



Conference Call Minutes

Aquatic Settlement Work Group

To: Aquatic SWG Parties

Date: July 15, 2018

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

Re: Final Minutes of the June 13, 2018 Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, June 13, 2018, from 10:00 a.m. to 12:00 p.m. Attendees are listed in Attachment A of these conference call minutes.

I. Summary of Action Items

1. Douglas PUD will provide the revised draft report, *Adult Lamprey Approach and Passage Study, Wells Dam, 2016-17*, to Kristi Geris for distribution to the Aquatic SWG (Item VI-1). (Note: Chas Kyger provided the revised draft report to Geris on June 14, 2018, which Geris distributed to the Aquatic SWG that same day.)
2. Douglas PUD will incorporate revisions discussed and provide the final approved Pacific Lamprey Translocation Statement of Agreement (SOA) titled, *To translocate adult Pacific Lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations*, to Kristi Geris for distribution to the Aquatic SWG (Item VI-2). (Note: Chas Kyger provided the final SOA, as discussed, to Geris on June 14, 2018, which Geris distributed to the Aquatic SWG that same day.)
3. Douglas PUD will keep the Aquatic SWG updated on the logistics of implementing the Pacific Lamprey Translocation SOA (Item VI-2).
4. The Yakama Nation (YN) will discuss the need for bioassay sampling to monitor Pacific Lamprey pheromone levels over time as translocation efforts are implemented at a future Aquatic SWG meeting (Item VI-2).
5. Douglas PUD will provide a summary of 2018 gas bubble trauma (GBT) monitoring results conducted by Douglas PUD to date (Item VI-4).
6. The U.S. Fish and Wildlife Service (USFWS) will keep the Aquatic SWG informed on a possible presentation by Damon Goodman (USFWS; Arcata, California) on the Van Arsdale Dam Pacific Lamprey Passage Structure during an in-person gathering of the regional fish forums; and Kristi Geris will coordinate logistics as needed (Item VI-6).
7. The Aquatic SWG meeting on July 11, 2018, will be held by **conference call** (Item VII-1).

II. Summary of Decisions

1. The Aquatic SWG members present approved the Pacific Lamprey Translocation SOA titled, *To translocate adult Pacific Lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations, as revised* (Item VI-2).

III. Agreements

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

IV. Review Items

1. The revised draft report, *Adult Lamprey Approach and Passage Study, Wells Dam, 2016-17*, was distributed to the Aquatic SWG by Kristi Geris on June 14, 2018 (Item VI-1).

V. Documents Finalized

1. The final Pacific Lamprey Translocation SOA titled, *To translocate adult Pacific Lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations*, was distributed to the Aquatic SWG by Kristi Geris on June 14, 2018 (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 changes to the agenda.

- Ralph Lampman said he can address questions, if any, on the Van Arsdale Dam Pacific Lamprey Passage Structure document, which was distributed to the Aquatic SWG by Kristi Geris on June 2, 2018.

The revised draft May 9, 2018 conference call minutes were reviewed. Geris said she added notes to the Review Items and Documents Finalized sections to record distribution of documents. She said all comments and revisions received from members of the Aquatic SWG were also incorporated into the revised minutes, and there are no outstanding edits or questions to discuss. Aquatic SWG members present approved the May 9, 2018 conference call minutes, as revised.

Action items from the Aquatic SWG conference call on May 9, 2018, are as follows (note: the following italicized item numbers correspond to agenda items from the May 9, 2018 conference call):

- *Patrick Verhey and Ralph Lampman will provide Washington Department of Fish and Wildlife (WDFW) and YN comments, respectively, on the draft report, Adult Lamprey Approach and Passage Study, Wells Dam, 2016-17, to Kristi Geris for distribution to the Aquatic SWG by Friday, May 18, 2018 (Item VI-5).*

Verhey provided WDFW comments on May 17, 2018, and Lampman provided YN comments on May 21, 2018.

