FTC Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Final Meeting Summary

January 03, 2012 from 9:00 AM - 3:00 PM

Participating Members

Pat Frazier	WDFW
Mark LaRiviere	Tacoma Power
Michelle Day	NMFS
Tim Romanski	USFWS
Brett Swift	American Rivers

Other Participants

Debbie Young	Tacoma Power
Matt Bleich	Tacoma Power
Keith Underwood	Tacoma Power
Steve Fischer	Tacoma Power
Kirk Kessler	Tacoma Power
John Serl	WDFW
Peggy Miller	WDFW
Eric Kinne	WDFW
Ed Meyer	NMFS
Mike Kohn	LCPUD
Joe First	LCPUD
Debbie Carlson	BPA
Dana Postlewait	R2 Resource Consultants
Chick Sweeney	AECOM
Toby Kock	USGS
Lyn Wiltse	PDSA Consulting, Inc.

2012 FTC Meeting Dates

Feb. 3 (Note: This is a FRIDAY and replaced the meeting originally scheduled for Feb.7), Mar. 6, Apr. 3, May 1, June 5, July 10 (Note: This is the 2nd Tuesday of the month to avoid interference with the Fourth of July weekend.) Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

• Mark reported that when Tacoma did the reconstruction of the Cowlitz Salmon Hatchery they discovered a need to replace a pipe that extends between the two fish ladders. They will shut the pumps off to the ladder and do a thorough walkthrough for a detailed inspection during a 4-6 hour timeframe in February.

Action Item: Mark will email NMFS the date and time of the pipe inspection prior to the inspection. He will also email what they find regarding the condition / replacement of the pipe and the anticipated timing of the repair / replacement.

• The user name and password to the FTC website have been updated.

Agenda Item: Conceptual Design Report Presenter: Dana Postlewait, Chick Sweeney, Keith Underwood

The DST last met on December 20 to discuss the Conceptual Design Report (posted on December 23). Chick, Dana, and Keith walked us through the document, highlighting the selected alternatives and three cases.

Keith set the stage by explained that Tacoma will submit the conceptual design report or the three cases to FERC by mid February, 2012. When he and the consultants last met with the FTC they presented one case. There were concerns about whether that was the best design configuration. Today they are going to be reviewing 3 cases for a north shore Lake Scanewa collector. The document that was posted December 23 reflects the best configuration and justification for each of the three cases.

Dana walked us through schematics for each of the cases, explaining features, flow patterns, additional information required, and next steps for each:

Case 1: Partial flow capture facility with upstream entrance

- Can vary entrance flow at pump wall.
- Room to add pumps to test a higher velocity
- Could also put in a larger screen
- Case 2: Case one (above) with auxiliary downstream entrance near the dam
 - Room for an entrance across the emergency spillway
 - Dam acts as final BGS that would pool fish into that corner by creating an eddying flow pattern
 - Could be refined with different screen designs per NMFS criteria
- Case 3: Partial flow capture facility with downstream entrance
 - Dam itself and barrier screen would act as BGS

There will be a rigorous review process (including hydraulic modeling in the forebay and fish movement information from the USGS study) that results in the selection of the final design.

Chick walked us through the design document. He noted the sections of the report that had been changed since the 90% version of the report:

- 1. Introduction: Executive Summary was added. Includes goals, conceptual designs. Background was expanded to include description of what has occurred since the 90% design.
- 2. Background: No changes. Includes flows, bathymetry, hydraulic settings, existing structure and operations of the projects, rule curves, tables, and biological data.
- 3. Design Criteria & Methodology: No changes: Lists criteria (sizes, velocities, gradients, etc.)
- 4. Alternative Selection: Follows the 90% report with additional description of DST methodology used to narrow selection to final three cases. Repeats the

downstream collection goal and description of alternatives *not* chosen to go forward. Will include link from notes from the 2008 brainstorming workshop. For this section and following section, replaced prior information with link to DST website.

- 5. Recommended Alternatives: Updated drawings and bulleted description of alternatives and weir box alternative
- 6. Next Steps: This section was added (used to be included in Chapter 5).

Outstanding Issues:

- Mid Riffe Lake collector design (from 60% design report)
- Flow guidelines for model
- Case 2: Phasing of second entrance
- Alternatives vs. adaptive management?
- Re: decisions to expand,
 - How fast could we bring a second entrance online?
 - Construction vs. biological windows / seasons)
- Ensure we provide FERC the documents in the proper format (Links? CD?)
- Set up teamlets for AMP and weir box (without delaying design)
 - Members and process (inform and interact with Design Team)

Next Steps: Provide comments and FTC members to Keith by Jan. 23 (earlier is better). Keith will summarize the comments and address them in the document and send out the revised document to all to review on Jan 27. At the next FTC meeting, Feb. 3, we would review the document and discuss how to move it to completion, with the idea of having the final report complete by Feb. 10 for FERC submittal on Feb. 15.

Action Items

- FTC members to send comments on report to Keith and copy other FTC members before Jan. 23.
- Keith to send out dates and topics for offline conference calls with Tacoma, NMFS, and WDFW (Jan. 6 at 8 AM and Jan. 13 at 10:30 AM). Also send out conference call instructions.

USGS Study Results Presenter: Toby Kock

Toby sent out a draft of this report on Dec. 13. He walked us through data from 110 fish releases of each species (steelhead, coho, and Chinook). He explained the study methods, river flows and dam operations, detections and behavior patterns, and Marcov chain (cumulative behavior) analyses performed.

The study revolved around two main questions:

- 1. Do substantial numbers of juvenile salmon encounter the FSC?
- 2. Do substantial numbers of juvenile salmon encounter entrances to spillbays 2 and 3?

The data indicated that the median travel time and median forebay residence time varied widely across the three species:

	<u>Travel Time</u>	Forebay Residence Time
Steelhead:	18.4 hours	34.6 hours
Coho:	20.5 hours	2.7 hours
Chinook:	51.7 hours	191 hours

Most steelhead and coho made 0-1 upstream trips, while Chinook ranged from 0-12 trips, with 24% at 3 trips.

First BGS detections:

Steelhead: 72% on shallow antennas Coho: 57% on shallow antennas Chinook: 69% on shallow antennas

Toby explained how he defined two zones, small (FSC and 2 panels) and large FSC (extended further out). BGS guidance was generally successful, especially for Chinook.

He also reviewed a table of collection scenarios and estimates.

Summary: The approach distribution supports the BGS concept. The near-dam data support FSC and dam-based collector (>90% discovery for all species). There was a high percentage of Chinook that didn't pass during the collection season. Note: These data were from a single season of with abnormal flows during some periods (e.g., flows twice as high as normal during summer months).

Action Items:

- All to review report and send comments to Keith by Jan. 13.
- Keith will collect these and submit those within the original scope to Toby to address.
- Toby to perform additional analysis by the end of January.

Agenda Item: 2012 Activities Presenter: Keith Underwood

Keith highlighted the following areas that need to be addressed ASAP:

- 1. Weir box study (prototype)
 - a. Can increase sample size with PIT tags (full duplex, Columbia River standard) at lower cost and compare flume to weir box to old system. It would be good to assess the health of the fish that pass through the weir box. We would also want to verify flow regime and velocities trough the floor screen (engineering perspective). NMFS concern: Can't tag 40mm fry.

- b. Prototype construction is underway. Plan is to have it installed and operational by April, 2012. Meeting with FERC week of Jan. 9 to review design.
- c. Success is measured in many ways, starting with whether the weir is more effective at capturing fish than the flume. Study design will have more complete definition of testing criteria, performance metrics, etc.
- 2. Adaptive Management Plan
 - a. To be completed by the FTC by end of June, 2012.
 - b. Keith has created an outline for the plan
- 3. Specifics of Downstream Cowlitz Falls Collector
- 4. Behavioral Guidance System: What studies and design schedule?

Action Items:

- Keith to send out draft agenda for teamlet meeting on Jan. 10 to address the four issues listed above. Priority will be given to 2012 activities.
- All to attend the Jan. 10 meeting if possible. If not, send comments to Keith in advance of the meeting.
- Keith to send out meeting notes by Jan. 11.
- All to comment / concur by Jan 20.

Settlement Agreement Amendment Process Presenter: Debbie / Pat

This item was deferred until a future meeting. The agenda items from Dec. 6 stand.

Agenda Item: Meeting Protocols Presenter: Lyn

Lyn sent out the edited document on December 8 in track changes for all to review. She distributed hard copies of the protocols reflecting the changes agreed to at the December 6 FTC meeting (with changes accepted). This is a living document. We will review it again at the end of 2012.

Action Item

• Lyn will edit the footer and send to Mark to be posted.

Previous Action Items

Settlement Amendment Process

- Debbie to follow up with Brett re: amendment language.
- FTC members to review CRR Fund draft document (including Brett's comments) posted on the FTC website.
- Pat to review and edit Mark's draft rationale for plan to abandon volitional upstream passage and email to Mark to post prior to Jan. 3 meeting.

Mayfield Dam Downstream Passage Study Proposal:

- Tacoma (Mark and Matt) to meet with NMFS (Michelle and Ed) to review FPS model and the scope of the RFP.
- Bob to send out info from John Skalski on how to do these types of studies.

Potential February 3 Agenda Items

- Review Comments and finalize Conceptual Designs from the DS Team Report
- Confirm Agenda for Mar. 6 meeting
- Evaluate the meeting

March and April Meetings Agendas

Annual Review process

• March meeting: Update on Adaptive Management planning for CF Dam, Cowlitz Project M&E, update on Settlement Amendment Process, HAG properties map

Agenda Item: Approval of December 6 Meeting Summary Presenter: Lyn

We reviewed and approved the meeting summary with edits from Pat and Michelle.

