

Rocky Reach Fish Forum
Wednesday, 4 April 2018
1:00 – 4:00 p.m.
Chelan PUD Second Floor Conference Room
Wenatchee, WA



Meeting called by Steve Hemstrom
Notes taken by Dee Swank

Chairperson, Tracy Hillman

Attending Representatives:

Hemstrom, Steve	Chelan PUD	(509) 661-4281	steven.hemstrom@chelanpud.org
Truscott, Kirk	CCT	(509) 978-8031	Kirk.truscott@colvilletribes.com
Verhey, Patrick	WDFW	(509)754-4624	Patrick.verhey@dfw.wa.gov

Attending Participants:

DeBruyckere, Lisa*	CRS	(503) 371-5939	lisad@createstrat.com
Clement, Marcie*	Chelan PUD	(509) 661-4186	marcie.clement@chelanpud.org
Clement, Mike*	Grant PUD	(509) 754-5088x2633	mclemen@gcpud.org
Hillman, Tracy	BioAnalysts	(208) 321-0363	tracy.hillman@bioanalysts.net
Kaputa, Mike	Chelan Co.	(509) 670-6935	Mike.kaputa@co.chelan.wa.us
Keller, Lance	Chelan PUD	(509) 661-4299	lance.keller@chelanpud.org
Lampman, Ralph*	YN	(509) 388-3871	lamr@yakamafish-nsn.gov
Nelle, RD	USFWS	(509-548-7573	RD_nelle@fws.gov
Simon, Graham	WDFW	(509) 670-0742	Graham.Simon@dfw.wa.gov
Swank, Dee	Chelan PUD	(509) 661-4601	Delores.swank@chelanpud.org
Underwood, Alene	Chelan PUD	(509) 661-5192	alene.underwood@chelanpud.org
Wyena, Pat*	Wanapum	(509)831-1613	Pwyena@gcpud.org

* Joined via phone.

Meeting Minutes

I. Welcome and Introductions

Tracy Hillman welcomed everyone to the Rocky Reach Fish Forum (RRFF or Forum) meeting. Participants introduced themselves.

Tracy reported that Keith Vradenburg has retired and will no longer represent the City of Entiat on the RRFF. Mayor John Alt will represent the City of Entiat on the RRFF.

II. Agenda Review

The meeting agenda was reviewed and approved with one addition.

- Status of Artificial Propagation Lamprey Contracts.

III. Approval of March Meeting Minutes

The March RRFF meeting minutes were reviewed and approved.

IV. Review Action Items

- USGS will send a short paper to the RRFF providing guidance on studying the effects of Triclopyr TEA on Pacific lamprey. **Ongoing**
- Ralph Lampman will suggest studies on the effects of Triclopyr TEA on Pacific lamprey ammocoetes. **Ongoing**
- RRFF will review the Aquatic Invasive Species Monitoring Report and provide comments to Marcie Clement by 16 March 2018. **Complete**
- Steve Hemstrom will check on the timeframe for comments/responses on the Tumwater Dam Feasibility Assessment. **Complete; Alene Underwood provided an update.**
- Kirk Truscott will ask Jason McLellan (CCT) for feedback on the use of PIT-tags to document bull trout interactions with hydroelectric projects. **Ongoing**
- RRFF will review the draft bull trout study plan outline and provide comments to Steve Hemstrom by 28 March 2018. **Complete**

V. Aquatic Invasive Species

ESA Compliance for Invasive Species Response

Lisa DeBruyckere, Creative Resource Strategies, gave an update on the progress of the ESA Action Plan. The Pacific State Marines Fisheries Commission (PSMFC) is leading an effort to develop a manual that will inform, expedite, and facilitate ESA Section 7 consultations to minimize impacts of dreissenid mussel response actions on listed species and their designated critical habitat in the Columbia River Basin. The manual provides general information applicable to all four states in the Columbia River basin in the event of an introduction. They developed some case-study examples in the four states and requested four water bodies from each state that best represent geography, water body types, as well as complex jurisdictional management of those water bodies. Water bodies selected in Washington included Potholes Reservoir, Lake Roosevelt, Lake Washington, and the Columbia River downstream of Bonneville Dam. Information compiled for each water body includes federal agencies, authorities, key points of contact, existing rapid response plans, project location, and treatment sites.

