



# Conference Call Minutes

## Aquatic Settlement Work Group

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**To:** Aquatic SWG Parties

**Date:** December 13, 2017

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

**Re:** Final Minutes of the November 8, 2017 Aquatic SWG Conference Call

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The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, November 8, 2017, from 10:00 to 11:45 a.m. Attendees are listed in Attachment A of these conference call minutes.

### I. Summary of Action Items

1. Douglas PUD will develop a draft Statement of Agreement (SOA) describing how Douglas PUD will support Pacific Lamprey translocation efforts in future years (Item VI-1).
2. Andrew Gingerich will revise the figure showing total daily Pacific Lamprey counts at Wells Dam during reduced head differential treatment periods to include flow, temperature, and Rocky Reach Dam Pacific Lamprey count data; the figure or figures will be included in a technical memorandum (Item VI-4). *(Note: the memorandum was updated as discussed, and was distributed to the Aquatic SWG by Kristi Geris on November 28, 2017.)*
3. Douglas PUD will provide Wells Dam turbine unit flow, Rocky Reach Dam forebay elevation, and Wells Dam tailrace elevation data, grouped in zones as requested, to Kristi Geris for distribution to the Aquatic SWG (Item VI-5).
4. The Aquatic SWG will formalize responses to the questions received from the Pacific Lamprey Subgroup on October 11, 2017, in the form of the Aquatic SWG-approved November 8, 2017 meeting minutes, which will be provided to Tracy Hillman (Rocky Reach Fish Forum [RRFF] Facilitator) for distribution to the subgroup (Item VI-6).
5. The Aquatic SWG meeting on December 13, 2017, will be held by **conference call** (Item VII-1).

### II. Summary of Decisions

1. Aquatic SWG members present approved the 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Report, as revised, with the Yakama Nation (YN) abstaining (Item VI-2).

### III. Agreements

1. Aquatic SWG members present agreed to provide responses to the questions received from the Pacific Lamprey Subgroup on October 11, 2017, in the form of the Aquatic SWG-approved November 8, 2017 meeting minutes (Item VI-6).

### IV. Review Items

1. There are no documents currently available for review.

### V. Documents Finalized

1. The Final Public Transition Plan for Wells and Methow Fish Hatcheries was distributed to the Aquatic SWG by Kristi Geris on November 7, 2017 (Item VI-3).
2. The Final 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Report, which was filed with the Federal Energy Regulatory Commission (FERC) on November 9, 2017, was distributed to the Aquatic SWG by Kristi Geris on November 15, 2017 (Item VI-2).

### 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 are listed in Attachment A) and reviewed the agenda. Ferguson asked for any additions or other changes to the agenda. No additions or changes were requested.

The revised draft October 11, 2017 conference call minutes were reviewed. Kristi Geris said all comments and revisions received from members of the Aquatic SWG were incorporated into the revised minutes and there are no outstanding edits or questions to discuss. Aquatic SWG members present approved the October 11, 2017 conference call minutes, as revised. Bob Rose said the YN will abstain, because Rose was not present during the October 11, 2017 conference call.

Action items from the Aquatic SWG meeting on October 11, 2017, are as follows (note: the following italicized item numbers correspond to agenda items from the October 11, 2017 meeting):

- *Douglas PUD will provide Wells Dam turbine unit flow, Rocky Reach Dam forebay elevation, and Wells Dam tailrace elevation data to Kristi Geris for distribution to the Aquatic SWG (Item VI-1).*

Andrew Gingerich provided these data to Geris on November 7, 2017, which Geris distributed to the Aquatic SWG that same day. This will be discussed during today's conference call.

- *Douglas PUD will develop a draft SOA describing how Douglas PUD will support Pacific Lamprey translocation efforts in future years (Item VI-1).*

This action item will be carried forward.

- *Andrew Gingerich will revise the figure showing total daily Pacific Lamprey counts at Wells Dam during reduced head differential treatment periods to include flow, temperature, and Rocky Reach Dam Pacific Lamprey count data; the figure or figures will be included in a technical memorandum (Item VI-2).*

Gingerich said this memorandum should be ready for distribution and review by the end of this week. This action item will be carried forward.

- *Sarah Montgomery will distribute the review timeline for Douglas PUD's Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Report to the Aquatic SWG (Item VI-5).*

Montgomery distributed the review timeline following the meeting on October 11, 2017.

