2018 RCMT MEETING

42nd Annual Meeting

Final Minutes

Hosted by: ***USFWS, NWIFC, & WDFW***
Location: *Friday Harbor Laboratories*
620 University Rd, Friday Harbor, WA
Dates: ***April 24, 25 2018***
Meeting rm: ***Commons***

For further meeting information see: 2018-meeting-calander-and-information.html
Other references include: RCMT_Meeting_Minutes_2016.pdf
: RCMT_Meeting_Minutes_2017.pdf
: RCMT 2018 Presentations

APR 24: TUESDAY: 9:00 AM – 4:00 PM

1. General business items (George Nandor /PSMFC)

- Welcome and introductions;
- Next year's mtg – 2019 -- intended to be hosted in Oregon: what dates to consider?
  - Will consider similar dates as this year
  - Options they are considering include: McMenamins Edgefield in Troutdale (location of 2013 Mark Meeting), and Astoria (ODFW could try to assist with coordinating transportation from airport)- email Trevor Clark with comments/ ideas (see Appendix A 'Attendee List')
- The 2020 meeting is intended to be hosted in California;
  - George will get in touch with CA reps to begin discussions on meeting locations
- Alas: Mark Kimbel has retired from WDFW and we must bid him well in absentia(!). We have not heard of a replacement for him, so is there any word on this (e.g. from WDFW)?
  - No permanent replacement identified for him yet; finished interviews early April
  - Jason will email the group once his replacement has been identified
- Review agenda
  - No items were added to the agenda

2. Regional Mark Processing Center operations & announcements (RMPC staff)

A. Status of CWT Datasets (Dan Webb /PSMFC) ***Presentation (see link above)**

Agency acronym updates/ corrections were made this year

Still maintaining a Reporting Agency Contact List under the 'Publications' section of the RMPC website if there are questions/ concerns about an agency's data; let Dan know if there are updates needed to the contact person for your agency; No longer tracking data by specific individuals, but by agency (WDFW needs to update their contact person)

Most recovery agencies have reported up through 2016; 2017 data is still coming in

Two agencies don't report catch/ sample (IDFG, NPT)

No longer experiencing a 3-5 year lag between recovery and reporting of data

Discussion/ Questions:

Carrie- How have requests for missing tag data been coming in to RMPC? Do agencies need to do a better job? Is there still an issue with reporting transfers of tag codes by the release agency? Issue was discussed at previous meetings, but is anyone following the recommendations from that meeting? (releasing agency is the one that needs to report the release data to RMIS) If the tagging agency knows who will be releasing the fish, should they tag the fish with that agency's code?

Dan believes that since RMPC is getting fewer requests to search for missing tag codes, that the agencies are doing a good job of working between themselves to track that data down, rather than involving RMPC in it

Kathy- there are mechanisms in place to purchase a type of tag and tag code that will properly identify transfers and releases; agency codes to identify the buyer of the tags that are getting transferred

Marianne- doesn't like when other agencies buy tag codes with her agency code on it and then she gets the releases and knows nothing about them

NMT- as long as the two agencies are coordinating the tag codes/ prefixes, it doesn't matter to them; agencies can also contact Ray Glaze to find out who from other agencies purchased their tag codes

Bill/ YAKA- email contact list is working well and they can figure it out among themselves

Dan will go back and run a report on Tag Status 7 for agencies to look at, will check to see if there is a release associated with them so they can get validated; it will become a periodic task for him to look back over the last 5 years

Carrie- Based on what Dan knows of the data set and reporting of recoveries, is there a general rule of thumb how far out analysts need to wait before they can begin their analysis?

Dan- there used to be a 3-5 year latency and it is still for sure a 2-year latency; but after that point the majority of the data should be in

NMT- is there a way to indicate on the charts that 'blank boxes' don't really mean missing data? They are populated by who is reporting data, not whose data it is.

B. RMPC, Other Announcements

Dan created web services to assist agencies (look-up type information); if you have a login, you can go to api.rmpc.org/available.html to see the available web services; if agencies give Dan & Jim their search criteria they can build a service or tools around it for them, build specialized queries, etc.