In addition, Lisa said they consider control action, action area, proposed and listed species, critical habitat, effects analysis, conservation measures, and BMPs (best management practices). They also include a background section on each water body that describes traditional or cultural aspects of the water body. Factors such as geology, soils, climate, and water temperature would dictate where, when, and how much chemical would be used. Depending on the water body, the recommended treatment for a dreissenid invasion would be potash (potassium chloride or KCl). A product like EarthTech could be used in some isolated water bodies. The Action Plan will likely recommend KCl as the treatment of choice, but it will not be recommended for an entire water body. Curtain barriers can be used to restrict the treatment area provided the treatment area is small. Curtain barriers would not be feasible for treating larger areas.

A copy of the latest version of the manual can be found at: <https://www.westernais.org/esa-manual>. The State of Oregon recently selected four waterbodies for consideration: Lake Billy Chinook, Detroit Lake, Lake Owyhee, and Upper Klamath Lake. Lisa hopes to have the action plan completed by 1 October 2018 (deadline is end of December 2018). Entities should review the draft Action Plan and let Lisa know if there are any cultural or traditional resources that need recognition in the plan. Entities should consult with the USFWS and Tribes before initiating treatments in sensitive resource areas. Lisa noted that at the end of the manual there is a literature review that describes additional factors/characteristics that need to be considered before chemical applications.

Steve Hemstrom asked if it's a programmatic Section 7 consultation. Lisa stated that rather than starting from scratch, these steps make it easier for each consultation to occur. It's too difficult right now to describe everything that is needed for every water body in the basin. All critical agencies are involved in the process. Lisa explained that potash is a naturally occurring, inexpensive salt (metal halide salt) that does not persist in the environment for very long and would have the least detrimental effects on fish compared to copper-based products. Ralph Lampman asked if the salt would affect native mussels. Lisa said yes, it will harm native mussels, but the effects of the salt can be contained with curtain barriers. Mike Clement, Grant PUD, would like to continue discussions with Lisa because of the wide variety of native mussels that could be affected or compromised in the Project Areas.

VI. White Sturgeon

Juvenile Rearing Update

Lance Keller reported that 2,273 juvenile sturgeon were tagged between 26-29 March at the Chelan Hatchery. Lance said juveniles are approaching 200 grams in weight and are expected to continue to grow until release in May. The PUD will conduct QA/QC to determine tag retention in late April or early May (before release) and gather length and weight data. Any surplus production will be given to the co-managers, who will hopefully find a place to release the fish. At this time, a date has not been set for the release of juvenile sturgeon into the Rocky Reach Project Area.

Monitoring and Evaluation Report

Lance Keller said he just received the 2017 Annual M&E report and will review it and send it to Tracy by the end of the week for distribution to the Forum. Lance added that he would like approval from the Forum to discontinue diet sampling during the winter and move the winter sampling effort to later in the year. Thus, there would still be four sampling events during the year, but no diet sampling during winter. Lance said he and Cory Wright would like to see this change implemented this year, which would be within budget and provide four years of data. The proposed sampling periods would be April, June, August, and October (the January or February diet survey would be discontinued). Crews would sample four days during each survey month. Lance noted that very low numbers of sturgeon are captured during the winter period and he believes they would capture more sturgeon for the diet study later in the year. Kirk Truscott asked if sampling was conducted in the same location in the winter. Lance said yes, and data from acoustic tags as well as from set-line sampling is used to identify spots where sturgeon aggregate.

RD Nelle asked if the diet data would be used in a bioenergetics model. Lance indicated the sampling efforts are in the upper, middle, and lower sections of the reservoir to see if the results differ among sections. Tracy Hillman noted that additional information would be needed to parameterize and populate a bioenergetics model. Tracy recalled that the policy group thought it necessary to document the composition of prey consumed by sturgeon to help better inform sturgeon and lamprey management strategies. That is, predator-prey interactions between sturgeon and lamprey (and other important species) may help inform future sturgeon stocking levels. Alene Underwood added that the studies also provide information on correlations between sturgeon distribution in the reservoir and their diets. These quantitative metrics can be used to help identify sturgeon stocking levels.