- *Douglas PUD will provide the revised draft report, Adult Lamprey Approach and Passage Study, Wells Dam, 2016-17, to Kristi Geris for distribution to the Aquatic SWG no later than Friday, June 1, 2018, for decision during the Aquatic SWG conference call on June 13, 2018 (Item VI-5).*

Chas Kyger said the revised draft report is ready for distribution; however, Douglas PUD wanted to focus on the Pacific Lamprey Translocation SOA at this time. Kyger said there is no Federal Energy Regulatory Commission (FERC) deadline for this report and all comments and revisions are complete with no outstanding items remaining to be discussed. He said Douglas PUD will distribute the revised draft report after the SOA is finalized. This action item will be carried forward. (Note: Kyger provided the revised draft report to Geris on June 14, 2018, which Geris distributed to the Aquatic SWG that same day.)

- *Douglas PUD will provide a revised draft Pacific Lamprey Translocation SOA to Kristi Geris for distribution to the Aquatic SWG no later than Friday, June 1, 2018, for decision during the Aquatic SWG conference call on June 13, 2018 (Item VI 7).*

Chas Kyger provided a revised draft SOA to Geris on June 5, 2018, which Geris distributed to the Aquatic SWG that same day.

2. DECISION: Pacific Lamprey Translocation Statement of Agreement (Chas Kyger):

John Ferguson encouraged the Aquatic SWG to reach a decision on this item today because:

1) the Pacific Lamprey migration is already underway; 2) the YN had expressed interest in collecting fish for translocation during the beginning and middle of the run, opposed to relying solely on the end of the run; and 3) Douglas PUD needs time to implement the SOA with regard to contracting and coordination with Grant PUD.

Ferguson said a revised draft Pacific Lamprey Translocation SOA titled, *To translocate adult Pacific lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations* was distributed to the Aquatic SWG by Kristi Geris on June 5, 2018. Ferguson said in this revised SOA: 1) the two trigger points¹ were removed; 2) the target is now 1,000 adult Pacific Lamprey, or the number trapped within 15 days with a goal

¹ The Aquatic SWG agrees to postpone Pacific Lamprey upstream passage evaluations at Wells Dam for 5 years, or until both of the following criteria are satisfied: 1) at least 500 adult Pacific Lamprey are counted at Wells Dam fishways count windows; and 2) the conversion rate of adult Pacific Lamprey from Rocky Reach Dam to Wells Dam exceeds 18%.

of at least 500 fish per year with additional collection in subsequent years to ensure a 5-year average of no fewer than 500 fish per year; and 3) re-evaluation is postponed for 5 years. Ferguson said a literature review is still forthcoming. He said one item which may need revising, per previous discussions, is changing the second paragraph, last sentence of the SOA from, "These measures *may* include," to "These measures *will* include." Ferguson said Ralph Lampman notified him that discussions were ongoing between Aquatic SWG members between Aquatic SWG meetings, and Ferguson hoped to hear more about these discussions during today's conference call.

Chas Kyger said Ferguson summarized the revised SOA well. Kyger said Douglas PUD also included more specific language on what activities will occur in lieu of in-ladder modifications.

Patrick Verhey said overall, WDFW supports the revised SOA; however, there are a couple of sticking points. He said although the Aquatic SWG has agreed translocation takes priority over fishway modifications, he would still like the engineering specifications for the diffuser gratings (in the Collection Gallery at Wells Dam) to be reviewed to determine whether the gratings are out of compliance and have this addressed if necessary. He said he is also concerned there is no definition of what numbers of Pacific Lamprey approaching and passing Wells Dam trigger when a study will occur. He suggested establishing what is meant in the background section by the "sufficient levels" statement.

Kyger said determining what sufficient levels are is a decision for the Aquatic SWG to make. Verhey said he understands there needs to be a discussion about precision and statistical analyses but suggested starting these discussions now so in 5 years, when it is time to conduct a study, these details are clear. Kyger said currently, he is unsure what sufficient numbers would be. He said he envisioned Douglas PUD would continue translocation and monitoring and have this discussion within the Aquatic SWG on a yearly basis (i.e., what do the numbers look like, what are the objectives of the study, and are the numbers sufficient to conduct the study?). Kyger said this was the purpose of the trigger points, which were based on the best information available; however, the trigger points were removed, as requested by the Aquatic SWG. He also noted that counts change year-to-year, which also makes it difficult to identify a specific number at this time. Verhey reiterated that it would be ideal to identify a number now; however, WDFW is also supportive of adaptively managing if the Aquatic SWG agrees to this. Ferguson said he likes the "sufficient levels" language because this topic will be continually discussed as more data become available and he does not want to spend a lot of time on trying to determine something with so many uncertainties.

