
2011 REGIONAL MARK COMMITTEE MEETING

35th Annual Meeting

Hosted by: **Fisheries & Oceans, Canada**
Location: [Inn at Laurel Point](#), Victoria, BC
Dates: **April 28, 29, 2011**

FINAL- Minutes

See further information at: [2011 Meeting Web Page](#)

APR 28: THURSDAY: 9:00 AM – 5:00 PM

1. General Business Items (George Nandor, PSMFC)

- Welcome and introductions;
 - Baker Holden is new USFWS rep (not in attendance)
 - California and Idaho representatives were not in attendance
- Next year's meeting (2012) is intended to be hosted in Washington state;
 - Mark Kimbel will be in touch with Ron Olson to begin plans and coordinate with USFWS
 - Will provide details when they are available
- 2013 meeting is intended to be hosted in Oregon state;
 - Ken Johnson will not be participating in 2013; Mark Engelking unlikely to be participating in 2013
 - Any suggestions for location or assistance in planning the meeting would be appreciated (past locations include Newport and Kah-nee-tah)
- Review agenda
 - George reiterated the need for collaboration and input from all members when putting together the agenda
 - **USFWS interested in developing a presentation for use in future years** that provides detail on their review process that is currently underway and tools they have developed to evaluate tagging and forecasting rates

2. Regional Mark Processing Center operations & announcements (George Nandor)

A. In California: commencing the Hatchery Scientific Review Panel (HSRP) process

- George appointed as a member of HSRP
- Identifying panel members and defining work products and review process of CA Hatchery programs was problematic and has delayed the start- hope to be completed with the review by the end of 2011
- Did on-site visits for Klamath basin two month ago (Iron Gate & Trinity hatcheries)
- Outcome will not look the same as that for the Columbia Basin (all "H" analysis-habitat, harvest, etc.); part of the problem is lack of habitat data to plug into the model

B. Status of CWT Datasets (Dan Webb, PSMFC)- PowerPoint Presentation

- ADFG requested a note added to 'No CWT + Ad Clip' to represent only shed tags
- CDFG Coho not reported yet (majority are from Warm Springs broodstock program to restore Coho on the Russian River, others from Klamath Basin) .
- CDFO does not utilize 'No CWT + Ad Clip' because they do not mass mark- represents only shed tags
- Trend across all agencies is towards mass marking
- Can expect to see large increase in CDFG recoveries post-2010
- CDFO does not report escapements
- Changing the reporting deadline from January 31 for the previous year's data was discussed in Data Sharing Meeting, but no consensus on a new date
- Missing Release Tag Codes/ Tag Prefix Contact List- **Appendix B**
 - Currently missing 10 tag codes (compared to 50 at this time last year)
 - "Missing" means that release information for that tag code has not been reported to RMIS by the releasing agency
 - Missing tag codes are most commonly associated with transfers between agencies
- Lag-time in reporting of recoveries is an issue; people are questioning the amount of money put into CWT programs and a delay in reporting reflects poorly on the programs- timely reporting supports the effectiveness of the program, the goals of tagging for the region, and demonstrates need in times of continued budget cuts
- Just having the tag recovery information (observed) available is valuable and relevant. Some info by the deadline is better than no info at all...

C. Location Code mappings update request (Jim Longwill, PSMFC)- **Appendix C**

- Available on the Publications page at www.rpmc.org
- Only pertains to agencies that provide location information: ADFG, CDFO, WDFW, IDFG, ODFW, CDFG, NMFS-AK
- Data users that are wondering what the codes mean, if maps are available, etc. are generally referred to the original spec document created in 1989
- **General consensus from the Data Sharing meeting was that the document would be updated and revised under the guidance of the Data Standards workgroup**
 - each agency will edit their section and produce a new technical report that addresses the necessary changes under the guidance of Data Standards

D. Other Announcements

- RMPC has been updating the maps for each of the regions that are defined in the database- eventually would like to have a map-based query system available on the website
- RMPC offers special thanks to ADFG for their efforts in updating the region/basin maps this past year.

3. Status of 2010-11 funding for the Regional Mark Processing Center (George Nandor)

- U.S. Fish and Wildlife Service:
 - Continuing funding
- NOAA Fisheries:
 - Anadromous Grant Funding has gone away
- Bonneville Power Administration:
 - \$2.9 million proposed NWPPC funding now being considered?
 - Went through categorical review of all BPA-funded monitoring and evaluation projects in 2010
 - RMPC passed ISRP review, but recently got notice that they want to review it again so only got funding for 1 additional year.
 - Elimination of BPA funding would do away completely with WA sampling on the Columbia and a large portion of OR sampling.
 - BPA staff response misinterprets notes and statements from previous meeting minutes out of context (for example, issues that were raised and resolved during the course of the meeting) as justification for halting funding
 - Next step will be a discussion with staff that made these recommendations before moving forward with higher-level response/ discussions
 - Current funding covers through December 2012

4. Proposal to add new agency wire prefix code(s) (Ken Molitor, NMT)- Appendix D

NMT proposes to assign one or two new CWT agency prefixes for use by agencies in some California salmon and steelhead tagging programs. (Not necessary)

- Agency 06 code will be used for California Tagging programs (not PSMFC)
- Coleman will continue to use Agency 05 code (USFWS)

5. All-Agency Update on: (Tag-Coordination Representative, ALL-AGENCY Participation)

Member agencies:

Agency or Organization	2011 Tagging Levels	2011 Mass Marking	MSF Plans & Comments
FWS / U.S. Fish & Wildlife Service	Coho- 185K ad clip + CWT & 185K no clip + CWT Chinook- 970K ad clip + CWT & 560K CWT only	1.28 million Coho 14.87 million Chinook	*Does not include Coleman
MIC / Metlakatla Indian Community			Included in ADFG report

IDFG / Idaho Dept. Fish & Game	Chinook- 1M ad clip + CWT, 1.37M CWT only Steelhead- 1.15M ad clip + CWT, 490K CWT only	Chinook- 6.5M ad only Steelhead- 3.49 ad only	Handout provided- <u>Appendix E</u>
ODFW / Oregon Dept. Fish & Wildlife	8.43 million	43.6 million	Handout provided- <u>Appendix E</u> Cape Falcon to Port Orford: Chinook season- 3/15-9/30, Selective Coho 7/2-8/13, non-selective Coho Thursdays 9/1-9/10 Columbia River: Selective Chinook 6/18-6/25 ad clip only, non-selective Chinook & selective Coho 6/26-9/30 ad clip only *all w/ 2 salmon limit
NMFS / National Marine Fisheries Service, Alaska	Chinook- 180K ad clip + CWT		No selective fisheries
NIFC / Northwest Indian Fisheries Commission	Chinook- 2.8M Coho- 885K Steelhead- 35K	Chinook- 14.1 m Coho- 6.95 m Steelhead- 825K	Handout provided- <u>Appendix E</u> No selective fisheries
CDFO / Canada Department of Fisheries & Oceans	Chinook- 4.75m CWT, 19M assoc release, 45.8M total target Coho- 763K CWT, 3.9M assoc release, 13.8M total target	Only mass mark Coho 400K ad clip + CWT, 6M ad clip only, 200K no clip	Minor changes in time/areas since 2010 Coho W Coast Vancouver Island had opportunity for small Coho MSF during directed Chinook fishery in spring Sport has significant variation time/ spatial regulations providing coho msf opps. These are documented in PSC SFEC reports. No major changes from 2010.
CDFG / California Department of Fish & Game	14 million	100% spring & winter Chinook at Feather River (3 million)	Every CA hatchery is under constant fractional marking program (25% marked and tagged)
CRFC / Columbia River Intertribal Fish Commission	*combined w/ WDFW	*combined w/ WDFW	Handout provided- <u>Appendix E</u>

WDFW / Washington Dept. Fish & Wildlife	Chinook- 12.4 million ad clip + CWT, 5.3 million CWT only Coho- 2.9 million ad clip + CWT, 1.04 million CWT only	Chinook- 70.7 million Coho- 24 million	Handout provided- <u>Appendix E</u> Shorter Chinook MSF off coast of WA
ADFG / Alaska Dept. Fish & Game	Chinook- 800K ad clip + CWT, 300K CWT only Coho- 800K ad clip + CWT	1.1M Chinook marked (11M released)	*includes Metlakatla

Other releasing agencies:

Agency or Organization	2011 Tagging Levels	2011 Mass Marking	MSF Plans & Comments
YAKA / Yakama Tribe	Fall Chinook- 3.4m ad clip + CWT, 1.8 m ad clip only Coho- 575K ad clip at Eagle Creek, 325K CWT at Prosser Spring Chinook- 835K ad clip + CWT + elastomer at Upper Yakama		
NEZP / Nez Perce Tribe			

6. Update from Data Sharing Committee (George Nandor/ Cheryl Lynch, CDFO)

- Use of Agency Blank wire- don't want to call it Pseudo-tags
 - The term 'Pseudo' conflicts with issue of imputed recoveries where term 'pseudo' recovery is used
 - Refer to it as Agency/ Blank wire
 - Data Standards will find a way that fish tagged with that are searchable in the database
- Data Standards will lead update of "Blue Book"- including location codes, determination of expansion factors, usage of other fields
- Addressed issues brought up by CWT expert panel
 - Progress has been made on data validation process
- Will try to make better use of description files
- RMIS query results are time stamped
- Issue of capturing unmarked tag recoveries will be referred back to the Technical Committees
- Proposed September 2011 for initial Data Standards meeting to begin addressing issues and refinements raised by Data Sharing Committee

7. Pseudo-Tag Identification in Database, problems & questions (Jim Longwill)- Appendix F

We would like to address the issue of identifying and managing pseudo-tag release groups in the database. (Handout will be provided.)

