**DRAFT Programmatic Issue:**

**Coded Wire Tags**

**Issue:** The Council, along with the region, has grappled with the coded wire tag issue for well over a decade without making significant progress or change. In 1997 the Council addressed Coded Wire Tags with the following language: “*Bonneville is projected to spend approximately $2.8 million on coded-wire tagging and recovery in Fiscal Year 1998. Tagging throughout the basin and coastwide has primarily benefited the states’ harvest regulation activities. This is not an area of Power Act/Council concern or authority… …The issue is whether the level of Bonneville funding for coded wire tagging is out of proportion with what could be considered Bonneville’s “fair share” of the coded wire tagging program, whether that share is based on the proportional number of fish from direct program-funded hatcheries that must be tagged or on the amount of information gleaned from the tags that is relevant to the Council’s program.”*

**Budget History and proposals for the 4 coded wire tag projects:**

**Background and Staff comments:** The Council’s issues of concern from fourteen years ago, noted above, remain unresolved. Additional concerns have been raised during this review cycle by the ISRP and recently and exhaustively, by the Pacific Salmon Commission in a 191 page Action Plan: (*Pacific Salmon Commission Coded Wire Tag Workgroup. 2008. An action plan in response to Coded Wire Tag (CWT) Expert Panel Recommendations. Pacific Salmon Comm. Tech. Rep. No. 25: 170 p*.)

**ISRP Comments:** Tagging of salmon (coded-wire-tags, PIT tags, acoustic tags, and genetic markers) is a key tool for quantifying stock composition in mixed-stock fisheries and on the spawning grounds, estimating survival rates, describing migration patterns, and testing a variety of other hypotheses.

Tagging projects require coordination among multiple agencies, including management and researcher organizations, in order to be most effective, yet such coordination, planning and justification of tagging and recovery efforts were not apparent among some proposals. For example, although some tagging coordination occurs among agencies, the CWT proposals did not refer to an overall plan to coordinate tagging of salmon throughout the Columbia River Basin, recovering tags in the fisheries, and recovering tags on the spawning grounds.

Coordinated tagging efforts should justify tagging effort by hatchery location and salmon species, and tag recovery efforts necessary to generate meaningful results for anticipated studies. Furthermore, many juvenile CWT salmon recovered in some research investigations (e.g., NOAA & OSU ocean studies) have not been reported in the RMIS database (2010 Regional Mark Committee minutes). The proposals did not mention how they responded to recommendations by the Pacific Salmon Commission CWT Workgroup (2008).

Mini-jacks can occur at high (up to 50%; B. Beckman, NMFS, pers. communication) and variable rates among yearling male Chinook salmon and steelhead released from hatcheries. High and variable numbers of mini-jacks among CWT releases may bias survival studies because these fish would be counted as mortalities. An effort is needed to document the potential bias caused by mini-jacks and to further evaluate blood assays as a method for estimating the presence of mini-jacks in yearling releases of Chinook and steelhead because some researchers (e.g., R. Carmichael) have not observed the same high mini-jack levels that have been reported by NMFS.

The region is also exploring the use of these markers to identify and enumerate Snake River steelhead and Chinook salmon at the population level at Lower Granite Dam – investigations referred to as GSI (genetic stock identification). The final extension of using SNP markers is to develop Parental Based Tagging (PBT) of hatchery salmon and steelhead for use in both harvest and hatchery broodstock management. PBT has the potential to complement or replace CWT management of harvest (see CWT section above). The ISRP believes these methods will yield important efficiencies in managing harvest and hatcheries and are justified.

**ISRP Suggestions:**

After reviewing project proposals, the ISRP identified two coded wire tag-related actions requiring further effort in the Basin:

1. Develop a comprehensive plan that guides tagging and recovery activities throughout the Basin, especially among CWT operations;

2) Evaluate the magnitude of mini-jacks among yearling CWT Chinook salmon releases, and record mini-jack data in the RMIS database.

**Relation to Council Questions**

The Council formed several policy issues as questions in July 2010. The projects within this programmatic area remain poorly defined for the purposes of addressing objectives relative the fish and wildlife Program’s needs. CWTs do provide insight into the significant biological risk resulting from harvest programs, and have the potential to address HLIs. Declining tag recovery rates and confounding factors such as mass-marking and the presence of mini-jacks make documenting the project accomplishments and aggregation efforts problematical and weaken the statistical strength of the data gathered by these projects. This is one data set that that attempts to answer questions related to the ocean, and in-river, effects of harvest.

**Possible Options:**

1 – Recommend continued funding of the CWT projects conditioned on the project sponsors successful implementation of the Pacific Salmon Commission CWT workgroup Expert Panel Recommendations as endorsed and conditioned by the ISRP.

2 – Recommend one year of continued funding conditional on all project proponents agreeing to engage in a Council process over the next year that will identify what fish and wildlife Program requirements are served by the CWT projects. Make any adjusted funding recommendations at the end of the year.

3 – **(Staff Preferred)** Recommend one year of funding while evaluating the viability of replacing CWTs with other tagging techniques. At the end of the year recommend a transition strategy and funding pattern to support the strategy.

**Projects included in this programmatic issue:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project #** | **Project Title** | **Sponsors** | **Accord** | **BiOp** | **Funding Req.**  **FY 2012** |
| 1982-  013-01 | Coded Wire Tag-Pacific States  Marine Fisheries Commission | PSMFC |  | X | $ 2,293,197  (FY 2012) |
| 1982-  013-02 | Coded Wire Tag-Oregon Department  of Fish and Wildlife (ODFW | ODFW |  | X | $ 242,839  (FY 2012) |
| 1982-13-03 | Coded Wire Tag-US Fish and Wildlife Service (USFWS) | US Fish and Wildlife Service (USFWS) |  | X | $0 (FY2012) |
| 1982-13-04 | Coded Wire Tag-Washington Department of Fish and Wildlife (WDFW) | Washington Department of Fish and Wildlife (WDFW) |  | X | $ 343,675  (FY 2012) |
|  | ***TOTAL*** |  |  |  | **$ 2,879,711** |

**Preliminary Recommendations:**

Staff recommends making a one year, not to exceed, total funding recommendation of $2,879,711 for all coded wire tag projects. Staff also recommends placing the following conditions on the CWT project sponsors:

* Within one year from the date of the Council’s funding recommendation the sponsors will develop a single overall plan to coordinate tagging of salmon throughout the Columbia River Basin, including recovering tags in the fisheries, and recovering tags on the spawning grounds.
* Within one year from the date of the Council’s funding recommendation the sponsors will evaluate the viability of replacing CWTs with other tagging techniques. At the end of the year the sponsors will recommend the Council and the ISRP a transition strategy and timeline to move to an alternate, more robust and reliable, alternative to CWTs including a proposed funding pattern to support the strategy.
* Describe how, and on what timeline, the project sponsors have responded to recommendations by the Pacific Salmon Commission CWT Workgroup (2008).

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