## **2. DECISION: 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Report (Andrew Gingerich):**

Andrew Gingerich recalled discussing this study and the results at length during the last Aquatic SWG meeting on October 11, 2017. He said Douglas PUD requested an expedited review in order to obtain approval of the report during the meeting today, and submit the report to FERC in early November 2017, per the 5-year license compliance deadline.

Gingerich said Douglas PUD responded to comments received from Ralph Lampman (YN) via email (distributed to the Aquatic SWG on October 31, 2017); however, Lampman's comments and Douglas PUD responses were just points of clarifications and more specific to Pacific Lamprey rather than report modifications and there were no major changes made to the report. Gingerich said Patrick Verhey provided Washington Department of Fish and Wildlife (WDFW) comments, which were incorporated into the report. Gingerich noted that WDFW comments were similar in nature to Steve Lewis' U.S. Fish and Wildlife Service (USFWS) comments, which were also incorporated into the report. He said a revised draft report was then distributed to the Aquatic SWG by Kristi Geris on November 1, 2017. Gingerich said the revised report included comments and Douglas PUD's responses in redline for the purposes of this meeting and to allow reviewers to see how comments were addressed. He said Douglas PUD is requesting approval of this redlined version. He said the redlines and comments will be removed and the report will be formatted prior to final distribution.

John Ferguson asked if RD Nelle (USFWS) provided any input on the report. Gingerich said Nelle did not submit comments; however, he sent an email indicating support for the comments and questions submitted by Lewis. Lewis added that he discussed internally

USFWS comments and Douglas PUD's responses, and USFWS approves the report with redlines incorporated, as stands.

Bob Rose said he has not had a chance to thoroughly review the report; therefore, the YN will abstain from voting.

Aquatic SWG members present approved the 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Report, as revised, with the YN abstaining.

*Note: The Final 2016-2017 Bull Trout Passage and Take Monitoring at Wells Dam and Twisp River Weir Study Report, which was filed with FERC on November 9, 2017, was distributed to the Aquatic SWG by Geris on November 15, 2017.*

### **3. Wells Fish Hatchery Brood Year 2017 White Sturgeon Rearing Update (Andrew Gingerich):**

Andrew Gingerich said based on the most recent hand count, there are currently 1,269 brood year 2017 White Sturgeon on station at Wells Fish Hatchery. He said on October 23, 2017, when fish were still graded into three tanks, average fish sizes were as follows:

<b>Tank</b>	<b>Average weight per fish</b>	<b>Fish per pound</b>
Larger fish	5.0 grams	89.8
Mid-size fish	2.5 grams	181.2
Smaller fish	2.6 grams	174.4

Gingerich said on November 3, 2017, fish were visually graded into four separate tanks. He said three tanks are being heated about 4 to 5 degrees Fahrenheit (°F) above ambient water temperature. He said the fourth tank, which holds 350 of the 1,269 fish on station, is on ambient water. He said the fourth tank is more of an insurance group and were held back to make sure fish on heated water respond well to the warmer conditions. He said the colder water helps prevent fish from converting and growing, and also helps to prevent disease-causing bacteria from growing in the tanks. He said about 75% of all fish on station are on warm water. He said with all four tanks, Douglas PUD is well-above program in terms of total fish available (targeting 325 fish at 200 grams per fish for release in June 2018).

Jason McLellan asked what the ambient water temperature is at Wells Fish Hatchery, and what temperature is being targeted for the heated tanks. Gingerich said the ambient water temperature is 55.4 °F, and the heated tanks are at about 59 to 60 °F, with 60 °F as the target

temperature. McLellan asked how long these fish have been on heated water. Gingerich guessed roughly 1 month, maybe coming up on 2 months.

John Ferguson noted that the Final Public Transition Plan for Wells and Methow Fish Hatcheries was distributed to the Aquatic SWG by Kristi Geris on November 7, 2017. Ferguson said the plan was also recently distributed to the Habitat Conservation Plan (HCP) Coordinating and Hatchery Committees. He asked if there have been any issues with the transition in terms of White Sturgeon rearing at Wells Fish Hatchery that the Aquatic SWG should be aware of.