Questions/ Discussion:

Ron- what is the status on conversion of data to version 5.0?

George/ Kathy- it is 'in progress'; Data Standards Working Group is done, Data Sharing hasn't met yet and when they do meet they will determine the timeline for implementation; Data Sharing meeting is dependent on completion of treaty negotiations, so 5.0 is a low priority right now (Canada can't approve making any changes until the treaty work is done)

3. **All-Agency update on:** (Tag-Coordination Representative, ALL-AGENCY Participation)
   - Tagging Levels for 2018.....see tables below
   - Mass Marking for 2018.....see tables below
   - Mark-Selective Fishery Plans &/or Comments.....see tables below

Member agencies (*see Appendix B):

Agency or Organization	2018 Tagging Levels, Mass Marking, MSF Plans, Comments
MIC / Metlakatla Indian Community	**No report**
CRITFC / Columbia R. Intertribal Fish Commission	**No changes**
CDFW / California Department of Fish & Wildlife	**Handout provided (Jason Azat /CDFW)**
CDFO / Fisheries & Oceans Canada	**1 mil Coho CWT (6 mil total production)** **1.5 sockeye mm** **500K steelhead (150K mm)**
ADFG / Alaska Dept. Fish & Game	**Handout provided**
USFWS / U.S. Fish & Wildlife Service	**Handout provided**
IDFG / Idaho Dept. Fish & Game	**Handout provided (Brian Leth /IDFG)**

WDFW / Washington Dept. Fish & Wildlife	**Handout provided** **No major changes; 19 mil CWT, 90 mil MM**
NMFS / National Marine Fisheries Service, Alaska	**156K ad-clip + CWT chinook, 4K ad-clip only**
NWIFC / Northwest Indian Fisheries Commission	**Handout provided** **No major changes; 4.5 mil chinook, 1 mil coho, 100K steelhead; most broodstock goals were met for the year**
ODFW / Oregon Dept. Fish & Wildlife	**Handout provided; goal is to have a CWT group for every species release** **No major changes**

Other reporting agencies:

Agency or Organization	2018 Tagging Levels, Mass Marking, MSF Plans, Comments
CCT / Colville Confederated Tribe(s)	**No report; Note that there is an annual CCT production review available at:** https://cctfnw.squarespace.com/2018-apr **.**
YAKA / Yakama Nation	**Handout provided**
NPT / Nez Perce Tribe	**No report**

4. **Agency Application Process & Bag Tag Methodology** (George Nandor, Dave Knutzen /NMT)
(See ref per above link: minutes, RCMT, 2017, Vancouver: Item #13)
We seek to improve all agencies' understanding of how other agencies are getting their tag recoveries completed. This is related to last year's discussion on labeling & field processes. Consider preparing to discuss some of these issues for your agency / lab as follows (formal presentation is not necessary, ***see also Appendix C- IDFG Methodology**):
   - How are snouts labeled? (bar code, etc.) and transported to the lab (illustrate)?
   - How effective is the snout cutting process? (hatchery setting and mobile settings, cutting board mold/ guillotine, etc.);
   - How is the tag code recorded? Is it digitally read (efficiency) or manually read and transcribed to paper?

   Ken Phillipson / NWIFC
   - 20 tribes in western WA sampling at ≥ 20% in fisheries, 100% at hatcheries.
   - More tribes are getting their own tag labs because:
     - Timeliness of information - they want to know immediately what the tag codes are - particularly as they relate to endangered stocks and in-season management decisions, and for broodstock identification during spawning;

    - They want to keep and maintain their data until it is finalized, and some tribes did NOT want to use cloud-based systems;
    - CWTs are easy to read now
- QDNR and STIL are reporting directly to RMIS and all others report through NWIFC or WDFW.
- Snout and label put in bag together (location date, species, m/f/jack, autonumbered head number, sampling type)
- Chose to keep sample info on big bag label that gets attached to bag of heads; don't have an issue with losing cards/ labels
- use Rite in Rain/ JL Darling for their cards and labels, made from Tyvek (can't rip or destroy, use pencil to write on it)
- All recoveries go on 'recovery sheet' in labs (transcribe head label and bag number, etc,), tape CWT to form, then it gets read and goes through immediate validation (and can correct errors on 1st read if needed)
- WDFW lab works with tribes to apply their validation protocols before it goes into the database
- Ken walked through the manual for new sampling and tag reading Windows Access application (Tagsamp).handout packet. Application is a system with multiple options so the tribes can choose a variety of sampling methods; export will look the same regardless of the method chosen
- Utilize Bluetooth barcode scanners ($60 ea), Tyvek barcodes/ labels at all hatcheries & labs (labels are $800/10K, barcodes at $400/10K, grommeted tag/ labels at $3000/10K- expense due to string being hand-tied)

