

Final Conference Call Minutes



Aquatic Settlement Work Group

To: Aquatic SWG Parties **Date:** July 10, 2013
From: Kristi Geris (Anchor QEA, LLC)
Re: Final Minutes of the June 12, 2013 Aquatic SWG Conference Call

The Aquatic Settlement Work Group (SWG) met by conference call on Wednesday, June 12, 2013, from 10:00 a.m. to 12:00 p.m. Attendees are listed in Attachment A of these meeting minutes.

I. Summary of Action Items

1. Steve Lewis will distribute the final revised letter requesting deferral of the Bull Trout Radio Telemetry Study at the Twisp Weir, as approved at today's conference call, to the Aquatic SWG prior to the Aquatic SWG conference call on July 10, 2013 (Item V-2).
2. Andrew Gingerich will confirm the acreage to be treated during Douglas PUD's 2013 aquatic herbicide application, and will provide this information to the Aquatic SWG (Item V-3).
3. Andrew Gingerich will contact the Chelan County Noxious Weed Control Board to discuss their 2013 aquatic herbicide application, and to also compare methods with Douglas PUD's planned application. Gingerich will provide a summary of the discussions to the Aquatic SWG (Item V-3).
4. Douglas PUD will review the Joint Fisheries Parties' (JFP's) Lamprey Proposal for the Upper Columbia prior to the Aquatic SWG conference call on July 10, 2013 (Item V-8).

II. Summary of Decisions

1. There were no Statements of Agreement (SOAs) approved at today's meeting.

III. Agreements

1. Aquatic SWG representatives present approved Douglas PUD's letter to the Federal Energy Regulatory Commission (FERC) requesting rescheduling the Bull Trout Radio Telemetry Study at the Twisp Weir to occur in 2016 (Item VI-2).

IV. Reports Finalized

1. The Douglas PUD Aquatic Settlement Work Group 2012 Annual Report that was approved by the Aquatic SWG on May 9, 2013, was submitted to FERC on May 31, 2013.

V. Summary of Discussions

1. **Welcome, Agenda Review, and Meeting Minutes Review** (Kristi Geris): Kristi Geris welcomed the Aquatic SWG members (attendees are listed in Attachment A) and opened the meeting. Geris reviewed the agenda and asked for additions or other changes to the agenda. Bob Rose added a discussion on a Lamprey Proposal for the Upper Columbia.

Emily Pizzichemi reported that all comments and revisions received on the draft May 8, 2013 meeting minutes had been incorporated. The Aquatic SWG members present approved the May 8, 2013 meeting minutes, as revised. Bob Rose approved the draft May 8, 2013 meeting minutes via telephone directly following the meeting, and Jason McClellan approved the minutes via email on June 13, 2013.

2. **DECISION: Bull Trout Letter Deferring Twisp Weir Study** (Andrew Gingerich): Andrew Gingerich asked if the Aquatic SWG had additional input on Douglas PUD's letter to FERC requesting deferment of the Bull Trout Radio Telemetry Study at the Twisp Weir. The draft letter was distributed to the Aquatic SWG in an email from Steve Lewis on May 10, 2013, with comments due to Gingerich and Lewis prior to today's Aquatic SWG meeting. Patrick Verhey asked when the final deadline is for a deferral request from FERC and Gingerich replied that everything needs to be submitted to FERC by the end of October 2013. Aquatic SWG representatives present approved Douglas PUD's letter to FERC requesting rescheduling the Bull Trout Radio Telemetry Study at the Twisp Weir to occur in 2016. Lewis will distribute the final revised letter, as approved at today's conference call, to the Aquatic SWG prior to the Aquatic SWG conference call on July 10, 2013.
3. **Aquatic Herbicide Application Methods** (Andrew Gingerich): Andrew Gingerich met with Scott Kreiter (Douglas PUD Lands Department) to discuss details regarding Douglas PUD's 2013 aquatic herbicide application in public swimming areas. Gingerich said that Douglas PUD hired Woodland Resource Services from Ellensburg, Washington, to perform the application. The herbicidal chemical is diquat dibromide, applied in liquid form. The contractors use a boat with a submerged trail bar with multiple weighted hoses for direct herbicidal application to plant. This method of application broadcasts the chemical less than other methods and does not require people applying the herbicide to be in the water. Patrick Verhey asked how many acres Douglas PUD plans to treat during 2013 and Gingerich said that he would confirm the exact acreage and provide the information to the Aquatic SWG at the meeting on July 10, 2013. Gingerich said that Douglas PUD plans to treat three swimming areas within city parks with water