Gingerich said there have been a few small hiccups, as to be expected with operating a large facility and new staff. He said everyone is learning together, notably about water use and heating the tanks. He said, however, without getting into the little details, everything is going fairly well given the circumstances.

#### **4. Wells Dam Pacific Lamprey Count Data and Technical Memorandum (Andrew Gingerich and Chas Kyger):**

Chas Kyger said this technical memorandum is almost ready for distribution. He said generally, the results described in the memorandum have already been shared and discussed with the Aquatic SWG. He said the only new information will be a brief discussion and graphs on counts and interactions. He noted that he will also revise the figure showing total daily Pacific Lamprey counts at Wells Dam during reduced head differential treatment periods to include flow, temperature, and Rocky Reach Dam Pacific Lamprey count data, per Ralph Lampman's suggestion. Gingerich said the draft memorandum should be available for review by the end of this week. *(Note: the memorandum was updated as discussed, and was distributed to the Aquatic SWG by Kristi Geris on November 28, 2017.)*

John Ferguson asked if the memorandum will be available for a 30-day review; and if so, will obtaining approval of the memorandum after the Aquatic SWG meeting on December 13, 2017 be an issue? Kyger said this timeline is okay and added that this memorandum is not a FERC requirement and does not have a hard deadline. He also added that 30 days seems necessary with the holidays and other annual review items on everyone's agenda.

Steve Lewis asked if the memorandum will include a discussion in terms of Rocky Reach Dam to Wells Dam conversion rates. Gingerich said, not in this document. He said this document just focuses on the "lamprey operations"<sup>1</sup> implemented at Wells Dam from September 1 to

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<sup>1</sup> A temporary 1.0-foot fishway-entrance head differential from 22:00 to 04:00 daily in alternating 3-day blocks with normal operations.

30, 2017. He said basically, this memorandum addressed what these lamprey operations mean in terms of counts and control periods.

Bob Rose asked Douglas PUD to briefly summarize the results of implementing the lamprey operations. Chas Kyger said there are no groundbreaking results to report. He said a few less Pacific Lamprey entered the fishway during the lower head differential treatment; however, there was also a limited sample size. He said there were only five treatment and control periods. He said the data were not statistically significant, and can only be considered as anecdotal evidence. He said there does not seem to be a big difference between the 1.5- and 1.0-foot head differential in terms of Pacific Lamprey counts. He said the same was observed with Steelhead (no significant difference in counts in low versus normal differentials). He said this is what was observed in 2013, as well; small differences and nothing to conclude statistically.

Rose asked if Douglas PUD has any interest in repeating this study or some variation of it (i.e., how does Douglas PUD want to proceed with these results?). Kyger recalled that 2017 was mostly an opportunistic, observational study. He suggested that if this study is repeated in the future, it should be designed so individual fish, passage timing, and history can be monitored, which will produce clearer results of whether head differentials have an effect. He said Douglas PUD has not planned to repeat this study, but is open to discuss the option if the Aquatic SWG is interested. Gingerich agreed with Kyger, reiterating that no statistically significant results were observed, similar to past studies. Gingerich said these lamprey operations are easy enough to implement again, provided Wells HCP Coordinating Committee approval; however, head differentials do not appear to be a pressing issue. Patrick Verhey agreed with Kyger and Gingerich.

Lewis asked if the data would be statistically significant if the number of treatment and control blocks were increased. Kyger said statistically, the difference was so small the blocks could have been implemented all summer and the results still would not be significant. He said the smaller the differences, the greater the sample size needed to get statistically significant results. He said if the study was designed differently, it may have informed more. He said, however, he is not confident the sample size will ever be large enough to get statistically significant results.

Lewis asked what preparation needs to occur, and when, in order to implement a similar study for the entire Pacific Lamprey run next year (and avoid repeating a shortened study). Ferguson recalled the framework the Aquatic SWG has discussed and agreed to. He said Douglas PUD is supporting translocation, and in the interim, the Aquatic SWG is considering different study designs so when it is time to move forward, a design is ready to be

implemented. He said within this framework, there is this technical memorandum, which the Aquatic SWG needs to review. He said after review of the data, the Aquatic SWG needs to discuss how to move forward, and then the details (e.g., dates, tags) will be discussed.