WDFW/ Gil

- New barcodes for Puget Sound sampling, utilize ruggedized tablets with iForm to collect field data, use tablet camera to scan barcode and it gets associated with all the data collected in the field
- Each snout gets a barcode put in the plastic bag with it; looking at using compostable bags and tags for the future
- Ocean sampling program uses a longer tag through the nares and then bagging
- Discussion within the agency on cost to re-read tags and finding efficiencies in that system

ODFW/ Larry Funston **Presentation* (see link above)**

- PowerPoint
- Snouts are in double-knotted bags, snout ID ticket is placed between the two knots (Rite in Rain paper)
- Process on average 40K snouts/ year
- Use handheld scanners in the field to scan barcode and enter recovery data all at once
- Read every tag twice
- There is an arrangement with Waste Management Co. to recycle/compost snouts

CDFO/ Kathy

- CDFO found the coring machines were not efficient for mixed stock fisheries because tag placement is inconsistent

- Went through the lab's web interface program with the group (backend is Oracle)
- They don't double-bag, they do compost heads, and they use clothing tag punch to attach tags/ labels directly to the snout
- Work only on thawed specimens
- Read every tag twice

ADFG/ Eric

- Commercial and Sport samples are done electronically using ruggedized tablets, do a sync at the end of each day to send data to lab
- Label fish with yellow barcode strap ($5000/ 50K), designed to work like a ziptie around jaw (some processors insist on cutting the heads)
- Recently the strap supplier changed the lamination surface material, so they are working to resolve this issue whereby there is fish slime eroding the ink on the strap
- Bag the bar code & tag when the head arrives in lab
- Read every tag twice, can't re-read your own 1st read

Could 2nd readings be done from a picture taken during the 1st reading? Jake (WDFW) asked if using a computer to read the tags a large number of times and alert one to an inconsistent finding would be something people would be interesting in pursuing. These types of efficiencies would remove the need to retain bags of tags and save the time of having to reposition and read actual tag. Pictures could be used instead of having to box up and mail tags to the release agency. It was pointed out that sometimes it takes more than one side to read the tag.

Agencies are willing to share their methods presented today.

5. **Presentation: "The Salish Sea Marine Survival Project"** (Michael Schmidt /LLTK)

This presentation: "The Salish Sea Marine Survival Project: An update of findings", by Michael Schmidt, Deputy Director of Long Live the Kings has to do with research on salmon and steelhead survival in the Salish Sea, where a downward trend was well documented with CWT data.

Michael Schmidt's ferry was cancelled; no formal presentation

Ron provided a brief update:

CWT data for Western WA showed big difference between inland waters vs coastal/ Columbia River runs; researchers are trying to determine a cause for the difference and the decline in Puget Sound Chinook, Coho and Steelhead, but they didn't have historical datasets or background data on juvenile diets, prey availability, environmental conditions, etc. available to them.

They put a multi-year research project together (currently in year 5 of their research) and are finding a wide range of ecological changes occurring that are having detrimental impacts.

6. **Presentation & Discussion: Parental-Based Tagging** (Christian Smith /USFWS)

PowerPoint presentation * (see link above)

PBT being implemented in CA Central Valley (coho, chinook, steelhead), Snake River Basin (chinook, steelhead), Columbia River (chinook, steelhead), British Columbia (chinook, coho), WA Coast (chinook)

Features of PBT:

- efficient method for marking hatchery production
- allows a larger proportion to be marked
- increases options for population monitoring (mortality, timing, etc.)
- shares several of same limitations as other tag types (sport fishery sampling issues)
- introduces additional challenges (can't do double-index tagging)
- provides additional potentially beneficial information (sex, survival rates of different hatchery families, etc.)
    - most hatcheries doing PBT don't actually collect the types of information it can provide due to resource limitations

PBT can work well in terminal fisheries, more difficult to implement efficiently in mixed stock/ open ocean fisheries (would need for them to all be ad-clipped to visually identify the stocks that have been sampled for PBT)

Recommends revisiting issue in 5 years as it is not currently economically feasible to implement PBT everywhere.

