



Conference Call Minutes

Aquatic Settlement Work Group

To: Aquatic SWG Parties

Date: May 11, 2022

From: John Ferguson, Chair, Anchor QEA, LLC

Re: Final Minutes of the April 13, 2022, Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, April 13, 2022, from 9:00 a.m. to 10:20 a.m. Attendees are listed in Attachment A of these conference call minutes.

I. Summary of Action Items

1. Anchor QEA, LLC, will redistribute the Priest Rapids Fish Forum (PRFF) and Rocky Reach Fish Forum (RRFF) document, *Guidance for Evaluating Spontaneous Autopolyploidy in White Sturgeon Supplementation Programs* (White Sturgeon Spontaneous Autopolyploidy [SAP] Guidance Document), for Aquatic SWG review and further discussion (Item VI-2). (Note: Kristi Geris redistributed this document following the Aquatic SWG conference call on April 13, 2022.)
2. Washington Department of Fish and Wildlife (WDFW) will distribute the web link to access the WDFW Fish and Shellfish Carcass Reporting Form, for Aquatic SWG use, review, and feedback regarding reporting White Sturgeon mortalities (Item VI-4).
3. WDFW will distribute a printable poster containing the quick response (QR) code to access the WDFW Fish and Shellfish Carcass Reporting Form, to post at local public river access areas (Item VI-4).
4. The Confederated Tribes of the Colville Reservation (CTCR) will distribute upper Columbia White Sturgeon mortality protocols (Item VI-4). (Note: Jason McLellan provided two documents on April 18, 2022, which Kristi Geris distributed to the Aquatic SWG that same day.)
5. The Aquatic SWG meeting on May 11, 2022, will be held by conference call (Item VII-2).

II. Summary of Decisions

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

III. Agreements

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

IV. Review Items

1. The *Annual Report Calendar Year 2021 Activities Under the Aquatic Settlement Agreement* (2021 Aquatic Settlement Agreement Annual Report) and appended *2021 Annual Report White Sturgeon Management Plan* (2021 White Sturgeon Management Plan Annual Report), *2021 Bull Trout Management Plan and Incidental Take Annual Report, 2021 Annual Report Water Quality Management Plan* (2021 Water Quality Management Plan Annual Report) and appended *2021 Water Temperature Annual Report, Pacific Lamprey Management Plan 2021 Annual Report* (2021 Pacific Lamprey Management Plan Annual Report), *Aquatic Nuisance Species Management Plan 2021 Annual Report* (2021 Aquatic Nuisance Species Management Plan Annual Report), and *Resident Fish Management Plan 2021 Annual Report* (2021 Resident Fish Management Plan Annual Report) were distributed to the Aquatic SWG by Kristi Geris on March 11, 2022 for a 45-day review with edits and comments due to Douglas PUD and Geris by Monday, April 25, 2022. The revised draft reports for approval were distributed on May 4, 2022.
2. The draft study plan, *Wells Reservoir White Sturgeon Reproduction Assessment* (2022 White Sturgeon Reproduction Assessment Study Plan), was distributed to the Aquatic SWG by Kristi Geris on April 13, 2022, for a 30-day review with edits and comments due to Chas Kyger by Friday, May 13, 2022 (Item VI-7). A revised study plan was distributed on May 9, 2022. A second revised study plan was distributed prior to the Aquatic SWG conference call on May 11, 2022.

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 (Attachment A). Ferguson asked for any additions or changes to the agenda. The following revisions were requested:

- Chas Kyger added the 2022 White Sturgeon Adult Reproductive Assessment Study Plan.
- Ferguson added a notification about Aquatic SWG extranet site administrative access for John Rohrback.

The revised draft March 9, 2022, conference call minutes were reviewed. Kristi Geris said all edits and comments received from members of the Aquatic SWG were incorporated into the revised minutes. A global edit was made updating the Colville Confederated Tribes to the CTCR, per guidance from Kirk Truscott (CTCR Anadromous Division Program Manager). The CTCR will be used moving forward. Geris also closed out an action item. Lastly, distribution of the draft 2021 Aquatic Settlement Agreement Annual Report and appended resource management plan annual reports was added under *Review Items*. Aquatic SWG members present approved the March 9, 2022, conference call minutes, as revised.