- Call it what it is: Agency-only wire/ tags (neither a tag nor a non-tag)
- Need to make it clear for reporting purposes (reported previously as a Bang Record- need to look at how they are reported for releases and recoveries)
- Need to review parameters for Variance Orders (Charter Document)
 - Currently, any use of blank wire requires submission of a proposal for review by the Mark Committee
- Need to differentiate between blank wire vs agency only wire (refer this to Data Standards)
- Main reason for continued usage of Agency-only wire is reduced cost; agencies only using it as a mark- know they won't get fishery data from it and won't put it out to the world
 - Important to have consistency in how they are reported
 - No need to spend time on how they are recovered
- Improving how the records are reported can provide historical perspective and forecasting
- Current proposal involving record_code field and tag_code_or_release_id field format changes will be considered by Data Standards

8. Update on Selective Fisheries Evaluation Committee activities (Carrie Cook-Tabor, USFWS)

- PowerPoint Presentation (available at www.rmpec.org)
- SFEC serves as clearinghouse for coordination and reporting on MM (mass marking) and MSF (mark selective fishery) programs
- Received 18 MM proposals for 2011
- 88% of all Coho released in Southern BC, WA, and OR are MM
- 79% of all Chinook released in WA and OR are MM
- Expansion of Chinook MSF in recent years, primarily in marine areas. No new fisheries proposed for 2011
- MM and Regional Coordination Issues
 - Need for new Chinook DITs
 - Primarily in Columbia for Ocean MSFs
 - Lack of coastwide electronic tag detection
 - In all areas where unmarked and tagged fish are present in the samples
 - More important now that more fish are being caught in MSFs outside of terminal areas
 - Questions continue on efficacy of ETD
 - Training, sampler fatigue, potential for biased estimates of MSFs
- MSF Issues
 - Agencies not submitting post-season MSF reports
 - Inadequate modeling capacity to evaluate impacts of large-scale MSFs on Chinook
 - Mixed bag regulations
 - Becoming more complex

- No analytical methods to estimate mortality of unmarked DIT groups and associated wild stocks
 - Escapement sampling is now more important than ever
 - Drives a lot of the variants around the estimates
 - Need for expanded DIT groups
- CWT system is functional for ad-marked CWT fish
- MM, DIT, and CWT sampling programs are making strides towards being able to support analysis by PSC technical committees. Additional and consistent funding for these programs would go a long way towards improving regional coordination and analytics.
- Support is still needed- for technical and policy processes to develop agreements to clarify responsibilities for maintaining and improving the CWT system

9. Re-visit RMC Regional Agreements Document (George Nandor)

This document was last updated 10 years ago, and we have found that it may be out of date. For example, the conditions under which the Adipose clip are required with use of the CWT may have changed since April, 2001 (ex. see table in part III.2). This question arises in part from an inquiry made by CDFO in Nov 2010 in which CWT Chinook were being released as an experimental group but not part of a DIT group. It is a variance to normal CDFO operations. All agencies might want to re-examine this section of the April 2001 document. Are there other sections that need re-visiting?

- Agencies will submit any amendments to the chart in part III.2 to the Mark Committee via email for review
- .. Footnote 'C' will be stricken
- Title is not accurate (were agency policies, not requirements)
- Is there anything that should be added to the document? New roles that need to be incorporated?
- Regional Agreements Document will be sent via email to official Mark Committee Members for editing (track changes). Return edited document back to George within 30 days. Edited document will be distributed for review, etc.

APR 29: FRIDAY: 8:00 AM - NOON

10. Special Marking Requests & Announcements for 2011: (George Nandor)

- **Requests & Announcements received to date:** (see associated sheets- **Appendix G**)
 1. Request: Adipose-clip; Williams Creek fall sockeye (Lakelse Lake); received by the RMPC Wed, Mar 16, 2011; from CDFO / Kathy Fraser;
 2. Request: Adipose clip + Thermal Mark; Chinook; Crooked Creek, Deception Creek, and Ninilchik River; received by the RMPC Fri, Apr 15, 2011; from ADFG / Catherine Robinson;
 3. Announcement: Adipose-clip + 100% CWT; McKenzie River Spring Chinook; received by the RMPC Fri, Apr 15, 2011; from ODFW / Ken Johnson;
 - Not a true variance- change is moving from Agency-only tags to CWT
- **Requests involving use of pseudo-tags?**
- **Other requests?**
 - All requests approved
 - When is it appropriate to submit a variance request?
 - Fill out form available at www.rmpec.org , email to George so he can submit to the group for review (can be done at any time, not just at the meeting)
 - Variance report used primarily in regards to Agency-only tags; otherwise they are used as a courtesy to inform group of activities that are outside the norm

11. Update on Alaska Sampling & Fisheries (Catherine Robinson, Ron Josephson, ADFG)

Update on sampling with wands, no tags, mark rates, and seine area expansions.

- PowerPoint presentation
- Seeing increase in ad-clip rates over the years due to mass marking in both fisheries
- Processors don't want to give up heads because they lose money at market
 - Tried wanding in major ports during winter fisheries as a pilot project
 - More likely to miss a tag in an un-clipped fish than in a clipped fish due to sampler expectations (problematic for DIT groups)
 - Tool works, but now it's a question of operator use/ error/ diligence/ training
 - Sampled 1700 fish, of those got 65 false positives, 1 false negative
 - Wondering about other "false negatives"
 - May have had operator error in how info was entered into the handhelds
 - Won't be doing this in spring or summer fisheries
- Coho survival rates appear to be dropping (seeing fewer fish with clips)
- No longer requiring CWT with ad-clip releases of Sockeye, Chum or Pink; CWT would still be required with ad-clipped Chinook and Coho
- *Also gave presentation on sampling seine fishery
 - Expect sampling rates to improve in the coming years
 - Catch rate/ sampling rates generally better with Coho vs Chinook

12. Update on High Seas CWT Sampling and Recovery Program for 2010 (Adrian Celewycz, NMFS-AK)

- PowerPoint presentation
- 2011 change for observer sampling- observers will no longer be collecting CWT from outside the sample for Gulf of Alaska and Bering Sea/ Aleutian Islands sampling areas
- Hope to improve sampler technique and rates in the future

13. Northwest Marine Technology (Ken Molitor)

- Product update
 - Rolling out MK IV-B, runs on 24V, when new driver boards are needed for older MK-IVs they will turn into MK IV-B, otherwise have enough parts available to continue repairs as needed to older MK IVs
 - Lowered price on current wand to \$3750 (down from \$5000)
 - New T wands are easier to make and fix, have wider detection range and should improve sampling rates (won't need to mouth wand), will cost \$3750
 - Contact Geraldine if you want to test T-wands this summer; hope to have them available by fall
 - New trailers for Great Lakes and at Iron Gate Hatchery (CA)
- Question and Answer session
 - No current contracts for new trailers
 - Some upgrades for WA & ID trailers in progress

14. Oregon request for additional code for adipose fin mark

- Mark Engelking will email request to RMPC and they will work to get the code added

APR 29: AFTERNOON

Visit to Fisheries & Oceans Canada: Institute of Ocean Sciences (IOS), Sidney, BC; 1:00pm - 4:00pm (Doug Herriott, CDFO)

APPENDICES

Appendix A- 2011 Mark Committee Meeting Attendance List

Appendix B- Missing Release Tag Codes/ Tag Prefix Contact List

Appendix C- CWT Location Codes

Appendix D- Proposal to add new agency wire prefix code(s)

Appendix E- 2011 Marking & Tagging Levels

Appendix F- Pseudo-Tag Identification in Database

Appendix G- Requests for Marking Variance

Appendix A

2011 Mark Meeting Attendees

*Committee Member

Name	Agency	Mailing Address/ Telephone/E-mail Address
Allen, Stan	PSMFC	205 SE Spokane St., Suite 100, Portland, OR 97202-6413 Tel: (503) 595-3114 E-mail: sallen@psmfc.org
Celewycz, Adrian*	NMFS	TSMRI, 17109 Pt. Lena Loop Rd, Juneau, AK 99801 Tel: (907) 789-6032 E-mail: Adrian.Celewycz@noaa.gov
Cook-Tabor, Carrie	USFWS	510 Desmond Dr SE, Suite 102 Lacey, WA 98503 Tel: (360) 753-9512 E-mail: carrie_cook-tabor@fws.gov
Engelking, Henry	ODFW	3406 Cherry Ave NE, Salem, OR 97303 Tel: (503) 947-6257 E-mail: henry.m.engelking@state.or.us
Fraser, Kathy *	CDFO	Pacific Biol. Station, Hammond Bay Road, Nanaimo, B.C. V9R 5K6 Tel: (250) 756-7371 E-mail: kathryn.fraser@dfo-mpo.gc.ca
Frawley, Tim	ADFG	10107 Bentwood Place, Juneau, AK 99801 Tel: (907) 465-4092 E-mail: tim.frawley@alaska.gov
Grundmann, Erik	CDFO	Pacific Biol. Station, Hammond Bay Road, Nanaimo, B.C. V9R 5K6 Tel: (250) 756-7374 E-mail: erik.grundmann@dfo-mpo.gc.ca
Herriott, Doug	CDFO	Pacific Biol. Station, Hammond Bay Road, Nanaimo, B.C. V9R 5K6 Tel: (250) 756-7383 E-mail: doug.herriott@dfo-mpo.gc.ca
Johnson, Ken*	ODFW	17330 SE Evelyn St, Clackamas, OR 97015 Tel: (971) 673-6059 E-mail: Kenneth.Johnson@state.or.us
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Kimbel, Mark*	WDFW	600 Capitol Way N, Olympia, WA 98501 Tel: (360) 902-2406 E-mail: Mark.Kimbel@dfw.wa.gov
Lensegrav, Gil	WDFW	600 Capitol Way N, Olympia, WA 98501 Tel: (360) 902-2240 E-mail: lensegil@dfw.wa.gov
Longwill, Jim	PSMFC	205 SE Spokane St., Suite 100, Portland, OR 97202-6413 Tel: (503) 595-3146 E-mail: jlongwill@psmfc.org
Lynch, Cheryl	CDFO	200-401 Burrard Street, Vancouver, BC Tel: (604) 666-1228 E-mail: cheryl.lynch@dfo-mpa.gc.ca
McClure, Marianne *	CRITFC	729 NE Oregon St., Suite 200, Portland, OR 97232 Tel: (503) 731-1254 E-mail: mccm@critfc.org
Molitor, Ken	NMT	PO Box 427, Shaw Island, WA 98286 Tel: (360) 468-3375 E-mail: Ken.Molitor@nmt.us