7. **Discussion: How to Report Transboundary Tagging and Recoveries?** (Kathy Fraser /CDFO)

We are seeking inter-agency discussion on issues that may be faced when projects are delivered collaboratively or when fisheries cross state or country boundaries. There should be (may already be) clear responsibilities for defining 'Reporting Agency' to prevent duplication in the integration of data across agencies or double counting.

Specific issues we would like discussion on are:

1) AK/Canada transboundary river collaborative tagging projects: Collaborative tagging projects by AK & Yukon personnel on Taku and Stikine rivers. Tagging location (country) dependent upon camp location but personnel from both countries involved. Currently all tags used are AK tags, reported by AK, resulting in potential misinterpretation of data. Request to have NMT provide 'AK/YK transboundary' tagcode series for such projects. Need advice regarding reporting roles.

    CDFO proposed solution: have NMT produce special agency code for Alaska/ Yukon Transboundary program to make it obvious it's a shared project used on either side of the border. NMT can do that. ADFG has no problem with it on the release side and can work out recovery issues between the two agencies.

2) AK/Canada (Yukon) fishery sampling collaborative projects: Fishery sampling by Yukon personnel with heads going to AK lab. Currently [Yukon] and Canada report with cwt estimates and AK reports as selects (since processed in their lab) resulting in duplication. Need advice regarding reporting roles for recoveries.

Canada has been sending their heads to Alaska's lab, which means the lab data is disconnected from the Canadian sampling project and isn't meeting Canada's need to centralize their project data. Do other agencies deal with this issue? Any advice for CDFO and ADFG to resolve roles?

Within the Columbia River basin, WDFW collects the data and exports it to ODFW for reporting, and vice versa. The two agencies have a pre-sampling meeting with both agency staff before the season begins to set up the protocols to ensure nothing is double-reported.

3) Canada/Washington sport fishery sampling. Canada samples this Canadian fishery and provides estimates irrespective of 'who' is fishing (i.e., including Washington fishers using Canadian licenses in Canadian waters). Washington samples US fishers landing at US ports and provides estimates for subset of Washington harvesters fishing in Canadian fisheries and landing at Washington ports. This results in double counting of US harvesters. Need advice regarding reporting roles/methods. Similar to 'pass-through' sampling?

Records need to be identified to reduce risk of double-counting tags and catch estimates. May be a Data Sharing/ Standards issue. Gil posed question to WDFW's sampling manager, who says US boats fishing in Canada are sampled like any other vessel, the area fished is recorded as Canadian, and that estimates are not included in US catch effort, they are shown as Canadian catch. So there is the possibility for double counting. Canada doesn't estimate boats that fish in US waters. Agencies can work together to come up with a way to identify the double-counting aspect.

ODFW deals with it as 'split trips' and collects info on where the fish were caught.

4) Any similar issues between US states (e.g. On Columbia River – Washington/Oregon?)

See above on Columbia River between WDFW and ODFW

8. [Body Tagging Procedures, Update & Presentation (Rhonda Dasher /CCT)]

[This item was suspended as Rhonda Dasher was unable to attend the meeting.]

9. Special marking requests & announcements for 2018: (George Nandor)

- **Requests & announcements received to date:** (none received)
- **Requests involving use of 'agency-only wire'?** (none received)
- **Other requests?** (none)

10. **Northwest Marine Technology** (Dave Knutzen /NMT)

- Product update
  - Geraldine promoted to one of four key Manager positions in charge of customer service and biological support
  - will have 2 offices after closing of Shaw Island in 2019
  - would love to help out in any way on the CWT detection end of things- can set up trainings as needed
  - still offering $1000 trade in for blue wands to be used toward the purchase of a yellow wand
  - offer trade in on R detectors ($4000 trade in value)
  - 37 AutoFish trailers currently in service; offering trailer rebuilds
  - They are working on development of a tag reading device similar to the existing microscopes in labs, but that may also be able to take pictures of the tags
  - Feel free to be in touch with needs/ ideas/ products that would be useful to have

- Q&A: issues with current equipment & usage, etc.