Agenda Topic: Meeting Evaluation

Well Done

- Missed some FTC members
- Great presentations by Chick, Dana, and Toby
- Great participation by others and consultants on DST
- Warm environment
- Hard work, deep thinking

Do Differently

- Minimize side bars (take it outside)
- End on time

Handouts

- Agenda for January 3, 2011 meeting
- Draft December 6 meeting summary
- Draft protocols from December 6 meeting
- Drawings for each of the cases for Cowlitz downstream fish passage: 5.1-1 through 5.1.10

 USGS PowerPoint presentation: Behavior and Passage of Juvenile Salmonids during the Evaluation of a Behavioral Guidance Structure at Cowlitz Falls Dam, Washington, 2011, by Toby Kock, Theresa Liedtke, and Dennis Rondorf, January 3, 2012

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February 03, 2012 from 9:00 AM - 3:00 PM

Participating Members

Pat Frazier	WDFW
Michelle Day	NMFS
Tim Romanski	USFWS
Brett Swift	American Rivers (by phone)
Bob Rose	Yakama Nation

Other Participants

Shannon Wills	Yakama Nation Technical Representative
Debbie Young	Tacoma Power
Matt Bleich	Tacoma Power
Keith Underwood	Tacoma Power
Kirk Kessler	Tacoma Power
Paul Sparks	Trout Unlimited
John Serl	WDFW
Ed Meyer	NMFS
Lyn Wiltse	PDSA Consulting, Inc.

2012 FTC Meeting Dates

Mar. 6, Apr. 3 (conference call?), May 1, June 5, and July 10 (Note: This is the 2nd Tuesday of the month to avoid interference with the Fourth of July weekend.) Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

 Comments on USGS report: Toby has addressed all comments received (from WDFW and NMFS) for the USGS report. The revised report is being formatted for web display and will be posted on the FTC website as soon as it becomes available.

Action Item: Keith will post it to the FTC website when it becomes available and email out notification that this has been done.

Settlement Agreement amendment update: At the January FTC meeting we received verbal approval from all FTC members regarding the SA amendment language. Since then there has been a follow-up phone call on process. After we get the SA signatories to sign we will submit the request to amend the license to FERC. Debbie distributed a copy of the concurrence sheet for the amendment (Article 3, Section H). It consists of inserting an explanatory sentence showing that FTC has the right to end productivity testing and activate the CRR fund. Mark L. has called the Lewis County Commissioners, Washington State Parks, the Recreation Conservation Office and the USFS to brief them. FTC members

requested a draft copy of the letter today so they can brief their managers. There was discussion around the need to have the adaptive management component clear on this before approving the amendment language.

Action Items:

- Tacoma will send out the draft document today to all.
- Bob and Tim will run it by their manager and come to the next FTC meeting ready to discuss how to move forward.
- Tacoma will then send out the final version to SA signatories to secure the proper signature from their organizations.
- Tacoma will send out the most recent version of the CRR Fund document for all to review and discuss at the March 6 FTC meeting.

Agenda Item: Responses to Comments/Finalization of Cowlitz Falls Conceptual Design Report

Presenter: Keith Underwood

Keith walked us through the comments received from NMFS, WDFW, and American Rivers along with Tacoma's response on the Draft Cowlitz Falls Conceptual Design Report reviewed at the last meeting.

The design intent is to meet 95% FPS. The license allows for a decision point of whether 75% and above meets the needs. The downstream collector is supposed to come on line in 2016. Ed observed we would likely spend the first season doing the balancing, etc. The first year of any meaningful data will probably be 2017.

Tacoma was clear that they do not intend to pursue the mid-Riffe Lake collector option, as conceived in the 60% design, due to practicality and effectiveness concerns. It would have been a large floating platform that had to deal with significant wave actions, needing to get fish off of it in the midst of these wave actions, and using a very long net. The ongoing operations and maintenance of such a structure would also represent a serious challenge. This, coupled with a high level of uncertainty of its success, makes it an option that Tacoma does not intend to pursue.

Keith also pointed out substantive changes in the report since the last meeting, including a phrase that was added referring to "best available science". This phrase caused considerable concern among the FTC members. After time to caucus, the other members suggested alternate wording for Tacoma to consider:

The Recommended Alternative is based on a number of factors including site conditions, biological performance, technical considerations, and economic that is fully endorsed by the FTC.

Next Steps: The preference is to have the final report complete by Feb. 10 for FERC submittal on Feb. 15.

Action Items

- Keith will email FTC members the status of Tacoma's decision on the alternate language for the report by February 8, along with suggested next steps regarding the filing of the report.
- Keith will set a date for an Adaptive Management Plan teamlet with the idea of meeting before the next FTC meeting on March 6.

2012 Cowlitz Evaluations Presenter: Keith Underwood

This agenda item was deferred until the March 6 meeting.

Previous Action Items

Mayfield Dam Downstream Passage Study Proposal:

• Bob to send out info from John Skalski on how to do these types of studies.

Cowlitz Salmon Hatchery Pipe Replacement

• Mark will email NMFS the date and time of the pipe inspection prior to the inspection. He will also email what they find regarding the condition / replacement of the pipe and the anticipated timing of the repair / replacement.

2012 Activities

 Hold meeting with WDFW and NMFS to finalize tagging strategy associated with the weir box study by Feb 10th.

Potential March 6 Agenda Items

- Update on Set-up of 2012 weir box evaluation
- Status of Adaptive Management Plan Process
- 2011 Supplemental Collection Report
- FHMP Implementation
 - Fish marking (Pat to set up a meeting with BPA on this)
- CCR Fund Document
- Confirm Agenda for Apr. 3 meeting (conference call?)
- Evaluate the meeting

April/May Meeting / Conference Call Topics

- Update on Status of 2012 weir box evaluation
- Radio Tag Studies
- Annual Review process
- FHMP Evaluation
- Update on Adaptive Management planning for CF Dam, Cowlitz Project M&E

• HAG properties map

Agenda Item: Approval of December 6 Meeting Summary Presenter: Lyn

We deferred this topic as we ran out of time. Lyn will send email follow-up as it is our intention to get these posted for public review as soon as possible.

Handouts

- Agenda for February 3, 2012 meeting
- Draft January 3, 2012 meeting summary
- Table showing comments received on the Cowlitz Falls Conceptual Design Report and Tacoma's responses to each

FTC Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Final Meeting Summary

March 06, 2012 from 9:00 AM - 3:00 PM

Participating Members

Pat Frazier	WDFW
Michelle Day	NMFS
Brad Caldwell	Washington Dept. of Ecology
Tim Romanski	USFWS
Mark LaRiviere	Tacoma Power
Brett Swift	American Rivers (by phone)

Other Participants

Tacoma Power
Tacoma Power
LCPUD
LCPUD
BPA
Washington Council of Trout Unlimited
WDFW
WDFW
NMFS
BioAnalysts
PDSA Consulting, Inc.

2012 FTC Meeting Dates

Apr. 3, May 1, June 5, and July 10 (Note: This is the 2nd Tuesday of the month to avoid interference with the Fourth of July weekend.) Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

- Mark announced that Tacoma will host a future FTC meeting (June 5th?) at their new Visitor Center at the Salmon Hatchery. There will be a tour of the facility.
- This afternoon is the kick-off of the adaptive management process for the Cowlitz Falls downstream passage facility.
- Mark shared an update from the Habitat Advisory Group including maps of current land acquisitions (331 acres) and future lands targeted for conservation. They anticipate expending the balance of the fund this year or next. A management plan is written for each acquired property.
- The Cowlitz Falls Conceptual Design Report was submitted to FERC on Feb. 15, 2012.
- The link to the website posting for the 2011 USGS study was sent to FTC members March 5.

Action Items:

Final FTC Meeting Summary March 6, 2012

- Keith will post the USGS study (or at least the link) to the FTC website when it becomes available and email out notification that this has been done. Also, Tacoma will post the Conceptual Design Report to the FTC website and convert all data from the Downstream Team website to the FTC website.
- Mark will give an update on the web page structure at our next meeting.
- Mark will research how many river miles are included in the 331 acres (see above).

Agenda Item: CRR Fund Presenter: Mark LaRiviere

The draft CRR Fund Plan remains posted on the FTC website (since June 2011) for FTC member review and comments. At the last FTC meeting we discussed where we left off with regard to this document. It needs a good review. There is some disagreement on the decision making process outlined in the current draft (e.g., two or more FTC members required to reject a project).

Action Items

- Michelle will review the record of her comments and edits to the document.
- Mark will do the same and notify the FTC members of the absolute, most recent version of the document.
- Mark to set up web conference call with FTC members on March 15 from 8:00 10:00 to discuss issues that need to be resolved so the CRR Fund document can be finalized. This will be an agenda item for the April 3 meeting, with the idea of finalizing it along with the letter supporting the SA amendment proposal.
- All to review the document and suggested edits. Consider additional edits they would want to make and plan to attend the March 15 conference call to discuss.

Agenda Item: SA Amendment Process Presenter: Mark LaRiviere

We reviewed drafts of the letter informed by edits from Tacoma, American Rivers, and WDFW. We discussed and came to consensus on these additional edits. Mark will pass these on to Tacoma's attorneys for consolidation into the final draft of the letter. The plan is to finalize the CRR Fund Plan before sending the amendment letter and concurrence sheet out to SA signatories.

Action Items

- Mark to submit to Tacoma's attorneys the additional edits to the letter we agreed to at the meeting with recommendation to accept them.
- Mark to send out final draft of the letter ASAP to FTC members to review with their management teams.
- All to come to the April 3 meeting prepared to finalize the letter so it can be sent out for signature.

2012 Cowlitz Evaluations Presenter: Mark LaRiviere and Pat Frazier

Mark reported that Tacoma and WDFW are working together to develop and evaluations program for 2012. They have an interim agreement in place, where Tacoma and WDFW have been cost sharing for the tributary weirs. Tacoma is currently reviewing a proposal from WDFW and a meeting has been scheduled to work out the details. Both organizations are doing planning to implement actions detailed in the M&E plan from the FHMP update. Tacoma will begin funding these activities immediately upon receiving the FERC order approving the FHMP Update.