Nandor, George*	PSMFC	205 SE Spokane St., Suite 100, Portland, OR 97202-6413 Tel: (503) 595-3144 E-mail: gnandor@psmfc.org
Phillipson, Ken	NWIFC	6730 Martin Way NE, Olympia, WA 98516-5540 Tel: (360) 438-1180 E-mail: KenP@nwifc.org
Roberts, Amy	PSMFC	205 SE Spokane St., Suite 100, Portland, OR 97202-6413 Tel: (503) 595-3451 E-mail: aroberts@psmfc.org
Robinson, Cathy *	ADFG	10107 Bentwood Pl, Juneau, AK 99801 Tel: (907) 465-4089 E-mail: Cathy.Robinson@alaska.gov
Webb, Dan	PSMFC	205 SE Spokane St., Suite 100, Portland, OR 97202-6413 Tel: (503) 595-3147 E-mail: dwebb@psmfc.org

Appendix B



Missing Release Tag Codes

- 052188 052599 052671
- 054195 054551 054552
- 090909 094577 106334
- 480522

Tag Prefix Contact List

Agency	Codes*	Contact	Email Address
ADFG	04,13,31,47,50	Robinson,Cathy	cathy.robinson@alaska.gov
CDFG	06	Azat, Jason	jazat@dfg.ca.gov
CDFO	02,08,12,18,28	Ridgway, Brenda	Brenda.Ridgway@dfo-mpo.gc.ca
CRITFC	61	McClure, Marianne	mccm@critfc.org
COLV	20	Dasher, Rhonda	rhonda.dasher@colvilletribes.com
FWS / USFWS	05	TBD	?? ? @fws.gov
IDFG	10	Stiefel, Carl	carl.stiefel@idfg.idaho.gov
NEZP	22	Tuell, Mike	Miket@nezperce.org
NMFS	03	Celewycz, Adrian	adrian.celewycz@noaa.gov
NIFC / NWIFC	21	Phillipson, Ken	kphillipson@nwifc.org
ODFW	07,09	Johnson, Ken	kenneth.johnson@state.or.us
WDFW	16,62,63,64,66	Anderson, Lynn	anderlma@dfw.wa.gov
YAKA	19	Bosch, Bill	bbosch@yakama.com

*Codes are derived from the first two characters of Code Wire Tags and assigned to tag coordinators to aid in management and tracking of their usage.

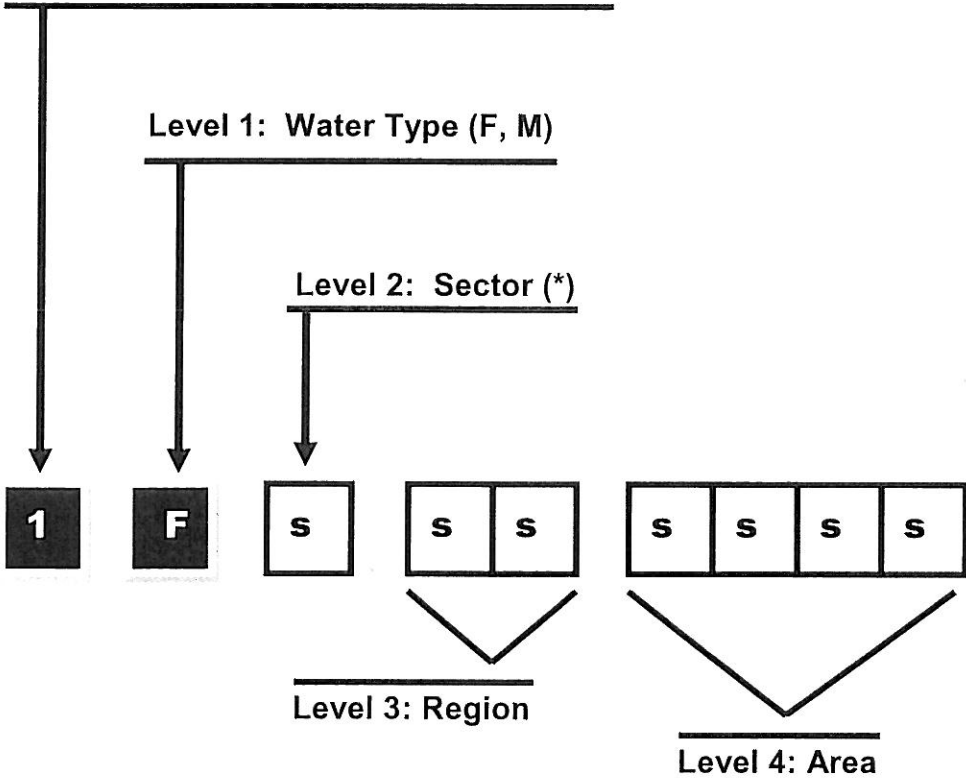
04/28/2011

Appendix C

CWT LOCATION CODE (19 characters)

- 5 Location Code Types: 1) Recovery Site; 2) Catch Area;
- Developed & Authorized: PSC Data Sharing, Joint Working
- Characters 1, 2: Specified in PSC Format Data Ex
- Characters 3 through 19: Location agency defined alpha-n

Level 0: State or Province (1,2,3,4,5,6,7)



Appendix D

Proposal to the Mark Committee

Subject: New agency code

28 April 2011

Abstract

NMT proposes to assign Coded Wire Tag agency code 26 to the Pacific States Marine Fisheries Commission (PSMFC) for use in their California salmon and steelhead tagging programs. Agency code 26 would also be used for tagging done by PSMFC at U.S. Fish and Wildlife Service's Coleman National Fish Hatchery.

Background

PSMFC currently uses CWT Agency codes 05 and 06 for its California tagging programs.

Agency code 06 is shared by all tagging programs in California. Its use is coordinated among various agencies by allocation of the Data 1 code. PSMFC has been assigned Data 1 codes of 86, 87 and 95. The existing scheme is nearing the end of its code space.

At Coleman National Fish Hatchery, PSMFC has been using agency code 05, which is assigned to the U. S. Fish and Wildlife Service nationwide.

Agency code 26 has not been previously used.

Related changes

If this proposal is approved, 06 codes currently reserved for PSMFC will be released for use by other California tagging programs. Agency code 05 would remain in use by U.S. Fish and Wildlife for programs other than those at Coleman National Fish Hatchery.

Appendix E

IDFG-Brood Year 2011 Summer Steelhead Marking and Tagging

Hatchery	Release Site	Stock	Marks & Tags				Total
			AD	AD/CWT	No Clip	CWT/ No Clip	
Clearwater	S.F. Clearwater (Red House Hole)	DWORB	145,800	72,900			218,700
	Peasley Cr	Local SF	70,000			140,000	210,000
		DWORB	145,500	72,900	72,900		291,300
	Newsome Cr.	DWORB			123,000		123,000
Clearwater Total			361,300	145,800	195,900	140,000	843,000
Hagerman National	East Fk. Salmon R. Weir	EFNat				170,000	170,000
	Sawtooth Weir	SAWA	670,000	80,000			750,000
	Yankee Fk.	SAWA	140,000	80,000	220,000		440,000
Hagerman National Total			810,000	160,000	220,000	170,000	1,360,000
Magic Valley	Little Salmon R. Stinky Springs	DWORB	95,000	120,000			215,000
		PAHA	110,000	90,000			200,000
	Lower East Fk. Salmon R.	DWORB	215,000	60,000			275,000
		DWORB				60,000	60,000
	Pahsimeroi Trap	USALB				120,000	120,000
		PAHA	0	90,000			90,000
	Salmon R. Sec. 16 Red Rock	PAHA	30,000	60,000			90,000
	Salmon R. Sec. 17 Colston Corner	SAWA	30,000	90,000			120,000
Salmon R. Sec. 18 McNabb Point	PAHA	60,000	30,000			90,000	
Squaw Creek	DWORB	220,000	60,000			280,000	
Magic Valley Total			760,000	600,000		180,000	1,540,000
Niagara Springs	Hells Canyon Dam	OXA	435,000	90,000			525,000
	Little Salmon R. Stinky Springs	PAHA	140,000	30,000			170,000
		OXA	245,000	30,000			275,000
	Pahsimeroi Trap	PAHA	740,000	90,000			830,000
Niagara Springs Total			1,560,000	240,000			1,800,000
Total			3,491,300	1,145,800	415,900	490,000	5,543,000