Steven Hemstrom said Chelan PUD approves discontinuing the winter diet survey and adding another diet survey later in the year. Ralph Lampman (YN) abstained from voting on moving the winter sampling period to a later time in the year. RD Nelle (USFWS) said he will talk to Steve Lewis next week. Kirk (CCT) said he will check with Jason McClellan and Patrick Verhey (WDFW) said he will check with Chad Jackson before agreeing to moving the winter sampling event to later in the year.

Action Items:

- Lance Keller will send the 2017 draft Annual M&E report to Tracy Hillman, who will forward it to the RRF for review.
- Kirk Truscott will check with Jason McClellan regarding discontinuing the winter diet survey and adding another diet survey later in the year.
- Patrick Verhey will check with Chad Jackson regarding discontinuing the winter diet survey and adding another diet survey later in the year.
- RD Nelle will check with Steve Lewis regarding discontinuing the winter diet survey and adding another diet survey later in the year.

2018 Broodstock Collection

Lance Keller reported Chelan and Grant PUDs are coordinating with WDFW and ODFW on collecting white sturgeon broodstock downstream from McNary Dam. He said that ODFW plans to conduct a two-year, white sturgeon, spawning behavior study beginning in 2018. They (ODFW) were reluctant to allow broodstock collection downstream from McNary Dam because they were afraid it would interfere with their behavior study, which relies on acoustic tags. For their study, ODFW plans to capture and tag 30 adult sturgeon per year. Given this, the PUDs were thinking that they would be fishing for broodstock downstream from John Day Dam. However, based in part on the efforts of Laura Heironimus (WDFW) and Steve Parker (YN), the parties were able to coordinate work that benefits all parties. The plan is to take a collaborative approach to broodstock capture in McNary tailrace and acoustic tagging for the behavior study. Blue Leaf, PUDs, and ODFW will pool resources to simultaneously capture fish. Fish needed for broodstock and for tracking will be taken from this joint effort. The intent being that everyone receives the fish they need when and where they need them but hopefully quickly enough to limit the effects on the spawning behavior study. The PUDs are committed to support ODFW's goals, and if collection efforts are successful, collaboration will continue in 2019. The RRF was pleased with the support and collaboration efforts.

VII. Pacific Lamprey

2017 Rocky Reach Lamprey Passage Update

Steve Hemstrom reported that on 3 April, Blue Leaf queried PTAGIS for the 300 adult lamprey PIT tagged in 2017 for the Rocky Reach fish passage study. The purpose of the query was to see if there were any additional detections in the fishway or any indications of winter movement since the last update. Steve said they detected no additional tags in the Rocky Reach fishway and no additional lamprey movements in tributaries. Kirk Truscott asked how many of the 274-tagged lamprey are going into tributaries. Steve wasn't sure, but recalled about 13 went into the Entiat, two passed Wells Dam and entered the Methow, and about one or two entered the Wenatchee.

Tumwater Dam Feasibility Assessment – Response to Comments

Alene Underwood said she has responses to comments but needs to review and organize them. She will provide them to Tracy Hillman by the end of the week. Tracy will then distribute them to the Forum.

Action Item:

- **Alene Underwood will provide the responses to comments to Tracy Hillman by the end of the week. Tracy will then distribute the responses to the RRFF.**

