FINAL

Conference Call Minutes

Aquatic Settlement Work Group

To: Aquatic SWG Parties **Date:** July 14, 2021

From: John Ferguson, Chair (Anchor QEA, LLC)

Re: Final Minutes of the June 9, 2021, Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, June 9, 2021, from 10:00 a.m. to 12:00 p.m. Attendees are listed in Attachment A of these conference call minutes.

I. Summary of Action Items

1. Douglas PUD will develop a draft adult Pacific Lamprey study plan for implementation in 2022 that considers potential methodologies, release locations, and sample size requirements, for discussion in fall 2021 (Item VI-1).
2. Douglas PUD will distribute a Doodle Poll to convene a technical subgroup to discuss Wells Project White Sturgeon hook size to be used in 2021 monitoring and evaluation (M&E) sampling and will report back to the Aquatic SWG during the Aquatic SWG conference call on July 14, 2021 (Item VI-2). *(Note: a subgroup consisting of Douglas PUD, the Colville Confederated Tribes [CCT], and Washington Department of Fish and Wildlife [WDFW] convened via WebEx on June 14, 2021, which Douglas PUD will review during the next Aquatic SWG conference call.)*
3. Douglas PUD will distribute the Passive Integrated Transponder (PIT) Tag Information System (PTAGIS) query for Bull Trout detections that was shared during today's Bull Trout PIT Tag Study discussion, for consideration in developing study objectives, to be discussed further during the Aquatic SWG conference call on July 14, 2021 (Item VI-5). *(Note: Andrew Gingerich provided these data following the Aquatic SWG conference call on June 9, 2021, which Kristi Geris distributed to the Aquatic SWG that same day.)*
4. U.S. Fish and Wildlife Service (USFWS) will distribute a recent Bull Trout PIT Tag Study design implemented in the Rocky Reach Project (Item VI-5). *(Note: Steve Lewis distributed the draft study plan outline,* Chelan PUD 2018 Bull Trout Project Interactions and Genetics Analysis Study Plan*, to the Aquatic SWG on June 25, 2021.)*
5. Douglas PUD will distribute a Doodle Poll to convene a technical subgroup to discuss Wells Fish Hatchery White Sturgeon stocking considerations and will report back to the

Aquatic SWG during the Aquatic SWG conference call on July 14, 2021 (Item VI-7). *(Note: considering current workloads, Douglas PUD plans to propose moving this discussion to late summer or fall 2021, which will be discussed during the next Aquatic SWG conference call.)*

6. The Yakama Nation (YN) will finalize environmental DNA (eDNA) and bile acids sampling protocols for discussion during the Aquatic SWG conference call on July 14, 2021 (Item VI-8).
7. Anchor QEA, LLC, will add the Douglas PUD Pacific Lamprey Pilot PIT Tag Study in 2021 discussion to the agenda for the Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the Joint Fisheries Parties (JFP) on July 7, 2021 (Item VI-9). *(Note: this topic was added to the agenda, as discussed.)*
8. Anchor QEA will add a discussion about the proportion of Pacific Lamprey to be translocated in 2021 relative to the total run size at Priest Rapids Dam to the agenda for the Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the JFP on July 7, 2021 (Item VI-10). *(Note: this topic was added to the agenda, as discussed.)*
9. An Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the JFP will be held on July 7, 2021, from 9:00 a.m. to 12:00 p.m., by conference call (Item VII-1).
10. The Aquatic SWG meeting on July 14, 2021, will be held by conference call (Item VII-1).

II. Summary of Decisions

1. There were no decisions approved during today's conference call.

III. Agreements

1. Aquatic SWG members present agreed that the Douglas PUD Pacific Lamprey Pilot PIT Tag Study in 2021 discussion should be shared during the Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the JFP on July 7, 2021 (Item VI-9).

IV. Review Items

1. The draft plan *2021 Lamprey Translocation/PIT Tag Passage Pilot Study* was distributed to the Aquatic SWG by Kristi Geris on June 7, 2021 (Item VI-9).

V. Documents Finalized

1. The final *Statement of Agreement Regarding the Suspension of the Year 10 Bull Trout Passage and Survival Radio Telemetry Study at Wells Dam and the Twisp Weir* (Bull Trout Statement of Agreement [SOA]), as approved by the Aquatic SWG on May 12, 2021, and by USFWS via email on June 2, 2021, was distributed to the Aquatic SWG by Kristi Geris on June 10, 2021.

