of the Framework).

Scope was a key issue (Question No. 1, page 7 of the Framework). Each member stated their thoughts on scope. Some felt it makes the most sense to focus on the dam. Others want to learn as much as possible about passage through the reservoir, but this requires a study design that incorporates tags from other areas. For Wells Dam, there would need to be a release farther upstream.

Ferguson said it sounds like the fish forums are still discussing all aspects of a possible study. Lampman said that is correct, and the plan is to keep thinking through these questions and have a firmer answer at the next meeting.

Ferguson asked whether Chelan PUD and Grant PUD are considering a multi-year study, relative to their MPs. Douglas PUD's MP specifies a 1-year study. Lampman said years have not been specified. Chelan PUD mentioned a potential pilot study, but he believes this pilot would be more about how to collect enough fish to do a study and not an acoustic-telemetry-type pilot. Chelan PUD wants to make sure there are clearly defined objectives and that there are enough fish to achieve these objectives.

Lampman said the forums also discussed source of fish (Question No. 4, page 12 of the Framework). He wants to keep options open but prioritize the systems. That is, collect fish closest to the dam with the upstream source as the highest priority, then use a tiered system moving downstream so the study does not exclude fish collected from downstream locations. Although collecting study fish from downstream and placing them upstream is not ideal, given the genetic traits of Pacific Lamprey where they mix quite a bit and do not necessarily have well-adapted populations in certain areas, this may not be as big of an issue as it is for salmonids. The study would still need to keep different source fish separated and analyze these fish separately, but if it comes down to doing the study or not, he would rather do the study with whatever sources of fish that can be collected. Having some data is better than nothing, and right now there is nothing.

Ferguson asked whether Lampman is still gathering more data for the Upper Columbia Juvenile Lamprey Source Datasheet. Lampman said yes. The forums also talked about different protocols at the RSTs. For example, at the Entiat RST, when numbers are high, crews just collect a subsample and release the rest. He wants to add a column to describe this. Ferguson recalled Mayfield mentioning something about Washington Department of Fish and Wildlife (WDFW) protocols at the Methow RST. Mayfield said that at this point, Dave Grundy (WDFW) indicated that his crew is still trying to count all fish, but he is unsure how long he can continue this. Mayfield said she is still waiting on 2023 data from Grundy and can send him a reminder.



Ferguson asked whether Aquatic SWG members had any further questions for Lampman on this topic. None were expressed.

#### **D. PLCI Lamprey Information Exchange and Annual Meeting (Ralph Lampman)**

Ralph Lampman said the PLCI will convene their annual policy meeting on December 12, 2023, from 12:30 p.m. to 5:00 p.m. The Lamprey Information Exchange will follow on December 13, 2023, from 9:00 a.m. to 4:00 p.m., and on December 14, 2023, from 9:00 a.m. to 12:30 p.m.

Lampman said the policy meeting agenda is forthcoming. He shared on WebEx the agenda for the Lamprey Information Exchange, which was distributed to the Aquatic SWG by Kristi Geris after the conference call on November 8, 2023. Lampman said there will be a variety of topics, including genetics; habitat restoration; and juvenile entrainment, dewatering, and dredging. He will co-present on migration, tagging, and passage. Lastly, there will be an open session at the end of Day 2. There is also a rockstar award that attendees can vote on. In 2022, the individual winner was Mary Moser (NMFS), the team winner was the YN, and the Spoke winner was WDFW.

John Ferguson asked whether there is a virtual option, whether Douglas PUD plans to attend, and whether this is open to anyone on the Aquatic SWG. Mariah Mayfield said she plans to attend in person. Lampman said the information exchange is open to anyone, in-person attendance is encouraged, but there is a link for remote attendance. He noted that the question-and-answer session might be harder to do virtually.

Lampman shared this link in the WebEx chat: <https://www.pacificlamprey.org/infoexchange/>.

Lampman noted that there will be a presentation on the acoustic telemetry study by researchers in the Great Lakes,<sup>3</sup> which is one of the papers Douglas PUD shared in the juvenile Pacific Lamprey document library.<sup>4</sup>

#### **E. Bull Trout Study Update (Chas Kyger)**

Chas Kyger said Douglas PUD ran the final query for passive integrated transponder detections last Monday, November 6, 2023, which will be the end date for the study. These data are now being processed. In total, 41 fish were tagged from 2022 to 2023 for inclusion in the study. Of these, 29 tissue samples were sent to the lab for genetic analysis. These results will be incorporated into the report. He hopes to have the draft report out for review before the next Aquatic SWG meeting.

