

## MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 15 May 2014 FPOM meeting.

The meeting was held via teleconference and in the Celilo Room at CRITFC. In attendance:

Last	First	Agency
Bettin	Scott	BPA
Burke	Brian	NOAA Fisheries
Caudill	Chris	University of Idaho
Conder	Trevor	NOAA Fisheries
Cordie	Bob	TDA
Fredricks	Gary	NOAA Fisheries
Fryer	Derek	NWW
Keefer	Matt	University of Idaho
Kostow	Kathryn	ODFW
Langeslay	Mike	NWP
Lorz	Tom	CRITFC
Mackey	Tammy	NWP
Meyer	Ed	NOAA Fisheries
Petersen	Christine	BPA
Pinney	Chris	NWW
Rerecich	Jon	NWP
Skidmore	John	BPA
Trumbo	Brad	NWW
Van Dyke	Erick	ODFW

Most people called in.

1. Documents may be found at <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/Task%20Groups/Task%20Group%20TDA%20split%20flows/>
2. **Action Items**
  - 2.1. Rerecich and Caudill will work on a MOC to get approval to tag Chinook in the AFF during warm temperatures.
  - 2.2. Fredricks will submit his updated change form.
  - 2.3. FPOM subcommittee members will continue to search for design criteria for the east ladder.
  - 2.4. The task group will meet after the June FPOM meeting. Key discussion topics include the spill test, density calculations in the east ladder, warm water sampling limitations at the AFF. FPOM team search of past radio telemetry work to find information about TD tailrace passage in the fall
3. **Purpose:** The purpose of this meeting is to discuss this year's NWP Adult Salmon/Steelhead studies and potential modifications to the steelhead objectives in ADS-P-2013-1, ADS-P-2013-2, ADS-S-13-1. (See FY14 steelhead study objectives from final 1-pagers in bold at the end of the agenda)
4. **Background:** Recent FPOM discussion has identified the need to better understand passage behavior at The Dalles when large numbers of fish are present following spill Aug. 31. The meeting goal is to discuss opportunities to collect data this year and develop 1-pager objectives and study design. There is a desire to modify this year's University of Idaho adult study work at Bonneville and utilize 300-400 RT tags from the early steelhead and use them for fall Chinook passage evaluations at The Dalles during the large run that has been forecast. There is not enough code space to add more tags for fall Chinook this year. We have an opportunity to weigh the second year early steelhead objectives vs.

The Dalles fall Chinook objectives (to be developed) and make a decision to use Radio telemetry (RT) to collect data this year while all the existing RT system components are in place to monitor.

5. Study Questions –

- 5.1. Can we redistribute fish with spill? This can be answered with window counts.
- 5.2. Are there significant delays in adult passage following spill at The Dalles Dam project and east ladder when large numbers of Fall Chinook are present?
- 5.3. How do fish approach the Project and can spill be fine tuned through model work to capture those fish?

6. Tools for data collection to address questions.

- 6.1. Window counts. Window counts will address redistribution objective..
- 6.2. PIT. May be useful to some degree for Delay objective.
- 6.3. Radio telemetry. Delay and Approach objectives.

7. Current Adult Studies Objectives – 400 early and 400 late steelhead RT +PIT tagging this year at the Bonneville Dam AFF for overwintering, fishway use, and conversion. (*See FY14 steelhead study objectives from final 1-pagers in bold at bottom of page*).

7.1. Fredricks suggested taking tags from the steelhead study and using them in fall Chinook. Another option would be to not use fall Chinook and just use steelhead. Caudill said the current plan is about 200 early steelhead tags, 200 fall Chinook and about 400 in the late group. Conder asked if we want to sacrifice all of the early steelhead tags. Fredricks said he would sacrifice the early steelhead since it is difficult to get tags in the early steelhead due to temps. He said it would be important to get the tags in the Chinook. Caudill noted that if temps are high, the Chinook won't be tagged anyway and it will just be late steelhead.

7.2. Caudill provided the percentages of spring/summer Chinook tagged at BON that pass TDA. It is about 60%. Of those that do not pass TDA, they end up in harvest, Spring Creek Hatchery, etc. Caudill estimates a need for about 150 - 200 fish to approach TDA. More than 200 would be overkill.

Caudill estimated the following fish numbers to give an idea of how many fish need to be tagged at BON and how many of those would pass over TDA.