Cowlitz Falls Presenter: Keith Underwood

2012 Weir Box Evaluations: Keith explained there has been discussion about doing a PIT tag study for the weir box evaluation. Biomark looked at the facility the 23rd and made recommendations for locating the tag readers. Tacoma is currently evaluating their recommendations.

Tacoma has not gotten agreement from WDFW or BPA on this yet. WDFW provided comments to Tacoma regarding the study plan. From a study standpoint, WDFW believes we can use either PIT tags or VI tags. They were waiting to hear more details on the study plan before endorsing it. Keith explained that Tacoma has, for the most part, accepted WDFW's comments. We need to get agreement on how to perform a PIT tag study very soon if we are going to be able to deploy them this season.

BPA would appreciate more advanced notice when being asked to support new actions such as these. Debbie explained the earliest they could allow what is being proposed would be May 12-15. Mike suggested they could set up the antennae around May 1. There is a concern about various crews getting in each others' way. BPA and LCPUD would like to see the full proposal as soon as possible. The weir box should be operational by April 15. The goal is to get the weir box installed and get as much information as possible about how well it is working. LCPUD wondered if a side-by-side study might make more sense than doing a PIT tag study alone.

Keith allowed that there has been miscommunication behind the scenes among the various parties with regard to this study. There is also confusion about what the access agreement requires in terms of providing a science plan.

CFFF Juvenile Marking: Tacoma is willing to pull marking equipment from Mayfield and install it at the CFFF. They are considering the best way to integrate it at the Cowlitz facility. There is a lot of interest in making sure we are tagging the upper Cowlitz River populations this year. The peak coho outmigration would likely be May and early June. We are confident about our ability to tag cutthroat and steelhead this year and

discussed various options for tagging the coho, including setting up a tagging trailer at the stress relief ponds.

Adaptive Management Plan Kickoff Presenter: Keith Underwood

The team working on this will consist of more than the FTC. Also included will be BPA and LCPUD. Keith will be the leader of this team. Tacoma needs to work with this new team to define a communications protocol going forward to we can ensure the right people (FTC, BPA, LCPUD) are involved in the right discussions to inform the right decisions at the right time.

Action Items

- Keith to ensure robust communication protocols are set up so that members of the adaptive management plan team are sufficiently informed.
- All to consider integrating these meetings with regularly scheduled FTC meetings.

April Meeting Topics

- CRR Fund Review and Finalization
- SA Amendment Letter Review and Finalization Process
- Update on Status of 2012 weir box evaluation
- CFFF Juvenile Marking update
- Radio Tag Studies (link qualitatively to PIT tag studies)
- Update on Adaptive Management planning for CF Dam

Agenda Item: Approval of December 6 and February 3 Meeting Summaries Presenter: Lyn

We deferred the approval of the December 6 meeting summary as Debbie was out of town and she and Michelle are working together on some edits.

The February 3 meeting summary was approved with minor edits and will be posted to the public website.

Handouts

- Agenda for March 6, 2012 meeting
- Draft February 3, 2012 meeting summary
- Tacoma Power revised draft letter (including Brett's suggested edits) for SA signatories
- Additional edits to above letter from Pat and also Brett

Previous Action Items

Mayfield Dam Downstream Passage Study Proposal:

• Bob to send out info from John Skalski on how to do these types of studies (?)

FTC Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee GoToMeeting Summary

April 03, 2012 from 9:00 AM - 11:30 AM

Participating Members

NMFS
WDFW
USFWS
Yakama Nation
Tacoma Power
American Rivers

Other Participants

Debbie Young	Tacoma Power
Matt Bleich	Tacoma Power
Keith Underwood	Tacoma Power
Joe First	LCPUD
Debbie Carlson	BPA
Peggy Miller	WDFW
John Serl	WDFW
Ed Meyer	NMFS
Lyn Wiltse	PDSA Consulting, Inc.
Shannon Wills	Yakama Nation technical advisor

2012 FTC Meeting Dates

May 1, June 5, July 10 (Note: This is the 2nd Tuesday of the month to avoid interference with the Fourth of July weekend.), Aug. 4, Sept. 4, Oct. 2, Nov. 6, Dec. 4 Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

- The Draft FHMP Annual Project Evaluation and Status Report will be posted later this week. It consists of updates of what we've accomplished this last year, plans for the coming year, and the Cowlitz Evaluation Annual Report.
- Tacoma is merging final documents that were posted on the separate Downstream Team website into the Cowlitz FTC website. Mark encouraged all to review what is on the old website in case there is anything they want to save for their own purposes before that site is closed down.

Action Items:

- Mark L will send out an announcement when the Draft FHMP Annual Project Evaluation Report is posted, noting that the 30 day FTC member review period will begin at that time.
- Mark will send instructions on how to access the Downstream Team site to Michelle.

Agenda Item: CRR Fund Presenter: Mark LaRiviere

The March 15 conference call to review this document was very productive. A revised version in track changes was posted following the call. A clean version was also posted with the edits accepted.

Bob suggested some additional edits in an effort to clarify the meaning and not unnecessarily limit FTC future actions. All agreed to accept each edit and Mark entered each into the document as folks watched through GoToMeeting. Below is a summary of the edits.

- First paragraph, add a footnote explaining ESA reference.
- Establishment and acquisition of easements
- Remove "effectiveness" from monitoring
- Habitat restoration is a broader term that includes instream habitat improvements so we combined those paragraphs.
- For riparian and wetland protection and enhancement: Remove "from grazing".
- An initial assessment of habitat and limiting factors: Remove "one-time". Intent is to have a comprehensive survey. We added a footnote saying that the aim is to have a comprehensive survey. Future surveys may be completed.
- Note: We will see if we have to have FERC approval for each change we make.
- Change "unanimous" to "approved consistent with FTC protocols".

Action Items

 Mark to post the final version of this along with the letter they will submit with this document to FERC.

Agenda Item: SA Amendment Letter Review and Finalization Process Presenter: Mark LaRiviere

All FTC members have received their drafts of the letter to discuss internally with their managers. As no other edits were received, Tacoma will send out the official version of the letter to the proper person at each organization, and copy the FTC member.

Action Items

 Tacoma will send out the official version of the letter to the agency heads (whoever is in the address block), and copy the FTC member with the exception of Pat and Bob, who will receive the letter directly and carry it to their manager for signature.

CFFF Juvenile Marking Update Presenter: Debbie Carlson

Debbie Carlson reported that due to the lateness of Tacoma's request to tag coho at the CFFF, BPA would not permit tagging at the CFFF this year. Mark asked those who would be involved in the physical marking of the fish if they thought tagging at the CFFF this year was possible. Hearing no objections, he further stated that he believed this to be a cost sharing effort between Tacoma and BPA. There was discussion around the tagging being easier to achieve at CFFF if the coho numbers were low as they were last year. There was also some discussion around the possibility of Tacoma re-locating or purchasing additional tagging equipment to perform the tagging elsewhere.

A conference call on this topic is scheduled for this afternoon from 1-4 pm. Also on the agenda will be further discussion of the 2012 weir box at Cowlitz Falls Dam. After some discussion, it was clear that there was confusion on how this call came to be set up. All FTC members should be invited to address FTC topics. Debbie Carlson was also invited to attend the conference call. Earlier notice would have been appreciated.

Action Item:

• Keith will send out an invitation to all to attend the above-mentioned conference call with the hope that a resolution can be reached on this matter.

Cowlitz Falls Dam 2012 Weir Box Evaluations Presenter: Matt Bleich

The weir box has been fabricated and is being delivered in parts to the dam. The flume has also been delivered. The whole assembly will be installed next week for test deployments and removals. The weir antennae will be deployed in early May. The final measurements will be taken this week. They have been coordinating with John Serl on the paired marking strategy. This has been sent to BPA. It is available for all to review on the FTC website. The radio tags for that evaluation have been ordered and are due for delivery in time for the coho and Chinook season. Tacoma is finalizing the contract with USGS to do this. They will be readying for deployment in late April. The diverter panels will be installed on this Thursday. They will start the emergency removal test on Friday, April 13.

LCPUD Study Plan Presenter: Joe First (for Mike Kohn)

Joe reported that this is their last year doing the adult fall-back study to determine whether there is a need for an alternative upstream adult fish release site. They will be doing temperature studies and looking for various locations for alternate release sites. They started with tagging steelhead (NORs) on April 2. They will do spring Chinook (HORs) the 3rd of 4th week on April. The tags for these will have temperature sensors. The fall-back study for coho will start in October, using NORs.

Adaptive Management Plan for CF Dam Presenter: Keith Underwood

Last Thursday, an adaptive management plan meeting was held to review problems and solutions for the Lake Scanewa collector. They named the group Downstream Adaptive Management Work Group (DAMW) and set operating protocols. They scheduled the next four meetings for April 6, 20, May 4, and May 19. The April 6 meeting will be at Mayfield. They will be looking at problems and solutions for the weir box, and agreeing on what the outline for the adaptive management plan should look like. They will also be discussing how best to measure the environment downstream of Cowlitz Falls, to work toward a 2013 upper Riffe Lake collector. They also will continue to work with an evaluation (meets, partially meets, etc.) table introduced by Pat at the last meeting. They will also be reviewing injury criteria.

Action Items

• All to consider integrating these meetings with regularly scheduled FTC meetings. Bring your lunches!