VI. Summary of Discussions

1. **Welcome, Review Agenda, Meeting Minutes Approval, and Review of Action Items (John Ferguson):**
   John Ferguson welcomed the Aquatic SWG members (attendees listed in Attachment A). Ferguson asked for any additions or changes to the agenda. The following revisions were requested:

   - Andrew Gingerich added Wells Project White Sturgeon Hook Size and M&E.
   - Jason McLellan added Brood Year (BY) 2021 White Sturgeon Larval Collection.

   The revised draft May 12, 2021, conference call minutes were reviewed. Kristi Geris said edits and comments received from members of the Aquatic SWG were incorporated into the revised minutes. Geris also added a note to the action item to identify potential dates to convene a coordination call with the regional fish forums regarding Pacific Lamprey translocation during 2021, which states that a coordination call was scheduled for July 7, 2021, from 9:00 a.m. to 12:00 p.m. Aquatic SWG members present approved the May 12, 2021, conference call minutes, as revised. The CCT abstained because a representative was not present during the May 12, 2021, conference call. *(Note: Washington State Department of Ecology [Ecology] approved the revised minutes via email prior to the Aquatic SWG conference call on June 9, 2021.)*

   Action items from the Aquatic SWG conference call on May 12, 2021, are as follows (Note: the following italicized item numbers correspond to agenda items from the May 12, 2021, meeting):

   - *Anchor QEA, LLC, will coordinate with USFWS regarding Aquatic SWG approval of the Bull Trout SOA, as revised, and will obtain a vote via email from USFWS after the draft minutes from today's conference call are available for review (Item VI-4).*
     Steve Lewis provided USFWS approval of the SOA via email on June 2, 2021, which Kristi Geris distributed to the Aquatic SWG that same day.
   - *Aquatic SWG members will consider goals, objectives, and the technical merits of implementing a Bull Trout PIT tag study, for discussion during the Aquatic SWG conference call on June 9, 2021 (Item VI-4).*
     This will be discussed during today's conference call.

- *Aquatic SWG members will review the current White Sturgeon SOA,* Wells Reservoir White Sturgeon Supplementation 2018-2022[1]*, and Section 4.3.1 of the* White Sturgeon Management Plan*, in preparation to continue discussing Wells Fish Hatchery White Sturgeon stocking considerations during the Aquatic SWG conference call on June 9, 2021 (Item VI-6).*
  This will be discussed during today's conference call.
- *The YN will further review the different methodologies for collecting bile acid samples and present a recommended protocol for discussion during the Aquatic SWG conference call on June 9, 2021 (Item VI-7).*
  This will be discussed during today's conference call.
- *Douglas PUD will develop a summary of potential options to study adult Pacific Lamprey via PIT tag detection for implementation in 2021, for discussion during the Aquatic SWG conference call on June 9, 2021 (Item VI-8).*
  This will be discussed during today's conference call.
- *Douglas PUD will develop a draft adult Pacific Lamprey study plan for implementation in 2022 that considers potential methodologies, release locations, and sample size requirements, for discussion in fall 2021 (Item VI-8).*
  This action item will be carried forward.
- *Aquatic SWG members will identify potential dates during the Aquatic SWG conference call on June 9, 2021, to convene coordination calls with the regional fish forums regarding Pacific Lamprey translocation during 2021 (Item VI-9).*
  A coordination call was scheduled for July 7, 2021, from 9:00 a.m. to 12:00 p.m.

2. Wells Project White Sturgeon Hook Size and Monitoring and Evaluation (Andrew Gingerich):

Andrew Gingerich said Douglas PUD is approximately 1 month away from starting an extensive M&E effort for White Sturgeon in the Wells Project. In preparation, he has had discussions internally and amongst Aquatic SWG members about hook sizes. In past juvenile indexing efforts, crews fished with two hook sizes—2- (2/0) and 4-aught (4/0) hooks. However, the concern is that as fish age and grow they are more likely to straighten these sizes of hooks and break leaders. The *White Sturgeon Management Plan* includes assessing whether the gear used during these M&E efforts is appropriate, and while there is value in having repeatable efforts and a consistent design throughout the years, this can be challenging as fish grow. Gingerich questioned whether this should be a formal agenda item to discuss today, or if it might be more appropriate to discuss it offline with a technical subgroup of the Aquatic SWG.