IDFG- Brood Year 2010 Chinook and Sockeye Salmon Marking and Tagging

Species	Fish Hatchery	Stock	Release Site	Marks & Tags					Total
				AD	AD/CWT	CWT/ No Clip	OTC	VIE/CWT	
Fall Chinook	Oxbow (Fall Chinook)	Lyons Ferry	IPC Hells Canyon Dam		200,000				200,000
	Oxbow (Fall Chinook) Sum				200,000				200,000
Sockeye	Eagle/Sawtooth	Snake R.	Upper Salmon R. & Lakes- Presmolts	60,000					60,000
	Eagle/Sawtooth	Snake R.	Upper Salmon R. & Lakes- Smolts		100,000				100,000
	Eagle/Sawtooth	Snake R.	Upper Salmon River	60,000	100,000				160,000
Spring Chinook	Clearwater	Clear Creek	Clear Creek	115,000	120,000				235,000
		Powell	Lower Selway R.	145,000	120,000	135,000			400,000
			Powell Pond	280,000	120,000			300,000	400,000
			Upper Selway R. (parr) NPTH		66,000	134,000			200,000
		S.F. Clearwater R.	Red River Pond	980,000	120,000				1,100,000
	Clearwater Sum			1,520,000	546,000	269,000	300,000		2,635,000
	Rapid River	Rapid River	Hells Canyon	350,000					350,000
			Little Salmon Rapid River	150,000					150,000
	Rapid River Sum			2,380,000	120,000				2,500,000
	Rapid River Sum			2,880,000	120,000				3,000,000
Sawtooth	Upper Salmon R.	Yankee Fork				200,000		200,000	
		Sawtooth weir (Seg)	980,000	120,000				1,100,000	
		Sawtooth weir (Int)					200,000	200,000	
Sawtooth Sum			980,000	120,000	400,000			1,500,000	
Summer Chinook	Clearwater	S. F. Salmon R.	Crooked River Trap Site			200,000			200,000
	Clearwater Sum					200,000			200,000
	McCall	Johnson Cr.	Johnson Creek			50,000		50,000	100,000
		S.F. Salmon R.	Knox Bridge S.F. Salmon R. (Seg) Knox Bridge S.F. Salmon R. (Int)	630,000	120,000				750,000
	McCall Sum			630,000	120,000	300,000		50,000	1,100,000
	Pahsimeroi	Pahsimeroi	Pahsimeroi R. (Seg)	680,000	120,000				800,000
			Pahsimeroi R. (Int)			200,000			200,000
Pahsimeroi Sum			680,000	120,000	200,000			1,000,000	
Total				6,750,000	1,326,000	1,369,000	300,000	50,000	9,795,000

ODFW's 2011 FISH MARKING PROGRAM

Projected Fish to be Marked (*all numbers X 1,000 and rounded to nearest 5,000*)

	Ad+CWT	Ad Only	CWT Only	AdLV+CWT	AdRV+CWT	AdRV	AdLM	AdRM	LV Only	RV Only	Totals
Spr Chin	4,130	8,600	310	0	0	0	250	240	0	0	13,530
Fall Chin	2,665	16,760	440	50	0	0	0	0	1,400	10	21,325
Coho	250	5,330	150	0	0	0	0		0	0	5,730
Sum Sthd	0	530	0	235	100	60	60	250	0	0	1,235
Win Sthd	0	400	0	0	0		0		0	0	400
Sockeye	0	0	100	0	0	0	0	0	0	0	100
Chum	0	0	100	0	0	0	0	0	0	0	100
Rainbow Trout	0	1,225		0	0	0	0	0	0	0	1,225
Total	7,045	31,620	1,000	285	100	60	310	490	1,400	10	43,645

**** All numbers x 1,000**

Total Fish Marked:	43,645
Total CWTs:	8,430
Total Ad Clips: (single + combination marks)	41,222
Fish with Adipose Fin not removed:	2,410
Number of Agency only wire tags:	
Number of Double Index Tags:	

Marking Status of Tribal Hatchery Chinook

Tribe	Hatchery	2011 Production				Marking Agency
		Tagged (CWT)		Untagged		
		AD Clipped	Unclipped	AD Clipped	Unclipped	
Lummi	Lummi Bay Sea Ponds			1,000,000		WDFW
	Skookum Creek	2,100 ²				Tribe
Stillaguamish	Harvey Creek	220,000				NWIFC
	Brenners Creek	4,000 ²				Tribe
Tulalip	Bernie Gobin	100,000		1,800,000		NWIFC
Suquamish	Gorst Creek	180,000		1,720,000		WDFW
	Grovers Creek	200,000	200,000 ⁴	100,000		NWIFC
Muckleshoot	White River ^{1,2}		395,000		1,000,000 ³	Tribe
	Palmer Ponds			1,000,000		Tribe
Puyallup	Clarks Creek	100,000		1,700,000		NWIFC
Nisqually	Clear Creek	200,000	200,000 ⁴	3,100,000		WDFW
	Kalama Creek	100,000		500,000		WDFW
Makah	Hoko Falls	200,000				NWIFC
	Educket Creek			100,000		USFWS
Quileute	Lonesome Cr/Sol Duc	150,000		50,000		NWIFC
Quinault	Salmon River	200,000				NWIFC
	Lake Quinault	200,000	200,000 ⁴	250,000		NWIFC
Totals		1,856,100	995,000	11,320,000	1,000,000	

Grand Total Marked + CWT = 14,171,100

Increase in Marking/Tagging = 2,956,100 fish

New Facility

¹ Hatchery funded via mitigation

² Hatchery production is part of native supplementation program for stock recovery

³ 100% vent clipped

⁴ Double Index Tag Group

Marking Status of Tribal Hatchery Coho

Tribe	Hatchery	2011 Production				Marking Agency
		Tagged (CWT)		Untagged		
		AD Clipped	Unclipped	AD Clipped	Unclipped	
Lummi	Lummi Bay Sea Ponds	50,000		950,000		WDFW
	Skookum Creek	50,000		950,000		WDFW
Stillaguamish	Harvey Creek/North Fork Hatchery	50,000 ²				NWIFC
Tulalip	Bernie Gobin	50,000		1,700,000		NWIFC
Port Gamble	Port Gamble Net Pens	45,000		355,000		WDFW
Suquamish	Agate Pass Net Pens	50,000		250,000		NWIFC
Muckleshoot	Elliot Bay Net Pens ¹	50,000		345,000		Tribe
	Keta Creek/Crisp Creek	50,000		150,000		Tribe
Puyallup	Rushing River	100,000				WDFW
	Kalama Creek	45,000		355,000		WDFW
Skokomish	Quilcene Bay Net Pens	45,000		155,000		USFWS
Lower Elwha	Lower Elwha	75,000	75,000 ⁴	300,000		NWIFC
Makah	Educket Creek			50,000		USFWS
Quinault	Salmon River	75,000	75,000 ⁴	500,000		NWIFC
Totals		735,000	150,000	6,060,000	0	

Grand Total Marked + CWT = 6,945,000

Increase in Marking/Tagging = 2,795,000 fish

New Facility

¹ Hatchery funded via mitigation

² Hatchery production is part of native supplementation program for stock recovery

⁴ Double Index Tag Group

Marking Status of Tribal Hatchery Steelhead

Tribe	Hatchery	2011 Production				Marking Agency
		Tagged (CWT)		Untagged		
		AD Clipped	Unclipped	AD Clipped	Unclipped	
Puyallup	Diru Creek		30,000 ²			Tribe
Lower Elwha	Lower Elwha		200,000 ²	200,000		NWIFC
Makah	Hoko			60,000		NWIFC
Makah	Educket Creek			25,000		USFWS
Quileute	Bear Springs			140,000		WDFW
Hoh	Chaalat Creek	20,000		80,000		NWIFC
Quinault	Salmon River	35,000			115,000 ⁵	Tribe
Quinault	Lake Quinault	35,000			165,000 ⁵	Tribe
Totals		90,000	230,000	505,000	280,000	

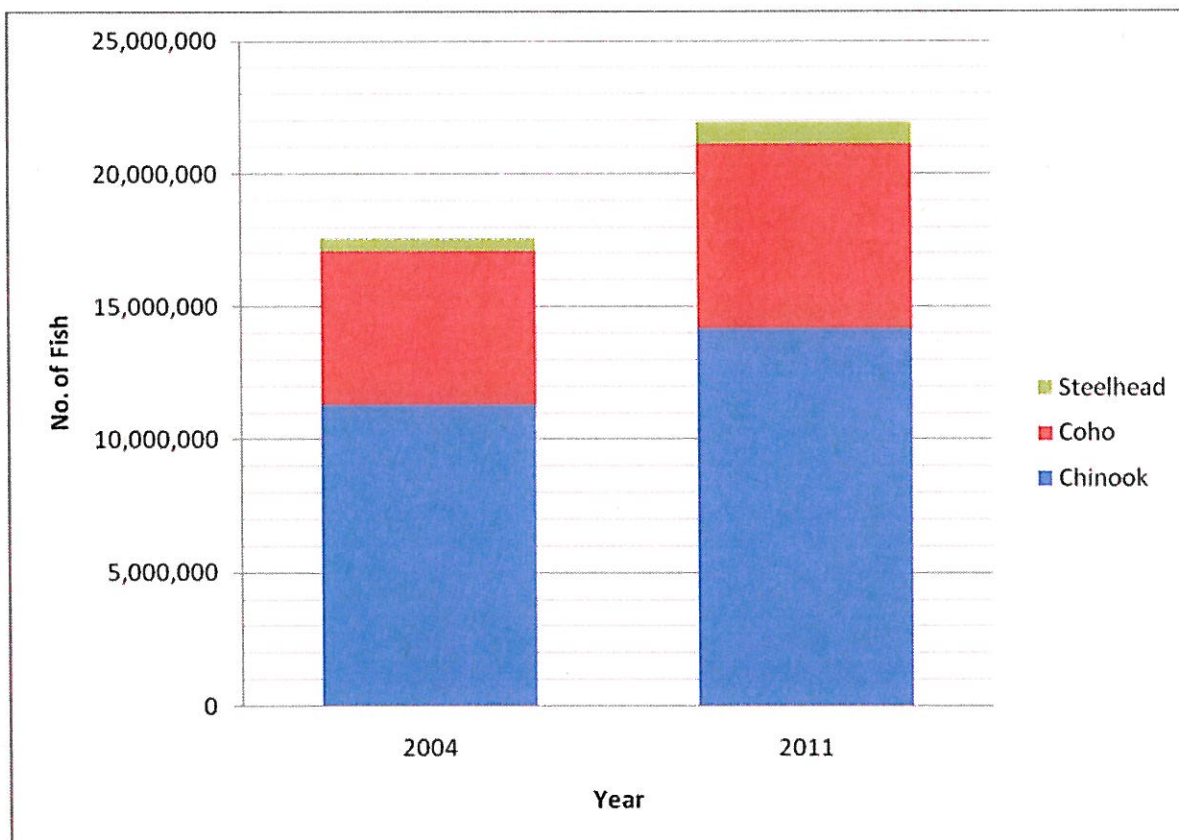
Grand Total Marked + CWT = 825,000

 Increase in Marking/Tagging = 430,000 fish

² Hatchery production is part of native supplementation program for stock recovery