Potential May 1 Meeting (Conference Call?) Topics

- Update on Status of 2012 weir box evaluation
 - o Radio tag studies (link qualitatively to PIT tag studies)
- CFFF Juvenile Marking Update
- DAMW update
- 2011 Supplemental Collection Report
- 2012 Supplemental Collection Update
- Finalize Dec. 6, 2011 and April 3, 2012 meeting summaries
- Set Topics for June 5 Meeting (conference call?)
- Evaluate the meeting

Agenda Item: Approval of December 6 and March 6 Meeting Summaries Presenter: Lyn

We deferred the approval of the December 6 meeting summary until our next meeting (or sooner depending on the agreement reached by Michelle and Debbie Young).

The March 6 meeting summary was approved with edits and will be posted to the public website.

Handouts (viewed collectively during the meeting)

- Agenda for April 3, 2012 meeting
- Draft March 6, 2012 meeting summary
- Tacoma Power revised draft letter for SA Amendment
- CRR Fund revised draft document

Previous Action Items

Mayfield Dam Downstream Passage Study Proposal:

- Bob to send out info from John Skalski on how to do these types of studies.
- Mark will research how many river miles are included in the 338 acres (see above).
- Michelle and Debbie Young to agree on wording to allow us to finalize the December 6 meeting summary

Meeting Evaluation

- GoToMeeting format worked well.
- WDFW unable to connect (They will work with their IT Dept on this.).
- Would have been nice to have Debbie Young in the room for marking discussion, conference call, etc.
- Be sure to include Shannon on meeting announcements.

FTC Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Conference Call Meeting Summary

May 01, 2012 from 9:00 AM – 11:15 AM

Participating Members

Michelle Day	NMFS
Pat Frazier	WDFW
Bob Rose	Yakama Nation
Mark LaRiviere	Tacoma Power

Other Participants

Debbie Young	Tacoma Power
Matt Bleich	Tacoma Power
Keith Underwood	Tacoma Power
Russ Post	Tacoma Power
Kirk Kessler	Tacoma Power
Shannon Wills	Technical representative - Yakama Nation
Paul Sparks	Trout Unlimited
Mike Kohn	LCPUD
Steve Grega	LCPUD
Ed Meyer	NMFS
Peggy Miller	WDFW
John Serl	WDFW
Lyn Wiltse	PDSA Consulting, Inc.

2012 FTC Meeting Dates

June 5, July 10, Aug. 4, Sept. 4, Oct. 2, Nov. 6, Dec. 4 Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

- Tacoma has merged final documents that were posted on the separate Downstream Team website onto the Cowlitz FTC website. Mark encouraged all to review what is on the old website in case there is anything they want to save for their own purposes before that site is closed down.
- The Cowlitz FHMP Annual Project Evaluation Report has been posted for FTC review (30-day review period ends May 7).
- HAG river miles purchased (and protected) since 2008 = 5.32 miles of river for a total of 13.69 total miles of protected Lower Cowlitz River frontage.
- Because some members have had difficulty with GoToMeeting, Tacoma has purchased a license for Web-Ex and it will be available for our next non in-person meeting.
- The May 28, 2012 Cowlitz Fisheries presentation to Tacoma Public Utilities Board has been posted to the Cowlitzfish.net website. All are welcome to review it.

- The date of the Cowlitz Salmon Hatchery visitor open house has been changed to Friday, June 8. FTC members will be receiving an invitation and are encouraged to attend. Note: Due to limited space this event is by invitation only.
- Debbie Young will be retiring the first week in June. Russ Post has agreed to serve as Interim Natural Resource Manager until a final selection has been made. Russ has been with Tacoma Power for 24 years now and has a background in environmental compliance.

Action Items

- All to give Mark feedback on the FTC website (that includes documents from the Downstream Team Website).
- All to review the Cowlitz FHMP Annual Project Evaluation Report and send in any comments by May 7, 2012.

Agenda Item: SA Amendment Letter and Concurrence Statement Presenter: Mark LaRiviere

Mark reported the Settlement Agreement letter and concurrence statement went out to all signatories of the SA. Mark followed up with phone calls to answer any questions. All signatories appear to be in favor of the amendment. Tacoma has already received the signed concurrence statement from the RCO.

Action Item

• Michelle to call Mark when she has a signature date.

CFFF Downstream Collection Activities and Tagging Presenter: Keith Underwood and Kurt Kessler

Keith explained that Tacoma has been working with BPA on an agreement regarding tagging at CFFF. A supplemental crew member will be provided to help with the tagging. There is a tagging trailer down at the salmon hatchery ready to go if needed. They have not yet reached an agreement on what to do with the supplemental collection coho smolts.

Keith outlined the following options (assuming they cannot tag the supplemental collection coho smolts at CFFF):

1. Move one of the tagging machines to a second location and do the tagging there.

2. Procure multi shot taggers and tag in the field (downside: slows the process of collecting the fish and field environment is not as controlled).

3. Continue releasing upstream of CFFF without tagging

4. Suspend supplemental collection fishing efforts.

Keith said currently par and fry (non-smolts or non-migrating fish) are being moved downstream (has been done historically). They are recommending shifting the protocol to be consistent with CFFF operations and in a way that is consistent with the FHMP Update. Keith and Mark will send out email to this effect seeking FTC concurrence.

The magnitude of the effort is not large as last year on average days there were 25 or fewer coho smolts.

Right now the CFFF is not authorized by BPA to tag the supplemental collection fish, so Tacoma is taking the smolts to Lake Scanewa unmarked. Tacoma will continue discussing this with BPA. There were differing assumptions made and the need didn't become apparent until after the agreement had been reached on tagging at CFFF. Communication was not as good as it should have been. Debbie Young will carry the discussion forward with Debbie Carlson in hopes of reaching an agreement that works for all concerned including the fish.

Action Items:

- Debbie Y to talk with Debbie C about how to move forward.
- Keith and Mark to send out email on shifting supplemental collection operations to be consistent with CFFF operations.
- Pat to send out paper describing some tagging options.

Future agenda item: Need to address long-term plan for marking fish moving out of the Upper Cowlitz every year. The complexity of this included the Access Agreement with LC PUD and BPA, etc. Tacoma has agreed to have a proposal to BPA by November about how to move forward.

Cowlitz Falls Dam 2012 Weir Box Evaluations Presenters: Kirk Kessler and Matt Bleich

Kirk explained the weir box and bypass flume were installed on April 13, in accordance with the schedule. Everything fit in place nicely and the box worked well at first. It was drawing a lot of water and appeared to maybe be working a little too well.

On April 16 John opened up the existing flumes to the CFFF. Later that day the project went to full turbine and ended up drying out the box. In an effort to compensate, they dropped the crest down and asked Lewis County PUD to ramp back up to full turbine. The box dried out again. They didn't want to run the risk of drying out fish so they tried pulling up the panels by a foot but that didn't help either. They then pulled 4th baffle panel out to prevent stranding. They are now "back to the drawing board" to better assess conditions there. A picture was sent to FTC members showing the strong flows in front of the 3rd spillway. These flows were judged to be approximately 4 times the strength of flows the diverter panels were designed for. Steve and Kirk agreed that there are many interdependencies at play here. Included in these is a combination of occlusion at the trash rack and the diverter panels working a little too well. They will be

measuring velocities next week to assess how much flow is going through various elements in the weir.

Steve added that LC PUD was worried that the box was designed for a 5 ft. differential. He was glad that the proper precautions were taken to make the turbine safe. The weather caught all by surprise, creating particularly high run-offs through April. Also, there appears to be a 30-35% blockage of the trash rack on Unit 2. They had planned on doing the removal at the end of the fishing season in September. LCPUD will look at changing their maintenance schedule in an effort to do a better job of keeping the rack clean. We need to address this in a way that will be sustainable over the long term.

Steve thinks the weir box will work if we can get these issues resolved. We hope we can get a quick fix and redeploy the weir box later in the season when flows start to recede. The best case scenario would be getting the weir box back in place for the summer season.

Matt explained that this will affect the biological studies (Tacoma has contracted again with USGS for these). Maybe there will be a second year of prototype gathering? They are moving forward with the PIT tagging installation the week of May 14. The best case scenario is a Chinook study this summer (likely July) with PIT tags and radio tags. It will be the same information as we were intending – just less of it.

Adaptive Management Plan for CF Dam Presenter: Keith Underwood

Keith reported that the Downstream Adaptive Management Work Group (DAMW) met twice since the last FTC meeting (April 6 and April 20). They will meet again May 4, and May 18. The May 4 meeting will be at Mayfield, starting at 9:30. They will continue to flesh out the evaluation table (meets, partially meets, fails, etc.) introduced by Pat.

Action Items

- Keith to send out meeting announcement reminding all of the start time of 9:30. Include also the notes from the April 20 meeting and the proposed agenda for the meeting on May 4.
- All to bring your lunches!

Potential June 5 Meeting Topics

- Update on Status of 2012 weir box evaluation
- CFFF Juvenile Marking Update
- DAMW Update
- Finalize Dec. 6, 2011 and May 1, 2012 meeting summaries
- Confirm date and agenda for next FTC meeting (July 10 conference call?)
- Evaluate the meeting

Agenda Item: Approval of December 6, 2011 and April 3, 2012 Meeting Summaries Presenter: Lyn

We deferred the approval of the December 6 meeting summary until our next meeting (or sooner depending on the agreement reached by Michelle and Debbie Young).

The April 3 meeting summary was tentatively approved with the caveat that Mark would email the notes to Joe First and Debbie Carlson to review and approve how their reports were captured. They then will be posted as final for public review.

Action Item

 Mark to send out April 3 and May 1 meeting summaries to LCPUD and BPA for review and approval.