[1] As approved by the Aquatic SWG on January 11, 2017, and distributed on January 12, 2017.

John Ferguson said with the M&E effort quickly approaching, this is a time-sensitive topic. However, given today's full agenda, he proposed that interested Aquatic SWG members participate in an offline phone call. Aquatic SWG members present agreed with this approach. Gingerich said he will distribute a Doodle Poll to convene a technical subgroup to discuss Wells Project White Sturgeon hook size to be used in 2021 M&E sampling and will report back to the Aquatic SWG during the Aquatic SWG conference call on July 14, 2021. *(Note: a subgroup consisting of Douglas PUD, the CCT, and WDFW convened via WebEx on June 14, 2021, which Douglas PUD will review during the next Aquatic SWG conference call.)*

3. **Brood Year 2021 White Sturgeon Larvae Collection (Jason McLellan):**
Jason McLellan said water temperatures reached 14°C over the last weekend, which is the typical temperature for peak spawning. Colleagues in British Columbia set egg mats at the primary spawning location and collected eggs on Monday, June 7, 2021. The Spokane Tribe is monitoring for free embryos this week. The CCT will deploy equipment next week and will begin collecting larvae on June 20, 2021. He can provide an update on catch-to-date during the Aquatic SWG conference call on July 14, 2021.

Andrew Gingerich asked if this is earlier than average. McLellan said yes, river temperatures are approximately 2 weeks ahead of schedule and on pace with conditions observed in 2016. In 2016, the peak catch occurred in June. Last year, the peak catch occurred in mid-July. Water temperatures are warm in the Mid-Columbia River due to lack of runoff. It looks like the peak runoff occurred over the past weekend and it was only 180,000 cubic feet per second (180 kcfs), which is really low.

4. **Coronavirus Disease 2019 Updates (John Ferguson):**
John Ferguson asked if Aquatic SWG members had any new updates to share regarding impacts of coronavirus disease 2019 (COVID-19) on Aquatic SWG-related M&E activities.

The Aquatic SWG had no new COVID-19 updates to announce.

5. **Bull Trout Passive Integrated Transponder Tag Study (Andrew Gingerich):**
Andrew Gingerich recalled starting discussions about a potential Bull Trout PIT tag study, notably about the need to clearly define study objectives and understand the utility of the data. Gingerich said Douglas PUD has not yet developed a study plan and he is not certain about the best way to approach this, but he thought it might be useful to review available PIT tag data to better understand what a dataset might look like. He shared a Bull Trout PTAGIS query file (Attachment B), which Kristi Geris distributed to the Aquatic SWG following the conference call on June 9, 2021. Gingerich said he queried PTAGIS for Bull Trout detections, from January 1, 2017, to May 30, 2021, at three existing PIT detection sites:

1) Twisp and Methow River Confluence (or TWR); 2) Lower Methow River near the Columbia River Confluence (or LMR); and Wells Dam (or WEL). This query returned 55 individuals, most of which were single detections and were predominantly subadults tagged as juvenile fish during M&E activities for salmonids. He noted in the first tab of Attachment B, like-tags are grouped by highlighted cells. He reviewed Tag Code 3D9.1C2E0BF83B, noting that it appears this fish missed detection at a couple of locations during upstream movements, which is not uncommon when flows are higher. The second tab shows each unique tag and what year the fish was tagged, who conducted the tagging, where the fish was released, and the fish length at tagging. Charlie Snow (WDFW) and his crew conducted most of the tagging in the Twisp River Basin. Of the 55 individuals, only three adult Bull Trout were detected at Wells Dam. Gingerich noted, as mentioned before, Douglas PUD is supportive of a PIT tag study but also agrees there first needs to be discrete objectives and an understanding about what value this type of study provides.

Steve Lewis asked if it would be advantageous to install more PIT tag detection sites to increase the sample size. Gingerich said generally, yes, more sites are better than less. He noted that PIT tags and arrays function better in confined spaces—for example, there is good detection efficiency in Wells Dam Fish Ladder Pools 67 and 68, as well as in smaller streams. While it is possible to install additional PIT arrays, the Aquatic SWG would want to first review the current detection efficiencies and determine how detections might increase with additional arrays. He also suggested that additional arrays might be more useful near the Twisp Weir versus at Wells Dam, because the volume of water that fish swim through at the dam is so large.