APR 25: MORNING

Tour: Friday Harbor Labs

[Tour led by FHL Director at 10am will meet in Dining Hall]

Appendix A

2018 Mark Meeting Attendees

*Committee Member or Designee

Name	Agency	Mailing Address/ Telephone/E-mail Address
Bosch, Bill	YAKA	Tel: (509) 945-5475 E-mail: Bill_Bosch@yakama.com
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Appendix B

2018 Agency Marking and Tagging Updates

California CWT Releases, BY 2015-2016

Hat_loc_code	SPECIES_name	Run_name	ROOD_YEA	ALL	CWT	NonCWT	
6FASRROW ROWH	Chinook	Fall	2015	85193	79911	5282	
6FASRROW ROWH	Chinook	Fall	2016	34544	34440	104	
6FBRRDRC WSFH	Coho	Winter	2015	169469	165124	4345	NMFS Coho Broodstock - no adclip
6FBRRDRC WSFH	Coho	Winter	2016				not done with yearling releases
6FCSAAMN NBFH	Chinook	Fall	2015	4167503	1041278	3126225	
6FCSAAMN NBFH	Chinook	Fall	2016	3480764	868883	2611881	
6FCSAFEA FRFH	Chinook	Fall	2015	9217257	2363435	6853822	
6FCSAFEA FRFH	Chinook	Fall	2016	4997811	2033118	2964693	
6FCSAFEA FRFH	Chinook	Spring	2015	2182008	2169398	12610	
6FCSAFEA FRFH	Chinook	Spring	2016	1699791	1687610	12181	
6FCSJMER MRFF	Chinook	Fall	2015	554254	246032	308222	
6FCSJMER MRFF	Chinook	Fall	2016				data not yet available
6FCSJMNFR	Chinook	Fall	2015	56407	56407		both San Joaquin Hatchery locations combi
6FCSJMNFR	Chinook	Fall	2016	38063	36540	1523	
6FCSJMNFR	Chinook	Spring	2015	47560	47560		
6FCSJMNFR	Chinook	Spring	2016	90600	90600		
6FCSJMOK MRFI	Chinook	Fall	2015	6559088	2529258	4029830	
6FCSJMOK MRFI	Chinook	Fall	2016	6419584	2919900	3499684	
6FDSC BC KING	Coho	Fall	2014	20113	19832	281	NMFS Coho Broodstock - no adclip
6FDSC BC KING	Coho	Fall	2015	11346	11301	45	
6FKKLUPR IRGH	Chinook	Fall	2015	4650283	1160540	3489743	
6FKKLUPR IRGH	Chinook	Fall	2016	1439349	359582	1079767	
6FKTRUTR TRHA	Chinook	Fall	2015	2882636	697533	2185103	
6FKTRUTR TRHA	Chinook	Fall	2016				data not yet available
6FKTRUTR TRHA	Chinook	Spring	2015	1542106	366040	1176066	
6FKTRUTR TRHA	Chinook	Spring	2016				data not yet available