Handouts

- Agenda for May 1, 2012 meeting
- Draft April 3, 2012 meeting summary

Previous Action Items

Mayfield Dam Downstream Passage Study Proposal:

- Bob to send out info from John Skalski on how to do these types of studies.
- Michelle and Debbie Young to agree on wording to allow us to finalize the December 6 meeting summary

Meeting Evaluation

- Michelle was not able to join us at the start of the meeting
- Low attendance from FTC Members
- Conference call is not the best for issues with emotional content
- Use Web-Ex instead of GoToMeeting
- Good facilitation
- Feedback on phone muting was helpful
- Got out early

FTC Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Final Meeting Summary

June 05, 2012 from 9:00 AM - 10:30 AM

Participating Members

Tim Romanski	USFWS
Pat Frazier	WDFW
Brett Swift (by phone)	American Rivers
Mark LaRiviere	Tacoma Power

Other Participants

Debbie Young	Tacoma Power
Russell Post	Tacoma Power
Matt Bleich	Tacoma Power
Keith Underwood	Tacoma Power
Kirk Kessler (by phone)	Tacoma Power
Shannon Wills	Technical Representative - Yakama Nation
Joe First	LCPUD
Debbie Carlson	BPA
Al Giorgi	BioAnalysts
Paul Sparks	Washington Council of Trout Unlimited
Peggy Miller	WDFW
John Serl	WDFW
Lyn Wiltse	PDSA Consulting, Inc.

2012 FTC Meeting Dates

Aug. 7, Sept. 4, Oct. 2, Nov. 6, Dec. 4 Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

- Reminder the Cowlitz Salmon Hatchery Visitor Open House is this Friday, June 8. FTC members have been formally invited and are encouraged to attend. The media tour will be from noon – 1pm. Note: This event is by invitation only and is extended to the broader group of FTC meeting participants.
- FTC meeting participants are invited to attend the HAG (Habitat Advisory Group) meeting at the Lewis County Public Works Office at 2025 NE Kresky Avenue, in Chehalis on August 23, starting 9:30 (until approximately 12:30). Mark will be showing a PowerPoint presentation on the HAG land acquisition process.
- The Draft Annual Upstream Fish Passage Report has been posted for FTC review. The report includes tables summarizing the Fish Truck Worksheets.
- To date, six signed Settlement Agreement concurrence statements have been received by Tacoma Power. Still outstanding are USFWS, NMFS, Yakama Nation, WDOE, and American Rivers.

- The 2011 Cowlitz Falls supplemental collection report has been posted to the FTC website for review.
- We will start using an expanded distribution list for FTC business. We will check in a few months to see how this is going.
- This is Debbie Young's last meeting with the FTC. We thanked her for her many years of service and wished her well in her future endeavors with her husband on the farm on Lopez Island.

Action Items

- All asked to encourage the signing of the SA concurrence statement at their organizations.
- Mark will send Lyn an updated (expanded) distribution list to Lyn and they will begin using the same list.

Agenda Item: 2012 Weir Box Evaluation Presenters: Kirk Kessler and Matt Bleich

Matt reported that Tacoma is making head differential measurements to try to determine the occlusion at the trash racks in order to learn when we can put the weir box back in service. The trash racks are more occluded on the south end at spillway 3 over Unit 2. They will send out an update on this to all next week. The flow is currently too turbulent. We have been getting a lot more spill days than normal. We see a bump in collection around 7000 cfs. Supplemental collection numbers are also down so far this year. We are 120% of a typical snowpack. We still hope to do a summer low flow weir box evaluation is it can be done safely.

Action Item

• Kirk will send an update to all on this next week.

Agenda Items North Shore Collector Update / Hydraulic Modeling Presenter: Kirk Kessler

CF North Shore Collector Design kick-off meeting for the geotechnical engineering study on May 21.

Hydraulic modeling is broken into 2 phases: computer modeling to narrow from 3 cases to 1 case. Then follows a CFD (computational fluid dynamics) model and the construction of a physical model. We have a schedule for the modeling that incorporates the DAMW recommendation for a 30 day FTC review at keep points along the way: Selecting which case to carry forward, and the 30/60/90% reviews. The schedule will accommodate any of the designs.

The schedule will be changed so the meeting dates occur one week after the documents are released.

Action Item

• Keith will update the CF North Shore Collector schedule to allow for the week review of documents prior to meetings.

Juvenile Marking Update Presenter: Keith Underwood

John reported smolt marking is occurring at the CFFF. The sub-smolts are going upstream of CF Dam. The CFFF staff are coded-wire tagging cutthroat, steelhead, and coho. Chinook smolts are being transported and released into the Lower Cowlitz River untagged.

Action Items:

• Pat to send out paper describing some tagging options. This will kick off discussions for 2013 tagging protocol.

Future agenda item: Need to address long-term plan for marking fish moving out of the upper Cowlitz River basin every year. The complexity of this included the Access Agreement between Tacoma Power, LCPUD and BPA. Tacoma has agreed to have a proposal to BPA by November about how to move forward.

Adaptive Management Plan for CF Dam Presenter: Keith Underwood

Keith reported that the Downstream Adaptive Management Work Group (DAMW) met last on May 4. They are actively engaged in coming up with a structure for the Adaptive Management Plan. All were given the exercise of filling out a matrix that Pat put out as a straw man. They will be discussing various approaches suggested by the different parties at their next meeting (immediately following the FTC meeting today).

Future DAMW meetings will occur on the heels of the FTC meetings. They will meet separately in July as the FTC is not meeting in July.

There will be no FTC meeting in July. Potential August 7 Meeting Topics

- Update on Status of 2012 weir box evaluation
- Update on Collector Models
- DAMW Update
- Finalize Dec. 6, 2011 and June 5, 2012 meeting summaries
- Confirm date and agenda for next FTC meeting: September 4
- Evaluate the meeting

Agenda Item: Approval of December 6, 2011 and May 1, 2012 Meeting Summaries Presenter: Lyn

We deferred the approval of the December 6 meeting summary until our next meeting (or sooner depending on the agreement reached by Michelle and Debbie Young).

The May meeting summary was approved without edits

Handouts

- Draft Meeting Summary for the May 1, 2012 meeting
- Draft June 5, 2012 meeting agenda
- Draft Schedule for the CF North Shore Collector

Previous Action Items

Mayfield Dam Downstream Passage Study Proposal:

- Shannon to facilitate Bob sending out info from John Skalski on how to do these types of studies.
- Michelle and Debbie Young to agree on wording to allow us to finalize the December 6 meeting summary

FTC Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Final Meeting Summary

August 07, 2012 from 9:00 AM - Noon

Participating Members

Tim Romanski	USFWS
Pat Frazier	WDFW
Bob Rose	Yakama Nation
Brad Caldwell	WA Dept. of Ecology
Michelle Day	NMFS
Mark LaRiviere	Tacoma Power

Other Participants

Keith Underwood	Tacoma Power
Kirk Kessler	Tacoma Power
Joe First	LCPUD
Bob Geddes	LCPUD
Mike Kohn	LCPUD
Debbie Carlson	BPA
Ed Meyer	NMFS
Paul Sparks	Washington Council of Trout Unlimited
Peggy Miller	WDFW
John Serl	WDFW
Lyn Wiltse	PDSA Consulting, Inc.

2012 FTC Meeting Dates

Sept. 4 (at CSH with tour), Oct. 2, Nov. 6, Dec. 4 Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

- Keith Underwood has been promoted to replace Debbie Young as the Natural Resources Manager. Russ Post has returned to his former post. He wishes us well. Tacoma is looking at reorganizing to back-fill Keith's former position. We all wished Keith congratulations and considered addressing him with an increased level of respect.
- FTC meeting participants are invited to attend the HAG (Habitat Advisory Group) meeting at the Lewis County Public Works Office at 2025 NE Kresky Avenue, in Chehalis on August 23, starting at 9:30 (until approximately 12:30). Mark will be showing a PowerPoint presentation on the HAG land acquisition process.
- Due to the need to perform required inspections at the Barrier Dam, Tacoma Power will be lowering river flows below Mayfield Dam starting Tuesday, September 4 for at least 7 days. Typical flows this time of year are about 3,000 – 3,500 cfs and the allowed minimum is 2,000 cfs. Tacoma will be

alerting the public as flows could be very low (between 2,000 and 2,500 cfs). Tacoma will be monitoring the lower river for redd impacts, side channel formations, etc.

- To date, nine signed Settlement Agreement concurrence statements have been received by Tacoma Power. Still outstanding are NMFS and Yakama Nation.
- Mark reported that we are still awaiting word from FERC regarding the FHMP Update.
- WDFW is seeking ways to increase HOR fall Chinook production. The recently negotiated abundance-based fishery management strategy adopted through the Pacific Fishery Management Council did not take into account the reduced production at Cowlitz Salmon Hatchery. One method WDFW is considering is putting net pens into Mayfield Lake. The proposed production increase would remain within HSRG guidelines. The goal would be to start this program in the fall of 2012. They are discussing this with Tacoma and DOE. Pat will also touch base with Rich Turner, NMFS on this.
- Pat presented an update on Cowlitz issues to the Lower Columbia Fish Recovery Board last week. It was well received.

Action Items

- Bob and Michelle are asked to encourage the signing of the SA concurrence statement at their organizations.
- Mark will check with Tacoma lawyers to see what a vote from the Yakama Nation to abstain would mean.

Agenda Item: Mayfield Downstream Migrant Fish Passage Survival Study RFP Presenter: Mark

Mark announced the draft Mayfield RFP with the technical specifications and schedule for the downstream fish passage survival study was posted last week for members to review. The final RFP is anticipated to be out in the next day or so. There will be a prebid meeting at Mayfield August 22. Some contractors have already conducted site visits. Bids are due September 11, 2012. Studies for coho, steelhead, and Chinook are anticipated to begin in 2013.

The study will include various flow conditions over multiple seasons, in an attempt to meet the precision goals requested by NMFS. Keith confirmed with Michelle that NMFS would be satisfied with an overall study precision level of +/- 5%. The proposals will include an independent statistical review of the approach and associated sample sizes to assure we reach the precision goals.