access recreation areas—one each in Pateros, Brewster, and Bridgeport, Washington. Verhey asked if Douglas PUD considered using the same herbicide that Chelan PUD used near the Entiat River and suggested that Douglas PUD compare the two chemicals and application methods. Pat Irle said that, according to an herbicide application plan produced by the Chelan County Noxious Weed Control Board, Chelan County is using a chemical called Triclopyr because it is the most cost-effective herbicide with minimal impacts on local listed fish species. Gingerich said that he will contact the Chelan County Noxious Weed Control Board to discuss their 2013 aquatic herbicide application process and compare methods with Douglas PUD's planned application; and then he will provide a summary of the discussions to the Aquatic SWG. Gingerich said that the first application is scheduled for just after July 15, 2013, which will account for bull trout movement in the area.

4. **Lamprey Entrance Efficiency Plan** (Andrew Gingerich): Andrew Gingerich said that, as required by conditions in their FERC license, Douglas PUD is developing a Lamprey Entrance Efficiency Plan (LEE Plan). This plan is being developed in coordination with Bao Le from HDR Engineering, Inc., and will be presented to the Aquatic SWG for comments and approval. Gingerich said that even though it is not explicitly stated in a FERC license article, Douglas PUD is also required to construct an operations study plan to assess potential changes in fish-way operations to improve overall passage if and when problems are identified. He said that the 2013 Adult Lamprey Passage and Enumeration Study Plan already includes this type of information and also contains potential improvement options. However, Douglas PUD would try and combine the LEE Plan and the Operations Plan into one document or plan. Pat Irle asked when Douglas PUD expects to have the draft document available for review, and Chas Kyger replied that they hope to distribute the plan to the Aquatic SWG before the Aquatic SWG conference call on July 10, 2013. Gingerich added that he is targeting August 2013, or at the latest, September 2013 as the approval deadline for the Aquatic SWG in order to meet the FERC submittal deadline of October 2013. Gingerich noted that Douglas PUD needs time after the completion of the approval process to develop the consultation record for the approved plan; which gets filed with FERC along with the approved plan.

Bob Rose asked what data Douglas PUD plans to evaluate, and Kyger responded that they will rely heavily on the 2013 Adult Lamprey Passage and Enumeration Study Plan and will also consult outside study data. Rose said that he hopes Douglas PUD coordinates with the U.S. Army Corps of Engineers (Corps) to discuss the potential use of acoustic tags for gathering three-dimensional baseline data. Gingerich noted that acoustic data have some pros and cons and that one of the difficulties with developing this plan is that there is currently no standard entrance efficiency for lamprey or passage standards and much of the baseline information is missing. Rose said, for example, that if there were data on lamprey approaching the entrance of the dam but not fully entering the fish passage, assumptions could be made regarding causes for fish

rejecting the fish passage. However, since those data have not been documented, assumptions cannot be developed. Rose said that this is fundamental information about the interaction between lamprey and dams that should be addressed in study objectives. Le explained that the plan will be sufficiently robust in utilizing currently available data tools, and that the analyses will be as conservative as possible. Rose acknowledged that this plan is just a starting point and it will take several years to determine the best plan for maximizing lamprey entrance efficiency. Irle asked if the past Dual-Frequency Identification Sonar (DIDSON) lamprey passage studies are being used to guide Douglas PUD's plan, and Le replied that, due to small sample sizes and the subsequent lack of statistical significance, those studies did not contribute much useable data to the 2013 study plan; however, results of those studies have informed current operations in Wells fishways to lower entrance velocities to support lamprey migration at appropriate times of the year. Le also said that the lack of information about lamprey should be kept in mind and that the mistake of comparing lamprey to salmonids should be avoided. He said that the implication dams have for the population dynamics and ecology of the species is not yet fully understood. Rose said that he thinks lamprey and salmon are not so fundamentally different as to write off the possibility that no passage means rejections, as it does in salmonids. Rose asked if salmon are being considered in the formulation of the efficiency plan, and Gingerich confirmed that the document will also address impacts to salmonids. Gingerich noted that changes to the fishway for the benefit of lamprey need HCP approval because impacts to passage of Endangered Species Act (ESA) listed salmonids must be considered.

