



# Conference Call Minutes

## Aquatic Settlement Work Group

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**To:** Aquatic SWG Parties

**Date:** September 10, 2020

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

**Re:** Final Minutes of the August 12, 2020 Aquatic SWG Conference Call

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The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, August 12, 2020, from 10:00 a.m. to 12:15 p.m. Attendees are listed in Attachment A of these conference call minutes.

### I. Summary of Action Items

1. Douglas PUD will coordinate with the Colville Confederated Tribes (CCT) to resolve any discrepancies in the 2019 Pacific Lamprey translocation numbers that have been reported to the Aquatic SWG (Item VI-3). *(Note: Andrew Gingerich spoke with John Rohrback about this and Rohrback agreed with Gingerich's numbers. Rohrback had it in his head that it was 20 and 20 and he too was inclined to trust the computer numbers. Rohrback confirmed the CCT did not hand-count the fish upon release.)*
2. Anchor QEA will send the agreement made today by the Aquatic SWG regarding Pacific Lamprey translocation efforts in 2020 (see Section III below) to Tracy Hillman (Rocky Reach Fish Forum [RRFF] and Priest Rapids Fish Forum [PRFF] Chairman; Item VI-3). *(Note: John Ferguson relayed this agreement to Hillman, as discussed, following the Aquatic SWG conference call on August 12, 2020.)*
3. Douglas PUD will coordinate with Grant PUD to implement the agreement made today by the Aquatic SWG regarding extending Pacific Lamprey collection activities at Priest Rapids Dam in support of translocation efforts in 2020 (Section III; Item VI-3).
4. Douglas PUD, the CCT, Washington Department of Fish and Wildlife (WDFW), and other interested parties will convene outside of the Aquatic SWG to discuss the use of genetics with Dr. Andrea Schreier (University of California, Davis) to meet requirements in the *White Sturgeon Management Plan* and develop a draft Statement of Agreement (SOA) for a White Sturgeon Adult Reproductive Assessment (Item VI-4).
5. Douglas PUD, the CCT, WDFW, and other interested parties will convene outside of the Aquatic SWG to develop a list of topics—regarding spontaneous autoploidy in White Sturgeon supplementation programs—to discuss with the Aquatic SWG, and the Aquatic

SWG will continue discussing the RRFF and PRFF document, *Guidance for Evaluating Spontaneous Autopolyploidy in White Sturgeon Supplementation Programs*, during future Aquatic SWG meetings (Item VI-7).

6. Douglas PUD will coordinate internally with Greg Mackey (Douglas PUD hatchery monitoring and evaluation staff) to assess the feasibility of conducting a passive integrated transponder (PIT)-tag study for Pacific Lamprey at the rotary screw trap in the Methow River (Item VI-9).
7. The Yakama Nation (YN) will send handling and tagging protocols for Pacific Lamprey to Douglas PUD for consideration in assessing the feasibility of implementing a PIT-tag study (Item VI-9).
8. The Aquatic SWG meeting on September 9, 2020 will be held by conference call (Item VII-1).

## II. Summary of Decisions

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

## III. Agreements

1. Aquatic SWG members present agreed to the following statement regarding Douglas PUD's Pacific Lamprey translocation efforts: "In 2020, the initial plan was for an 8-week trapping period for Pacific Lamprey at Priest Rapids Dam. The first 4-week period was intended for translocation above Wells Dam; the second 4-week period was intended for fish to be released at Kirby Billingsley Hydro Park. The Aquatic SWG votes to approve the extension of Douglas PUD receiving Pacific Lamprey from Grant PUD at Kirby Billingsley Hydro Park for the second 4-week period, thereby creating 8 weeks of translocation above Wells Dam in 2020, to be released per the Aquatic SWG SOA, *To translocate adult Pacific Lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations* (approved June 13, 2018)." (Item VI-3).