John Ferguson recalled hearing about WDFW installing a PIT tag interrogation barge and asked if this might be an option. Gingerich said he believes WDFW plans to install this barge in the Wenatchee River and is hoping to secure funds to install another barge in the Methow River at some future date.

Jason McLellan said discussing array configurations and placement may be getting ahead of ourselves, because the study objectives dictate the study design. Ferguson said this is a good point—the study objectives have not yet been decided. Gingerich said he does not disagree, but he thought having an example dataset might help Aquatic SWG members think about what can be accomplished. Ferguson suggested reviewing the *Bull Trout Management Plan* to see what needs to be addressed, then look at this dataset to understand how the available data might address the objectives in the management plan. Gingerich agreed that thinking about the requirements in the *Bull Trout Management Plan* and Biological Opinion is an appropriate approach. He does not think a PIT tag study at Wells Dam can address these

requirements, and he thinks this dataset (Attachment B) makes this obvious. He suggested identifying explicit study objectives and then determining whether these can be accomplished using PIT tags. This dataset (Attachment B) is 55 fish, and the original approved study plan was to use 60 radio-tagged fish. He asked, if Douglas PUD PIT-tagged incidentally caught Bull Trout at Wells Dam and the Twisp Weir, would this help the utility of the data?

McLellan said he appreciates Douglas PUD pulling together this dataset and it is a point well-made. He asked, what are the objectives? Can these questions be answered with this dataset or current PIT array configuration? If not, what are the next steps? The first step is determining what questions the Aquatic SWG wants to answer, because to him, it is not clear this has been done.

RD Nelle (USFWS) agreed this discussion is on track, which is why he recommended reviewing the data again in 5 years to assess whether there are adequate numbers of adult Bull Trout to conduct a study. Unless the Aquatic SWG establishes different objectives, a PIT tag study cannot answer the original questions.

Lewis said he thinks there have been good discussions about what data can be gleaned from PIT versus radio telemetry. In this instance, Douglas PUD is required by Federal Energy Regulatory Commission license requirements and the objectives in the *Bull Trout Management Plan* and USFWS Section 18 Fishway Prescription to assess interactions of Bull Trout at Wells Dam and the Twisp Weir. He suggested addressing what the *Bull Trout Management Plan* says in terms of interactions. A PIT tag study cannot evaluate survival, but it can evaluate detections below and above a facility and the time it takes in between. Lewis agreed with Nelle that once there are more fish available, a radio telemetry study can be conducted. However, it is not appropriate to defer the entire study because some of the data cannot be collected. PIT tag detections provide good information. A PIT tag study was conducted in the Rocky Reach Project, and it was effective. Maybe additional arrays need to be installed for the study to be more effective, which is why he probed the question. He asked if there are dead spots where additional arrays could be installed to increase the statistical rigor. This is what was done in the Rocky Reach Project, and through PIT detection queries, the study discovered that fish interactions with facilities were higher than expected. Ultimately, he understands the intent of the original radio telemetry study, but good information can still be gained using PIT detections and tagging a few more fish to increase the sample size.

Ferguson summarized that Lewis is arguing that PIT tag data are useful to address the interaction question at Wells Dam and the Twisp Weir, while Gingerich is arguing these data

may not be very useful at Wells Dam. There is a question of whether the methodology and current PIT tag array configuration will allow interactions of Bull Trout with the Twisp Weir to be judged. Lewis asked if more arrays would be helpful and Gingerich answered yes. There is a question of whether a larger sample size is better. Also, are the arrays in the correct place? Lastly, Ferguson noted that if the arrays cannot answer the questions, tagging more fish might not help. Gingerich also noted that the Aquatic SWG still needs to identify the study objectives and what success and failure look like.