Action items from the Aquatic SWG conference call on March 9, 2022, are as follows

(*Note: the following italicized item numbers correspond to agenda items from the March 9, 2022, meeting*):

- *The Yakama Nation will ask Grant PUD and Chelan PUD how the diffuser grating designs in the Priest Rapids Dam and Rocky Reach Dam collection galleries, respectively, compare to the diffuser grating design in the Wells Dam collection galleries, regarding Pacific Lamprey passage and attachable surface area (Item VI-1).*

John Ferguson said there have been several email exchanges since the last meeting and there may be some ongoing discussions on this. Andrew Gingerich agreed and suggested closing out this action item and continuing discussions offline.

- *Resource Co-managers will discuss the timeline and potential modeling needed for setting harvest goals for White Sturgeon in the Wells Reservoir (Item VI-1).*

Jason McLellan suggested removing this action item because these discussions will take time. Aquatic SWG members present agreed to remove this action item.

- *The CTCR will share the results from spontaneous autopolyploidy screening of brood year (BY) 2021 White Sturgeon at Wells Fish Hatchery destined for stocking in the Rocky Reach Reservoir, once available, for further discussion during the Aquatic SWG conference call on April 13, 2022 (Item VI-5).*

A presentation of data was distributed to the Aquatic SWG by Kristi Geris prior to the Aquatic SWG conference call on April 13, 2022. This will be discussed during today's conference call.

2. White Sturgeon Spontaneous Autopolyploidy (Jason McLellan):

Jason McLellan said the presentation, *Lake Roosevelt White Sturgeon Spontaneous Autopolyploidy* (Attachment B) was distributed to the Aquatic SWG by Kristi Geris prior to the Aquatic SWG conference call on April 13, 2022.

Slides 1 to 2

McLellan said Matt Howell (CTCR) helped with this presentation. For background, Lake Roosevelt and the Upper Columbia River (extending 56 river kilometers into Canada) has had

a conservation aquaculture program since 2001, with the first brood released in 2002. This was a conventional broodstock program where wild adults were caught and spawned, which probably resulted in the release of SAP fish that have an extra set of chromosomes. White Sturgeon are normally octoploids and have eight copies of each chromosome (8N). A SAP fish has an extra set of chromosomes—a 12N fish or “triploid”. Since 12N fish are viable, they can spawn and when mating with normal fish produce 10N offspring. The concern is that both 12N and 10N fish may have reduced physiological response to stress and 10N fish may have reduced fecundity and delayed maturation, which can affect future population’s productivity and fitness. It is likely that 12N fish were released and managers did not know it because SAP was not identified until 2011. The prevalence of SAP in the wild population is unknown. The reason this is important for the Aquatic SWG is because this population of wild larvae has been the source for supplementation programs in Lake Roosevelt (since 2011), Wells Reservoir (since 2013), and Rocky Reach Reservoir (since 2021).

Slide 3

McLellan said the CTCR began sampling for SAP in Lake Roosevelt White Sturgeon. Crews collected blood samples during a field survey that collected wild and hatchery fish and through a screening of Sherman Creek Hatchery BY 2020 fish from wild larvae and Chelan PUD BY 2021 fish from wild larvae that are being reared at Wells Fish Hatchery. The blood samples were analyzed in a Coulter counter, which has demonstrated the ability to identify fish of abnormal ploidy.

Slide 4

McLellan said this slide shows the data collected to date. The table on the left is a summary of fish screened at-large from Lake Roosevelt. Under the hatchery column, the data represented include direct gamete-origin fish from conventional brood collection and wild larvae-origin fish. Direct gamete fish represent more BYs than wild larvae-origin fish that were reared in a hatchery and released into Lake Roosevelt for BYs 2011 to 2020. Additionally, as shown under the wild column, a total of five wild fish were evaluated. To note, BY 2020 also included 30 fish from Sherman Creek Hatchery that were runts. Mitch Combs (Sherman Creek Hatchery Manager) requested that these fish be screened for abnormal ploidy levels. In total, 342 fish were screened, including 312 fish captured in the reservoir at-large. Of these fish, 1 “likely” 12N fish was identified and it was from the BY 2017 wild larvae-origin hatchery fish. McLellan classified this as “likely” because the Coulter counter method is not quantifying ploidy specifically; rather, this method looks at the mode of distribution of particle volumes (erythrocyte nuclei). He explained, in the graph on the right, the peak of a distribution for fish of normal ploidy (or 8N fish) is typically around 50 cubic microns. In contrast, the peak of the particle volume distribution of a 12N fish is around

70 to 80 cubic microns. That is, this method is not looking specifically at the chromosomes; rather, it looks for a strong relationship between the chromosome number and cell nuclear volume. This is demonstrated in the Fiske et al. (2019)¹ paper cited on Slide 4.