## IV. Review Items

1. There are no items that are currently available for review.

## V. Documents Finalized

1. There are no documents that have been recently finalized.

## 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:

- Ralph Lampman requested a discussion regarding: 1) Priest Rapids Dam translocation planning (Ferguson noted that this can be discussed under Item VI-3); 2) the YN's Upper Columbia Pacific Lamprey monitoring proposal that was recently submitted (this item was added to the agenda as Item 8); and 3) planning a PIT-tag study using Methow River screw trap captures from 2020 to 2021 (this item was added to the agenda as Item VI-9).
- Steve Lewis requested a discussion of Douglas PUD's allocation of translocated Pacific Lamprey (Ferguson noted that this can be discussed under Item VI-3).

The revised draft July 8, 2020 conference call minutes were reviewed. Sarah Montgomery said there was one outstanding comment to address under the agenda item, *Wells Fish Hatchery Brood Year 2020 White Sturgeon Colville Confederated Tribes (CCT) Larval Collection Update*. Montgomery verified one comment under Item VI-6. Lampman requested an additional edit regarding the duration of trapping for Pacific Lamprey under Item VI-4. Aquatic SWG members present approved the July 8, 2020 conference call minutes, as revised.

Action items from the Aquatic SWG conference call on July 8, 2020, are as follows (note: the following italicized item numbers correspond to agenda items from the July 8, 2020, meeting):

- *U.S. Fish and Wildlife Service (USFWS) and Washington State Department of Ecology (Ecology) will provide Douglas PUD with additional contacts to include on the Aquatic Nuisance Species Management Plan Contact List for notification of any newly discovered aquatic nuisance species in the Wells Project (Item VI-3).*  
The YN also provided an additional contact to include on the list, following the Aquatic SWG conference call on July 8, 2020. Steve Lewis provided the additional USFWS contact on July 14, 2020. This item is complete.
- *Douglas PUD, the CCT, Washington Department of Fish and Wildlife (WDFW), and other interested parties will convene outside of the Aquatic SWG to discuss the use of genetics with Dr. Andrea Schreier (University of California, Davis) to meet requirements in the White Sturgeon Management Plan and develop a draft Statement of Agreement (SOA) for a White Sturgeon Adult Reproductive Assessment (Item VI-5).*  
This will be discussed during today's conference call and is ongoing.

- *Douglas PUD, the CCT, WDFW, and other interested parties will convene outside of the Aquatic SWG to develop a list of topics—regarding spontaneous autopolyploidy in White Sturgeon supplementation programs—to discuss with the Aquatic SWG, and the Aquatic SWG will continue discussing the Rocky Reach Fish Forum (RRFF) and Priest Rapids Fish Forum (PRFF) document, Guidance for Evaluating Spontaneous Autopolyploidy in White Sturgeon Supplementation Programs, during future Aquatic SWG meetings (Item VI-7). This will be discussed during today's conference call and is ongoing.*
- *Douglas PUD will distribute photographs of fish exhibiting mild expression of gas bubble trauma (GBT) that were taken during the pilot effort to collect and monitor resident fish for GBT (Item VI-8).*  
Andrew Gingerich provided a photograph to Kristi Geris on August 4, 2020, which Geris distributed to the Aquatic SWG that same day. This item is complete.

## **2. COVID-19 Updates (John Ferguson):**

John Ferguson asked if Aquatic SWG members had any updates to share regarding impacts of COVID-19 on Aquatic SWG-related monitoring and evaluation activities.

- Steve Lewis said USFWS staff will be teleworking at least through the end of 2020. He said field work and site visits are being conducted on a case-by-case basis and each requires review and approval before the work is initiated.
- The Aquatic SWG had no other COVID-19 updates to announce.