Douglas PUD will distribute the PTAGIS query for Bull Trout detections that was shared during today's Bull Trout PIT Tag Study discussion, for consideration in developing study objectives, to be discussed further during the Aquatic SWG conference call on July 14, 2021. *(Note: Andrew Gingerich provided these data following the Aquatic SWG conference call on June 9, 2021, which Kristi Geris distributed to the Aquatic SWG that same day.)*

Lewis said he will also distribute a recent Bull Trout PIT Tag Study design implemented in the Rocky Reach Project. *(Note: Lewis distributed the draft study plan outline,* Chelan PUD 2018 Bull Trout Project Interactions and Genetics Analysis Study Plan*, to the Aquatic SWG on June 25, 2021.)*

6. **Wells Fish Hatchery Brood Year 2020 White Sturgeon Release (Andrew Gingerich):** Andrew Gingerich said an email update titled *Wells Project Brood Year 2020 and 2021 Release* (Attachment C) was distributed to the Aquatic SWG by Kristi Geris on May 28, 2021. The PTAGIS file that was attached to this email was uploaded and accepted by PTAGIS, so these files can now be queried. The release went well and included 338 Wells Fish Hatchery BY 2020 White Sturgeon that were released at Marina Park in Bridgeport, Washington, in concert with the Bridgeport High School Advanced Placement Biology class. At Wells Fish Hatchery and two days before release the fish were interrogated for having a PIT tag, and weight and length data were recorded. A total of four fish were tagged that either shed their tag or didn't receive one initially when PIT tagging occurred back during the first week of January 2021. The first figure in Attachment C shows the distribution of weight data recorded on the fish 2 days before release. Every fish met the 200-gram threshold. At the bottom of Attachment C there is a summary of Wells Fish Hatchery White Sturgeon releases to date, starting with BY 2013 fish released in 2014. Clearly, since the last SOA[2], hatchery staff have done a good job with fish growth. He noted that there has not been much M&E conducted

[2] *Wells Reservoir White Sturgeon Supplementation 2018-2022*, approved by the Aquatic SWG on January 11, 2017, and distributed on January 12, 2017.

on these larger (weight) and more recently released fish, so it will be interesting to see how the M&E data collection goes this year in terms of fish size.

Gingerich announced that Chelan PUD and Douglas PUD agreed on an interlocal agreement where Douglas PUD will use excess capacity at Wells Fish Hatchery to rear 2,250 fish for the Chelan PUD White Sturgeon Supplementation Program. Therefore, this year Wells Fish Hatchery will receive more larvae from Lake Roosevelt compared to past years. Douglas PUD does not foresee any issues with rearing this additional production and meeting obligations for the Douglas PUD White Sturgeon Supplementation Program.

John Ferguson asked if the Chelan PUD program has different fish size requirements that might affect the temperature regimes for the Douglas PUD program or if there are any other implications by adding fish for the Chelan PUD program. Gingerich said he is not sure about the size requirements for the Chelan PUD program, and Aquatic SWG members might know more about the details of that program. The interlocal agreement stipulates that Douglas PUD will provide fish to Chelan PUD at the end of rearing, around two fish per pound or 225-gram average. Based on what Douglas PUD has learned about successes and failures, he sees no issues related to meeting the size threshold and stocking target for the Douglas PUD program while also fulfilling the agreement with Chelan PUD. He noted that Douglas PUD would not agree to bring in another program if there was any thought it would jeopardize the Douglas PUD program.

7. **Wells Fish Hatchery White Sturgeon Stocking Considerations (Andrew Gingerich):** Andrew Gingerich said Jason McLellan was unable to participate in last month's Aquatic SWG conference call. Gingerich recalled discussing using an updated model, such as improving the modeling that was done several years ago that informed the 325-fish at 200 grams program target. He noted that WDFW might have better data in terms exploitation rates, and this year's M&E data might help with an estimation of survival. He asked if Aquatic SWG members want to go through a modeling effort, maybe form a subgroup to discuss this, or use a future meeting to focus on this topic.

   John Ferguson said he recalls during the last meeting, Aquatic SWG members showed interest in forming a subgroup to discuss potential modeling. McLellan said the CCT are supportive of an offline group similar to last time. He asked, which model is the Aquatic SWG interested in—sticking with the simplified Excel spreadsheet or going with the age-structured model that is being used in the Upper Columbia River and in the Rocky Reach Reservoir, and potentially at Grant PUD projects? Laura Heironimus said she is interested in participating in a subgroup. She recalled some discussion about using McLellan's model, and suggested that, if a subgroup meets, this can be discussed further.

