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MEMORANDUM

TO: FPAC

FROM: FPC Staff

DATE: October 21, 2014

RE: Trap Modifications for 2015

The PIT tag marking of hatchery and wild salmon and steelhead conducted under the Smolt Monitoring Program (SMP) and the Comparative Survival Study (CSS) were reviewed in 2014. The objective of the review was to: (1) reduce marking and handling where possible; (2) improve the marking coverage of wild populations of salmon and steelhead, toward the objective of collecting and analyzing passage and survival metrics data at the Major Population Group level; and, (3) accomplish close coordination and collaboration with other marking programs to maximize efficiency and application of monitoring efforts.

Based on that review it was decided that changes were warranted. The FPC, together with the CSS Oversight Committee, IDFG, and ODFW, considered the effectiveness of the mainstem traps, both in consistency of operation and representativeness of sampling, and the availability of alternate marking sites to achieve the stated goals. Consequently, the following modifications were developed for implementation on a trial basis in 2015. The need for future modifications will be based upon analyses of the success of the 2015 marking program toward meeting the stated objectives.

Clearwater, Salmon and Snake River wild spring/summer Chinook and steelhead

In order to accomplish SMP and CSS marking, mainstem traps were operated on the Clearwater, Salmon and Snake rivers. The CSS also coordinated with IDFG to incorporate tags from the Idaho Supplementation Studies (ISS) program into the CSS study design and analyses. However, many of the tributary traps that were operated under the ISS program are being eliminated and/or moved for the 2015 juvenile migration. This necessitated the consideration of new trapping sites to generate mark groups for wild populations at the MPG resolution, while still maintaining CSS PIT-tag targets for wild Chinook and steelhead.

Clearwater River

The mainstem Clearwater River trap has operated to mark wild steelhead and Chinook for the CSS. However, due to river conditions the trap has not proved successful in capturing and marking sufficient numbers of wild fish to achieve the study objectives. Consequently, the decision was made to eliminate the operation of the mainstem Clearwater trap, and redistribute the program costs and tags (5,200 total) to four new, smaller tributary traps in the Clearwater Basin. The new traps include Lolo Creek (NPT), Newsome Creek (NPT), South Fork Clearwater Mainstem (NPT), and Lochsa Mainstem.

In addition to the re-allocation of the Clearwater trap tags, the tagging of spring Chinook at Dworshak NFH was reduced by 10,000 tags. Approximately 3,500 of these will be used at the four new traps for wild steelhead (3,200) and wild spring Chinook (300) marking. See Table 1 for a summary of the 2015 tagging plan for the Clearwater River Basin traps.

Table 1. Comparative Survival Studies 2014 PIT tag distribution and proposed 2015 distribution for the Clearwater River. Asterisk indicates new tagging locations using tags allocated from the Clearwater Mainstem Trap and Dworshak NFH. Traps operated by Nez Perce Tribe indicated by (NPT).

Trap Location	Trap(s)	2014 CSS	2015 CSS Proposed
Clearwater Mainstem	CLWTRP	5,200	0
Potlatch River	BIGBEC, POTREF	6,000 ST	6,000 ST
Crooked Fork Creek & Colt Killed Creek	CFCTRP, COLTKC	2,000 CH/ST	2,000 CH/ST
Crooked River	AMERR, REDTRP, CROTRP, FISTRP	2,000 CH/ST	2,000 CH/ST
Lolo Creek (NPT)*	LOLOC		500 ST; 500 CH
Newsome (NPT)*	NEWSOC		500 ST; 500 CH
South Fork Clearwater Mainstem (NPT)*	New Code TBD		2,500 ST; 1,500 CH
Lochsa Mainstem*	New Code TBD		1,700 ST; 1,000 CH
Total		15,200	18,700

Salmon River

At the Salmon River trap both the trapping and tagging protocols are to be modified. The trap will operate five days per week, with both a daily and weekly tagging quota. The trap will target the marking of 300 wild Chinook per day, with a weekly goal of 1,500 wild Chinook. Daily quotas may exceed 300 fish marked per day on the last two days of the week, if less than 300 fish were marked per day on the first three days that week. This modified protocol should reduce the handling of listed hatchery Chinook, while allowing fish to be tagged over a longer duration. This will increase the representativeness of wild Chinook marking and, in years when the flows remain adequate for trap operation, increase the marking of wild steelhead.

In addition, 1,500 of the tags designated for CSS wild Chinook marking will be transferred from the Salmon River trap to other tributary traps in the Salmon River Basin, including three new traps (Valley Creek, East Fork Salmon, and North Fork Salmon). Also, the remaining 6,500 of the 10,000 tags from Dworshak NFH will be transferred to various traps in the Salmon River Basin for marking of wild spring/summer Chinook (750) and steelhead (5,750). See Table 2 for a summary of the 2015 tagging plan for the Salmon River Basin traps.

Table 2. Comparative Survival Studies 2014 PIT tag distribution and proposed 2015 distribution. Asterisk indicates new tagging locations using CSS tags allocated from the Salmon River trap.

Trap Location	Trap(s)	2014 CSS	2015 CSS Proposed
Main Salmon (WTB)	SALTRP	5,000	3,500 CH; 750 ST
Hayden Creek	HAYDNC	2,000	2,000 CH; 500 ST
Bear Valley	BEARVC	2,000	2,000 CH; 500 ST
South Fork (Knox Bridge)	KNOXB	3,000	3,000 CH; 500 ST
Upper Salmon River	SAWTRP	3,000	3,000 CH; 500 ST
Marsh Creek (upper)	MARTRP	3,000	3,000 CH; 250 ST
Marsh Creek (lower)	MARTR2	3,000	3,000 CH; 250 ST
Lemhi	LEMHIW	2,000	2,000 CH; 500 ST
Pahsimeroi	PAHTRP	2,000	2,000 CH; 500 ST
Valley Creek*	New Code TBD		750 CH; 500 ST
East Fork Salmon*	New Code TBD		750 CH; 500 ST
North Fork Salmon*	New Code TBD		750 CH; 500 ST
Total		25,000	31,500

Snake River

The trap will continue to operate seven days per week. However, changes to daily operations are being considered in an effort to tag fish over a longer period of the run without exceeding ESA quotas.

Grande Ronde River Wild Spring Chinook and Steelhead

It was determined that the operation of the mainstem trap was necessary to adequately represent the MPG from the Grande Ronde River. Therefore, in an effort to reduce the handling of listed hatchery spring Chinook at the Lower Grande Ronde River trap, and to ensure tagging wild spring Chinook and steelhead over a longer period of the run, a combination of adjusting mainstem trap operations and the addition of upriver tags are to be accomplished in 2015.

Trapping protocols and trapping position at the Grande Ronde River trap will be monitored and modified in 2015 in an attempt to reduce handling of listed hatchery Chinook. This may involve moving the trap during the passage of listed hatchery Chinook releases. The CSS will also begin pre-assigning PIT-tagged wild spring Chinook and steelhead smolts that are marked at the Oregon Department of Fish and Wildlife (ODFW) traps in the Upper Grande Ronde River and the Grande Ronde River trap near Elgin, Oregon. According to ODFW staff, the CSS estimates that the Upper Grande Ronde trap will contribute approximately 600–800 additional fish of each species and the trap near Elgin, Oregon, will contribute approximately 500–1,000 additional fish of each species. The CSS will continue to pre-assign wild spring Chinook and steelhead from the Catherine Creek, Lostine, and Minam traps operated by ODFW and the Lookingglass Creek trap operated by the Umatilla Tribe in 2015.