FISHERIES and OCEANS CANADA
2018 MARKING PLANS

Species	Project/ Hatchery	Stock	CWT	Mass Marked	Unclipped	Sum of Total Production
Chinook	**Barkley Sd S1**	Robertson Cr	100,000	0	0	100,000
	Big Qualicum R	Big Qualicum R	100,000	0	3,300,000	3,400,000
	Capilano R	Chilliwack R	120,000	0	440,000	560,000
	Chehalis R	Chilko R	50,000	0	0	50,000
		Harrison R	300,000	0	0	300,000
	Chilliwack R	Chilliwack R	200,000	0	800,000	1,000,000
	Cowichan R	Cowichan R	700,000	0	100,000	800,000
	Gillard Pass	Phillips R	90,000	0	60,000	150,000
	Inch Cr	Chilko R	32,000	0	18,000	50,000
	Kitimat R	Kitimat R	200,000	0	1,800,000	2,000,000
	McIntyre Cr	Yukon R	40,000	0	0	40,000
	Nitinat R	Nitinat R	100,000	0	100,000	200,000
		Robertson Cr	100,000	0	0	100,000
		Sarita R	200,000	0	300,000	500,000
	Puntledge R	Puntledge R	210,000	0	1,890,000	2,100,000
	Quinsam R	Quinsam R	650,000	0	2,050,000	2,700,000
	Rivers Inlet	Chuckwalla R	50,000	0	0	50,000
		Kilbella R	50,000	0	0	50,000
		Wannock R	50,000	0	0	50,000
	Robertson Cr	Nahmint R	75,000	0	0	75,000
		Robertson Cr	590,000	0	5,710,000	6,300,000
	San Juan R	San Juan R	40,000	0	0	40,000
	Shuswap R	Shuswap R Low	525,000	0	100,000	625,000
		Shuswap R Middle	150,000	0	0	150,000
	Snootli Cr	Atnarko R Low	200,000	0	650,000	850,000
		Atnarko R Up	200,000	0	0	200,000
	Spius Cr	Chilko R	50,000	0	50,000	100,000
		Nicola R	200,000	0	200,000	400,000
	Tenderfoot Cr	Ashlu Cr	15,000	0	0	15,000
		Cheakamus R	120,000	0	0	120,000
		Mamquam R	30,000	0	0	30,000
		Portage Cr	50,000	0	0	50,000
		Shovelnose Cr	15,000	0	0	15,000
	Terrace	Kitsum Abv Canyon	120,000	0	0	120,000
		Kitsum Bel Canyon	105,000	0	0	105,000
	Toboggan Cr	Bulkley R Up	25,000	0	0	25,000
	Tofino	Bedwell R	80,000	0	5,000	85,000
	Whitehorse	Yukon R	150,000	0	0	150,000
Chinook Total			**6,082,000**	**0**	**17,573,000**	**23,655,000**
Chum	**Snootli Cr**	Snootli Cr		100,000		100,000

	Chum Total			**100,000**	**0**	**100,000**
Coho*	**Alouette R**	Alouette R S		25,000		25,000
	Big Qualicum R	Big Qualicum R	100,000	400,000		500,000
		Puntledge R		100,000		100,000
	Black Cr**	Black Cr	50,000			50,000
	Capilano R	Capilano R		500,000		500,000
	Carnation Cr	Carnation Cr	4,000			4,000
	Chapman Cr	Chapman Cr		70,000		70,000
	Chehalis R	Chehalis R		400,000		400,000
	Chilliwack R	Chilliwack R		800,000		800,000
		Coldwater R	120,000	0		120,000
	Conuma R	Conuma R		150,000		150,000
	Deadman R	Deadman R		30,000		30,000
	Eby Street	Zymacord R	20,000	5,000		25,000
	Fanny Bay/GSVI	Rosewall Cr		50,000		50,000
		Wilfred Cr (Coal)		10,000		10,000
	French Cr	French Cr		30,000		30,000
	Goldstream R	Goldstream R		125,000		125,000
	Hoy Cr	Hoy Cr		5,000		5,000
	Hyde Cr/LWFR	Hyde Cr/LWFR		15,000		15,000
	Inch Cr	Inch Cr	150,000	10,000		160,000
		L Campbell R		40,000		40,000
		Nicomekl R		50,000		50,000
		Norrish Cr		100,000		100,000
		Serpentine R		50,000		50,000
		Stave R		151,000		151,000
	Kanaka Cr	Kanaka Cr		30,000		30,000
	Keogh R	Keogh R	30,000			30,000
	L Campbell R	L Campbell R		70,000		70,000
	Little R/GSVI	Little R/GSVI		35,000		35,000
	Nanaimo R	Nanaimo R		84,000		84,000
	Nitinat R	Nitinat R		150,000		150,000
	Noons Cr	Noons Cr		10,000		10,000
	Oldfield Cr	Oldfield Cr		15,000		15,000
	Oyster R	Oyster R		40,000		40,000
	P Hardy/Marble	Marble R		130,000		130,000
		Washlawlis R		85,000		85,000
	P Hardy/Quatse	Cluxewe R		100,000		100,000
		Quatse R		100,000		100,000
		Waukwaas Cr		100,000		100,000
	Poco Hatchery	Coquitlam R		20,000		20,000
	Puntledge R	Puntledge R	200,000	700,000		900,000
		Trent R		50,000		50,000
	Quinsam R	Quinsam R	140,000	320,000		460,000
	Ravine Pk	Chilliwack R		10,000		10,000
	Reed Point/Ioco	Mossom Cr		4,000		4,000
		Seymour R/GSMN		7,500		7,500