Douglas PUD will distribute a Doodle Poll to convene a technical subgroup to discuss future Wells Fish Hatchery White Sturgeon stocking considerations and will report back to the Aquatic SWG during the Aquatic SWG conference call on July 14, 2021. *(Note: considering current workloads, Douglas PUD plans to propose moving this discussion to late summer or fall 2021, which will be discussed during the next Aquatic SWG conference call.)*

8. Upper Columbia Proposal Environmental DNA and Bile Acids Sampling (Ralph Lampman):

Ralph Lampman said he will finalize eDNA and bile acids sampling protocols for discussion during the Aquatic SWG conference call on July 14, 2021.

9. Pacific Lamprey Pilot Passive Integrated Transponder Tag Study in 2021 (Chas Kyger):

Chas Kyger recalled that Ralph Lampman proposed this idea to conduct a pilot PIT tag study using a portion of the translocated Pacific Lamprey planned for release upstream of Wells Dam. Based on these discussions, Douglas PUD developed the draft plan, *2021 Lamprey Translocation/ PIT Tag Passage Pilot Study*, which was distributed to the Aquatic SWG by Kristi Geris on June 7, 2021. The methodology is simple, includes releases in the Wells Dam forebay and within the Wells Dam fishways, and assesses what portion of these fish are detected on upstream arrays. One question is, does the Aquatic SWG think this is a worthwhile effort provided that translocated fish will be used to support this and with the understanding that some fish released might not reach the tributaries and contribute to the overall number of translocated fish? He recalled that the goal of the translocation SOA[3] is to translocate an average of 500 fish per year. The program is currently short of this goal and to reach this goal this year, a total of 825 fish would need to be translocated, which seems unlikely given the recent run sizes. Another consideration is what is required to obtain statistical significance, given what is known about passage rates from past studies.

Lampman said the YN is fully supportive of this plan and can also supplement adults if there is concern about numbers being taken away from the translocation effort. He thinks this study will be informative for planning a full study next year. He noted that Pacific Lamprey are a fecund species, with each female producing 100,000 eggs, so even just one pair can disseminate a lot of eggs. This pilot study might reduce the translocation numbers a little, but in the big picture he thinks there is value.

[3] *To translocate adult Pacific Lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations*, approved by the Aquatic SWG on June 13, 2018, and distributed on June 14, 2018.

Patrick Verhey asked, for fish released below Pool 19, would it be possible to evaluate resident time within the fishways before the fish exit into the forebay? Kyger said yes, detections at Pool 19 can be evaluated against detections in Pools 67 and 68. This would be additional information, but it is not a hypothesis in the study plan because the objective of this study is to compare the within fishway releases to the forebay releases. This is, however, useful information about passage timing and how many fish reach the forebay. *(Note: Douglas PUD further clarified via email, for fish that do not move upstream past Pool 19 and exit into the forebay [or at least make it to Pools 67 and 68] there is no way to determine how much time fish spent in the fish ladder below Pool 19 or if/when the fish moved downstream and exited the fishway into the tailrace.)*

He asked, is there is any indication about run size yet? Lampman said Willamette Falls numbers are pretty high, but this could be related to the lower river flows, and this run is typically higher in numbers earlier in the season. He also has not yet heard back from Columbia River Inter-Tribal Fish Commission regarding their latest forecast model. John Ferguson said he understood that the best forecast is to wait and see the counts at Bonneville Dam. Lampman noted that next month, run counts should be near their peak at Bonneville Dam.

Verhey said he appreciates the work Douglas PUD has put into this pilot study concept. However, he is still trying to weigh the costs and benefits of conducting this pilot study considering the unknowns about the run size and that translocating as many Pacific Lamprey above Wells Dam is really important for the full study planned for next year. Additionally, he questioned whether this pilot study will produce data that Douglas PUD can act on to improve Pacific Lamprey passage at the Wells Project or whether it is more an analysis of whether or not fish want to move upstream when released in the fish ladder. He asked, what is the utility of these data?

Jason McLellan said the CCT need more time to think about this, including discussing this with Kirk Truscott (CCT Anadromous Division Program Manager).

Steve Lewis said USFWS also needs more to time to think about this and discuss it internally, and he asked RD Nelle if he has comments to share at this time. Nelle said he would like to stay on track to conduct a full study when there is enough pheromone present to attract Pacific Lamprey above Wells Dam. If this pilot study compromises this, the Aquatic SWG should consider this. Currently, the goal of the translocation SOA^2 cannot be reached unless the YN provides additional fish, and this needs to be figured out soon.