McLellan said the CTCR are also screening Chelan PUD BY 2021 wild larvae that were collected from Lake Roosevelt and are being reared at Wells Fish Hatchery. In February 2022, the CTCR sampled 1,232 fish and 1 "likely" 12N individual was identified. This individual is the 12N fish shown in the graph on this slide. There are five distributions shown because the sample was analyzed five times to confirm this was not an error.

Slide 5

McLellan said SAP screening is required from some Mid-Columbia River programs. These include Grant PUD for releases in the Wanapum and Priest Rapids reservoirs, and Chelan PUD for releases in the Rocky Reach Reservoir. The agreement amongst the PRFF and RRFF is to only release 8N fish. In response to these SAP screening results, the Co-managers agreed to do the same. The CTCR will now screen all fish in Lake Roosevelt regardless of origin for the foreseeable future and will only release 8N fish.

McLellan suggested now discussing screening and release protocols for the Wells Reservoir.

Discussion

Andrew Gingerich asked if there are plans to sample more fish, notably those from the direct gamete program (in 2001 to 2013) and wild fish. McLellan said the CTCR have a stock assessment planned for this fall 2022, where crews will collect samples and screen all fish handled. This should provide good representation of BYs and sources. Gingerich said it seems the table on Slide 4 has less data for the earlier BYs relative to the more recent BYs. McLellan agreed and said this is partly because fisheries target the larger fish so there are less numbers. Additionally, crews were sampling blood opportunistically, and the 2021 sampling efforts were using small hook setlines, which resulted in smaller-sized fish being caught.

Gingerich said the early data suggest the relative risk could change with more direct gamete fish in Lake Roosevelt. Just looking at BY 2021 fish being reared at Wells Fish Hatchery, the propensity or threat of SAP fish being released into Lake Roosevelt, or another reservoir, is probably low given the math. One of approximately 1,200 fish is an 0.08% probability. He questioned whether there is vulnerability with BY 2021, based on these data. He looks

¹ Fiske et al., 2019. "A Comparison of Methods for Determining Ploidy in White Sturgeon (*Acipenser transmontanus*)."
Aquaculture 507 (2019) 435–442. May 30, 2019. Available at:
<https://www.sciencedirect.com/science/article/abs/pii/S0044848618321616?via%3DIhub>.

forward to seeing more data from the stock assessment. When he checked last, in maybe the mid-2000s, there had been approximately 80,000 fish released into the reservoirs between the three PUDs, and most of these fish had been sired from the direct gamete program. As this relates to Grant PUD and Chelan PUD, it is unknown what is out there. This is an impressive dataset thus far, with mostly encouraging results from fish sampled at Wells Fish Hatchery this year.

Laura Heironimus said WDFW has concerns with releasing 12N fish into the population and amplifying the number of 12N fish above the natural baseline accruing in the wild. As McLellan mentioned, the PRFF and RRFF developed a guidance document that says all wild-caught larvae will be tested. Since then, there have been internal discussions within WDFW about the low risk of SAP; however, next year, WDFW will be updating the White Sturgeon Management Plan to include the same protocols for SAP screening. Although it is unknown how many 12N fish are out there, it is becoming clearer that 12N fish can create a lot of issues in the populations, which is why managers want to get a handle on it. She is leaning toward testing 100% of these fish, and the sooner the better. She thinks any risk of these fish is not a risk worth taking because of how it could impact future populations.

John Ferguson asked about a timeline for the WDFW White Sturgeon Management Plan. Heironimus said the drafting of this plan will not start until next year, but there have been early discussions of what might be included in the plan.

McLellan said the PRFF and RRFF White Sturgeon SAP Guidance Document indicates that all wild larvae should be screened. The Aquatic SWG has not been following this guidance, while waiting for more results, and now SAP fish have been identified in wild-origin larvae. It is difficult to have a requirement for some and not others to only release normal ploidy fish. This was the impetus for Co-managers agreeing to apply this requirement in Lake Roosevelt, as well. In Lake Roosevelt, approximately 3,000 fish need to be screened, while only a few hundred would need to be screened at Wells Fish Hatchery. The risk may be lower and relativity low, but there is still some risk. The position everywhere else is taking no risk is acceptable once the problem is identified.