## **3. 2020 Pacific Lamprey Translocation (Chas Kyger):**

### Update on Trapping and Release in 2020

Chas Kyger said Douglas PUD has completed 3 weeks of trapping for Pacific Lamprey and, to date, has collected and translocated 57 fish. He said the first few weeks were slow and numbers continued to build as the trapping effort proceeded (with only 7 fish collected in the first week but over 50 fish in the previous two nights). He said these are low numbers compared to previous years, and there may be an opportunity to get more fish from Grant PUD's trapping efforts, assuming the numbers continue increasing or remain stable. He said the original goal for translocation was for approximately 75% of fish being released below the Methow River and 25% into the Okanogan River. Because only a few fish were collected in the first few weeks, Kyger said these fish were all released into the Methow River because it was not logistically sensible to split the fish into smaller release groups. Now that more fish are being collected, he said the 75%/25% goal will be targeted.

### Clarification on 2019 Translocation Numbers

Ralph Lampman asked for clarification on Pacific Lamprey translocation numbers in 2019. He said the CCT reported that 25 Pacific Lamprey were released in both Omak Creek and the Similkameen River in 2019, but the numbers that Douglas PUD shared did not agree. He also

recalled hearing that temperatures were too warm in the Similkameen River to release Pacific Lamprey, so he asked whether Pacific Lamprey were released in the Similkameen River and if so, where. John Ferguson summarized that either what CCT reported or Douglas PUD's data table should be updated. Andrew Gingerich said he will discuss this discrepancy with the CCT. Lampman also suggested adding release numbers into the data table in future years, in addition to the number of fish that are PIT-tagged. Gingerich said in regard to Lampman's question about release locations in 2019, fish were not released in the Similkameen River but were released in two locations: Omak Creek (26 fish) and Salmon Creek (22 fish). He said this was a change from 2018, when fish were released in three locations, with the majority of fish released in the Similkameen River. In addition to temperature, Gingerich cited access difficulties as a reason that fish were not released in the Similkameen River in 2019. He said avoiding warm temperatures in the Okanogan basin is possible by releasing fish in the Columbia River—such as at the boat launch in Brewster—so that fish can adjust to warm temperatures without being shocked.

Later in the meeting, Gingerich clarified that he ran a Pit Tag Information System query for the 2019 releases and confirmed the release numbers reported were correct: 26 fish in Omak Creek and 22 fish in Salmon Creek in 2019. He said he will follow up with the CCT to discuss the discrepancy. Ferguson asked if the number of fish PIT-tagged is equal to the number of fish released. Gingerich said all fish released were PIT-tagged. *(Note: Gingerich spoke with John Rohrback about this and Rohrback agreed with Gingerich's numbers. Rohrback had it in his head that it was 20 and 20 and he too was inclined to trust the computer numbers. Rohrback confirmed the CCT did not hand-count the fish upon release.)*

#### Translocation Efforts in 2020

Lampman said there was a discussion in the PRFF about translocation efforts in 2020 that he would like to discuss with the Aquatic SWG. He said trapping efforts are in the third week, and next week the allocation will switch to Priest Rapids allocation for Grant PUD's translocation requirements and collected fish will be released at Kirby Billingsley Hydro Park. He asked, since it is a low year for trapping, does the Aquatic SWG prefer to continue collecting available fish and translocating them above Wells Dam? Or is there a need to translocate some below Wells Dam into the Wenatchee or Entiat rivers? He noted that this decision would also require input from the PRFF, so it is important to decide today so that the PRFF can discuss it at their next meeting. Ferguson summarized that trapping is in its third or fourth week, and the sampling period has been extended. He said, with approximately 100 Pacific Lamprey available for translocation through the end of the program, the discussion is about whether collection for Douglas PUD's translocation program should continue for another 4 weeks, for 8 weeks total.

Gingerich said it would be easy for Douglas PUD staff to meet Grant PUD staff at the Hydro Park and take fish to Wells Dam to tag and release them. Ferguson noted that the program is in its third year of a four-year SOA, with a target of 500 fish per year. He asked what is the total number of Pacific Lamprey that have been collected, translocated, and released to date? Gingerich responded around 700 or 800 fish have been released to date, so the program is slightly behind target. He said Douglas PUD supports extending the translocation period to 8 weeks.