Steve Lewis said USFWS supports the "sufficient level" connotation; however, suggested

including language that specifically indicates discussions about defining sufficient levels will occur each year.

Lampman said he just distributed to the Aquatic SWG YN edits on the revised draft SOA (*note: YN edits along with Aquatic SWG edits discussed during today's call are in Attachment B*). He reiterated the YN's concern that there could be issues at the fishway entrances and if fish are not entering the fishway, conversion rates will continue to be low. He suggested instead of rehashing this discussion over and over, the Aquatic SWG just needs to plan to conduct a study after x-amount of years. He said there was consensus among some Aquatic SWG members during discussions that occurred between the regularly scheduled Aquatic SWG meetings for 4 years of translocation instead of 5 years. Lampman explained that considering the translocation efforts, which have already been underway by the YN and others, 4 more years is essentially 7 years total of translocation. He said he believes the general consensus was to start the 2-year passage study directly after 4 years of translocation (i.e., conduct the study in 2022 and 2023), and then initiate passage improvements starting in 2024. He said Aquatic SWG members on the calls between meetings also discussed removing the trigger points.

Lewis asked what would happen if a passage impediment is clearly identified before the 4 or 5 years of translocation is complete? Ferguson asked what is the process for identifying an impediment?

Andrew Gingerich said first, Douglas PUD reviewed the YN's comments that were just distributed and at first look, Douglas PUD does not have any objections. Gingerich said if the YN's suggested revisions are incorporated, this will address the request for more certainty in numbers. He applauded the ongoing discussions between Aquatic SWG members throughout the month. He said the suggested edits are defensible and he believes he and Kyger can make a technical, defensible pitch to the managers.

Gingerich said secondly, getting back to Lewis's question regarding identifying passage problems; Gingerich asked, how does one do this? He said the point of this approach is to get better positioned to test these questions. Lewis clarified his question: if an issue is indeed identified, will the SOA just continue, or will it be paused to address the issue and then continue? Ferguson said Lewis is asking if the SOA forecloses addressing an issue if it arises. Lewis said this is correct. Kyger said considering the only data available during this time will be window counts and passive integrated transponder (PIT) tag detections, he does not foresee these data informing Douglas PUD to implement major modifications. He said Douglas PUD can monitor trends during the translocation period to help build a case to evaluate it more closely once a passage evaluation begins. Gingerich added that Douglas PUD will be reporting on Pacific Lamprey data regularly and there is nothing which precludes the

Aquatic SWG from having these discussions. Lewis said his concern is Douglas PUD Policy staff not supporting these discussions. Lewis insisted the SOA include language which states that if passage issues are observed, then Douglas PUD and the Aquatic SWG will address them. He suggested including at the end of the second paragraph of the Statement of the SOA, "In the event a passage impediment is identified during implementation of this SOA, based upon monitoring data, the Aquatic SWG will make a good faith effort to resolve the issue within the time period of this SOA" (see Attachment B).

Lewis also suggested changing the second paragraph, second sentence of the Statement of the SOA from, "These measures *may* include," to "These measures *shall* include" (see Attachment B).

Ferguson asked if Aquatic SWG members support 4 versus 5 years of translocation, and conducting a study at the end of year 4? Kyger said Douglas PUD has no issues with this. Gingerich said Lampman explained there has been some amount of translocation occurring already; therefore, after 4 more years there will effectively be 7 years of translocation, which is consistent with the available data where responses have been observed in other systems where translocation occurred for this length of period.

Ferguson asked how to address comments about defining "sufficient levels." Gingerich said he believes the YN's edits to the last sentence of the Background address this question. He said regardless of sufficient levels, Douglas PUD will conduct a study. Ferguson agreed and read the YN's edits, as follows: "Implementation of the measures under Sections 4.1.6, and 4.1.7, which include upstream passage evaluations, will be reinitiated in 2022, after 4 years of translocation efforts (totaling 7 years including the 3 years of translocation by partners which averaged 371 adults per year). Prioritized and recommended Pacific Lamprey passage modifications (Section 4.1.5) shall begin in 2024" (see Attachment B).