Action Items

- All to let Mark know if interested in being on the Selection Advisory Committee so Mark can copy them on bid package received By Tacoma.
- Members of the Selection Advisory Committee to review bid packages between Sept. 11 and Sept. 28.

Agenda Item: 2012 Weir Box Evaluation Presenter: Kirk Kessler and Keith Underwood

Kirk reported that the weir box was installed on July 25 when the lows were sufficiently low. It has been running smoothly under these minimum flows. They will be removing it this Thursday. They got just over two weeks of physical information and have done 2 releases of PIT tags (today is the last release). We will make alterations where needed and be prepared to re-deploy the weir box next year.

Kirk anticipated being able to deploy the barrier net (3/32" mesh) sometime next week. Flows are currently at 2,600 cfs. It will likely be out there until the end of September. Tacoma will be working with LCPUD on this.

They are using ADV / mechanical velocity meter so we will get more accurate info on the velocities going through the net. They also have a special scanning device that gives them a good picture of what is happening with the net so they will be able to see if occlusion or growth is occurring.

Agenda Item: Debris Removal at Cowlitz Falls Dam Presenter: Keith Underwood and Joe First

Keith reported that Tim and Pat suggested there may be long periods of removal over multiple years. There was a request to bring to the FTC scenarios on how we might be able to speed up that kind of activity. They are:

- 1. Do it faster
- 2. Do it longer
- 3. Do it longer and faster

The overall goal is not to have the cleaning process take more than a year.

Joe reported LCPUD plans to start with the debris removal on September 4 and work for six weeks (could go longer if flows are good and production is good). If the debris is largely constituted of sediment and / or small woody debris, the removal will go quickly. More difficult is the removal of large woody debris. Tacoma will bring their imaging equipment out to the site in hopes of giving LCPUD an image of what they are working with. The PUD will be using a contractor with experience in this type of work. Note: They are required by FERC to be prepared for flood season by the middle of October.

John Serl announced the CFFF will close down for the 2012 season on the morning of August 31.

Agenda Item: Supplemental Collection Update Presenter: Keith Underwood

Keith reported that the second week of July they started moving from beach seining to installing the first Merwin trap. They just recently put in the second Merwin trap and are currently collecting approximately 300 Chinook / day. They are deploying crews to do transecting on upper Riffe Lake and Lake Scanewa to obtain some temperature data. The monthly supplemental collection report is posted on the FTC website. Tacoma anticipates pulling the traps after the end of August - depending on flows. Note: In 2011, the Merwin traps were operated until the end of September,

Agenda Item: Cowlitz Falls North Shore Collector Update / Hydraulic Modeling Presenter: Kirk Kessler

Kirk explained that the first part of the design for this collector is a geo-technical study (proceeding according to schedule) and hydraulic modeling (University of Iowa is running late). They have had a kick-off meeting and the first modeling review meeting will be August 13. The schedule has just been revised and Mark will post it and send out an email announcing when it has been posted.

Action Item: Mark to post revised schedule when it becomes available.

DAMW Update Presenter: Keith Underwood

Keith reported that the Downstream Adaptive Management Work Group (DAMW) met last on July 3. They talked about the monitoring evaluation strategy and how to adapt the collectors and the program to improve over time after implemented. This included how to conduct a baseline level of activities and begin performing studies the first day (in known problem areas). Al Giorgi will put together a partial draft of the document by mid August. This will be reviewed prior to the next meeting September 18 at Mayfield.

Action Item: Keith to alert members when he posts draft plan from AI as available so all can review prior to the September 18 meeting.

Juvenile Marking

This was flagged as a future agenda item as we need to address long-term plan for marking fish moving out of the upper Cowlitz River basin every year. The complexity of this includes the Access Agreement between Tacoma Power, LCPUD and BPA. Tacoma has agreed to have a proposal to BPA by late September 2012 about how to move forward. Keith announced that Tacoma's goal is to take a longer-term view than they have in the past to planning efforts such as this.

Potential September 4 Meeting Topics

- Update on Status of 2012 weir box evaluation
- Debris Removal Options
- 2013 Juvenile Tagging Protocol
- Update on Collector CFD Modeling
- DAMW Update
- Finalize August 7, 2012 meeting summary
- Confirm date and agenda for next FTC meeting: October 2
- Evaluate the meeting

Agenda Item: Approval of December 6, 2011 and June 5, 2012 Meeting Summaries Presenter: Lyn

The June meeting summary was approved with minor edits as was the December meeting summary. Both will be posted to the website for public review.

Handouts

- Draft Meeting Summary for the June 5, 2012 meeting
- Draft August 7, 2012 meeting agenda

Previous Action Items

Mayfield Dam Downstream Passage Study Proposal:

- Bob send out info from John Skalski on how to do these types of studies by August 10.
- Pat to send out paper describing some tagging options. This will kick off discussions for 2013 tagging protocol (the week of August 13).

Future (October) Agenda Topic

• John Skalski presentation?

Meeting Evaluation

- Got out early
- Brad and Bob were here for the whole meeting. WaHOOO!
- We miss Brett

Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Final Meeting Summary

September 04, 2012, 9:00 AM – 2:00 PM @ Cowlitz Salmon Hatchery

Participating Members

Tim Romanski	USFWS
Brad Caldwell	WA Dept. of Ecology (by phone)
Michelle Day	NMFS (by phone)
Mark LaRiviere	Tacoma Power

Other Participants

Keith Underwood	Tacoma Power (by phone)
Kirk Kessler	Tacoma Power (by phone)
Debbie Carlson	BPA
Ed Meyer	NMFS (by phone)
Paul Sparks	Washington Council of Trout Unlimited
Peggy Miller	WDFW
John Serl	WDFW
Lyn Wiltse	PDSA Consulting, Inc.

Conference Call Dial-In Instructions

1-866-206-2831. Then dial meeting number: *7772519* to join the meeting.

2012 Meeting Dates

Oct. 2 (DAMW and 2013 Juvenile Tagging Workshop). Details on the exact meeting times and location to come. (Debbie is checking on availability of LCPUD building in Morton).

Note: There is no DAMW meeting scheduled for September 18.

Nov. 6 (FTC), Dec. 4 (FTC / DAMW?) Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

 Mark announced the Mayfield RFP for the downstream juvenile migrant study is out. Proposals are due back by September 11, 2012. FTC members are invited to participate on the Selection Advisory Committee which will meet on September 20 in Tacoma to review, and decide whether to award the contract to any of the bidders or to re-bid the process.

Action Item: FTC members to let Mark know if they want to review proposals prior to attending that meeting.

 Mark announced that the draft technical specifications (Scope of Work) for an RFP to conduct the CRR fund habitat site review for the upper Cowlitz River basin has been posted for FTC review. The RFP is to make recommendations on upper Cowlitz River basin sites for protection and enhancement.

Action Item: All are invited to send Mark comments by October 4.

- Results of the 2012 steelhead kelt re-conditioning study were previously distributed for FTC review. John explained that of the 11 kelts WDFW held only one survived this year. WDFW will consider repeating the study if they can do it in a way that will be successful.
- Pat and Michelle attended the HAG meeting at the Lewis County Public Works office in Chehalis on August 23 where Mark gave a presentation on the HAG acquisition process.

Action Item: Mark will post the 8/23/2012 HAG presentation.

- As of the morning of September 3 the Cowlitz River flow was down to 2,500 cfs. We anticipate being low tonight and tomorrow morning when the inspection at the Barrier Dam is scheduled to occur. Tacoma will be monitoring the lower river for redd impacts, side channel formations, etc.
- Tacoma Power just added another 500 cubic yards of washed gravel into the Cowlitz River below the Barrier Dam. A portion of this gravel is already mobilized and moving downstream.
- The NMFS and Yakama Nation concurrence statements for amending the Cowlitz Settlement Agreement are still outstanding. Michelle reported that NMFS should sign in the near future.

Action Item: Mark will check with Tacoma lawyers to see what a vote from the Yakama Nation to abstain would mean.

• We are awaiting word from FERC regarding the status of the Cowlitz FHMP Update.

Agenda Item: 2012 Weir Box Evaluation Presenter: Kirk Kessler and Keith Underwood

Kirk reported that the weir box at Cowlitz Falls Dam (CF Dam) was pulled out in August (after two weeks) and physical data (velocities, flows, general performance, etc.) were collected and the data are being compiled. When taking measurements, fish were observed in the box. In the meantime Tacoma has repaired PIT tag recorders. The juvenile fish collection did seem to go up during that time. John reported collection went

up the two days before the box was removed. It is not certain whether this was coincidence or cause-and-effect. If it turns out we can't utilize weir box as is, we need to start modifying construction ASAP.

The Lewis County PUD contractor for the cleaning the trash racks at CF Dam was starting today.

Debbie Carlson shared the following debris report - On August 16 divers found 24' of debris in the fore bay plus 4-5 logs on top of sand. Campbell Crane has been contracted to perform the work. They expect to be able to remove half this year and half next year. These measurements are from the bottom up:

- Unit 2 Slot 3 there are 20-23' of debris
- Unit 1 Slot 2 there are 19-20' of debris
- Unit 1 Slot 1 25' sand / small woody debris

They will keep on working until the flows start increasing - for a full six weeks unless interrupted by rain. There were questions around possibly extending the cleaning time and whether any FERC (flood control) or HPA requirements might be limiting factors.

John doesn't think an HPA is necessary to perform work right at the dam. Peggy offered to check on this.

A test barrier net was re-deployed this year at a different trajectory from last year. It seems to be operating well. Tacoma is collecting the velocities. The CF Dam flow is either 1,750 cfs or zero right now (doing cycling). The barrier net modeling velocity was 0.2 ft/sec at 1,750 cfs. Turbidity is high enough to keep the algae growth to a minimum. The fine stuff growing on it last year was not enough to block flows as it shook off really easily.