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<sup>3</sup> Haas, T.F., T. Castro-Santos, S.M. Miehl, Z.D. Deng, T.M. Bruning, and C.M. Wagner, (2023). "Survival, Healing, And Swim Performance of Juvenile Migratory Sea Lamprey (*Petromyzon marinus*) Implanted with a New Acoustic Microtransmitter Designed for Small Eel-Like Fishes." *Animal Biotelemetry* 11:9.

<sup>4</sup> Discussed during the Aquatic SWG conference call on October 11, 2023.

## **F. Wells Dam Winter Maintenance Update (John Rohrback and Mariah Mayfield)**

### Winter Maintenance Schedule

John Rohrback said that, tentatively, the east fishway is scheduled to be dewatered the weeks of November 27 through December 7, 2023. This will be the shorter outage. The west fishway is scheduled to be dewatered December 11 through December 28, 2023. This will be the longer outage. Recall, the initial proposed winter maintenance schedule is often delayed 1 week due to other activities ongoing at the dam.

Ralph Lampman said he has not yet seen the dewatered east ladder, and he asked whether a tour of the east fishway might be possible during this outage. Rohrback said yes. Currently, the fish rescue in the upper ladder is scheduled for November 27 and in the collection gallery and lower ladder for November 29, 2023. He suggested noting these tentative dates. Once the dates are confirmed, he can notify the Aquatic SWG to schedule a tour.

John Ferguson asked whether any other Aquatic SWG members are interested in a tour. Stuart Fety indicated in the WebEx chat that he is interested. Jason McLellan said he will be unable to attend a tour during this time frame. Mariah Mayfield added in the chat that the tour can include the Wells Fish Hatchery. Ferguson suggested, once Douglas PUD confirms the dates, Aquatic SWG members reach out to Rohrback if there is interest in attending the tour. *(Note: Rohrback provided this notification on November 20, 2023, which Kristi Geris distributed to the Aquatic SWG that same day. A tour is scheduled for December 7, 2023.)*

### Adult Pacific Lamprey Passage Improvements

Mayfield said while the ladders are dewatered, mechanics will inspect the surfaces to make sure modifications installed to improve Pacific Lamprey passage through the fishways are still in good working order.

### Lamprey Trap Modifications

Mayfield recalled that last August and September, Douglas PUD conducted lamprey trap testing in the east fish ladder. The part not tested was perforated plates installed below the weir orifices to encourage fish to pass over the top of the weir and into the traps. Mayfield shared on Webex a photograph of the perforated plate (Attachment C), which was distributed to the Aquatic SWG by Geris after the conference call on November 8, 2023. Mayfield said she already spoke with Lampman about installing these plates in the east and west fishways during this winter maintenance outage, and Lampman had no issues. Andrew Gingerich noted that once approved in the Aquatic SWG, installing these plates will also need to be approved by the Wells Habitat Conservation Plan Coordinating Committee.

Ferguson asked about the cutouts on the sides of the plates (as shown in Attachment C). Mayfield said she believes the cutouts are the shape of the concrete weir, so installing these plates involves turning them diagonally and sliding them into place.

Mayfield said in addition to installing these plates, mechanics plan to repair the guide rails for lowering the lamprey traps in the west fish ladder, which appear to be warped.

Gingerich acknowledged that this topic was not presented as a Decision Item and asked that Aquatic SWG members let him know whether more time is needed before a vote. No concerns were raised.

Aquatic SWG members present agreed to install perforated plates below the orifices of the weirs where lamprey traps are installed in the east and west fish ladders at Wells Dam.

Lampman asked to see photographs of the lamprey trap. Mayfield shared on Webex the information sheet with photographs of the lamprey trap (Attachment D), which was distributed to the Aquatic SWG by Geris on September 15, 2023. Lampman asked about the dimensions of the trap entrance. Mayfield said it looks like a 4x4-inch opening (Page 2 of Attachment D). The opening also has zip ties around the edges to prevent fish from coming back out. The trap drops down and sits on top of the weir, and lamprey go up and over the weir into the trap. The perforated plate is installed below the weir orifice. Lamprey can still swim through the orifice but cannot attach and burst through the orifice due to the perforated plate. Lampman asked whether the trap funnel is connected by rope. Mayfield said it is connected by metal bars welded together.