Gingerich asked, if the CTCR and WDFW also think risk is infinitely small in terms of percent expression and in past BYs prevalence of SAP could be high, how do Co-managers evaluate the risk of numbers stocked thus far from the direct gamete program? How are the Co-managers advising the PUDs to reconcile the direct gamete fish planted thus far that probably present a much larger issue? These fish have been stocked since the mid-2000s and are likely entering reproductive maturity. He is having a hard time reconciling what seems to

be a small risk based on data collected to date, with what seems like a massive amount of risk in fish that have already been released.

McLellan said he understands Gingerich's point. This is an issue of unknown unknowns. When SAP was first identified, it was unknown if this was an isolated incident because no one was screening fish. However, just because this mistake was made in the past is no reason to justify what is right, now. He cannot recall how many fish were stocked that were not screened. However, there were a number of years where stocking targets were not met because Co-managers did not want any risk associated with SAP. These entities were required to screen all fish, and if needed, the stocking numbers were reduced. This was the agreement within these groups and is now how the Co-managers are handling fish in Lake Roosevelt. Any 12N fish caught in the future will be removed, and this may be a request to the PUDs in the future.

Gingerich said from Douglas PUD's perspective, there are not enough data showing that fish reared at Wells Fish Hatchery are likely to increase the prevalence of 12N fish in the population, nor to support screening every fish. It seems this is an action to prevent a risk that is not there.

McLellan said currently, the odds of 12N fish is low. The odds of two 12N fish spawning together, the offspring surviving, and the offspring being captured is low. In all likelihood, 12N fish do occur naturally. However, 12N fish must not occur naturally very frequently or have high survival, or 10N fish would be observed. Predominantly, there are 8N fish. His concern is 12N fish do not survive well, but if programs continue to stock 12N fish, over time, this will amplify 12N fish in the population. He is fairly risk adverse when it comes to this type of thing. There are too many examples of not understanding how things work, making decisions, and then having to come back to correct it. For example, in earlier BYs with direct gamete origin fish in the upper Columbia, we saw lack of recruitment and increased hatchery production, but these fish were not genetically diverse, and managers had to remove the fish. Now there is SAP. This is one of these times managers need to come back and correct it. If programs implement screening now, this reduces the need to correct more later.

John Rohrback asked, conversely, what if the decision is to act based on best intentions, but then 10 years from now, removing 12N fish from wild larvae turns out to be a mistake.

McLellan said he does not believe this will be the case. Currently, there is a relatively small number of 12N fish, and these fish are not something Co-managers want to promote genetically. Rohrback asked about the natural background rate. McLellan said, to his previous point, if there is some level of background rate, where are the 10N fish? Rohrback said if 12N survival is low and prevalence is low, the number of 10N fish would be really low.

Heironimus offered to redistribute the PRFF and RRFF White Sturgeon SAP Guidance Document because it has helpful background information and could be useful to review again. Ferguson said Anchor QEA can redistribute this document for Aquatic SWG review and further discussion. *(Note: Geris redistributed this document following the Aquatic SWG conference call on April 13, 2022.)*

McLellan asked, why the reticence and at what level of 12N would Douglas PUD deem it necessary to start screening and removing abnormal ploidy fish? Gingerich said his personal reticence is his multi-layered role and trying to evaluate risk with any program, not just larval-origin or acceptance of the direct gamete program. Throughout the Columbia River, Co-managers implement artificial selection processes that are higher risk than the 0.08% expression of SAP released to the river, and there is no good idea about natural background rate of SAP. Decisions are made in and out of other forums that, in his opinion, are quite risky. He is trying to digest different views of risk adverseness relative to other decisions made in the Columbia River. He is trying to understand how much the White Sturgeon program at Wells Fish Hatchery is a conservation program, versus a put-and-take fishery. All of these things are floating around in the context of this conversation, and he is trying to reconcile these perspectives, which is the reason for his apprehension to adopt this without some thought. He looks forward to further discussions on this topic.

McLellan agreed that a lot of actions are implemented that are not well-supported in science for a species. However, these risks are taken because of a lot of reasons and pressures that are not present here. This is not a put-and-take fishery. This program is supposed to result in an adult population of over 1,000 fish, with the intentions these fish will reproduce and at least maintain this size population and acknowledging that in some years there might be wild recruitment. He understands Gingerich's thoughts about other populations and species, but this is a completely different situation with different pressures. Additionally, the number of fish needing to be evaluated is just in the hundreds.