Patrick Verhey said more information may be needed from the PRFF on this topic. He said under this proposal to extend trapping, additional adult Pacific Lamprey would be translocated from Bonneville Dam to the Wenatchee River system by the YN. *(Note: Verhey later clarified that Lampman informed him that the YN translocates Pacific Lamprey from Bonneville Dam to the Wenatchee River System. This is done annually and is not related to the SOA.)*

Verhey said there is a potential concern that if all fish trapped at Priest Rapids Dam were translocated above Wells Dam, those fish would be removed from potentially contributing to the Wenatchee River population. Steve Lewis said he sees two parts to this issue: first, whether managers are placing fish in the right locations depending on the run in that year, and second, whether it is appropriate to allocate Pacific Lamprey from below Priest Rapids Dam to above Wells Dam.

Verhey said one issue is that this is a time sensitive matter, and it needs to be coordinated with the PRFF before their next meeting in 3 weeks. He said Grant PUD has concerns about where the fish would be translocated, but the fish could go where the Aquatic SWG decides. Lewis said his understanding is that Douglas PUD would meet Grant PUD at Hydro Park and fish from Bonneville Dam would be relied upon for translocation into the Wenatchee River in 2020.

Lampman thanked Verhey and Lewis for the discussions. Lampman also clarified and corrected a few points. First, adults that the YN translocate to Wenatchee do not come solely from Bonneville Dam; rather, these fish are from a combination of John Day, The Dalles, and Bonneville dams. The YN uses more John Day Dam adults for interior Upper Columbia tributaries (such as the Methow, Wenatchee subbasins) whereas Bonneville Dam adults are used more for lower tributaries, such as the Yakima Basin. Secondly, volitional migrants from Priest Rapids Dam will still encounter Tumwater Dam within Wenatchee Subbasin, preventing these fish from using the upper half of the subbasin, which also includes many productive tributaries as well (Chiwawa, Nason, White, Little Wenatchee, etc.). Adult translocation by the YN not only supplements adults into Wenatchee Subbasin, but it is also helping to distribute

them across the subbasin including reaches above Tumwater Dam, which is still preventing a large and considerable portion of the adult run from passing. If managers relied solely on volitional migrants from Priest Rapids Dam, these areas would not be ceded successfully. Third, the goal of the Aquatic SWG SOA is to translocate as many adults as possible during the 5-year period (initially) to determine whether this could help remedy the potential lack of attraction at Wells Dam. Given the current low numbers, trying to reduce the adults translocated above Wells Dam now would run counter to this original goal and will reduce the effectiveness of this multi-year effort.

Ferguson summarized that there are two components for the Aquatic SWG to consider. First, numbers of Pacific Lamprey being collected are low, so the Aquatic SWG may decide to extend the collection period so that Grant PUD would deliver Pacific Lamprey to Hydro Park and Douglas PUD would translocate those fish upstream of Wells Dam. He said this would be an extension of the trapping period that the Aquatic SWG would need to approve. Second, the source of the fish being translocated, which the PRFF would need to approve. Kyger said one option would be to allocate a percentage of the extended translocation period. Lampman agreed but said if there was a year where there was a lot of fish, developing an allocation may be worth considering; however, with such a low number, it is not worth using proportional allocation. He suggested moving forward with discussing the modified trap schedule. The Aquatic SWG members present drafted and approved the following statement:

In 2020, the initial plan was for an eight-week trapping period for Pacific Lamprey at PRD. The first four-week period was intended for translocation above Wells Dam; the second four-week period was intended for fish to be released at the Hydro Park. The ASWG votes to approve the extension of Douglas PUD receiving Pacific Lamprey from Grant PUD at Hydro Park for the second four-week period, thereby creating eight weeks of translocation above Wells Dam in 2020 per the ASWG SOA on Pacific Lamprey translocation (*Note: editorial edits were made in the final version included in the Action Items in Section 1*).

Ferguson said he will provide this language to Tracy Hillman. Gingerich said he will also follow up with Grant PUD M&E staff to implement the changes.