	Robertson Cr	Robertson Cr	40,000	160,000		200,000
	Roy Cr	Roy Cr		30,000		30,000
	Saanich Seapens	Goldstream R		25,000		25,000
	Seymour R	Seymour R/GSMN		40,000		40,000
	Shawnigan Lk Sch	Shawnigan Cr		25,000		25,000
	Slamgeesh R	Slamgeesh R	10,000			10,000
	Sliammon R	Sliammon R		60,000		60,000
	Spius Cr	Coldwater R	65,000	0		65,000
		Eagle R	65,000	0		65,000
		Salmon R/TOMF	25,000	0		25,000
	Tenderfoot Cr	Mamquam R		50,000		50,000
		Tenderfoot Cr		100,000		100,000
	Toboggan Cr	Toboggan Cr	35,000	0		35,000
	Tofino	Cypre R		30,000		30,000
		Kennedy R Up		35,000		35,000
Coho Total			**1,054,000**	**5,731,500**		**6,805,500**
Sockeye	**Inch Sockeye Sat**	Cultus Lk	25,000	175,000		200,000
	Rosewall Cr	Sakinaw Lk	0	1,200,000		1,200,000
	Snootli Cr	Atnarko R	0	86,000		86,000
		Lonesome Lk	0	86,000		86,000
Sockeye Total			**25,000**	**1,547,000**		**1,572,000**
Steelhead	**Alouette R**	Alouette R S				50,000
		Stave R				10,000
	Capilano R	Capilano R		30,000		30,000
	Chapman Cr	Chapman Cr				5,250
	Chehalis R	Chehalis R		65,000		65,000
	Chilliwack R	Chilliwack R		125,000		125,000
	Inch Cr	Stave R		15,000		15,000
	Kitimat R	Kitimat R		50,000		50,000
	L Campbell R	L Campbell R				7,500
	P Hardy/Quatse	Cluxewe R				30,000
		Quatse R				30,000
	Robertson Cr	Robertson Cr		30,000		30,000
		Somass R		70,000		70,000
	Seymour R	Seymour R/GSMN		30,000		30,000
Steelhead Total				**150,000**		**547,750**