VIII. Artificial Propagation Contract

Steve Hemstrom gave an update on the artificial propagation contracts. The USFWS's current 2017-18 contract will end 30 April; the extended contract will be from 1 May 2018 to 30 April 2019 for a fourth year of work. NOAA sent Steve a new scope of work for \$39,200, which will complete their third year of work. The work is very similar to what was outlined at the beginning of the contract, just amended for the final year, and this contract has been signed. Tracy Hillman asked if we are still within budget for artificial propagation work. Steve indicated there are remaining funds for artificial propagation from the \$700,000 available in the Lamprey Management Plan. Kirk Truscott asked what will happen to the artificially propagated fish once the contract has ended. Alene Underwood indicated Chelan PUD is only paying for the study components, not the fate of the fish once the contract work is complete. Kirk would like to have a co-manager meeting once the contract ends. Ralph Lampman stated the Tribes Master Plan is currently being reviewed by BPA and ISRP, and he hopes to start the implementation phase by September 2018 (but will likely take longer). Ralph said he will keep the Forum updated on what they decide to do with the juvenile fish. Kirk stated that there is plenty of rearing habitat for juveniles in the Okanogan. He added that adult lamprey released upstream from Wells Dam have not been detected in the Okanogan or Similkameen rivers. They likely didn't go into the Okanogan River because of warm water temperatures. Kirk believes placing juveniles into the Okanogan River basin will provide a pheromone signal that should help attract adults to the basin. Tracy agreed that this is likely a co-manager discussion; however, it will be important to keep the RRFF updated. Kirk and Ralph will keep the Forum updated on what happens with the juvenile fish produced during artificial propagation.

IX. Bull Trout

Approval of 2018 Bull Trout Passage Monitoring Study

Steve Hemstrom said he did not receive any comments on the draft plan but has had discussions with USFWS on the genetics components. The draft outline, "2018 Bull Trout Interactions and Genetics Analysis Study Plan and License Management Plan's Year 10 Monitoring Study" was discussed and distributed to the RRFF last month. Bull trout will be collected by WDFW at Dryden and Tumwater dams. There will be no fish collection at Rocky Reach or Rock Island dams. Up to 30 adult bull trout and 40 sub-

adult bull trout will be collected and PIT-tagged by WDFW at Tumwater and Dryden dams combined. Bull trout collection will be incidental to other trapping efforts. Trapping and tagging will occur in 2018 and will provide an additional source of PIT-tagged fish to track for a period of three years, 2018-2020. The PUD will collect a tissue sample for genetic analysis from each bull trout tagged if approved by the RRF. The PUD will submit the samples, fund genetic analyses, and prepare a report.

Steve Hemstrom said he has been evaluating bull trout genetics over the last month and would like feedback from the Forum on how these additional genetic samples from up to 70 fish will be used to assess project effects at Rocky Reach and Rock Island dams. Tracy Hillman asked if genetic analysis can determine which watershed within the Wenatchee River basin a given bull trout came from. Steve said it can tell you with some level of certainty where the bull trout came from. RD Nelle said he understands this to be a question of how dam operations impact certain subpopulations. Tracy asked how one determines if Rocky Reach operations affect one subpopulation and not another. For example, if a bull trout from the Chiwawa River dies within the fishway and no other bull trout from other subpopulations are detected within the fishway, does this mean operations affect Chiwawa bull trout more than other subpopulations? In addition, project effects would have to be normalized based on the size of each subpopulation. That is, operations affecting one bull trout from the Chiwawa is probably not the same as operations affecting one bull trout from, say, Nason Creek, knowing that Chiwawa bull trout are more abundant than the Nason bull trout. RD commented that he thought Tumwater and Dryden dams were also included in the plan for impacts. Steve Hemstrom said he is not sure how to assess the effects of the fishways on bull trout. He said Chelan PUD's annual fishway monitoring and reporting have not shown any bull trout mortality within the fishways; they show interaction rates. Steve said he does not know how genetics information will help determine project effects. Alene stated that in the BiOps, there is one term and condition that states there will be genetic samples taken at Tumwater and Dryden dams. It doesn't state how genetic sampling at these dams is linked with project operations at Rocky Reach or Rock Island dams.

Steve Hemstrom commented that PIT-tags are not designed to detect death on impact, only interactions with the fishways (non-lethal incidental take). He added that some fish with a one- or two-year radio tag gave unknown indications of how the fish went downstream at Rocky Reach and Rock Island dams, only that they made it down stream alive and uninjured. Steve has performed a ratio analysis of all downstream passage events by route (turbine, spill, or bypass) determined from radio-telemetry, and he knows the proportions for each route for fish that interact with Rocky Reach and Rock Island and where they went after being detected at the dams. In the BiOps and Management Plans, there is no requirement for Chelan PUD to determine effects on various local populations of bull trout using the mainstem.