#### **4. White Sturgeon Adult Reproductive Assessment (Andrew Gingerich):**

Andrew Gingerich said he and Laura Heironimus discussed reproductive assessments for white sturgeon last week. He said they discussed questions and unknowns regarding spontaneous autopolyploidy and meeting the reproductive assessment obligation in the *White Sturgeon Management Plan*. He said Heironimus suggested contacting Scott

Blankenship (Cramer Fish Sciences), who has experience working with white sturgeon genetics. Gingerich said he exchanged emails with Blankenship and expects to hear back from Blankenship again soon. He said he plans to set up a meeting with Heironimus, Jason McLellan, any other interested parties, and Andrea Schreier and/or Blankenship to discuss options for a white sturgeon adult reproductive assessment. He said the Aquatic SWG would likely be relying on Heironimus and McLellan to guide these discussions moving forward throughout the fall and winter. He said Aquatic SWG members have been having more conversations about this topic, outside of the Aquatic SWG, and will plan to have another subgroup call soon.

**5. Wells Fish Hatchery Brood Year 2020 White Sturgeon CCT Larval Collection Update (Jason McLellan):**

Andrew Gingerich said he can provide a brief update on the total catch numbers from the CCT since Jason McLellan is not present. He said on the weekend of July 11, 2020, Douglas PUD and CCT staff fished two nights at Lake Roosevelt to collect larval white sturgeon for brood year 2020. He said they caught increasing numbers of larval fish as the weekend progressed; however, numbers were still limited (approximately 200 to 300 fish per night). He said it was decided that these larval fish would be brought to Sherman Creek Hatchery, where white sturgeon larvae are raised for release into Lake Roosevelt as part of that conservation program. Gingerich said collections of larval fish increased throughout the week and on July 15, Douglas PUD staff picked up 1,715 larval fish and brought them to Wells Fish Hatchery. He said McLellan can provide additional updates on the fishing efforts if anyone has questions.

**6. Wells Fish Hatchery Brood Year 2020 White Sturgeon Rearing Update (Andrew Gingerich):**

Andrew Gingerich said approximately 1,700 larval sturgeon were received at Wells Fish Hatchery from the CCT and Douglas PUD collection efforts (some died due to transport stress, injury from nets, or other causes). Since the larval fish were placed in the hatchery, he said 7% have died during initial rearing. He said the mortality trends are decreasing, water temperatures are around 58°F to 60°F, and the fish have transitioned on to feed. He said during the first month of rearing, the larval sturgeon have begun to differentiate into groups based on growth and size, with the larger fish being approximately three times the size and weight of smaller fish. Due to the differences in growth rates, he said the fish have been graded multiple times to reduce early rearing mortality (the bulk of which generally occurs in the first 60 days). He said the fish tanks are holding between a few hundred fish and 451 fish, and staff are continuing to see decreases in mortality rates. He said overall, Douglas PUD staff are encouraged with the numbers of fish on station as well as their growth and limited

mortalities within the first month of rearing. He said he will continue providing updates on brood year 2020 rearing at Wells Fish Hatchery.

John Ferguson asked if the fish are on Otohime fish feed. Gingerich responded yes and said fish culturists call Otohime feed a “hot diet” because the fish grow quickly. He said automatic feeders are set up at the tanks and the Otohime feed is released in such a manner that the fish can consume the feed along the bottom of the tank. He said from what staff have seen to date regarding behavior and waste in the tanks, the fish have taken to the feed well.

#### **7. Spontaneous Autopolyploidy Guidance Document (ALL):**

Andrew Gingerich said he and Laura Heironimus recently discussed the RRFF and PRFF draft document, *Guidance for Evaluating Spontaneous Autopolyploidy in White Sturgeon Supplementation Programs* (which was most recently distributed to the Aquatic SWG on June 16, 2020, by Kristi Geris). Gingerich said the focus of their conversation was about an approach for screening or not screening fish for autopolyploidy prior to their being released. He said they identified a need to discuss this more in a regional context, understanding that there may be regional screening capabilities. He said, currently, samples are shipped overnight to California. Gingerich said he understands that the CCT have interest in genetic screening of fish that return to Sherman Creek Hatchery as well as screening a portion of wild fish in Lake Roosevelt. He said the purpose of doing some genetic screening initially would be to inform actions that the Aquatic SWG takes with Douglas PUD’s programs. He said getting more information first may help direct the Aquatic SWG’s approach while conversations about options for the programs continue.