5. **2013 Lamprey Study: Release Location below Wells Dam** (Chas Kyger): Chas Kyger said that, as the Aquatic SWG approved in the 2013 Adult Lamprey Passage and Enumeration Study Plan, lamprey will be released 1.5 miles below Wells Dam and a subset of each release group will be placed directly into the fish ladder. Kyger asked for further thoughts or comments, and Bob Rose reminded the Aquatic SWG of his previous recommendation of releasing some fish further downstream near the Entiat River. He recalled that the lamprey for this study are being transported from Bonneville Dam, and that, typically, it takes lamprey 3 to 6 weeks to travel from Bonneville Dam to Wells Dam. Rose said that drastically reducing this natural timeline could bias the data. Gingerich said that the shortened timeline may be considered a positive bias; however, carrying a radio tag may be considered a negative bias since asking a fish to behave normally while carrying the burden of a tag and the stress associated with the transport and tagging experience is unqualified, but undoubtedly negative. So ultimately, each scientific study is with some bias and assumptions. Gingerich noted that the study has been designed to address the objectives, and that it is up to the Aquatic SWG to be aware of the assumptions and biases and discuss the results of the study within this context.

Kyger said that he had previously discussed with Rose releasing PIT-tagged lamprey at different locations downstream from Wells Dam to gather data about movement patterns. These PIT-tagged lamprey would be in addition to the 125 individuals already planned for the study. Aquatic SWG representatives present agreed that releasing additional PIT-tagged lamprey in various locations would be beneficial. Kyger added that the extra lamprey can either be bulk-released in one location or spread over several locations, and would only be released if the Yakama Nation (YN) could provide the additional fish. Kyger also noted that since the release location would be in the Rocky Reach reservoir that Douglas PUD would need to consult Chelan PUD. Gingerich said that the 25 additional lamprey will only carry PIT-tags while the other 125 study fish will carry both PIT-tags and acoustic tags. Gingerich said that he suggested using full duplex (FD) array tags on the additional 25 lamprey, since tributary arrays are wired for FD detection. Bao Le agreed that FD array tags are best for data collection purposes. Pat Irle asked if Douglas PUD would be interested in lamprey interaction with the Methow River instead of the Entiat River, and Gingerich replied that the objective of the study is to evaluate how fish interact with Wells Dam, and releasing fish into the Methow River would compromise that objective. He added, however, that fish traveling through Wells and into the Methow River would have a good chance of being detected on PIT tag arrays currently installed in that tributary, provided flows were reasonable; since, detection efficiency of those arrays is dependent on flow. Rose asked if aerial antenna arrays were still planned to be deployed at the entrances to the Methow and Okanogan rivers, and Kyger replied that these elements are still in the 2013 study plan.

6. **White Sturgeon Egg Arrival Update** (Andrew Gingerich): Andrew Gingerich said that Douglas PUD was able to bring white sturgeon eggs to the Wells Hatchery Facility thanks largely due to efforts by Chelan PUD collecting broodstock and spawning efforts by the YN. Gingerich said that delivered eggs were a result of a three-by-three (3x3) matrix, consisting of three females and three males, and is hoping to bring in additional fish in the near future since additional broodstock may be available as a result of Grant PUD and the YN collection efforts. Gingerich said that the egg program has been successful so far and that one of the maternal families in the hatchery hatched a few days ago. Pat Irle asked if Douglas PUD is keeping adults on site at Wells Hatchery, and Gingerich replied that they are not and stated that Douglas PUD has a larvae program and a broodstock program, and that spawning takes place at Marion Drain. He said that the eggs from one female are incubated together as a lot, regardless of paternity (i.e., families are grouped by maternal family unit). Jason McLellan suggested that, in the future, eggs be kept separate based on both maternity and paternity until they begin to feed. He explained that there can be differential success during incubation and that over-representation of one genetic cross over another could occur if the eggs are combined too early. Gingerich said that next year they will keep the different genetic crosses in separate jars to mitigate for this concern. Rose said that it is important that

additional discussions occur within the next few weeks regarding future needs and expectations for the programs.

7. **Wells Dam Water Quality Update** (Andrew Gingerich): A Total Dissolved Gas (TDG) Update for Wells Dam (Attachment B) was distributed to the Aquatic SWG by Kristi Geris on June 12, 2013 [today], prior to the start of the meeting. Andrew Gingerich explained that there were two 125 percent exceedences at Wells Dam in early April 2013 due to a coordination issue between Douglas PUD operators and the Central Control at Grant PUD. He noted that they have not seen 7Q10 flows this season and explained that a 7Q10 flow is the probability of a certain extreme flow lasting 7 days and occurring every 10 years. The 7Q10 flow at Wells Dam is 246,000 cubic feet per second (246 kcfs) and the mean hourly flow this month has been approximately 155 kcfs. He added that there was also one 115 percent exceedence at the Rocky Reach forebay. Gingerich encouraged the Aquatic SWG to read the document more thoroughly and contact him with any questions or concerns. Pat Irle asked about the 115 percent 12-C high exceedence in the Rocky Reach forebay. Gingerich explained that on the day before the exceedence, there was a short, intense flow as a result of poor hourly coordination communication with Central at Grant PUD, which resulted in the Rocky Reach Forebay exceedence.