Lewis asked if this path forward will be discussed in the technical memorandum. Ferguson said no, this memorandum strictly addresses results of 2017 the lamprey operations that were tested. He added, however, that this memorandum will inform the overall Pacific Lamprey discussions. Gingerich said what Ferguson explained seems consistent with what the Aquatic SWG has discussed, and he has nothing more to add.

**5. Wells Dam Turbine Discharge Operations from 2005 to 2006 (Andrew Gingerich):**

Andrew Gingerich recalled, during the Aquatic SWG meeting on July 12, 2017, Steve Lewis asked about how turbine unit spill might affect Pacific Lamprey passage; and given the time of year, Bob Rose suggested reviewing unit-specific discharge rather than spill. Gingerich also recalled the reason 2005 and 2006 data were being discussed was due to the good conversion rates observed in 2005 versus the poor conversion rates observed in 2006. He said he requested these data from Wells Dam operations staff, and Wells Dam turbine unit flow and Rocky Reach Dam forebay elevation data (Attachment B) were distributed to the Aquatic SWG by Kristi Geris on November 7, 2017.

Gingerich reviewed Figure 1 in Attachment B, noting the similar total megawatt production in 2005 versus 2006 during the peak Pacific Lamprey passage period (from August to October). He said this time of year is a seasonally low river flow period, and typically, there is not a lot of demand for power production (the period is a time of the year when air conditioning is turned off and before heaters are turned on). He also noted the 5-day on and off cycle, which he guessed has something to do with industries being shutdown on the weekends.

Gingerich reviewed Figures 2 and 3 in Attachment B, and said it was difficult to discern real differences using megawatt-specific values. He did note that in Figure 2 (2005), Unit 1 was never on while all other units switched on and off throughout the day; and Unit 3 was used quite a bit. He said this time of year, units are often removed from service for biannual maintenance and he suspects that in 2005 Unit 1 was out of service for maintenance. He said in Figure 3 (2006), it appears Unit 1 was used more heavily while other units were offline for maintenance.

Gingerich reviewed Figure 4 in Attachment B, which shows Rocky Reach Dam forebay elevation data. He said there is not a graph for the Wells Dam tailrace; however, the Rocky Reach Dam forebay serves as a proxy for the Wells Dam tailrace. He noted in 2005 and 2006, during the peak of the Pacific Lamprey migration, the Rocky Reach Dam forebay was

operating within a 0.5-foot range during these periods. He said this is a fairly low profile. He said he also requested data for the Wells Dam tailrace; however, he believes the data will be similar to the Rocky Reach Dam forebay data.

Rose questioned whether there is importance behind units being on or off, and he asked where Unit 1 is located. Gingerich said Unit 1 is located along the right bank (west). Rose suggested grouping data for select units based on their location in order to parse out the data. Gingerich said he is unsure if or how units being on and off affect Pacific Lamprey passage, but he agreed Rose has a good suggestion. Rose said once the data are grouped, it can be filtered to show Pacific Lamprey passage times.

John Ferguson said, considering Figure 2 in Attachment B, the only thing he can glean from these data is the question of whether having Unit 1 off in 2005 may have helped Pacific Lamprey locate the fishway by allowing the fish to move into the vicinity of the entrance. He said a block design with Unit 1 operating or turned off and based on individually-tagged fish could evaluate this question. Rose agreed.

Gingerich said count window data for the east and west fish ladders at Wells Dam from 1998 to 2005 indicate Pacific Lamprey favor the east fish ladder roughly 2:1 compared to the west ladder. He said Unit 10 is the eastern-most unit in the powerhouse. He said, therefore, in 2005, Unit 1 was off during the peak Pacific Lamprey migration period and there was again the same ladder favorability as observed in past years.

Ferguson then questioned how often, and in what years, was Unit 10 on or off? He questioned if there are hydraulic patterns in the Wells Dam tailrace that cause Pacific Lamprey to favor the east fish ladder. He asked about the structure of the tailrace or turbine operations. He asked how often multiple turbines are used for only 40 megawatts of production.

Gingerich said 40 to 100 megawatts of production rely on 2 to 3 turbine units; however, the data suggests, all available units are being turned on and off throughout day. He said he is unsure why, but guessed there is good operation-specific reason.

Gingerich said Douglas PUD will provide Wells Dam turbine unit flow, Rocky Reach Dam forebay elevation, and Wells Dam tailrace elevation data, grouped in zones as requested, to Geris for distribution to the Aquatic SWG.