#### **8. Upper Columbia Pacific Lamprey RMU Proposal (Ralph Lampman)**

Ralph Lampman shared a proposal that the YN and project partners submitted to the Pacific Lamprey Conservation Initiative, which Lampman distributed to the Aquatic SWG prior to the Aquatic SWG conference call on August 12, 2020 (Attachment B). He said as part of a study conducted in 2018, the YN and partners collected environmental DNA (eDNA) samples from a variety of locations, focusing mainly on areas upstream of Wells Dam and at Wells Dam, as well as samples from Bonneville, McNary, and Rocky Reach dams. In the previous study, he said they found there were many copies of eDNA present at Bonneville, McNary, and Rocky Reach dams, but fewer copies upstream of Wells Dam, and none were detected at Wells Dam. He said they also detected no Pacific Lamprey eDNA copies in the mainstem Columbia River except for at the mouth of the Methow River. He said, now that translocation has been occurring since that study was conducted, the goal is to use this funding mechanism to monitor for changes in eDNA presence throughout the basin—starting in fall 2021—and to

increase the sample size and areas of sampling (such as in the Okanogan and Methow basins, and additional samples at dams). He said ideally, sampling would occur in October 2021, at the end of the migration run, when adults are not moving as much and flows are low; in the following spring during higher flows; and again the following October 2022, to identify any potential annual variation. He said the proposal also includes a component of monitoring for Pacific Lamprey bile acids. He said the bile acid analysis includes a partnership with Michigan State University and Dr. Cindy Baker's (National Institute of Water and Atmospheric Research) lab in New Zealand. He said Dr. Baker's lab has the capability to conduct passive sampling, which allows for concentrating bile acids from longer sampling periods to get better results (as opposed to the grab sampling that Michigan State University uses). He said the proposal includes a comparison of the results from the bile acid analysis to the eDNA analysis to determine whether they correlate. He summarized that the goal of the project is to determine the effects of translocation since it began and to determine whether there is a signal difference between eDNA and bile acids. He said the proposals will be evaluated soon and funding decisions should be provided around December 2020.

Lampman further clarified that the focus of the research is a quantitative analysis of eDNA copies that accounts for variables such as season, time of year, temperature, and basin, and may be used to support existing literature that has described a correlation between the number of eDNA copies and known numbers of Pacific Lamprey in an area. Lampman said, additionally, a high concentration of eDNA and bile acid may or may not correlate with the same variables, informing whether eDNA could be used as a surrogate measurement for bile acids (i.e., pheromones) and/or relative abundance.

John Ferguson asked if the goal is to determine if translocation efforts have been successful in increasing the amount of bile acids above Columbia River dams, and whether that would inform a need to continue or modify translocation efforts at Wells Dam to improve adult passage? Lampman replied yes, and the methods used in the study can measure the impacts of translocation and inform whether adult fish can detect bile acids at Wells Dam.

Ferguson asked if measuring eDNA copies per liter can distinguish individual fish to measure abundance. Lampman replied no, and that the eDNA method does not distinguish between juveniles and adults (bile acids can distinguish life stages based on the chemical makeup). He said larvae may also contribute eDNA to the system, so as multiple year classes rear in some of the areas of this study, eDNA should theoretically increase over time.

Lampman asked the Aquatic SWG if there is any support to fund this research if the proposal is not funded or fully funded. He said the YN is seeking additional funding sources for this important monitoring work to measure the impacts of translocation. Gingerich said during

the 2018 study, Douglas PUD contributed by conducting some of the sampling around Wells Dam, and Douglas PUD would likely be willing to contribute a similar level of effort in 2021. He said additional components of the study may be more difficult to fund, such as bioassay costs. Ferguson proposed discussing this topic again when the outcome of the funding decision from the Pacific Lamprey Conservation Initiative is available.