Ferguson summarized that this discussion has been ongoing since last year, including reviewing and discussing the PRFF and RRFF White Sturgeon SAP Guidance Document, and now these discussions, today. It seems the next steps are for Aquatic SWG members to review the SAP guidance document, and for Douglas PUD to spend time offline discussing how to proceed, and then put this topic back on the agenda when the time is right.

Ferguson asked if this discussion is up against a sampling deadline. McLellan said it depends. If the Aquatic SWG agrees that screening should start with BY 2021, a decision needs to happen in the next couple of months.

Gingerich agreed with the next steps, as outlined. He does not believe Douglas PUD agrees about the need to sample BY 2021 in the next couple of months. He would like time to further review the data presented today and reach out to individual Aquatic SWG members.

3. Brood Year 2021 White Sturgeon Rearing and Tagging Update (Chas Kyger):

Chas Kyger summarized a BY 2021 White Sturgeon Rearing Update (Attachment C), which was distributed to the Aquatic SWG by Kristi Geris prior to the conference call on April 13, 2022. Kyger said currently, there are 332 fish on station at Wells Fish Hatchery for the Douglas PUD program, averaging over 500 grams each in most tanks, which is well-above the target fish size. The Chelan PUD fish are shaded in blue (in Attachment C), and have largely achieved size targets, aside from a few smaller tanks. All fish are on track for a target release date in the end of May 2022, which is being coordinated with Bridgeport High School.

John Ferguson noted the one tank with 19-gram average-sized fish. Kyger said every year there is one tank with fish that do not grow as fast. The hatchery manager is working to increase these fish sizes.

4. White Sturgeon Mortalities Related to High Water Temperatures and Regional Coordination (Laura Heironimus):

Laura Heironimus said that in the lower Mid-Columbia River, WDFW has been holding regular meetings to discuss White Sturgeon projects downstream of McNary Dam. One topic that has come up is the reporting of White Sturgeon die-offs. A few years back, there was a large die-off, and last year there was concern about a similar situation, but a die-off did not occur. To track White Sturgeon die-offs, she has been working on a public information sharing tool.

Heironimus shared on WebEx a WDFW Fish and Shellfish Carcass Reporting Form. She hopes to update the form to be more generic. There is an interactive map, where the user can pan and zoom to a location and submit a report. There was feedback to include more information, so the form was expanded to include shellfish. There is an option to upload photos. Then, WDFW can use this information to locate the carcass. This is a first draft of this web tool. Posters are available with a QR code that leads to the form for reporting. She asked, is this type of monitoring is useful to the Aquatic SWG, and if she provided posters would members print and post these at local boat ramps? She can also share these reports with the Aquatic SWG. She said the map can be expanded farther into Canada, if this is useful. She said she will distribute the web link to access the WDFW Fish and Shellfish Carcass Reporting Form, for Aquatic SWG use, review, and feedback regarding reporting White Sturgeon mortalities.

Andrew Gingerich asked if Heironimus has tried viewing this tool on a smartphone? Heironimus said she has, and it is easy to use. Gingerich said Douglas PUD can post flyers around the Wells Project. Heironimus said she will distribute a printable poster containing the QR code to access the WDFW Fish and Shellfish Carcass Reporting Form, to post at local public river access areas.

Heironimus asked if this is a tool Aquatic SWG members and Douglas PUD staff would use, and if it would be useful to have a more scientific form with more data fields? Gingerich said he would defer to her on formatting. In the past, Douglas PUD staff have communicated details, as needed, to the Natural Resources Department.

Heironimus said, ultimately, WDFW's interest is getting ahead of the public. Staff receive a lot of questions, and it helps to be aware of a situation ahead of time. Additionally, there is interest in evaluating environmental conditions when die-offs occur and looking at ways to mitigate this risk in the future.

Jason McLellan asked if WDFW has plans to perform necropsies or investigate these deaths. He said it should not be assumed every mortality is heat related. Heironimus agreed, and said WDFW has tried to perform necropsy work, but her understanding is if the fish is not fresh, nothing valuable can be gained from them. That is, the data collected in the past were inconclusive because the fish had been dead for too long. After discussing this with fish health specialists, the fish needs to be alive or have just died to obtain valuable data. Therefore, there are no plans to perform this testing.

