**4-11-13 Fish Tagging Forum Meeting Notes**

**PSMFC conference room – Portland, OR**

**Introductions/Meeting Objectives/Recap of Last Meeting**

Kevin Kytola opened the meeting with introductions and a discussion of meeting objectives.

**Discussion of Content of NPCC Draft Memorandum**

Tony Grover said he thought there was agreement on many of the recommendations in the draft memo. The FTF is probably down to a few issues to work out. It is possible we can re-structure the memo, if necessary. Bill Maslen pointed out that, while there are some indicators that are not supported by tags (i.e., the white boxes on the spider chart), these may not necessarily be “gaps” in tag coverage, but rather indicators for which tagging is not necessary.

**Action item:** Tony expects a revised memo can be prepared and sent out by COB on 4-12-13. It was agreed there should be no further comments on the April 4 draft memo.

Some outstanding issues needing to be discussed include: a) what constitutes the use of genetic markers today and its future use? b) the use and role of the IEAB economic model and/or analysis; c) identifying some alternative recommendations for CWTs; d) sorting out and describing tag burden effects, e.g., number of fish tagged and associated mortality rates; and e) what is the role of ocean harvest actions with respect to the F&WL Program?

Blane Bellerud indicated NOAA tries to err on side of caution, but NOAA doesn’t envision limiting PIT tagging in basin in the near term due to tagging mortality. There is a USFWS study underway at Spring Creek and Carson NFH to address the PIT tagging effects issue.

Guy Norman pointed out the CWT program is critical to harvest management in Zone 6 fishery in lower Columbia River. There was a brief discussion about whether harvest management is a Fish and Wildlife Program responsibility. There were varying opinions in the room.

Randy Fisher and Pete Hassemer have a concern about identifying a total annual tagging cost for the region based on 2012 cost estimates -- we should also consider what the cost per fish is currently and the future estimated costs of tagging, as well as cost per detection relative to specific management questions. Also need to factor in how many fish need to be tagged to meet study requirements and detection probabilities. It’s also difficult to identify the costs of a tag technology when it serves multiple purposes or addresses multiple management questions.

**Action item:** Tony will prepare a draft summary table showing the use and purpose, and effects of each tag technology. It could build off information on advantages/disadvantages from ISAB’s tagging report with more recent information from FTF, such as FTF tag vs. objective table. Possibly incorporate tables 3 and 4.

Regarding the map showing the geographic range of CWTs in basin (30M total); about 10M are used in Snake River Basin, 10M are used in upper Columbia Basin, and 10M in lower Columbia River. Snake Basin CWTs aren’t just for management decisions within the Columbia River basin, but are also used to support “external” decision making associated with Pacific Salmon Treaty in ocean.

**Action item:** The FTF agreed to remove the generalized map and will instead use the tag tables prepared by George Nandor and Dan Rawding. Could also add clarification of why each group of fish is being tagged in each of the geographic location.

Marianne McClure suggested the memo should be revised to show coast-wide vs. in-basin costs of CWTs. It is difficult to identify all the BPA CWT costs, as well as all the other non-BPA CWT expenditures, both within and outside the Columbia Basin. This CWT cost issue will be discussed more this afternoon.

**Action item:** Marianne will prepare a paragraph for the memo about the use, complexities and recoveries of CWTs, as well as multiple funding sources.

The PIT tag recommendations should identify additional efficiencies since the region is spending about $18M annually on PIT tagging in the basin. Randy pointed out PSMFC will have a PIT tag forecasting and tracking data base tool available by fall of 2013. How can the region get unused tags back into the distribution flow of PIT tags? Also how can region improve regional coordination of PIT tags? The memo could also note the role of the PIT Tag Steering Committee (handles technical issues) and the pending regional PIT Tag Plan. The draft regional PIT Tag Plan, which identifies PIT tag status and needs, is undergoing thorough review by Federal Caucus and Accord parties before release to the region.

A number of possible points were discussed to be addressed in the revisions to the PIT tag recommendations. (See updated version of the tagging memo.) (Dan Rawding will share NOAA guidance document with Tony.)

How can we manage the costs of PIT tag program? How can we ensure the management questions are effectively supported? Also need to consider the risk to fish from tagging when evaluating the number of fish needing to be tagged.

**Action item:** Bill Maslen will prepare some draft recommendations related to use of PIT tags and will coordinate the recommendations with the Corps of Engineers.

Russell Langshaw suggested the region should take a broader perspective and establish priorities for all the management questions to better focus our regional RME actions. Could discriminate between those questions/indicators which are mandated and those which are more discretionary.

**Action item:** Tony agreed to prepare a draft recommendation on this broader, regional RME issue.

For Table 2, Marianne suggested merging the blank CWT columns into the other CWT columns. Group agreed.

Marianne also suggested some language revisions to the acoustic tag cost recommendation language of $18M in the memo because she thought the typical year acoustic tagging costs would likely be less. There is uncertainty about future (beyond 2018) acoustic tagging requirements and costs, e.g., what happens after two years of meeting performance standards at a dam based on adaptive management for post-attainment monitoring? We don’t want a FTF recommendation to contradict the NOAA FCRPS BiOp or Accord language.

**Action item:** Tony will refine the language for the acoustic tag recommendations and the budgetary/economic impacts paragraph based on this discussion.

**Action item:** Tony will draft refined language for the Background section on the historical perspective on CWTs.

Kevin presented the FTF Document Map for the decision memo. Tony will include the revised tagging tables in the Tagging Technologies section, but they also fit well in Attachment 6 of the memo, which will be integrated into this section. The cost context for CWTs will become new Attachment 5 in the memo. Other changes were also made to the document map and were captured by Kevin in a revised document map.