Tracy asked the Forum if Chelan PUD should take genetic samples from the 70 fish to be collected at Dryden and Tumwater dams. Steve Hemstrom said it would be helpful to understand exactly how these additional genetic samples will be used to assess project effects, and the potential effects of genetic sampling on bull trout behavior and survival. Kirk believes that because the fish are already being handled, a sample could be taken at that time, and later we can decide who pays for the analysis. This

way, you at least have the samples, which can be analyzed later. Steve Hemstrom noted that he is not aware of the rate of mortality of bull trout sampled in warmer systems and the effect on fish from taking tissue samples. RD stated that in the Entiat, the USFWS is currently taking lengths and then releasing the fish. They were asked not to take genetic samples unless there was a specific study, or someone would pay for genetic processing. Steve Hemstrom said Chelan PUD is being clear in how they differentiate work the PUD proposes to do and the work WDFW is doing with bull trout for their own purposes at Dryden and Tumwater dams and other locations in the Wenatchee River basin. The Forum will discuss the topic further during their May meeting.

Action item:

- **Kirk Truscott will ask Jason McLellan (CCT) for feedback on the use of PIT tags to document bull trout interactions with hydroelectric projects.**

X. Resident Fish

Twenty-Five Mile Creek Update

Graham Simon, WDFW, and Mike Kaputa, Chelan County Natural Resources Department, gave an update on the Twenty-Five Mile Creek project. They shared with the Forum the 2013 Draft Twenty-Five Mile Creek Fish Passage Improvements Hydraulic Design Alternatives Analysis South Lakeshore Road. Mike recapped some of the history of the project, noting that ideally there would be a new bridge with unencumbered fish passage. He said conversations continue on what the best approach should be and how much funding would be needed. The RRF contribution helped prepare part of the 2013 report. The cost estimate for the preferred alternative (roughened channel) is \$68,575 (per 2013 estimate), which doesn't include final designs, permitting, construction management, or other costs associated with the project. Mike said Watershed Science and Engineering have the CAD drawings and they believe they can complete final designs for an additional \$25,000. Mike would like to see the construction costs updated because the 2013 estimate is out of date. He believes it will cost about \$125,000 to complete the preferred alternative.

Mike said he talked to Chelan County Public Works and they are interested with moving forward with the project but are concerned with the long-term maintenance and liability with the roughened channel. Patrick Verhey mentioned that historically, durability has been a problem at this site and wonders if it is even possible to build the roughened channel. Mike is curious to know if there needs to be any investing in HEC-RAS modeling to find out if the proposed action is feasible and durable. HEC-RAS modeling will increase the budget. Kirk stated if the perched box-culvert issue was fixed, will there be a velocity barrier within the box culvert? Mike said yes, there would be a velocity barrier. Kirk asked if the water velocity was slowed at the exit of the culvert, would there be a hydraulic issue with the roadbed if water backs up into the culvert during high flows? Lance Keller stated that during spawning ground surveys, they noticed that hydraulics upstream of the box culvert changed frequently and drastically from year to

year. Graham thought it could be a velocity barrier for some species during certain times of the year. Mike believes the existing road crossing was constructed by the Forest Service and it is likely we can find the permits issued by WDFW that authorized the project. Steve Hemstrom stated that unspent monies could be used for this project if approved by the Forum. RRFF to date has contributed \$19,649 for the Passage Improvement-Alternatives Analysis Project.

Mike asked the Forum if there was interest in receiving a cost estimate and a scope of work. Members said they would like to see a cost estimate and scope of work. Tracy will send to the RRFF the memo from Watershed Science and Engineering that responds to the Forum's comments and questions on the proposed action. He will also send to the RRFF the 2013 Alternative Analysis Report and a document containing all Forum discussions on the Twenty-Five Mile Creek project.

Action Item:

- **Tracy Hillman will send to the RRFF the Watershed Science and Engineering response memo, the 2013 Alternative Analysis report, and a compilation of Forum discussions on the Twenty-Five Mile Creek project.**

XI. Public Comments

None.

XII. Next Meeting

The next meeting of the RRFF is scheduled for Wednesday, 2 May 2018 from 1:00 to 4:00 p.m. and will be held at the Chelan PUD office in Wenatchee at 327 N. Wenatchee Avenue (1st Floor Conference Room).