Gingerich suggested adding to the YN's edits, "based on findings of passage studies," or something that pulls the statement back to technical justifications. Lampman said the YN prefers not to add this because he does not want to be tied down only to the study; rather, he suggested using common sense, based on passage improvements at other dams. Ferguson cautioned this discussion is going backwards and reminded the Aquatic SWG that the SOA needs to be consistent with the *Pacific Lamprey Management Plan*. Kyger suggested including, "based on discussions within the Aquatic SWG." Ferguson suggested including, "based on results of the evaluation study and available information on passage." Verhey suggested connecting the statement back to sufficient levels. He added that WDFW trusts Douglas PUD will do the right thing, and what is being discussed are assurances that

Douglas PUD and the Aquatic SWG will do the right thing. He said WDFW supports whatever language is needed to move forward.

Lampman said it is difficult to identify what sufficient levels are because each year is different. He said, for example, there can be good conversion rates in year 4, but not in year 5, and there is no way to know. He said if Douglas PUD and the Aquatic SWG wait to see what happens, it will be too late to conduct a study. Lampman suggested conducting translocation to move as many Pacific Lamprey upstream of Wells Dam in 4 years as possible, and then just set the year of when to conduct a passage study.

Ferguson suggested adding to the YN's edits in the last sentence of the Background, "based on the results of the translocation efforts, results of the evaluation study, and ongoing passage count data; and in consultation with the Aquatic SWG" (see Attachment B). Geris summarized the revisions discussed so far. Lampman reviewed the remaining YN edits, which had not yet been discussed (see Attachment B). Jason McLellan suggested adding an approval date to the SOA. Lampman suggested adding to the end of the first sentence of the Statement of the SOA, "beginning in 2018" (see Attachment B).

The Aquatic SWG members present approved the Pacific Lamprey Translocation SOA titled, *To translocate adult Pacific Lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations, as revised.*

Douglas PUD will incorporate revisions discussed and provide the final approved Pacific Lamprey Translocation SOA to Geris for distribution to the Aquatic SWG. (Note: Kyger provided the final SOA, as discussed, to Geris on June 14, 2018, which Geris distributed to the Aquatic SWG that same day.)

Ferguson asked about contracting and coordination between Douglas and Grant PUDs. Kyger said communication has been ongoing and Grant PUD is aware of where discussions are at within the Aquatic SWG. He said the Priest Rapids Fish Forum has already agreed on where and when to collect and translocate fish. He said Grant PUD is supportive of whatever the Priest Rapids Fish Forum decides regarding sharing fish throughout the run for everyone's translocation needs. He said he understands that all parties are informed of the Aquatic SWG's intent. He said Douglas PUD will follow-up with Grant PUD following this meeting and will keep the Aquatic SWG updated on the logistics of implementing the Pacific Lamprey Translocation SOA. Lampman said Grant PUD is targeting early August 2018 to start the 15 days of trapping.

Lampman suggested bioassay sampling to monitor Pacific Lamprey pheromone levels over time as translocation efforts are implemented, and he said the YN will discuss this at a future Aquatic SWG meeting.

3. Pacific Lamprey 2018 Counts (Chas Kyger):

Chas Kyger notified the Aquatic SWG that Pacific Lamprey have already been detected passing Wells Dam in May 2018. He said the count was up to 58 fish and may be higher once the numbers are updated. Kyger said Douglas PUD is almost certain these fish were overwintering in the Rocky Reach reservoir because no fish have been detected passing Rocky Reach Dam this year. He said this is an interesting phenomenon because this is the most Pacific Lamprey ever detected passing Wells Dam during the spring period. He said typically there are only 1 to a few counted before the main migration passes in August. He said these spring detections are consistent with data from the 2015 to 2016 acoustic study, when fish seemingly disappeared and then were detected the following spring. He said this is something to keep in mind for future studies regarding spring movement. John Ferguson agreed and said, for example, ensuring the tags go dormant over winter.