**Additional Recommendations**

There was discussion concerning the “free rider” concept (e.g., positive externalities), in which tags may provide information for multiple projects. If part of a tagging program is removed due to a funding reduction, then the “free riders” that use information from those tags will also be lost. However, it was also pointed out that a funding reduction is a reflection of funding agency responsibility and not a reflection of necessity or utility of tagging information. The “free rider” concept is important to better understand where other support for a tagging program comes from. Thus there may be some unintended consequences of lost information if/when Bonneville reduces funding for a tagging project if other entities do not re-invest in tagging projects.

**Action item:** Dan Rawding will provide a short summary of shared tag recovery infrastructure, which includes effects on free riders.

**Discussion of Refined Recommendations**

The group agreed it did not need to invest any more time in sorting out the concept of population status monitoring of “strong stocks,” which came up during the spider chart exercises.

Leah Sullivan said the mid-Columba PUDs did not see any inconsistencies with their priorities vis-à-vis the Council’s priorities. The FTF document should also highlight and include a category of underused, or underutilized, tag types, such as otoliths and microchemistry. Concerning cost effectiveness, the group should consider: a) tag selection for specific projects, b) the biological and economic impacts of tagging large numbers of fish, and c) not de-emphasizing genetic marking technologies, e.g., suppressing or slowing down development of genetic markers by making it a lower priority.

Leah said Grant PUD provided some recommendations to support data management and development of research data bases, as well as suggestions on ways to address cost-effectiveness and efficiency issues. (See updated version of the tagging memo.)

**Action item:** Tony will try to incorporate the PUD recommendations into the next draft of the memo.

**Action item:** Tony asked FTF members to review the draft responses to the Council’s six questions to ISAB/ISRP (Attachment 4 in memo) and provide any comments from their perspective.

**Continued Discussion of Refined Recommendations**

Guy Norman handed out and presented background information about development of the 2008/2010 FCRPS BiOp and associated harvest RME related to the CWT Program from WDFW’s perspective (see [2008/2010 FCRPS BiOp Development and Harvest RM&E](/media/6827179/4-11-13-Norman-2008-FCRPS-BiOp-Development-and-Harvest-RME-backgrounder-clean.docx) and [FCRPS Adaptive Management Implementation Plan](http://www.nwcouncil.org/media/6827182/4-11-13-Norman-FCRPS-AMIP-handout.pdf) hand-outs). Marianne emphasized that data collected using CWTs also provides some important information related to stock productivity.

Rick Golden handed out a spreadsheet of BPA’s currently funded costs for CWTs under the F&WL Program compared to potentially reduced funding for CWT marking at FCRPS hatcheries and for pHOS sampling on spawning grounds under recommendation 1b (see [Rick Golden’s CWT cost spreadsheet](http://www.nwcouncil.org/media/6827185/CWT-cost-spreadhseet-by-Bonneville-4-8-13-related-to-recommendation-1b.xlsx)). This spreadsheet represents the reductions that would be associated with the customer recommended approach to funding CWT.

The alternative includes 2 primary elements: elimination of funding for CWT recovery for harvest management and elimination of CWT funding associated with Mitchell Act hatcheries. We may want to separate the impacts to BPA funding for CWTs at Mitchell Act hatcheries (which is about $600,000). We need to identify a list of FCRPS hatcheries in the CRB (see [FCRPS Hatchery Funding list](http://www.nwcouncil.org/media/6827188/FCRPS-HatcheryFunding-list-Bonneville-.docx)), which should be included in the next version of the memo.

Bill Maslen clarified that the reductions in funding do not indicate that the CWT programs affected should be eliminated, or that the data is not important regionally, rather that they should be funded by another entity.

Marianne suggested that the recommendation to maintain existing sampling rate of 20% (currently #5) be included as an alternative under #1.

Also, the option to remove funding for coded wire tagging of steelhead and sockeye should be moved from separate recommendation #2 into recommendation #1. This is a consensus recommendation.

**Action item:** The FTF state members will develop the estimated costs savings for former recommendation #2 (i.e., remove funding for CWT of steelhead and sockeye).

Recommendations #10-12 are all too vaguely worded and need to be removed. Recommendation #9 can be dropped since it is already being implemented. (See updated version of the tagging memo.)

Tony proposed a new recommendation for no further PIT tagging of wild stocks unless or until handling and tagging effects protocols are developed. This is important because there is a large amount of PIT tagging of both wild and hatchery fish in the basin, and there is concern about tagging effects on wild fish in particular. But if the region didn’t tag wild fish, we would lose the ability to address management questions related to wild fish.

Action: Tony will include a recommendation related to PIT tagging of wild fish and the other Forum members can provide their input as part of their review of the next draft.

**FTF Loose Ends**

Bill Jaeger summarized the current status of the IEAB’s cost effectiveness modeling effort. The model is up and running and could probably provide some useful information and insights for FTF, if desired. Bill said the economic model could possibly provide information about cost-effectiveness and tagging efficiency issues.

**Action item:** Bill Jaeger will send Tony a table of the economic model output to incorporate into the next version of the draft memo.

**Recap and Plan Next Meeting on April 25, 2013**

Next meeting will be from 9am to 4:30 pm and be focused on refining the text of the next draft memo. From this point forward, the documentation that we will share and comment on will be the draft memo only. This will contribute to maintaining some degree of version control.