Breean Zimmerman said Ecology has no further comments and appreciates the discussion.

Ferguson asked, regarding Nelle's comment about timing, what are the timing considerations for Douglas PUD? There is a joint coordination call with the regional fish forums regarding Pacific Lamprey translocation scheduled for July 7, 2021. Should this be folded in with those discussions? Kyger said this is a good approach. There is not a lot of upfront preparations needed, because this pilot study is really just translocation with modified release locations. Also, as Lampman mentioned, there should be a better idea about the run size next month.

Laura Heironimus asked if the plan is to discuss the pilot study with the other fish forums. Ferguson said in his mind, the joint coordination call on July 7, 2021, will provide a better idea of how many fish are heading to the Mid-Columbia River and how many fish the YN can provide. Then the Aquatic SWG can discuss their decision on the 2021 pilot study during the Aquatic SWG meeting on July 14, 2021. Heironimus asked if the Aquatic SWG needs to discuss the pilot study with the other fish forums because some of the fish for the pilot study might not make it upstream of Wells Dam. Lampman said this seems like a good thing to share. He thinks this is the purpose of these coordination meetings—not for decision making, but to share openly about what each entity is doing with these fish. Lewis agreed.

Aquatic SWG members present agreed that the Douglas PUD Pacific Lamprey Pilot PIT Tag Study in 2021 discussion should be shared during the Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the JFP on July 7, 2021. Anchor QEA will add the Douglas PUD Pacific Lamprey Pilot PIT Tag Study in 2021 discussion to the agenda for the Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the JFP on July 7, 2021. *(Note: this topic was added to the agenda, as discussed.)*

Lampman noted that the YN can provide 250 to 300 adult Pacific Lamprey for translocation in the Upper Columbia River, if the run numbers are close to last year.

10. Aquatic SWG Pacific Lamprey Translocation Coordination with the Joint Fisheries Parties (John Ferguson):

John Ferguson said the first joint coordination call is scheduled for July 7, 2021, from 9:00 a.m. to 12:00 p.m. At this meeting, the fish forums can set up the second meeting to touch base on mid-season data and progress.

Patrick Verhey requested that during this first meeting they include a discussion about the proportion of Pacific Lamprey to be translocated in 2021 relative to the total run size at Priest Rapids Dam. Ferguson said this can be added to the agenda for the Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the JFP on July 7, 2021. *(Note: this topic was added to the agenda, as discussed.)*

11. Pacific Lamprey Information Exchange Webinar (Ralph Lampman):

Ralph Lampman said he was unable to attend the sixth Pacific Lamprey Information Exchange Webinar[4]. RD Nelle said he attended but could only provide a list of who presented what. Steve Lewis said the same for him, but a recording of the webinar should be available on the website[5]. Lampman said this was the final webinar in this series, but plans are underway for another series to begin this December 2021, which may be available both in-person and via webinar.

12. 2021 Wells Dam Flows and In-Season Update (Andrew Gingerich):

Andrew Gingerich shared the presentation, *2021 Water Quality and Flow Update* (Attachment D), which Kristi Geris distributed to the Aquatic SWG following the conference call on June 9, 2021.

Slide 2 of Attachment D

Gingerich said the observed river flow at Wells Dam from April to June 2021 was well below the 10-year average.

Slide 3 of Attachment D

Gingerich said during this time frame, some days were as much as 60% below the 10-year average.

Slide 4 of Attachment D

Gingerich said although Wells Dam is currently operating as an 8-unit plant (out of 10 units) there has been little involuntary spill. Daily average total dissolved gas (TDG) levels have been well below the new standard. To note, on June 4, 2021, there was an instantaneous value of 126%; however, he does not think this will count as a noncompliance event. Peak flows at Wells Dam may have already occurred last weekend. The tributary side flows have decreased to approximately 10 kcfs, and he expects flow from Chief Joseph Dam to decrease to approximately 140 kcfs in the next couple of days.

Slide 5 of Attachment D

Gingerich said Douglas PUD has been collecting gas bubble trauma (GBT) data, per the new Ecology requirement to conduct weekly sampling of resident fish. This sampling has been conducted by boat electrofishing in the Wells Dam tailrace. Douglas PUD is also examining salmonids at the Rocky Reach Juvenile Bypass System. In the first 9 weeks of sampling this year almost 1,350 fish have been examined. Sample dates and species examined are listed on

[4] Pacific Lamprey Conservation Initiative's Lamprey Technical Workgroup 4th Annual Lamprey Information Exchange Monthly Webinar Series, which will convene on the second Tuesday of each month from January to June 2021.