4. Water Quality and River Forecast Update (Andrew Gingerich):

Andrew Gingerich said a Water Quality, Flow, and Total Dissolved Gas (TDG) Update (Attachment C) was distributed to the Aquatic SWG by Kristi Geris on June 12, 2018.

Gingerich said Figure 1 of Attachment C is a hydrograph for Wells Project average daily discharge in 2018. He said daily discharge to date is averaging 150,000 cubic feet per second (150 kcfs) or greater. He said daily discharge decreased in March, increased in April, and in May, a 50-year Project record fell as average discharge reached 266.3 kcfs. He said at these flows, there are concerns for human safety. He said in 2018, there have been 28 days where hourly or daily averages exceeded the 7-day, 10-year-frequency (7Q10) flow at Wells Dam.

Gingerich said Figure 2 of Attachment C shows TDG performance. He said fish bypass began on April 1, 2018, and state standards change to allow flexibility during the bypass season. He noted in May 2018, there were a number of occurrences above 120 and 125% TDG values but the majority of the month was experiencing 7Q10 flow, so TDG standards were waived. He noted a few exceedances in June 2018, depicted by an orange box. He said despite Douglas PUD's minimum generation requirements where Project Participants (customers) are forced to take power from Wells Dam, there were exceedances of 125% TDG on June 4, 2018, and exceedances of 120% TDG from June 4 to 7, 2018. He said incoming water exceeded 115% TDG during non-compliant days. He said currently there is no waiver for TDG standards if incoming water is out of compliance.

Gingerich said in Figure 3 of Attachment C, the red dashed line denotes 246 kcfs (or 7Q10 flows) as measured by average daily discharge. He said the blue line is a hydrograph of Wells Project average daily discharge to date for 2018 relative to the red line, which is the 10-year average discharge ending in 2017. He said not only is the 2018 hydrograph much higher in terms of peak, but the freshet was very early this year. Breean Zimmerman asked if Wells Dam was spilling in February and March? Gingerich said Wells Dam operators did have to spill during this time. He said Figure 2 of Attachment C shows exceedances of the 110% standard on 4 to 5 days during this non-bypass period, and this occurred during short periods of spill. He explained that maintenance is scheduled during this time where 1 to 2 turbines units are taken offline and cannot be operated to reduce spill and TDG levels. He said each unit is capable of passing approximately 20 kcfs. He said operators prefer to put water through turbines rather than spill to reduce TDG; however, when river flow increases higher than usual while units are offline for maintenance, there is no option but to spill, which led to the TDG exceedances. He said Douglas PUD is discussing when to safely conduct its annual turbine maintenance to provide more hydraulic capacity through the powerhouse during early spring.

Gingerich said Figure 4 of Attachment C shows the shape of the Grand Coulee (Lake Roosevelt) 2018 spring draft and refill curve compared to the 10-year average elevation ending in 2017. He said traditionally (red line), the draft is not as deep through late-winter and spring and is more moderate and slow compared to what occurred in 2018. He said this year (blue line), the draft was quicker and deeper. He said this presents a challenge for run-of-the-river dams because this water cannot be stored like it can in Lake Roosevelt. He said, however, Lake Roosevelt can absorb some of the incoming high river flow. He said, for example, a peak of 340 kcfs from May 14 to 16, 2018, would have been worse if Grand Coulee was not absorbing this flow. He pointed out that Lake Roosevelt has 58-times the storage capacity compared to run-of-the-river dams, such as Wells Dam.

Gingerich said all this information will also be summarized in an end-of-the-year update. Zimmerman thanked Douglas PUD for compiling and presenting this information. She said all parties on the Columbia River are struggling this season and Douglas PUD is doing a good job.

Ferguson said Douglas PUD recently reported GBT observations to the Habitat Conservation Plan (HCP) Coordinating Committees, and Ferguson asked if there is anything more to report on this to the Aquatic SWG. Gingerich said these data are typically reported to the HCP Coordinating Committees but Douglas PUD can also provide the Aquatic SWG a summary of 2018 GBT monitoring results conducted by Douglas PUD to date. Gingerich said briefly, Douglas PUD continues to monitor for GBT when TDG levels exceed 125%. He said in

the last month, he estimated Douglas PUD has examined about 1,000 juvenile individuals. He said, in general, when TDG values are 125% or less, signs of GBT are minimal. He said when TDG values are above 125% and approach 130%, signs of GBT are more prevalent. He said there seems to be some species specificity to certain levels of GBT; for example, coho salmon express more signs of GBT.