Rose also suggested to begin thinking about hypothesis statements.

## 6. Pacific Lamprey Subgroups of the Fish Forums – Questions for the Aquatic SWG (Andrew Gingerich and Chas Kyger):

John Ferguson recalled that the Priest Rapids Fish Forum (PRFF), RRFF, and Aquatic SWG held a Pacific Lamprey Subgroup workshop on October 4, 2017. Ferguson said the subgroup asked Tracy Hillman to deliver a list of questions to the Aquatic SWG, which Sarah Montgomery emailed to the Aquatic SWG on October 11, 2017.

Steve Lewis said it seemed these questions were based on concerns expressed by Chelan PUD that Douglas PUD is not closely examining Pacific Lamprey passage issues in the Wells Dam tailrace and through Wells Dam and the Wells reservoir.

Patrick Verhey said he attempted to explain past Douglas PUD Pacific Lamprey studies to the best of his knowledge; however, it would have benefited to have a Douglas PUD representative participate in the workshop.

Andrew Gingerich apologized that no Douglas PUD representatives were available to attend the workshop. He said the questions received from the subgroup are questions Douglas PUD has already discussed within the Aquatic SWG and with stakeholders. These questions and Douglas PUD's responses were discussed, as follows:

Question #1: Is there any evidence that adult Sturgeon are in the fishways and tailrace of Wells Dam during the time adult Pacific Lamprey are migrating through the project area?

Gingerich said, as the regional fish forums all know, Chelan PUD's White Sturgeon monitoring and evaluation (M&E) data clearly demonstrate that White Sturgeon are oftentimes present in the Wells Dam tailrace. He said there are hot spots within the Rocky Reach Reservoir and the Wells Dam tailrace is one of them.

Gingerich said additionally, Douglas PUD recently reviewed Chelan PUD acoustic telemetry data and Douglas PUD 2016 Pacific Lamprey acoustic data, which showed that White Sturgeon can enter the collection gallery at Wells Dam. He said, for example, an acoustically tagged adult White Sturgeon and an acoustically tagged subadult were detected in the collection gallery at a time that coincided with the tail end of the Sockeye Salmon run (July), as well as during a time of peak Pacific Lamprey interaction at Wells Dam. He said the degree of overlap of Pacific Lamprey and White Sturgeon in the Wells Dam tailrace is unknown; however, data show White Sturgeon can enter the collection gallery, and quite a few White Sturgeon are present in the tailrace during the Pacific Lamprey migration at Wells Dam. He said he is not trying to characterize this as the reason why Pacific Lamprey are not entering the tailrace at Wells Dam; however, this could be a contributing factor (and more importantly, attempts to answer the original question posed by Hillman).

Verhey commented this is interesting to that hear White Sturgeon are actually entering the collection gallery at Wells Dam. Gingerich said more than two fish, but two fish in particular, spent a lot of time in the collection gallery in 2016. He recalled, there are acoustic receivers inside of the collection gallery, so those detections were compared to those outside the collection gallery to determine the prolonged times spent inside and not outside of the gallery.

Verhey said there are also significant data which show White Sturgeon in the vicinity of the adult fish ladder trap at Priest Rapids Dam, and reduced Pacific Lamprey passage numbers at the left-bank fishway. He asked what might be attracting White Sturgeon into the fishways? Gingerich said this is a difficult question to answer; although, foraging may be a possibility.

Ferguson said he understands at Bonneville Dam, White Sturgeon move into the lower fish ladder weirs fairly readily. He said at this location, this may be to avoid predation by pinnipeds, or it could be to forage.

Gingerich recalled Chelan PUD White Sturgeon M&E data indicating that 116 tags remained active in August/September 2016, and 34% (or 39 tags) were detected in the Gateway-to-Wells area (i.e., the Wells Dam tailrace) for an average of 24 days (a range of 1 to 60 days). He said again, these data show that the Wells Dam tailrace is a hotspot for White Sturgeon in the Rocky Reach reservoir. He said, however, the degree of importance with regard to Pacific Lamprey approach to Wells Dam is unknown.