⁵ The potential for improving the fishing opportunity of on-going selective fisheries by altering the current marking rate of this tribal hatchery production is negligible. Within these river systems, the wild winter steelhead populations are healthy and not a management constraint. Currently, retention of wild fish is permissible based on the strength of wild returns. Furthermore, the existing recreational fisheries in the Quinault and Salmon (Queets) Rivers predominately occur on reservation and are not conducted as mark-selective fisheries.

Increases in Tribal Fish Marking and Tagging



	2004	2011
Chinook	11,275,000	14,171,000
Coho	5,830,000	6,945,000
Steelhead	482,000	825,000
Total Fish	17,587,000	21,941,000

WDFW and TRIBAL PUGET SOUND CHINOOK MASS MARKING and CODED-WIRE TAGGING 2011

Species: Chinook

Area: Puget Sound

Brood: 2010

Releases 2011 and 2012

11/01/2010

Agency	Hatchery	Stock	Number of fish to be released with a CWT		Number of fish to be released without a CWT		Total Production	Proposed to be marked this year (Y/N)	Marked in previous year (Y/N)
			Ad Clipped	Unclipped	Ad Clipped	Unclipped			
WDFW	Kendall Creek*	NF Nooksack springs	200,000	200,000	350,000	0	750,000	Y	Y
WDFW	Marblemount	Skagit River springs	250,000	0	0	0	250,000	Y	Y
WDFW	Marblemount*	Skagit River springs 1+	75,000	75,000	0	0	150,000	Y	Y
WDFW	Hupp Springs	White River springs	0	260,000	0	0	260,000	NA	NA
WDFW	Hupp Springs	White River springs	0	75,000	0	0	75,000	NA	NA
Tribal	White River	White River springs	0	340,000	0	0	340,000	NA	NA
Tribal	White River	White River springs 1+	0	55,000	0	0	55,000	NA	NA
Tribal	White River Acclimation	White River springs	0	0	0	1,000,000	1,000,000	NA	NA
WDFW	Dungeness	Dungeness River springs	0	50,000	0	0	50,000	NA	NA
WDFW	Hurd Creek	Dungeness River springs	0	50,000	0	0	50,000	NA	NA
WDFW	Greywolf Acclimation	Dungeness River springs	0	100,000	0	0	100,000	NA	NA
Total spring chinook			525,000	1,205,000	350,000	1,000,000	3,080,000		
WDFW	Marblemount	Skagit River summers	200,000	0	0	0	200,000	Y	Y
Tribal	Stillaguamish	NF Stillaguamish River summers	220,000	0	0	0	220,000	Y	Y
Tribal	Bernie Gobin	Skykomish River summers	100,000	0	1,600,000	0	1,700,000	Y	Y
WDFW	Wallace River*	Skykomish River summers	200,000	200,000	600,000	0	1,000,000	Y	Y
WDFW	Wallace River	Skykomish River summers 1+	90,000	0	160,000	0	250,000	Y	Y
Total summer chinook			810,000	200,000	2,360,000	0	3,370,000		
WDFW	Glenwood Springs	Glenwood Springs falls	100,000	0	450,000	0	550,000	Y	Y
Tribal	Lummi Bay Sea Ponds	Samish River (Friday Creek) falls	0	0	1,000,000	0	1,000,000	Y	Y
WDFW	Samish*	Samish River falls	200,000	200,000	3,600,000	0	4,000,000	Y	Y
WDFW	Soos Creek*	Big Soos Creek falls	200,000	200,000	2,600,000	0	3,000,000	Y	Y
Tribal	Keta Creek	Big Soos Creek falls	0	0	1,000,000	0	1,000,000	NA	Y
WDFW	Icy Creek	Big Soos Creek falls 1+	80,000	0	220,000	0	300,000	Y	Y
WDFW	Issaquah	Issaquah Creek falls	200,000	0	1,800,000	0	2,000,000	Y	Y
WDFW	Portage Bay (UW)	Portage Bay falls	0	0	180,000	0	180,000	Y	Y
WDFW	Minter Creek	Minter Creek falls 1+	75,000	0	45,000	0	120,000	Y	Y

Tribal	Gorst Creek	Grovers Creek falls	0	0	1,900,000	0	1,900,000	Y	Y
Tribal	Grovers Creek *	Grovers Creek falls	200,000	200,000	100,000	0	500,000	Y	Y
Tribal	Clarks Creek	Puyallup River falls	215,000	0	1,000,000	0	1,215,000	Y	Y
Tribal	Electron Ponds	Puyallup (Voights Creek) falls	300,000	0	0	0	300,000	Y	Y
WDFW	Voights Creek	Voights Creek falls	200,000	0	1,400,000	0	1,600,000	Y	Y
WDFW	Garrison Springs	Garrison Springs falls	0	0	1,050,000	0	1,050,000	Y	Y
WDFW	Chambers Creek	Garrison Springs falls	0	0	70,000	0	70,000	Y	Y
WDFW	Lakewood	Garrison Springs falls	0	0	200,000	0	200,000	Y	Y
WDFW	Lakewood	Garrison Springs falls 1+	0	0	130,000	0	130,000	Y	Y
Tribal	Clear Creek *	Clear Creek falls	200,000	200,000	3,100,000	0	3,500,000	Y	Y
Tribal	Kalama Creek	Kalama Creek falls	100,000	0	500,000	0	600,000	Y	Y
WDFW	Tumwater Falls	Deschutes River falls	0	0	3,800,000	0	3,800,000	Y	Y
WDFW	George Adams *	George Adams falls	225,000	225,000	3,350,000	0	3,800,000	Y	Y
WDFW	Hamma Hamma	George Adams falls	86,000	0	0	0	86,000	Y	Y
WDFW	Hoodsport	Hoodsport falls	200,000	0	2,600,000	0	2,800,000	Y	Y
WDFW	Hoodsport	Hoodsport falls 1+	90,000	0	30,000	0	120,000	Y	Y
WDFW	Rick's Pond (LLTK)	George Adams falls 0+	0	0	375,000	0	375,000	Y	Y
WDFW	Elwha	Elwha River falls 1+	0	200,000	0	0	200,000	NA	NA
WDFW	Elwha	Elwha River falls	0	200,000	0	2,500,000	2,700,000	NA	NA
WDFW	Bear Springs	Elwha River falls 1+	0	200,000	0	0	200,000	NA	NA
Tribal	Hoko Falls *	Hoko River falls	200,000	0	200,000	0	400,000	Y	Y