McLellan said the CTCR have upper Columbia White Sturgeon mortality protocols; however, most mortalities occur in the B.C. Canada reach and are addressed under special protocols (Species at Risk Act-listed) coordinated with the Department of Fisheries and Oceans, Canada. John Ferguson asked about the causes of the B.C. Canada mortalities. McLellan said the causes vary and are not mass die-offs. He suggested investigating the mortalities even if no samples are collected to perform a tissue culture and looking for hook and line marks or physical damage indicative of a mechanical blow, such as at a dam or from a boat motor prop. He suggested trying to categorize the observations to a degree. A mass die-off is likely related to some environmental condition. When there are reports of mortalities in the Upper Columbia River, the CTCR like to examine these to get at the cause.

Heironimus said when WDFW receives reports, staff are sent to the location to gather information, scan for tags, and conduct a general examination to see if there are obvious causes for the mortality. For Green Sturgeon, she has been in contact with National Oceanic and Atmospheric Administration staff about obtaining permits to examine mortalities. She

asked if McLellan could share the upper Columbia White Sturgeon mortality protocols, and McLellan said he will. *(Note: McLellan provided two documents on April 18, 2022, which Kristi Geris distributed to the Aquatic SWG that same day.)*

Gingerich suggested contacting creel crews about this online reporting tool, because these crews are in contact with a lot of fishermen and might be able to share some of this information. Heironimus agreed and said she has already been reaching out to WDFW District Biologists.

5. Coronavirus Disease 2019 Updates (John Ferguson):

John Ferguson asked if Aquatic SWG members had any new updates to share regarding coronavirus disease 2019. No new updates were shared.

6. Wells Project Water Year Forecast (John Rohrback):

John Rohrback said a *Wells Project Water Year Forecast* (Attachment D) was distributed to the Aquatic SWG by Kristi Geris on April 11, 2022. Rohrback said this year, Columbia River discharge to date is trending a little above average at Wells Dam. Snowpack is also a little above average throughout most of the basin upstream of Wells Dam but is not so great in the Snake River Basin. The seasonal temperature outlook is for temperatures to be a little below normal, and the seasonal precipitation outlook is normal, based on charts compiled by National Oceanic and Atmospheric Administration for the April to June 2022 period. The predicted water year total is currently 107% of average at Grand Coulee Dam. It is hard to tell how much water will result from snow melt, but these data will be updated in the coming months. Most of this information and more detailed information on the water supply forecast can be found at the weblink on Slide 7 of Attachment D.

7. 2022 White Sturgeon Adult Reproductive Assessment Study Plan (Chas Kyger):

Chas Kyger said he plans to distribute a draft 2022 White Sturgeon Adult Reproductive Assessment Study Plan for Aquatic SWG review later today, and Douglas PUD will add this to the Aquatic SWG conference call agenda for May 11, 2022.

The draft study plan was distributed to the Aquatic SWG by Kristi Geris following the Aquatic SWG conference call on April 13, 2022, and is available for a 30-day review with edits and comments due to Kyger by Friday, May 13, 2022. A revised study plan was distributed on May 9, 2022. A second revised study plan was distributed prior to the Aquatic SWG conference call on May 11, 2022.

8. Pacific Lamprey Information Exchange Webinar Series Update (Ralph Lampman):

Ralph Lampman said the fourth Pacific Lamprey Information Exchange Webinar² occurred yesterday, on April 12, 2022, but he was unable to attend.

VII. Administration**1. Aquatic SWG Extranet Administrative Access – John Rohrback (John Ferguson):**

John Ferguson notified the Aquatic SWG that John Rohrback was granted administrative access to the Aquatic SWG extranet site to upload documents to the Pacific Lamprey literature review libraries.

2. Upcoming Meetings (John Ferguson):

The Aquatic SWG meeting on May 11, 2022, will be held by conference call.

Other upcoming meetings include June 8 and July 13, 2022 (location to be determined).

List of Attachments

Attachment A List of Attendees

Attachment B *Lake Roosevelt White Sturgeon Spontaneous Autopolyploidy*

Attachment C Brood Year 2021 White Sturgeon Rearing Update

Attachment D *Wells Project Water Year Forecast*

² The Pacific Lamprey Conservation Initiative's 5th Annual Lamprey Information Exchange Webinar Series convenes on the second Tuesday of each month, from January to May 2022.

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
John Rohrback	Aquatic SWG Technical Support	Douglas PUD
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	Confederated Tribes of the Colville Reservation

Notes:

* Joined conference call as it was ending (was not present during approval of the March 9, 2022, conference call minutes)