#### **9. Planning for a PIT-tag Study Using Methow River Screw Trap Captures 2020–2021 (Ralph Lampman)**

Ralph Lampman said he introduced this topic to start a conversation about a potential PIT-tag study using juveniles captured at the Methow River screw trap. He said the trap is installed around February each year, and juvenile Pacific Lamprey are generally collected in high numbers in March and April. He asked the Aquatic SWG if there is interest in planning a monitoring study.

Chas Kyger said he has discussed this potential study with Greg Mackey, who oversees Douglas PUD's Hatchery Monitoring and Evaluation Program. Kyger agreed a PIT-tag study is a relatively inexpensive investment between tagging fish and setting up a collection protocol, and he plans to discuss this more and develop a plan this fall.

Lampman asked if it would help to review YN's methods for handling and PIT-tagging juvenile Pacific Lamprey. Kyger replied yes and Lampman said he will send the protocols.

John Ferguson asked if Lampman is asking the Aquatic SWG to discuss the feasibility of implementing a PIT-tag study starting in 2021, and who would fund the study. Lampman replied yes, he is asking the Aquatic SWG to develop a proposal to look at the feasibility of implementing a PIT-tag study. Ferguson said he agrees this is an interesting study to consider and recommended members consider the purpose of the study, how many tags would be needed, where the tags would be detected, and how it meets the requirements of the Pacific Lamprey Management Plan. He recalled Chas Kyger has previously gathered data on whether juveniles are collected at the screw trap to understand how many Pacific Lamprey could potentially be tagged. Gingerich said this discussion is a first step in the scoping effort, and it will also be helpful to understand outmigration timing, the efficiency of the screw trap, and how the number of Pacific Lamprey being collected at the trap informs assumptions needed for juvenile passage and survival studies in the future. Kyger said he will follow up with Mackey to discuss the feasibility of implementing a PIT-tag study.

Lampman asked what is the detection rate for PIT-tags at the Wells Dam bypass? Gingerich replied it is less than 1% for salmonids so he would expect that it is also less than 1% for juvenile Pacific Lamprey. Ferguson said in the bypass at Spillway 2 the detection rates are

very low but there is not a formal number for detection efficiency. Gingerich agreed and said one reason for the low detection rates is that the PIT array does not cover the entire spillway bypass opening, and for this reason it may not be a useful detection location to use for the study.

Lampman added the YN, Confederated Tribes of the Umatilla Indian Reservation, and USFWS are drafting a proposal to the RRF and Douglas PUD to release PIT-tagged juvenile Pacific Lamprey that were reared by artificial propagation. He said this study includes a paired release with wild juvenile Pacific Lamprey in the Yakima River and potentially the Wenatchee River. The goal of this proposed study is to determine how hatchery- and natural-origin juvenile Pacific Lamprey behave after being PIT-tagged.

## **VII. Administration**

### **1. Upcoming Meetings (John Ferguson):**

The Aquatic SWG meeting on September 9, 2020, will be held by conference call.

Other upcoming meetings include October 14 and November 11, 2020 (conference call).

### **List of Attachments**

Attachment A List of Attendees

Attachment B Project Proposal: eDNA and lamprey bile acids monitoring to assess the impacts of adult translocation in the Upper Columbia Basin above Wells Dam

**Attachment A – Attendees**

<b>Name</b>	<b>Role</b>	<b>Organization</b>
John Ferguson	Aquatic SWG Chairman	Anchor QEA, LLC
Sarah Montgomery	Administration/Technical Support	Anchor QEA, LLC
Andrew Gingerich	Aquatic SWG Technical Representative	Douglas PUD
Chas Kyger	Technical Support	Douglas PUD
Steve Lewis	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Ralph Lampman	Aquatic SWG Technical Representative	Yakama Nation