Total fall chinook 2,871,000 1,625,000 30,700,000 2,500,000 37,696,000

Total 4,206,000 3,030,000 33,410,000 3,500,000 44,146,000

Total Chinook Production 44,146,000

Percent Marked 85%

* DIT group

WDFW and TRIBAL PUGET SOUND COHO MASS MARKING and CODED-WIRE TAGGING 2011

11/01/2010

Species: Coho
 Area: Puget Sound
 Brood: 2010
 Release Year: 2012

Agency	Hatchery	Stock	Number of fish to be released with a CWT		Number of fish to be released without a CWT		Total Production	Proposed to be marked this year (Y/N)	Marked in previous year (Y/N)
			Ad Clipped	Unclipped	Ad Clipped	Unclipped			
Coop	Baker Lake	Baker River	0	0	60,000	0	60,000	Y	Y
WDFW	Glenwood Springs	Glenwood Springs	0	0	100,000	0	100,000	Y	Y
Tribal	Lummi Bay Sea Pens	Lummi Bay	50,000	0	950,000	0	1,000,000	Y	Y
Tribal	Skookum Creek	Skookum Creek	50,000	50,000	900,000	0	1,000,000	Y	Y
WDFW	Marblemount*	Skagit (Clark Creek)	45,000	45,000	160,000	0	250,000	Y	Y
WDFW	Lake Shannon Net Pens	Baker River	0	0	25,000	0	25,000	Y	Y
WDFW	Roche Harbor Net Pen	Skagit (Clark Creek)	0	0	15,000	0	15,000	Y	Y
WDFW	Indian Slough (For SSC)	Skagit (Clark Creek)	0	0	100,000	0	100,000	Y	Y
WDFW	Oak Harbor Net Pens	Skagit (Clark Creek)	0	0	30,000	0	30,000	Y	Y
Tribal	Stillaguamish	Stillaguamish River	0	0	50,000	0	50,000	Y	Y
WDFW	Wallace River*	Skykomish (May Creek)	45,000	45,000	60,000	0	150,000	Y	Y
Tribal	Bernie Gobin	Skykomish (May Creek)	50,000	0	1,700,000	0	1,750,000	Y	Y
WDFW	NWSSC Everett Net Pens	Skykomish (May Creek)	0	0	20,000	0	20,000	Y	Y
WDFW	Possession Point Net Pens	Skykomish (May Creek)	0	0	50,000	0	50,000	Y	Y
WDFW	Seattle Poggie Club	Skykomish (May Creek)	0	0	60,000	0	60,000	Y	Y
WDFW	Laebugten Net Pens	Issaquah Creek	0	0	25,000	0	25,000	Y	Y
WDFW	Issaquah	Issaquah Creek	0	0	450,000	0	450,000	Y	Y
WDFW	Ballard Salmon Net Pens	Issaquah Creek	0	0	30,000	0	30,000	Y	Y
WDFW	Soos Creek*	Green River (Soos Creek)	45,000	45,000	510,000	0	600,000	Y	Y
Tribal	Crisp Creek	Green River (Soos Creek)	0	0	200,000	0	200,000	Y	Y
Tribal	Elliott Bay Net Pens	Green River (Soos Creek)	0	0	395,000	0	395,000	Y	Y
WDFW	NWSSC Des Moines	Green River (Soos Creek)	0	0	30,000	0	30,000	Y	Y
WDFW	Seattle Aquarium	Green River (Soos Creek)	0	0	1,000	0	1,000	Y	Y
WDFW	Portage Bay (UW)	Portage Bay (UW)	0	0	90,000	0	90,000	Y	Y
WDFW	Marine Tech Center	MTC / Soos Creek	0	0	10,000	0	10,000	Y	Y

WDFW	Voights Creek*	Puyallup (Voights Creek)	45,000	45,000	690,000	0	780,000	Y	Y
Tribal	Puyallup Tribal (Rushing)	Puyallup (Voights Creek)	100,000	0	0	0	100,000	Y	Y
WDFW	Minter Creek	Minter Creek	45,000	0	455,000	0	500,000	Y	Y
Tribal	Gorst / Agate Pass	Minter Creek	50,000	0	250,000		300,000	Y	Y
WDFW/Tribal	SSNP/Squaxin Net Pens	Skykomish (May Creek)	50,000	0	1,750,000	0	1,800,000	Y	Y
Tribal	Kalama Creek	Kalama Creek	45,000	0	255,000	0	300,000	Y	Y
WDFW	George Adams*	George Adams (Purdy Creek)	45,000	45,000	210,000	0	300,000	Y	Y
WDFW-Tribal	Port Gamble Net Pens	Big Quilcene River	45,000	0	355,000	0	400,000	Y	Y
Tribal	Quilcene Bay Net Pens	George Adams (Purdy Creek)	45,000	45,000	110,000	0	200,000	Y	Y
WDFW	Dungeness	Dungeness	0	0	500,000	0	500,000	Y	Y
Tribal	Lower Elwha*	Elwha River	75,000	75,000	600,000	0	750,000	NA	NA

WDFW and TRIBAL COASTAL CHINOOK MASS MARKING and CODED-WIRE TAGGING 2011

Species: Chinook
 Area: Coastal Washington
 Brood: 2010
 Releases: 2011 and 2012

11/01/2010

Agency	Hatchery	Stock	Number of fish to be released with a CWT		Number of fish to be released without a CWT		Total Production	Proposed to be marked this year (Y/N)	Marked in previous year (Y/N)
			Ad Clipped	Unclipped	Ad Clipped	Unclipped			
Tribal	Educket Creek	Sooes River falls	0	0	100,000	0	100,000	Y	Y
Tribal	SolDuc	SolDuc spring/summers 0+	70,000	0	0	0	70,000	Y	Y
WDFW	SolDuc	SolDuc spring/summers 1+	0	0	170,000	0	170,000	Y	Y
Tribal	SolDuc	SolDuc spring/summers 1+	80,000	0	0	0	80,000	Y	Y
Tribal	Bear Springs	SolDuc spring/summers	0	0	50,000	0	50,000	Y	Y
Tribal	Salmon River	Queets River falls	200,000	0	0	0	200,000	Y	Y
Tribal	Quinault River*	Quinault River falls	200,000	200,000	250,000	0	650,000	Y	Y
WDFW	Humtulpis	Humtulpis River falls	0	0	500,000	0	500,000	Y	Y
WDFW	Lake Aberdeen	Van Winkle Creek falls	0	0	50,000	0	50,000	Y	Y
WDFW	Wishkah	Wishkah River falls	0	0	200,000	0	200,000	Y	Y
WDFW	Satsop Springs	Satsop River falls	0	0	500,000	0	500,000	Y	Y
WDFW	Forks Creek*	Willapap River falls	200,000	200,000	2,800,000	0	3,200,000	Y	Y
WDFW	Nemah	Nemah River falls	0	0	3,000,000	0	3,000,000	Y	Y
WDFW	Naselle	Naselle River falls	0	0	800,000	0	800,000	Y	Y

WDFW and TRIBAL COASTAL COHO MASS MARKING and CODED-WIRE TAGGING 2011

11/01/2010

Species: Coho
 Area: Coastal Washington
 Brood: 2010
 Release Year: 2012

Agency	Hatchery	Stock	Number of fish to be released with a CWT		Number of fish to be released without a CWT		Total Production	Proposed to be marked this year (Y/N)	Marked in previous year (Y/N)
			Ad Clipped	Unclipped	Ad Clipped	Unclipped			
Tribal	Educket Creek	Sooes River	0	0	40,000	0	40,000	Y	Y
WDFW	Solduc	Solduc summers	0	0	100,000	0	100,000	Y	Y
WDFW	Solduc *	Solduc falls	75,000	75,000	100,000	0	250,000	Y	Y
Tribal	Salmon River *	Salmon River	75,000	75,000	500,000	0	650,000	Y	Y
WDFW	Humtulpis	Humtulpis	0	0	600,000	0	600,000	Y	Y
WDFW	Humtulpis	Humtulpis lates	0	0	370,000	0	370,000	Y	Y
WDFW	Friends Landing	Satsop River	0	0	25,000	0	25,000	Y	Y
WDFW	Mayr Brothers	Wishkah River	0	0	150,000	0	150,000	Y	Y
WDFW	Buzzard Creek	Wishkah River	0	0	25,000	0	25,000	Y	Y
WDFW	Lake Aberdeen	Van Winkle	0	0	30,000	0	30,000	Y	Y
WDFW	Bingham Creek *	Satsop River	75,000	75,000	0	0	150,000	Y	Y
WDFW	Bingham Creek	Satsop Lates	50,000		100,000	0	150,000	Y	Y
WDFW	Heimbigner Project	Satsop River	0	0	15,000	0	15,000	Y	Y
WDFW	Satsop Springs	Satsop River	40,000	0	290,000	0	330,000	Y	Y
WDFW	Skookumchuck	Satsop River	50,000	0	0	0	50,000	Y	Y
WDFW	Skookumchuck	Satsop lates	0	0	50,000	0	50,000	Y	Y
WDFW	Carlisle Lake	Satsop River	0	0	50,000	0	50,000	Y	Y
WDFW	Carlisle Lake	Satsop lates	0	0	50,000	0	50,000	Y	Y
WDFW	Eight Creek	Satsop lates	0	0	100,000	0	100,000	Y	Y
WDFW	Forks Creek *	Willapa River	75,000	75,000	50,000	0	200,000	Y	Y
WDFW	Forks Creek	Willapa lates	45,000	0	55,000	0	100,000	Y	Y
WDFW	Nemah	Nemah River	0	0	50,000	0	50,000	Y	Y
WDFW	Naselle	Naselle River	50,000	0	1,150,000	0	1,200,000	Y	Y
WDFW	Naselle	Naselle River lates	0	0	200,000	0	200,000	Y	Y
WDFW	Aberdeen Net Pens	Wishkah River	0	0	150,000	0	150,000	Y	Y
WDFW	Westport Net Pens	Humtulpis River	0	0	100,000	0	100,000	Y	Y
Total			535,000	300,000	4,350,000	0	5,185,000		