Action Items:

- Peggy to check to see that Lewis County PUD has what is needed in order to possibly extend the cleaning timeframe. This includes any HPA requirements.
- Debbie to contact Joe First and ask him to keep us apprised.
- Keith to send weir box and barrier net data to all to review ahead of time if possible. This winter we will discuss what the velocities are through the net, if we are meeting criteria, and how to respond, etc.

Agenda Item: Supplemental Collection Presenter: Keith Underwood

Keith reported that Supplemental Collection (Merwin Traps) will continue through the last day of September. They started taking fish to the stress relief ponds last Friday. BPA has approved using the stress relief ponds until the end of the month. The numbers are bouncing around between a handful and a couple of hundred.

Agenda Item: Juvenile Tagging at CFFF vs. CSH in 2013 Presenter: John Serl

John reported they coded-wire tagged all the steelhead, coho, and cutthroat they caught this year. If there is an increase in collection and they catch normal numbers of smolts, especially coho, he doesn't believe they would be able to tag them all at the CFFF without staffing and/or facility modifications. He referred to a paper he sent out outlining several options for tagging in 2013. The FTC agreed on the following "sideboards" to guide the decision that will be made jointly by LCPUD, BPA, and Tacoma Power, and informed by WDFW and NMFS:

- Tag all of the fish
- Do so in a way that includes the least amount of holding
- Do so in a way that includes the least amount of handling

John estimated that with the current staffing and infrastructure in place, they could handle no more than 10K /day at the CFFF. WDFW doesn't have a preference as long as it is done in a way that doesn't harm the fish. If the weir box works really well, we could be over 10K coho per day. We need to decide what we are going to do in enough time to secure the proper resources.

We will continue with the coded wire tagging for now. Michelle assured us this is covered under the biological opinion. The complexity of this includes the Access Agreement between Tacoma Power, LCPUD and BPA. Tacoma has agreed to have a proposal to BPA before mid October 2012 on how to move forward. Keith announced that Tacoma's goal is to take a longer-term view than they have in the past to planning efforts such as this. He will work with all parties to schedule a meeting to resolve this issue. October 2 is being held as a placeholder for a workshop on this.

Action Item:

 Keith to convene ASAP a meeting with LCPUD and BPA to discuss the best option for the 2013 season. Depending on the result of this effort, schedule a workshop on the topic to occur immediately before or after the DAMW meeting on October 2.

Agenda Item: Riffe Lake Collector Update Presenter: Keith Underwood

Keith reported that Matt Bleich has a draft RFP for this that will go out in next couple of weeks. The plan is to hire a consultant ASAP to start working on the design.

Action Item:

• Keith to send out draft RFP to FTC for review.

DAMW Update Presenter: Keith Underwood

Keith reported that the Downstream Adaptive Management Work Group (DAMW) met last on July 3. Since then Al Giorgi has sent to Keith a partial draft management plan and is awaiting TP's review and comment. Tacoma will review the draft and determine if more detail should be added before sending out for DAMW review. He will let all know next week about the schedule.

Action Items:

- Keith to send out schedule updates.
- All to release September 18 if holding it for DAMW meeting as the next meeting is not scheduled to occur until October 2.

Agenda Item: Cowlitz Falls North Shore Collector Update / Hydraulic Modeling Presenter: Kirk Kessler

Kirk explained they met with GeoTech last week and will meet again next week with engineers to lay out the civil design to get a better idea of how to build the collector considering all the constraints and challenges. They will also consider access issues and the best way to proceed.

The second meeting with the University of Iowa regarding the hydraulic modeling is scheduled for the week of September 10. The goal of this meeting is to run simulations 5-12 and establish a strategy for going forward. There has not been a change to the schedule. The modeling is running a little behind, but Kirk believes we will be able to make up for it as far as the 30%/60%/90% design goes.

Action Item:

• Kirk to invite all to attend the hydraulic modeling meeting with University of Iowa the week of September 10.

DRAFT TOPICS FOR OCTOBER 2, 2012 MEETINGS

2013 Juvenile Marking Operations Workshop (Tacoma, BPA, LCPUD, WDFW, NMFS)

- How to achieve criteria:
 - o Tag all fish
 - Minimize length of time holding
 - o Minimize number of times handled

Note: This workshop may be scheduled to occur prior to October 2 or will occur on October 2 as needed.

Potential October 2 DAMW meeting topics

- Update on 2012 weir box evaluation
- Debris removal report
- Update on Riffe Lake Collector
- Update on Cowlitz Falls North Shore Collector
- Supplemental Collection update
- DAMW update
- Confirm date and agenda for next FTC meeting: November 6
- Evaluate the meeting

Potential November 6 FTC meeting topics

- Upper Riffe Lake Collector RFP draft design criteria memo
- Mayfield downstream migrant survival study proposals
- Finalize September 4, 2012 meeting summary
- Confirm date and agenda for next FTC meeting: December 4
- Evaluate the meeting

Agenda Item: Approval of August 7, 2012 Meeting Summary Presenter: Lyn

The August 7 meeting summary was approved and will be posted to the website for public review.

Handouts

- Draft Meeting Summary for the July 7, 2012 meeting
- Draft September 4, 2012 meeting agenda

Parking Lot / Potential Future Agenda Topics

- John Skalski presentation?
- Steelhead kelt re-conditioning for 2013?

Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Final Meeting Summary November 06, 2012, 9:00 AM – 11:30 PM

Mayfield Office

Participating Members

Tim Romanski	USFWS
Brad Caldwell	WA Dept. of Ecology
Eric Kinne	WDFW
Bob Rose	Yakama Nation
Mark LaRiviere	Tacoma Power

Other Participants

Keith Underwood	Tacoma Power
Matt Bleich	Tacoma Power
Kirk Kessler	Tacoma Power
Debbie Carlson	BPA
Mike Kohn	LCPUD
Paul Sparks	Washington Council of Trout Unlimited
Peggy Miller	WDFW
John Serl	WDFW
Shannon Wills	Technical Representative for the Yakama Nation (by phone)
Lyn Wiltse	PDSA Consulting, Inc.

Conference Call Dial-In Instructions

1-866-206-2831. Then dial meeting number: *7772519* to join the meeting.

2012 Meeting Dates

Dec. 4 (FTC / DAMW)- **possible conference call** Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Announcements

- We welcomed Eric Kinne, Hatchery Reform Coordinator for SW Washington, to the FTC. He is replacing Pat Frazier as the WDFW representative.
- Tacoma Power will be updating its website. Mark is confident that the Cowlitz FTC materials will migrate over "seamlessly".
- The Yakama Nation has signed the SA amendment concurrence statement There was great rejoicing. Only NMFS remains to sign.

Action Item:

- Eric to send Mark some suggested dates for him and Cindy LaFleur to meet with him and Andy Appleby to be briefed on the details of the FHMP Update.
- All to let Mark know if they have any issues with the FTC website.

Agenda Item: Status of Cowlitz FHMP Update Presenter: Mark LaRiviere

Eric Gaedeke confirmed that FERC has received the FHMP Update. Other than that we have no indication of when we might hear back from FERC.

Action Item:

 Keith to call Eric on a weekly basis to inquire about the status of the FHMP Update.

Agenda Item: Mayfield Downstream Fish Passage Study Presenter: Mark LaRiviere

An RFP was released to evaluate the improvements done to fish passage at Mayfield Dam. Three vendors submitted bids: Blue Leaf Environmental, PNNL (Battelle), and HTI (Hydroacoustic Technology Inc). WDFW and NMFS participated in the review of the proposals. HTI was selected to be the contractor for the three-season study, starting in April of 2013. Some tests will be done this winter and we'll be ready to go with acoustic tags for the survival studies to begin next spring. HTI engaged John Skalski in their proposal.

Bob asked that the contract include what kinds of data will be available from HTI and how it will be manipulated especially the behavioral pieces (e.g., how often fish approach / reject a structure). Mark will follow up with Bob on this. Mark emphasized that the focus of this study is survival not behavior. The contractor will be providing a QA / QC plan around what variables can be controlled. There will also be a statistical review of the sample sizes.

Action Items:

• Matt and Mark to provide revised Scope of Work to the FTC.

Agenda Item: Upper Riffe Lake Collector – Contract Award Presenter: Matt Bleich

Matt explained that Tacoma received two proposals in response to their RFP. WDFW and NMFS participated in the selection of R2 Resources for this contract. As soon as the contract is initiated, work will begin on the upper Riffe Lake Collector as the scope was written. The first task will be for the FTC to review the design criteria. This should be ready before the next meeting (December 4). The goal is to have something in the water by July 1, 2013.

Action Item:

 Matt to schedule a conference call with FTC members to discuss design criteria as soon as it becomes available.

Agenda Item: Report on Cowlitz Falls Dam 2012 Weir Box Presenter: Kirk Kessler

Kirk explained that Tacoma is planning to reinstall the weir box for the next season. They are working with AECOM to create an updated flow regime based upon the limited data collected from 2012. The flow regime is also impacted by the blockage at the trash racks, which were being cleaned this fall by LCPUD. At the last meeting with LCPUD, Steve and Joe announced that the cleaning of the trash racks is complete with approximately a 12% blockage remaining. They hope that, with a mild winter, there will be no need to perform any cleaning in the spring of 2013. Debbie reported that 2,810 cubic yards were removed over 25 days! Some of the debris dated from the 1990s. Everyone applauded this excellent effort by LCPUD!

The 2013 weir box test will extend from April to the end of June and then be removed so as not to interfere with LCPUD's turbine survival studies. Mike reported that discussions have gone well with the bioengineering group – including Tacoma, LCPUD, NMFS, and WDFW. There is a great coordination with these parties on how to run tests without influencing each other's studies.

They are going to try to lighten the weir box and potentially equip the weir box with a floating crest.