Lampman wrote in the WebEx chat that normally the trap opening is only 2 inches, so 4 inches is large. Lamprey are likely able to escape if the zip ties framework is not lamprey-tight. He would like to check this closely in person. Are there photographs of this entrance portion? Mayfield responded in the chat that it is hard to get good photographs, so Douglas PUD would appreciate an in-person evaluation of the trap.

### **G. Water Quality Attainment Plan 10-Year Report (Mariah Mayfield)**

Mariah Mayfield said the Water Quality Attainment Plan 10-Year Report culminates 10 years of TDG data and gas bubble trauma monitoring under the Water Quality Attainment Plan, which was approved by Ecology and the Aquatic SWG in 2013, as part of Douglas PUD's 401 Water Quality Certification. The Water Quality Attainment Plan includes a requirement every 10 years to draft the report, have it approved by the Aquatic SWG, and submit it to Ecology. The draft report is still under internal review, but she hopes to distribute the report for review soon and request approval of the report during the Aquatic SWG conference call on December 13, 2023. If distributing the report is delayed, Douglas PUD may request a vote via email or request a deadline extension from Ecology.

Breean Zimmerman apologized for missing an email from Douglas PUD and said to let her know whether there is still anything to discuss. Mayfield said she mainly wanted to be sure nothing was missing that Ecology wanted included in the report.

The draft *Total Dissolved Gas Water Quality Attainment Plan Year 10 Report* was distributed to the Aquatic SWG by Kristi Geris on November 14, 2023, and is available for review with edits and comments due to Douglas PUD by December 13, 2023.

### **III. Administration**

#### **A. WDFW Representation – Ben Cox (Observer) (John Ferguson)**

John Ferguson said he received an email from Patrick Verhey indicating that Ben Cox is helping Laura Heironimus with White Sturgeon topics and may attend Aquatic SWG meetings while Heironimus is out on leave. Verhey noted that Cox is also an experienced modeler.

#### **B. USFWS Representation – Michael Lucid (Policy Representative) and Stuart Fety (Technical Alternate) (John Ferguson)**

John Ferguson said a U.S. Fish and Wildlife Service (USFWS) Aquatic SWG representation designation letter was distributed to the Aquatic SWG by Kristi Geris on October 17, 2023, designating Michael Lucid as the USFWS Aquatic SWG Policy Representative and Stuart Fety as the USFWS Aquatic SWG Technical Alternate. Bill Gale will remain the USFWS Aquatic SWG Policy Alternate, and RD Nelle will remain the USFWS Aquatic SWG Technical Representative.

#### **C. YN Aquatic SWG Representation Designation Letter (Ralph Lampman)**

Ralph Lampman said a YN Aquatic SWG representation designation letter is forthcoming, designating Keely Murdoch as the YN Aquatic SWG Technical Alternate and Shannon Adams as the YN Aquatic SWG Policy Alternate. *(Note: this letter was distributed to the Aquatic SWG by Kristi Geris on November 17, 2023.)*

#### **D. Upcoming Meetings (John Ferguson)**

The Aquatic SWG meeting on December 13, 2023, will be held by conference call.

Other upcoming meetings include January 10 and February 14, 2024 (conference call).

## **List of Attachments**

- Attachment A List of Attendees
- Attachment B BY 2023 White Sturgeon Rearing Update
- Attachment C Lamprey trap perforated plate photograph
- Attachment D Information sheet with photographs of the lamprey trap

## Attachment A – Attendees

<b>Name</b>	<b>Role</b>	<b>Organization</b>
John Ferguson	Aquatic SWG Chairman	Anchor QEA, LLC
Kristi Geris	Administration/Technical Support	Anchor QEA, LLC
Andrew Gingerich	Aquatic SWG Technical Representative	Douglas PUD
Chas Kyger	Aquatic SWG Technical Alternate	Douglas PUD
John Rohrback	Aquatic SWG Technical Support	Douglas PUD
Mariah Mayfield	Aquatic SWG Technical Support	Douglas PUD
RD Nelle	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
Stuart Fety*	Aquatic SWG Technical Alternate	U.S. Fish and Wildlife Service
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Brean Zimmerman	Aquatic SWG Technical Representative	Washington State Department of Ecology
Ralph Lampman	Aquatic SWG Technical Representative	Yakama Nation
Jason McLellan	Aquatic SWG Technical Representative	Confederated Tribes of the Colville Reservation

Notes:

- \* Joined the meeting before Item II-C.