Total Coho Production
Percent Marked

5,185,000
94%

* DIT groups

WDFW and CRITFC COLUMBIA RIVER CHINOOK MASS MARKING and CODED-WIRE TAGGING 2011

Species: Chinook
 Area: Columbia River
 Brood: 2010
 Release Year: 2011 and 2012

11/01/2010

Agency	Hatchery	Stock	Number of fish to be released with a CWT		Number of fish to be released without a CWT		Total Production	Proposed to be marked this year (Y/N)	Marked in previous year (Y/N)
			Ad Clipped	Unclipped	Ad Clipped	Unclipped			
WDFW	Sea Resources	Sea Resources - Falls	0	0	107,500	0	107,500	Y	Y
WDFW	Deep River Net Pens	Elochoman - Falls	90,000	0	910,000	0	1,000,000	Y	Y
WDFW	Cowlitz	Cowlitz - Falls	100,000	0	4,900,000	0	5,000,000	Y	Y
WDFW	N Toutle	Toutle - Falls	95,000	0	1,395,000	0	1,490,000	Y	Y
WDFW	Kalama Falls	Kalama - Falls	95,000	0	3,495,000	0	3,590,000	Y	Y
WDFW	Fallert Creek	Kalama - Falls	95,000	0	3,405,000	0	3,500,000	Y	Y
WDFW	Lewis River	Lewis River - Falls (wild)	100,000	0	0	0	100,000	NA	NA
WDFW	Washougal	Washougal - Falls	95,000	0	2,905,000	0	3,000,000	Y	Y
CRITFC	Klickitat	Klickitat - falls	600,000	0	3,450,000	0	4,050,000	Y	Partial
CRITFC	Hanford Reach	Hanford - Wild	200,000	0	0	0	200,000	NA	NA
WDFW	Lyons Ferry	Lyons Ferry - Falls	400,000	0	0	0	400,000	NA	NA
WDFW	Lyons Ferry	Lyons Ferry - Falls 1+	225,000	225,000	0	0	450,000	NA	NA
WDFW	Ringold **	URBs	200,000	0	3,250,000	0	3,450,000	Y	N
WDFW	Priest Rapids	Priest Rapids - URBs	600,000	600,000	1,700,000	3,800,000	6,700,000	Y	Partial
Total Fall Chinook			2,895,000	825,000	25,517,500	3,800,000	33,037,500		
Total Percent Marked			86%						
WDFW	Turtle Rock	Wells - summers	400,000	0	600,000	0	1,000,000	Y	N
WDFW	Turtle Rock	Wells - summers 1+	100,000	0	0	0	100,000	NA	NA
WDFW	Chelan River Net Pen	Wells - summers 1+	0	0	100,000	0	100,000	Y	Y
WDFW	Dryden Pond	Wenatchee - summers 1+	864,000	0	0	0	864,000	NA	NA
WDFW	Wells	Wells - summers	484,000	0	0	0	484,000	NA	NA
WDFW	Wells	Wells - summers 1+	320,000	0	0	0	320,000	NA	NA
WDFW	Carlton Pond	Methow / Okanogan - summers 1+	400,000	0	0	0	400,000	NA	NA
WDFW	Similkameen Pond	Methow / Okanogan - summers 1+	576,000	0	0	0	576,000	NA	NA
Total Summer Chinook			3,144,000	0	700,000	0	3,844,000		
Total Percent Marked			100%						
WDFW	Deep River Net Pens	Cowlitz - springs 1+	50,000	0	300,000	0	350,000	Y	Y

WDFW	Cowlitz	Cowlitz - springs	100,000	0	807,539	0	907,539	Y	Y
WDFW	Cowlitz - upper river	Cowlitz - springs	0	0	0	300,000	300,000	NA	NA
WDFW	Friends of the Cowlitz	Cowlitz - springs 1+	0	0	55,000	0	55,000	Y	Y
WDFW	Fallert Creek	Kalama - springs 1+	125,000	0	0	0	125,000	Y	Y
WDFW	Gobar Pond	Kalama - springs 1+	125,000	0	250,000	0	375,000	Y	Y
WDFW	Lewis River*	Lewis River - springs 1+	150,000	150,000	600,000	0	900,000	Y	Y
WDFW	Fish First	Lewis River - springs 1+	0	0	150,000	0	150,000	Y	Y
WDFW	Lk Wenatchee Net Pens	White River - springs	0	150,000	0	0	150,000	NA	NA
CRITFC	Klickitat	Klickitat - springs 1+	140,000	0	460,000	0	600,000	Y	Y
WDFW	Tucannon	Tucannon - springs 1+	0	225,000	0	0	225,000	NA	NA
WDFW	Chiwawa Pond	Chiwawa - springs 1+	672,000	0	0	0	672,000	Y	Y
WDFW	Methow	Methow - springs 1+	0	183,000	0	0	183,000	NA	NA
WDFW	Twisp	Twisp - springs 1+	0	183,000	0	0	183,000	NA	NA
WDFW	Chewuch	Chewuch - springs 1+	0	184,000	0	0	184,000	NA	NA

WDFW and CRITFC COLUMBIA RIVER COHO MASS MARKING and CODED-WIRE TAGGING 2011

Species: Coho
 Area: Columbia River
 Brood: 2010
 Release Year: 2011

11/01/2010

Agency	Hatchery	Stock	Number of fish to be released with a CWT		Number of fish to be released without a CWT		Total Production	Proposed to be marked this year (Y/N)	Marked in previous year (Y/N)
			Ad Clipped	Unclipped	Ad Clipped	Unclipped			
WDFW	Sea Resources	Sea Resources	0	0	52,500	0	52,500	Y	Y
WDFW	Deep River Net Pens	Grays River - Type S	30,000	0	770,000	0	800,000	Y	Y
WDFW	Grays River	Grays River - Type N	30,000	0	120,000	0	150,000	Y	Y
WDFW	Grays River	Grays River - Type S	30,000	0	120,000	0	150,000	Y	Y
WDFW	Cathlamet FFA	Elochoman - Type N	0	0	15,000	0	15,000	Y	Y
WDFW	Cowlitz	Cowlitz - Type N	90,000	0	1,745,434	0	1,835,434	Y	Y
WDFW	Cowlitz	Cowlitz - Type N (wild)	1,000,000	0	0	0	1,000,000	NA	NA
WDFW	N Toutle	Toutle - Type S	34,000	0	116,000	0	150,000	Y	Y
WDFW	Kalama Falls	Kalama Falls - Type N	34,000	0	566,000	0	600,000	Y	Y
WDFW	Fallert Creek	Kalama Falls - Type S	34,000	0	66,000	0	100,000	Y	Y
WDFW	Lewis River*	Lewis River - Type S	75,000	75,000	730,000	0	880,000	Y	Y
WDFW	Lewis River*	Lewis River - Type N	75,000	75,000	665,000	0	815,000	Y	Y
WDFW	Washougal (Klickitat release)	Washougal - Type N	68,000	0	2,432,000	0	2,500,000	Y	N
WDFW	Washougal	Washougal - Type N	34,000	0	116,000	0	150,000	Y	Y
CRITFC	Klickitat	Klickitat - Type N	46,670	0	953,330	0	1,000,000	Y	Y
WDFW	Wells	Willard - Type S	0	195,000	0	0	195,000	NA	NA

WDFW MASS MARKING and CODED-WIRE TAGGING SUMMARY 2011

(Includes some Puget Sound and Coastal tribes and CRITFC)

5.2.11

	Ad+CWT	CWT only	Ad only (Mass Marked)	Unmarked	Total
Chinook	12,357,000	5,330,000	70,670,039	7,600,000	95,957,039
Coho	2,945,670	1,040,000	24,013,264	0	27,998,934
Total	15,302,670	6,370,000	94,683,303	7,600,000	123,955,973

Appendix F

Pseudo-Tag Identification in Database, problems & questions

April 2011

We would like to address the issue of identifying pseudo-tag release groups. These release groups have been very difficult to identify and manage in the database. For example, we have had agencies recover a pseudo-tag in the fishery and are seeking some information as to its origin. It is suspected that, among all ~146,000 release groups in the database, there could be about 500 rows which are pseudo-tag releases.

- **Problem #1:** Given the current field values and validation requirements, it appears there is **no way** to be sure if a particular group of fish went out with blank or agency-only wire.
- **Problem #2:** Efforts to identify pseudo-tag releases (to the extent possible) are exacerbated by the fact that the data entity known as Tag Coordinator which is represented in the database by field #6, (Coordinator) is often confused with the entity known as agency wire prefix which – esp. in the case of agency-only wire – has no representation whatsoever in the database. **Note that these two entities are different, but they appear identical, and are used interchangeably in the same field in different circumstances(!)** (See: RL, field #7, Tag Code or Release Id).

These problems could possibly be addressed by making changes to one or more of the following Release fields:

- field #1, Record Code p. 8
- field #6, Coordinator p. 8
- field #7, Tag Code or Release Id..... p. 9
- field #8, Tag Type p. 10

Consider the following (hypothetical) case:

1. Assume that a group was released in Oregon by ODFW with Agency-only wire '090000' some years ago (ex: Brood Year = 2006). Assume also for relative simplicity that it was unassociated with any other release group (tagged or otherwise);
2. As currently specified, the record of this group should be assigned: Record Code = 'N', Coordinator = '05', Tag Code or Release Id = '!05ssssssss' where 's' is agency determined string value, Tag Type = '16';
3. However, if Record Code = 'N', then Tag Type is not a required field (because, in the case of general unassociated groups, Tag Type is not applicable and therefore cannot be assigned a value);
4. **Problem #1:** For this group in question, if Tag Type was not assigned the value '16' then there is no way of knowing it was a pseudo-tag release. We have found several rows of data where Tag Type is NULL, and informal comments indicated it was probably a pseudo-tag release (see: RL: field# 41, Comments); There was no other way to find this. (A list of these data rows can be provided on request.)

5. **Problem #2:** Given this hypothetical case, consider now the user's attempt to select this agency-only wire release from the database (i.e. to link to '09BLANK' recovery records or for whatever reason). To do this one must resort to either Tag Type (field #8), or Tag Code or Release Id (field #7). As seen above, Tag Type cannot be relied upon to locate these release groups. Furthermore; using Tag Code or Release Id, one cannot simply enter the wire code (as applies to all Tagged groups) to select the data - nor can one enter any readily-identifiable string value in the case of general unassociated groups. I.e. the actual wire code '090000' cannot be located using either the string '090000' or any pattern matching prefix of it. Again, with the hypothetical case above, a '!09%..' value will select all BCFW releases if any exist; whereas '!05%..' must be used to select any ODFW releases – even though the wire had the code '090000' on it. Note that **the above release group might be found with the '!05%..' selection, or might not** – since there's no enforceable requirement that it be identified as a blank wire release(!) Even if found however, we have had many instances in which users are not aware of Coordinator or do not understand the use of Coordinator in this context. All they know is that their selections return no data when entering a plausible agency-only wire prefix into their selection queries. Given the many agencies involved (involving numerous Coordinator codes, and numerous agency-wire prefixes) we have experienced some difficulty explaining to the user how one might attempt to locate these data records.