5. Wells Fish Hatchery White Sturgeon Stocking and Outreach Update (Andrew Gingerich):

Andrew Gingerich said a Wells Fish Hatchery White Sturgeon stocking and outreach update was distributed to the Aquatic SWG by Kristi Geris on June 1, 2018. Gingerich said this year is year 1 of releasing 325 fish (+/- 5%) at 200 grams or greater. He said Douglas PUD released 319 brood year 2017 fish at or above the size criteria. He said an additional 19 fish were released, which were slightly below the 200-gram threshold, for a total of 338 fish released. He said the mean and median fish sizes were comparable, with the median at 280 grams per fish. He said the mean fish length was 13.6 inches (fork length). He said Douglas PUD is optimistic these fish will have high survival; and he recalled achieving higher survival will allow for releasing less fish.

Gingerich said as part of Douglas PUD's ongoing White Sturgeon Outreach Program, on May 30, 2018, the same eighteen students from Bridgeport High School's Advanced Placement Biology Class who toured the Wells Fish Hatchery White Sturgeon facility a couple of months ago met again to release fish and learn about the purpose and goals of the Douglas PUD White Sturgeon Supplementation Program. Gingerich said the students obtained lengths and weights and released 35 fish. He said a video capturing these activities is available on the Douglas PUD website.

Gingerich said two fish did shed their PIT-tags while in the facility. He said these fish were retagged, and all tag files have been uploaded to the PIT-Tag Information System. He said fish health actions took place before release, which have also been an important component of this effort.

6. Van Arsdale Dam Pacific Lamprey Passage Structure (Ralph Lampman):

Ralph Lampman provided a Van Arsdale Dam Pacific Lamprey Passage Structure document to Kristi Geris, which was distributed to the Aquatic SWG by Geris on June 2, 2018. John Ferguson suggested Aquatic SWG members contact Lampman with questions or comments.

Steve Lewis said discussion is underway for Damon Goodman (USFWS, Arcata, California) to provide a presentation to Grant, Chelan, and Douglas PUDs on passage success at Van

Arsdale Dam. Lewis said the presentation may be held during August 2018, at one of the regional dams. RD Nelle (USFWS) said he spoke with Goodman, who indicated he would be willing to present study results to the PUDs. Nelle said the study was fairly cost-effective, and he noted that fish passage was provided over Van Arsdale Dam, which is 65 feet tall.

USFWS will keep the Aquatic SWG informed on a possible presentation by Goodman on the Van Arsdale Dam Pacific Lamprey Passage Structure during an in-person gathering of the regional fish forums; and Geris will coordinate logistics as needed.

VII. Administration

1. Upcoming meetings (John Ferguson):

The Aquatic SWG meeting on July 11, 2018, will be held by conference call.

Other upcoming meetings include: August 8, 2018 (TBD) and September 12, 2018 (TBD).

List of Attachments

Attachment A List of Attendees

Attachment B Revised draft SOA titled, *To translocate adult Pacific lamprey from Priest Rapids Dam to areas within or upstream of the Wells Project and postpone passage evaluations* – YN and Aquatic SWG edits

Attachment C Water Quality, Flow, and TDG Update

Attachment A – Attendees

Name	Role	Organization
John Ferguson	Aquatic SWG Chairman	Anchor QEA, LLC
Kristi Geris	Administration/Technical Support	Anchor QEA, LLC
Andrew Gingerich	Aquatic SWG Technical Representative	Douglas PUD
Chas Kyger	Technical Support	Douglas PUD
Breean Zimmerman	Aquatic SWG Technical Representative	Washington State Department of Ecology
Steve Lewis	Aquatic SWG Technical Representative	U.S. Fish and Wildlife Service
RD Nelle	Technical Support	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
Jason McLellan	Aquatic SWG Technical Representative	Colville Confederate Tribes