[5] Available at: https://www.gotostage.com/channel/plci

this slide. There has been no GBT observed to date. Typically, GBT expression does not occur in fish unless TDG levels are sustained above 125%.

Slide 6 of Attachment D

Gingerich said it has been a dry year in the Lower Columbia River and Lower Snake River. A water supply status as shown in orange and red is poor, which means that the snowpack is essentially gone. Farther north towards Wells Dam the water status is a little better.

Slide 7 of Attachment D

Gingerich said the National Oceanic and Atmospheric Administration's 3-month precipitation forecast is predicting below average precipitation for Washington state.

Slide 8 of Attachment D

Gingerich said the National Oceanic and Atmospheric Administration's 3-month temperature forecast is predicting above average temperatures for Washington state.

Discussion

Breean Zimmerman thanked Gingerich for the update and said it was interesting to see the species richness observed during sampling for GBT. Gingerich said in the first couple of weeks, it was difficult to collect adequate fish numbers and richness. Under the new TDG Rule, Ecology is requiring sampling at least three native non-salmonid species with a minimum sample size of 10 for each fish species. There were some concerns about river temperatures, too. Chas Kyger agreed there has been some difficulties in sampling, but to date the effort has been fairly successful.

Laura Heironimus asked if Douglas PUD has ever observed White Sturgeon exhibiting GBT. Kyger said he has not seen this; however, the sampling efforts for GBT have been conducted via electrofishing and he guesses White Sturgeon are deeper in the water column. Gingerich agreed and said electrofishing reaches approximately 10 feet in depth, which likely does not reach where White Sturgeon are during the daytime hours. He also has not observed GBT in White Sturgeon captured on long lines during M&E efforts. Jason McLellan said White Sturgeon are physostomes and are not as vulnerable to barotrauma but can get gas trapped inside the alimentary canal and in the stomach when brought up from depth. This can be alleviated by burping the fish or putting the fish back down to depth to equalize. Physoclists are more susceptible to barotrauma. Research (e.g., Rich Brown [Pacific Northwest National Laboratory]) has suggested there may be issues with barotrauma in early life stage White Sturgeon larvae before and around the time of gas bladder development. Heironimus thanked McLellan for this clarification.

VII. Administration

1. **Upcoming Meetings (John Ferguson):**
   An Aquatic SWG Pacific Lamprey Translocation Coordination conference call with the JFP will be held on July 7, 2021, from 9:00 a.m. to 12:00 p.m., by conference call.

   The Aquatic SWG meeting on July 14, 2021, will be held by conference call.

   Patrick Verhey noted that he will be on annual leave for the Aquatic SWG meeting on July 14, 2021. *(Note: Laura Heironimus later indicated that she, too, will be unable to attend the Aquatic SWG meeting on July 14, 2021; however, Chad Jackson [WDFW Region 2 Fish Program Manager] will plan to attend on behalf of WDFW, barring any emergent issues that may arise.)*

   Other upcoming meetings include August 11 and September 8, 2021 (location to be determined).

List of Attachments

Attachment A List of Attendees
Attachment B Bull Trout PTAGIS Query File
Attachment C *Wells Project Brood Year 2020 and 2021 Release*
Attachment D *2021 Water Quality and Flow Update*

Attachment A – Attendees

Name	Role	Organization
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
Steve Lewis*	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
RD Nelle	Aquatic SWG Technical Support	U.S. Fish and Wildlife Service
Breean Zimmerman†	Aquatic SWG Technical Representative	Washington State Department of Ecology
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Laura Heironimus	Aquatic SWG Technical Alternate	Washington Department of Fish and Wildlife
Ralph Lampman	Aquatic SWG Technical Representative	Yakama Nation
Jason McLellan	Aquatic SWG Technical Representative	Colville Confederated Tribes

Notes:
† Called into conference call at approximately 11:00 a.m. (during Item VI-9. Pacific Lamprey Pilot PIT Tag Study in 2021).
* Left conference call at approximately 11:30 a.m. (after Item VI-11. Pacific Lamprey Information Exchange Webinar).