Proposed /possible solutions:

- **Solution #1:** As currently defined, Tag Type cannot be relied on to have a value present to indicate the pseudo-tag since in general, records with Record Code 'N' are unassociated releases where Tag Type is not applicable. Therefore, we would recommend identifying all known pseudo-tag records with a different Record Code: e.g. the value 'P'. In this way, we could render Tag Type a required field for all 'P' coded release records (along with existing 'T' coded records), and allow all 'N' records to continue to have Tag Type as NULL.
- **Solution #2:** In addition to Solution #1 (above), there are a number of potential database changes that could allow greatly improved access to pseudo-tag records. One rather simple such change is as follows: in field #7, Tag Code or Release Id, change the format requirement as follows:
 - **from the current format:** '!ccssssssss' where cc= coordinator and ssssssss= <agency assigned string value>
 - **to this format:** '!pp0000sssss' where pp=<actual wire code prefix>, with blank digits indicated by '0', and sssss=<agency assigned string value>.

This would render data identification of pseudo-tags consistent with identification of other data records.

We welcome any alternative ideas that might address the issue of identifying and/or accessing pseudo-tag records in the database.

Appendix G

Request for Marking Variances
Regional Mark Committee

Please provide the following information when requesting marking variances from the standard tagging and marking established in the "Regional Coordination and Agreements on Marking and Tagging Pacific Coast Salmonids." The information is necessary to assess impacts of the marking variance to the coastwide CWT program.

Please address all of the following items 1-6 in adequate detail (use separate pages).

=====
Agency: ADFG

Date: April 15, 2011

Marking Coordinator:

a) Name: Catherine Robinson

b) Email: cathy.robinson@alaska.gov

1. Mark Requested: Adipose clip + Thermal Mark

2. Details of Marking

a) Number of fish: 300K

b) Species and Run : Chinook; Crooked Creek, Deception Creek, and Ninilchik River

c) Brood year: 2009

d) Stock(s): Crooked Creek, Deception Creek, and Ninilchik River Spring Chinook

e) Hatchery(ies): Fort Richardson and/or Elmendorf

f) Geographic area(s): Cook Inlet

g) Release date: May-June 2011

h) Duration of this marking program: 15 days

3. Specific Management and/or Research Objectives:

Need an external mark to differentiate hatchery from wild Chinook salmon in these three systems during future egg takes. All hatchery fish already have an otolith mark. The CWT is not necessary for fisheries management, stock assessment or brood collection.

4. Impact on Coastwide CWT Programs

Since 1975 ADFG has CWTd 7.5 million fish released in Cook Inlet. There have only been 74 recoveries in PST fisheries. The 55 tags recovered in Southeast Alaska expand to approximately 134 tagged fish. The 15 Canadian recoveries were all troll fish over the years from 1988 to 2005 and expanded to 60 fish. The 4 recoveries in Washington were all in 2002 and from different fisheries – a real anomaly. This data supports Alaska's assertion that adipose-only clipping these fish will have minimal if any bearing on PST fisheries.

a) Predicted number observed recoveries by state/province and by year

Negligible, if any.

b) Changes to current CWT sampling program

None

c) Other

5. Specify Expected Benefits

Marking enables segregation of broodstock into wild and hatchery categories. Hatcheries also estimate annual costs savings of \$70,000 dollars. There are also liberalized sport fish regulations on some systems and in some years for retention of adipose clipped fish.

6. Alternatives Considered (specify reason(s) for rejection)

The use a ventral (pelvic) rather than adipose fin clip was considered. We do not favor this option because the additional cost will exceed the savings from not CWTing these fish. It costs more to clip a ventral fin than an adipose fin because it takes more time to locate and properly clip a ventral fin. Using a ventral clip will increase hatchery operation costs. Studies indicate survival of ventral clipped fish is low, so more fish must be reared and released to offset the decrease in survival and supply sufficient adult returns to satisfy angler demand.

Request for Marking Variances
Regional Mark Committee

Please provide the following information when requesting marking variances from the standard tagging and marking established in the "Regional Coordination and Agreements on Marking and Tagging Pacific Coast Salmonids." The information is necessary to assess impacts of the marking variance to the coastwide CWT program.

Please address all of the following items 1-6 in adequate detail (use separate pages).

=====

Agency: _____ DFO _____ Date: _____ March 15, 2011 _____

Marking Coordinator: a) Name: _____ Cheryl Lynch _____ b) Email: cheryl.lynch@dfo-mpo.gc.ca

1. Mark Requested: Adipose clip

2. Details of Marking

- a) Number of fish: 300K
- b) Species and Run : Williams Creek fall sockeye (Lakelse Lake)
- c) Brood year: 2010
- d) Stock(s): Williams Creek fall sockeye (Lakelse Lake)
- e) Hatchery(ies): Snootli Creek
- f) Geographic area(s): Central Coast
- g) Release date: May 2011
- h) Duration of this marking program: 15 days

3. Specific Management and/or Research Objectives:

- Identification of hatchery fish in escapement to see if depressed stock is responding to enhancement.

4. Impact on Coastwide CWT Programs

a) Predicted number observed recoveries by state/province and by year

- Marks should only be detected in escapement

b) Changes to current CWT sampling program

- None

c) Other

5. Specify Expected Benefits

- to determine whether enhancement of this stock is successful

6. Alternatives Considered (specify reason(s) for rejection)

- Other fin clips result in higher levels of mortality. This is a stock of concern, higher mortality not acceptable

Please forward request to: George Nandor
Regional Mark Coordinator
Pacific States Marine Fisheries Commission
205 SE Spokane St., Suite 100
Portland, OR 97202

Telephone: 503-595-3144

Email: george_nandor@psmfc.org Revised 28 March, 2008

Marking Variance Announcement

2011 Mark Committee Meeting

Victoria, British Columbia

April 28-29, 2011

Oregon Department Fish and Wildlife: Ken Johnson (971) 673-6059 (coordinator)

Mark Used: Adipose clip with 100% full code CWTs
Number of Fish: 1,190,000
Species/Run: Spring Chinook
Brood Year: 2010
Stock: McKenzie River
Hatchery: McKenzie
Geographic Area: Upper Willamette River – Oregon
Tagging Date: June -July, 2011
Release Date: Three releases: 11/07/2011; 02/01/2012; 03/01/2012)
Duration: 2nd and last year for full tag codes to used for entire production
(Extended duration for Agency only wire very likely)

Management Objectives:

Overview of Mass Marking Objectives:

Mass marking spring Chinook production at McKenzie Hatchery in the upper Willamette River is part of an ongoing mass marking program to provide fishing opportunity for Willamette Valley hatchery origin spring Chinook while minimizing impacts to wild/natural origin fish. In addition to fishery enhancement, the mass mark program is facilitating hatchery and wild fish escapement accounting in natural spawning areas.

The 2008 Willamette Biological Opinion identifies the McKenzie spring Chinook stock as "*a stronghold population and remains the most productive run of natural-origin spring Chinook in the basin*" (Executive Summary - page 10). Concerns are noted in the BiOP that strays from other Willamette Basin hatcheries would continue to impact this population by decreasing fitness and productivity. Therefore, a sorter/separator site is to be installed at Leaburg Dam on the McKenzie River to create a natural fish sanctuary.

100% Wire Tagging at McKenzie Hatchery (4th Year):

The entire production of McKenzie Hatchery's 1.19 million spring Chinook (McKenzie brood 2010) will be marked with full code CWTs in mid July, 2011 per request of the USACE.

At this point in time, construction has not begun on the sorter and US Army Corps of Engineers (USACE) funding is tight. It is not known when this project will actually start.

Impacts to Coastwide CWT Programs: Table 1 lists the projected coastwide CWT recoveries of the 2010 brood McKenzie stock based on recovery results for brood years 2001-2004. An estimated 651 adipose clipped McKenzie Hatchery spring Chinook (brood 2010) could be encountered over 3-4 years in the various recovery regions from Alaska down through Oregon. Alaska, British Columbia, and Washington would see a total of 60, 52, and 66, respectively, in their fisheries. Not surprisingly, the largest number would be encountered in the Columbia River (367).

Expected Benefits: See Management Objectives above.

Alternatives Considered: None; marking mandated by Biological Opinion for the McKenzie stock.

Date of this Update: April 13, 2011

Table 1. Oregon McKenzie Hatchery Spring Chinook (Brood 2010)
Potential Encounters based on 100% Tagging with full code CWTs

Recovery Region	Fishery	Encounter Rate of CWT Groups BY 2001-2004	Estimated No. of MM Fish Encountered <i>(Encounters spread over 3-4 years)</i> <i>(Col. 3 x 1,190,000 Ad+CWT marked fish)</i>
Alaska	Commercial	0.00005056	60
	Sport	0	0
BC Marine North	Commercial	0.00004395	52
	Sport	0	0
BC Marine South	Commercial	0.00005688	68
	Sport	0	0
Washington	Commercial	0.00005548	66
	Sport	0	0
Columbia River	Commercial	0.00010833	129
	Sport	0.00019991	238
Oregon Coast	Commercial	0.00003219	38
	Sport	0	0
California	Commercial	0	0
	Sport	0	0
TOTAL:			651

* Spring and summer run Chinook fisheries are sampled electronically by ODFW and WDFW. Fall run Chinook fisheries are sampled visually by ODFW and electronically by WDFW.

** Commercial Northern BC fisheries for Chinook are electronically sampled. However, CWTs from unclipped fish are not extracted.