Question #2: Is there a summary of results of tailrace and fishway passage efficiencies and entrance efficiencies for adult Pacific Lamprey at Wells Dam? If so, would the Aquatic SWG please share those with the Subgroups?

Chas Kyger said the most recent Douglas PUD study evaluating passage and entrance efficiencies at Wells Dam was conducted in 2013, and those results have been made available<sup>2</sup>. Kyger recalled, the Douglas PUD 2013 Pacific Lamprey Study was when modified head differentials were implemented at Wells Dam, and entrance efficiency ranged from 51% under the high treatment (1.5-foot) to 67% under the moderate treatment (1.0-foot). He said study fish also appeared to have a preference to pass Wells Dam via the east fish ladder (left bank). He said these are the most recent data; and he added, to evaluate entrance efficiency using acoustic telemetry would be difficult, due to the sample size being too small to measure anything with significance.

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<sup>2</sup> "Adult Lamprey Passage and Enumeration Study, Wells Dam, 2013: The Effects of Head Differential on Entrance Efficiency, and of Picketed Leads on Count Window Enumeration Efficiency" (Robichaud and Kyger 2014; also referred to as the Douglas PUD 2013 Pacific Lamprey Study), distributed to the Aquatic SWG by Kristi Geris on July 7, 2014.

Gingerich said an overview of the results of this study are reported in Table 9 of the Douglas PUD 2013 Pacific Lamprey Study (copied below for reference).

**Table 9. Entrance and Passage Efficiencies by fishway and head differential treatment. Also shown are the numbers of Pacific Lamprey which approached, entered, and passed each fishway, by treatment.**

Head Diff. Treatment	Fishway	Approached	Entered	Passed	Entrance Efficiency	Passage Efficiency
Moderate	West	6	2	0	33%	0%
Moderate	East	6	6	0	100%	0%
Moderate	Both	12	8	0	67%	0%
High	West	23	10	2	43%	20%
High	East	12	8	1	67%	13%
High	Both	35	18	3	51%	17%
Both	West	29	12	2	41%	17%
Both	East	18	14	1	78%	7%
Both	Both	47	26	3	55%	12%

Gingerich caveated that this study was conducted prior to understanding there is attrition through the Rocky Reach reservoir. Kyger also added that these study fish were all translocated and radio-tagged. He said this study design was not ideal for measuring the run at large, but this is what was implemented that year.

Question #3: Are there velocity profiles for various flow conditions at the entrances of the fishways at Wells Dam? If so, would the Aquatic SWG share those with the Subgroups?

Gingerich said the entrances of the fishways at Wells Dam are operated under a normal head differential of 1.5 feet. He said Douglas PUD has not performed any modeling to evaluate velocity profiles at the fishway entrances. He said the entrance is perched above the river floor, and has a very large opening. He said the velocity profile is going to be fast, but not uniform throughout. He said the slower profiles will be along the walls, and he noted that the design is intended for salmonids. He said Douglas PUD has data for flow volume through the 73 weirs throughout the fish ladder, which range from 48 to 73 cubic feet per second. He said Douglas PUD can provide these data if this is helpful.

Question #4: Why is the Aquatic SWG not comfortable using adult Pacific Lamprey trapped downstream (e.g., at Priest Rapids Dam) for conducting passage efficiency studies?

Kyger said in the past, when Douglas PUD used study fish obtained from lower in the Columbia River, most fish did not interact with Wells Dam. He said this led Douglas PUD to

believe that perhaps it would be better to use study fish which are actively migrating or wanting to approach Wells Dam, which is why subsequent study fish were obtained closer to Wells Dam thinking these fish were in a more upstream-migrating phase. Gingerich said ideally, study fish would be obtained from the Wells Dam fishway because these fish have displayed an intent to pass the dam. He said farther downstream, less is known about the disposition of the fish to want to migrate farther upstream. He also reiterated the most recent data using fish released in the Rocky Reach Dam forebay (Douglas PUD 2016 Pacific Lamprey Study), which showed attrition through the Rocky Reach reservoir suggesting that fish may not want to interact with Wells Dam. Ferguson asked about the origin of the study fish from the Douglas PUD 2013 Pacific Lamprey Study. Kyger said most of those fish were obtained from John Day Dam, and Gingerich added that those fish were held at a holding facility in Prosser, Washington, before arriving to Wells Dam, so the full history of those fish was unknown.