Agenda Item: Report on 2012 Supplemental Collection Presenter: Matt Bleich

Matt gave an overview of the collection statistics for 2012 - mid April through late September.

7,597 smolts collected: 77% Chinook; 22% coho, and the rest split pretty evenly between steelhead and cutthroat

14,069 sub-smolts were collected: 67% Chinook, 33% coho and the rest were steelhead and cutthroat.

Total smolt numbers were down from past years, however, sub-smolts were up. Total collection effort was down as the crew was focused on other collection efforts. The smolt-to-total fish differential is an interesting dynamic. Tacoma will continue analyzing these data and have year-end results for discussion at the January FTC meeting. After that we can discuss the focus for supplemental collection in 2013.

Tacoma has started to collect better information on catch-per-unit effort. This will help us understand how effective various methods of collection are. Tacoma staffing for supplemental collection is likely to stay consistent. It may be a better use of their labor to move some energy to things like the upper Riffe Lake Collector. Hopefully supplemental collection will become less necessary as we move toward our overall goal.

Tacoma is holding discussions with LCPUD and BPA regarding the access agreement. These discussions include the impact of using Merwin traps on LCPUD's survival studies through the dam.

Agenda Item: 2013 Cowlitz Falls Dam Evaluations Presenter: Matt Bleich

Matt walked us through a very high-level proposed summary of the studies that Tacoma has been discussing with LCPUD, BPA, WDFW and NMFS up to this point. The next meeting will be the first week in December.

He reviewed the objectives, approach, anticipated application of results and assumptions and coordination needs for the fish collection efficiency studies at CF Dam (based on FCE studies at the openings at the dam). The test is basically what was proposed for 2012, but not executed due to the problems with the weir box. The study will be used to apply improvements to the design, and define conditions that are better for collection efficiency.

Tacoma needs to measure FCE when the collectors are in place. They would like to start this in 2013. It is still under internal review. Tacoma will continue to keep people posted on progress related to these studies. A detailed study plan will follow.

A proposed evaluation plan for the upper Riffe Lake Collector was also reviewed. The objectives are to describe the FCE patterns and behavior efficiency of smolts entering the still-to-be-conceptualized collector. Their approach will be to work collaboratively with BPA and LCPUD to use active tagged Chinook released in the tailrace of CFD.

Tacoma will give BPA and LCPUD their proposed path forward by the end of November.

Agenda Item: 2013 Juvenile Fish Marking Plan Presenter: Keith Underwood

Keith reported that last year Tacoma came up with a way to do the tagging of the juveniles migrating from the upper Cowlitz River basin. Tacoma advocates using the same system next year; that is, Cowlitz Falls Fish Facility tags as many fish as possible, Tacoma provides equipment and supplemental support as needed. If there is an over-run at CFFF the back-up facility would be a tagging trailer at the Cowlitz Salmon Hatchery. This proposal will be reflected in the access agreement.

Mike announced that the 10a-1a permit expires in 2013. A rewrite will be initiated by mid-2013. Debbie explained that there is also the option to extend it as written.

Agenda Item: Mayfield Downstream Collector Presenter: Mark LaRiviere

Under Article 415, Anadromous Fish Passage, Tacoma submitted a plan that included marking juveniles at Mayfield Dam. The order approving the fish passage plan provides a means for the FTC to review and comment on any changes to the protocol and then submit the plan changes to FERC.

Tacoma will propose a change to discontinue marking the juveniles at Mayfield. This will eliminate handling each fish individually. The handling is primarily an issue in the fall, when they encounter thousands of juvenile Chinook (pushing 100K for 2012). The numbers start building in September and peak in October, trailing off in November and December.

USGS's Theresa Liedtke has reviewed the protocols, visited Mayfield during a peak Chinook handling period and developed some suggested changes. If there is no biological reason to handle and enumerate each fish, then it is better for the fish not to be handled. We can get a number for the juveniles passing through the season by a sub-sampling protocol or dip net weighing methodology as is used in the hatcheries. Alternatively we could sample a certain percent of the time – bypass on/off mode. This might be the most straight-forward scheme; however, the problem is that we still would be constrained in the fall due to the large numbers of outmigrants and passing stocked hatchery fish into the lower Cowlitz River basin.

Eric Kinne asked about marked rainbow trout encounters in relationship to operating in a bypass mode. Mark said the marked rainbow have diminished since the net pen releases ended. The trout are now released in scattered locations over a protracted timeline and rainbow trout encounters at the Mayfield counting house has become a non-issue.

Tacoma will work on putting together a proposal for FTC review, comment and consensus. The goal is to submit the proposed protocol change to FERC in time for the next Chinook season.

Action Item:

• Mark to send out the proposal to FTC in the January timeframe.

DRAFT TOPICS FOR DECEMBER 4, 2012 MEETING / CONFERENCE CALL

- Riffe Lake Technical Design Review
- Review / revise FTC Protocols
- Other?

Agenda Item: Approval of September 4, 2012 Meeting Summary Presenter: Lyn

The September 4 meeting summary was approved with minor edits and will be posted to the website for public review.

Meeting Evaluation

- Phone technology worked well
- Missed video of Shannon
- Missed Michelle, Ed, Brett,
- WDFW was here and ready to start by 9am!
- Haircuts
- All action items complete
- Ended on time
- Missed Pat and his cooler

Handouts

- Draft Meeting Summary for the September 4, 2012 FTC meeting
- Draft November 6, 2012 meeting agenda
- Tacoma Power FTC Meeting Proposed Cowlitz Falls Dam Studies 2013 (dated 11/6/2012)

Parking Lot / Potential Future Agenda Topics

- John Skalski presentation?
- Steelhead kelt re-conditioning for 2013?

Cowlitz Hydroelectric Project FERC NO. 2016 Cowlitz Fisheries Technical Committee Final Conference Call Meeting Summary December 4, 2012, 9:00 AM – 11:30 PM Mayfield Office

Participating Members

Tim Romanski	USFWS
Brad Caldwell	WA Dept. of Ecology (by phone)
Michelle Day	NMFS (by phone)
Eric Kinne	WDFW (by phone)
Mark LaRiviere	Tacoma Power (by phone)

Other Participants

Keith Underwood	Tacoma Power
Matt Bleich	Tacoma Power
Kirk Kessler	Tacoma Power
Debbie Carlson	BPA
Shannon Wills	Yakama Nation technical representative (by phone)
Paul Sparks	Washington Council of Trout Unlimited
Peggy Miller	WDFW
John Serl	WDFW
Lyn Wiltse	PDSA Consulting, Inc.
Pam Hefley	Tacoma Power (by phone)

Conference Call Dial-In Instructions

1-866-206-2831. Then dial meeting number: *7772519* to join the meeting.

Next Meeting Date: February 5, 2013

Default time: 9:00 AM to 3:00 PM; Default location: Mayfield

Agenda Item: Upper Riffe Lake Collector Design Schedule Presenter: Matt Bleich

Matt explained that Tacoma has hired R2 to help with this process. They will attend the DAMW meeting this afternoon to present an update on the design criteria for the upper Riffe Lake Collector project schedule. Matt reiterated that the DAMW is working through the technical thought process and will bring recommendations to the FTC regarding alternatives. Following the initial review period Tacoma have a 10-day document preparation period for R2 to summarize all comments received. The DAMW will meet on February 5 and discuss how best to proceed.

R2 will present a draft alternatives analysis at the March DAMW meeting. A 10-day review period for the final alternatives design analysis is included. That is the point

where we will have selected an alternative for what we will use to collect fish in upper Riffe Lake.

Note: The goal has been to install a prototype in the water on July 1, 2013. Matt wants everyone to be aware that, depending upon the alternative selected, the prototype may or may not be able to be constructed and installed by July. Keith is pushing internally at Tacoma for a comprehensive solution that may be more than just a late summer collection alternative.

The FTC endorsed the concept of the DAMW bringing recommendations to the FTC, by the end of April,

Action Item:

 Matt to schedule a conference call with FTC members to discuss design criteria as soon as it becomes available.

Agenda Item: Review / Revise FTC Meeting Protocols Presenter: Lyn Wiltse

Lyn walked the group through the existing protocols and notes edits in italics. She reminded everyone that this is a living document and is intended to be revised over time, in order to ensure it best meets the needs of the group. The last revision to the protocols was December 6, 2011. In addition to suggesting several edits, the group noted some seeing redundancies in the document. Lyn will revise it accordingly. We will review the edited version at our next meeting in February, 2013.

Action Item:

• Lyn to revise, and look at re-ordering, eliminating redundancies in protocol document and send out for all to review prior to the next meeting.

Action Items Remaining from November 6 Meeting

Mayfield Downstream Fish Passage Study

- Matt and Mark to provide revised Scope of Work to the FTC.
- Mayfield Downstream Collector
 - Mark to send out the proposal to the FTC in the January timeframe.

Draft Topics For February 5, 2013 Meeting / Conference Call

- Riffe Lake Technical Design Review 20 min
- North Shore Collector Update 40 min
- 2013 Kelt Reconditioning Discussion 45 min
- FTC Protocols (review edits made at Dec. 4, 2012) 10 min
- Approve December 4 Meeting Summary

Agenda Item: Approval of November 6, 2012 Meeting Summary Presenter: Lyn

The November 6 meeting summary was approved with minor edits and will be posted for public review.

Meeting Evaluation

- Chocolates with sayings were well received
- Phone technology worked well
- We miss Brett
- Meeting went smoothly

Handouts

- Agenda
- Draft Meeting Summary for the November 6, 2012 FTC meeting
- Draft December 4, 2012 meeting agenda
- Tacoma Power Cowlitz Project Upper Riffe Lake Smolt Device Schedule 2013 (dated 11/21/2012)

Parking Lot / Potential Future Agenda Topics

• Consider having John Skalski present with HTI (as data comes in)