Irle asked if the Corps has accepted the fact that their responsibility is 110 percent. Gingerich replied that they should, based on State water quality regulations; however, he said that he did not think they have formally adopted this standard. Gingerich added, however, that they have been running above the 110 percent standard since June 1, 2013, based on measurements in the Wells Forebay.

8. **Lamprey Proposal for Upper Columbia** (Bob Rose): The Lamprey Proposal for the Upper Columbia (Attachment C) was distributed to the Aquatic SWG by Kristi Geris on June 12, 2013 [today], prior to the meeting. Bob Rose said that the proposal has been in development for some time and that the Joint Fisheries Parties (JFP) are now bringing it to the work group forum for comments. Rose said that he will refrain from using the term No Net Impact (NNI) because Douglas PUD does not have a NNI clause in its documents. Rose went on to say that the JFP is only looking at primary objectives to set the stage for collecting more long-term status and trend data. They want to develop critical research questions for a large-scale Columbia lamprey study and then proceed to obtain tools, experts and professionals, and other data collection needs. Rose said that this discussion is meant to provide an overview of objectives and data gaps and that this conversation will guide the development of a cleaner document with more specific goals and methods for the study. Rose said that he hopes the JFP have clearer resolution on the issue by October or November 2013. He said that the primary objective is to maximize the value of every fish put into the river by obtaining as much data as possible in just 2 to 3 years. After this time period, he thinks that the data will indicate whether

or not lamprey are viable candidates for movement tracking studies. Rose proposed using radio telemetry tags to track movements more carefully. He further explained that if the JFP are considering translocation as a possible tool for repopulation, it needs to be known if translocated fish produce viable offspring. Rose said that once tagged adults spawn, he hopes that biologists can observe where the tags end up and draw conclusions from there. From the spawning grounds, biologists can move downstream and pinpoint index sites with potential spawning and rearing habitat. Rose suggested that, based on these data, it may be feasible to make connections between juveniles and their parents to determine if offspring are coming from tagged or untagged adults. Rose said this proposal is a good approach to figuring out what is going on with lamprey in the Mid- to Upper Columbia River in a relatively short period of time with low expenses, so they can more quickly develop management plans for the species.

Andrew Gingerich requested additional time to review the document prior to discussing it. He added that Douglas PUD will review the proposal prior to the Aquatic SWG conference call on July 10, 2013. Rose said that the JFP agrees that the document is not perfect and needs refinement. Pat Irle asked about the release location of half-duplex PIT-tagged individuals as depicted on a diagram on page 18 of the proposal (Attachment C), and Rose clarified that the fish would be released in the general vicinity, up to a few miles away. Gingerich said that Douglas PUD is committed to studying lamprey in a way that is consistent with the existing Douglas PUD Pacific Lamprey Management Plan (PLMP) and the Aquatic Settlement Agreement (ASA).

Lastly, Rose provided a brief overview of the objectives for juveniles. He said that juvenile lamprey are vulnerable and highly susceptible to predation at dams. He suggested taking actions to reduce piscivorous fish around dams to increase juvenile survival. He said that irrigation diversions are another concern for juvenile survival. He wondered if juveniles could get entrained in these irrigation features in rivers such as the Wenatchee where they are common. Rose said that much can be learned about life history from propagating juveniles of a known size, age, and location, and that this could be a cost-effective way to supplement populations in the Upper Columbia.

VI. Next Meetings

1. Upcoming meetings: *July 10, 2013 (conference call); August 14, 2013 (conference call); September 11, 2013 (conference call)*

List of Attachments

Attachment A – List of Attendees

Attachment B – TDG Compliance Update for Wells Dam

Attachment C – Lamprey Proposal for the Upper Columbia

Attachment A List of Attendees

Name	Role	Organization
Kristi Geris	Administration/Technical Support	Anchor QEA, LLC
Emily Pizzichemi	Administration/Technical Support	Anchor QEA, LLC
Andrew Gingerich	SWG Technical Representative	Douglas PUD
Chas Kyger	Technical Support	Douglas PUD
Pat Irle	SWG Technical Representative	Washington State Department of Ecology
Steve Lewis	SWG Technical Representative	U.S. Fish and Wildlife Service
Patrick Verhey	SWG Technical Representative	Washington Department of Fish and Wildlife
Chad Jackson	Technical Support	Washington Department of Fish and Wildlife
Bob Rose	SWG Technical Representative	Yakama Nation
Jason McLellan	SWG Technical Representative	Colville Confederated Tribes
Bao Le	Technical Support	HDR Engineering, Inc.