#### Discussion

Ferguson said it seems this Pacific Lamprey Subgroup is requesting that the Aquatic SWG: 1) consider the questions posed by the subgroup; and 2) provide responses to these questions. Ferguson suggested either writing a brief summary of answers to these questions, sharing the finalized minutes of this Aquatic SWG meeting, or cutting and pasting this discussion into a separate document.

Gingerich suggested simply sharing the finalized meeting minutes, noting that aside from the technical representatives from Chelan PUD and Grant PUD, and Hillman, this Pacific Lamprey Subgroup is participating here in this Aquatic SWG meeting. Gingerich said the Aquatic SWG can review and edit the draft minutes, as needed, and the final minutes can be provided to Hillman for distribution to the Pacific Lamprey Subgroup.

Verhey agreed with Gingerich, and added that one theme expressed during the subgroup workshop was, Chelan and Grant PUDs think stakeholders are putting more pressure on them with regard to Pacific Lamprey, and they wondered why stakeholders are not putting more pressure on Douglas PUD. Verhey said he disagreed with this sentiment, and explained the background of the anticipated Aquatic SWG SOA for translocating Pacific Lamprey (i.e., the Aquatic SWG expressed interest in conducting both translocation and in-ladder studies, simultaneously; however, Douglas PUD did not feel it was appropriate to do both, so the Aquatic SWG agreed to focus on the pheromone issue first).

Gingerich said Douglas PUD has had these same discussions, offline, with Chelan and Grant PUD representatives, where they expressed a similar theme. Gingerich said he wonders

if these questions are really rhetorical or are they really questions? He added that Douglas PUD understands the background and tone Verhey and Lewis described.

Verhey said the stakeholders just hope to keep communication lines open. He said he does not view this as pitting one PUD against the other. He said everyone just wants to do the best thing for Pacific Lamprey. Bob Rose agreed with Verhey.

Aquatic SWG members present agreed to provide responses to the questions received from the Pacific Lamprey Subgroup on October 11, 2017, in the form of formalized responses within the Aquatic SWG-approved November 8, 2017 meeting minutes, which will be provided to Hillman for distribution to the subgroup.

*NOTE:*

*Verhey added that Mike Clement (Grant PUD) is working on a budget for 2018, and is gauging regional interest for adult Pacific Lamprey study fish being collected at Priest Rapids Dam. Verhey suggested Douglas PUD contact Grant PUD if there is interest in obtaining study fish from this source.*

## **VII. Next Meetings**

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

The Aquatic SWG meeting on December 13, 2017, will be held by conference call.

Andrew Gingerich said the fish ladders at Wells Dam will be taken out of service for annual winter maintenance in December 2017, and will still be dewatered for the Aquatic SWG meeting on January 10, 2018. Gingerich recalled each year, Douglas PUD invites the Aquatic SWG to Wells Dam for an in-person meeting and fish ladder tour. He noted that the new hatchery facility should also be complete. John Ferguson agreed this is always a great opportunity, and said this will be further discussed during the Aquatic SWG meeting on December 13, 2017.

Other upcoming meetings include: January 10, 2018 (in-person at Wells Dam) and February 14, 2018 (TBD).

## **List of Attachments**

Attachment A List of Attendees

Attachment B Wells Dam turbine unit flow and Rocky Reach Dam forebay elevation data

**Attachment A – Attendees**

<b>Name</b>	<b>Role</b>	<b>Organization</b>
John Ferguson	Aquatic SWG Chairman	Anchor QEA, LLC
Kristi Geris	Administration/Technical Support	Anchor QEA, LLC
Andrew Gingerich	Aquatic SWG Technical Representative	Douglas PUD
Chas Kyger	Technical Support	Douglas PUD
Dave Robichaud	Observer	LGL Limited
Steve Lewis	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
Patrick Verhey	Aquatic SWG Technical Representative	Washington Department of Fish and Wildlife
Chad Jackson	Technical Support	Washington Department of Fish and Wildlife
Breean Zimmerman	Aquatic SWG Technical Representative	Washington State Department of Ecology
Jason McLellan	Aquatic SWG Technical Representative	Colville Confederated Tribes
Bob Rose	Aquatic SWG Technical Representative	Yakama Nation
Sean Goudy	Technical Support	Yakama Nation