Fish tagged at BON	Corresponding passage at TDA
150	90
200	120
250	150

7.3. A spill treatment test vs. continuous spill through the peak Chinook passage period was discussed. BPA asked about the trigger. Fredricks said it would be the same as BON right now. Bettin said he needs to know the trigger so BPA will have an idea of how much and for how long to develop a cost estimate. Fredricks said NOAA would work with BPA and make it something that works reasonably well for both. Langeslay said he thought the point was a more rigorous evaluation of the effects of density on fish passage and if spill could reduce project passage times.. Fredricks said right now we have an opportunity to tag fish that may have the most trouble with crowded ladders. Rerecich emphasized the monitoring equipment is in place this year with a large run forecast. Caudill said the most useful graph would show passage times and ladder density. If there is a problem with densities in the ladder, identify when those densities are reached.

7.4. Sampling methods included questions – Sample proportion to the run or uniform across the run for chinook? Start and end dates for chinook? Sacrifice all of the early steelhead?

ODFW - John Day steelhead in early group. Passage higher during second half of the early run in late August. Overshoot question – Can they get back to the John Day River?

**7.5. Metrics –**

- a) Entrance efficiency
- b) Approach. First approaches north and east – Number of entrances in relation to density
- c) Ladder passage times as it relates to density
- d) Location of bottlenecks
- e) Redistribution

**7.6.** No decision is needed today regarding Chinook tagging methods. University of Idaho is relatively flexible in the event a decision is made later in the spring or early summer. Lorz, Rerecich, and Caudill generally agreed with a proposed plan to tag 300 Chinook.[NOTE: Early steelhead tagging to start ~ 1 June if we are to include a base group in the sample design]

**7.7.** Caudill asked about submitting a change form to get approval to tag at higher temperatures as the AFF operations limitations could be a sever hindrance to fall Chinook data collection. Mackey recommended using a MOC instead.

**7.8.** Fredricks recommended a separate meeting to discuss the volume of spill requested. This will likely be immediately following the June FPOM meeting.

**7.9.** Bettin asked what capacity the ladders were built for. Meyer explained how to do the calculations but those assume equal distribution. Fredricks said he has done some calculations but he doesn't know where the pinch points are. Bettin pointed out we can pass 40-50K fish a day. Fredricks asked if that is a good thing. The team acknowledged we do not know if there is a delay and if there is, if that is a problem, but using best professional judgment it seems like a better idea to not crowd the fish in a concrete ladder.

**7.10.** Bettin asked if it would be possible to adjust when fishing occurs to smooth out the number of fish approaching the project. Lorz said he would check with his harvest group.

## FY 2014 Final Research Summary Objectives

### **Steelhead objectives from ADS-P-2013-1 - Evaluation of Adult Salmon and Steelhead Passage Behavior in Relation to Lower Columbia River Dam Modifications**

5. *In coordination with overwintering summer steelhead and kelt passage study objectives, evaluate upstream passage behavior (passage times, fishway use, entrance and passage efficiency, etc) of late running (October) summer steelhead at BON, TDA, JDA, and MCN. Placeholder pending prioritization of other study objectives. Schedule: 2013-2014\**

### **Steelhead objectives from ADS-P-2013-2 - Factors Influencing Observed System Conversion Rates of Adult Chinook Salmon and Steelhead**

6. Estimate unadjusted conversion rates of PIT-tagged spring-summer Chinook salmon, steelhead, and sockeye between BON and MCN to identify reaches where loss is occurring. *Schedule: 2013-2014.\**

Optional tasks may include: a. Compare stock-specific conversion rates of known-source (in-river) UCR and Snake River spring-summer Chinook and steelhead.

### **Steelhead objectives from ADS-S-13-1 - Migration and Passage Behavior of Overwintering Summer Steelhead in the Lower Columbia and Snake Rivers**

1. Determine geographic and 3-d distribution of steelhead overwintering in the mainstem Columbia and Snake rivers and tributaries.
2. Evaluate magnitude and temporal distribution of downstream movement and/or milling behavior throughout the winter.
3. Estimate relative upstream and downstream (fallback) route use of overwintering steelhead at Lower Columbia and Snake River dams.
4. Evaluate winter passage treatments at McNary for steelhead based on previous hydro-acoustic and direct injury study results: RSW spill vs deep spill vs turbine passage efficiencies.