** Black Cr does not ad clip tagged Coho

Alaska Department of Fish and Game: Hatchery Enhancement

Estimated 2018 Production by Region

REGION	SPECIES	TAGGED		UNTAGGED			TOTAL RELEASED
		AD + CWT	AD + TM + CWT	TM	AD + TM	NO MARK	
Southeast	Chinook	328,000	538,000	4,314,000	0	2,125,000	7,305,000
	Coho	770,000	175,000	1,613,000	0	21,372,000	23,930,000
	Sockeye	0	0	13,096,000	0	0	13,096,000
	Pink	0	0	55,085,000	0	202,000	55,287,000
	Chum	0	0	505,517,000	0	4,340,000	509,857,000
Region Sub Totals:		1,098,000	713,000	579,625,000	0	28,039,000	609,475,000
Southcentral	Chinook	0	202,000	1,729,000	152,000[1]	0	2,083,000
	Coho	0	0	4,324,000	0	0	4,324,000
	Sockeye	0	0	33,401,000	0	0	33,401,000
	Pink	0	0	719,248,000	0	0	719,248,000
	Chum	0	0	131,100,000	0	0	131,100,000
Region Sub Totals:		0	202,000	889,802,000	152,000[1]	0	890,156,000
Arctic, Yukon, Kuskokwim	Chinook	0	0	25,000	0	0	25,000
	Coho	0	0	13,000	0	0	13,000
	Chum	0	0	63,000	0	0	63,000
Region Sub Totals:		0	0	101,000	0	0	101,000
Westward	Chinook	0	0	0	0	74,000	74,000
	Coho	0	0	223,000	0	1,046,000	1,269,000
	Sockeye	0	0	3,266,000	0	347,000	3,613,000
	Pink	0	0	0	0	66,579,000	66,579,000
	Chum	0	0	14,193,000	0	0	14,193,000
Region Sub Totals:		0	0	17,682,000	0	68,046,000	85,728,000
All Regions	Chinook	328,000	740,000	6,068,000	152,000[1]	2,199,000	9,487,000
	Coho	770,000	175,000	6,173,000	0	22,418,000	29,536,000
	Sockeye	0	0	49,763,000	0	347,000	50,110,000
	Pink	0	0	774,333,000	0	66,781,000	841,114,000
	Chum	0	0	650,873,000	0	4,340,000	655,213,000
Grand Totals:		1,098,000	915,000	1,487,210,000	152,000[1]	96,085,000	**1,585,460,000**

[1] This estimate based on 2017 releases, which may not occur in 2018

Alaska Department of Fish and Game: Hatchery Enhancement

Historic Production

Release Year	SPECIES	TAGGED		UNTAGGED				TOTAL RELEASED
		AD + CWT	AD + TM + CWT	AD	TM	AD + TM	NO MARK	
2014	Chinook	445,742	366,925	6,216[1]	5,800,478	415,187[3]	2,222,594	9,257,142
	Coho	528,104	193,811	13,713[1]	8,316,791	11,841[1]	18,830,708	27,894,968
	Sockeye	0	0	0	59,025,403[2]	0	1,197,487	60,222,890
	Pink	0	0	0	806,865,268	0	209,185,536	1,016,050,804
	Chum	0	0	0	650,972,667	0	10,996,962	661,969,629
Year Totals:		973,846	560,736	19,929	1,530,980,607	427,028	242,433,287	1,775,395,433
2015	Chinook	444,221	857,593	11,070[1]	5,361,124	15,227[1]	2,167,917	8,857,152
	Coho	601,840	296,193	11,910[1]	8,908,454	23,070[1]	17,819,363	27,660,830
	Sockeye	0	0	0	58,339,346[2]	0	277,634	58,616,980
	Pink	0	0	0	770,252,457	0	177,423,968	947,676,425
	Chum	0	0	0	607,938,736	0	10,473,246	618,411,982
Year Totals:		1,046,061	1,153,786	22,980	1,450,800,117	38,297	208,162,128	1,661,223,369
2016	Chinook	296,262	857,445	9,702[1]	6,785,271	20,968[1]	2,369,636	10,339,284
	Coho	620,454	414,034	19,896[1]	12,240,551	4,472[1]	18,976,749	32,276,156
	Sockeye	0	0	0	48,566,690[2]	0	99,969	48,666,659
	Pink	0	0	0	755,361,971	0	138,394,477	893,756,448
	Chum	0	0	0	680,464,563	0	9,560,000	690,024,563
Year Totals:		916,716	1,271,479	29,598	1,503,419,046	25,440	169,400,831	1,675,063,110
2017	Chinook	328,483	740,024	13,931[1]	6,067,398	168,576[4]	2,198,190	9,516,602
	Coho	770,064	175,144	14,148[1]	6,172,778	3,920[1]	22,417,946	29,554,000
	Sockeye	0	0	0	49,763,392[2]	0	347,059	50,110,451
	Pink	0	0	0	774,332,957	0	66,781,231	841,114,188
	Chum	0	0	0	650,873,117	0	4,340,000	655,213,117
Year Totals:		1,098,547	915,168	28,079	1,487,209,642	172,496	96,084,426	1,585,508,358
2018 (est)	Chinook	328,000	740,000	0	6,068,000	152,000[5]	2,199,000	9,487,000
	Coho	770,000	175,000	0	6,173,000	0	22,418,000	29,536,000
	Sockeye	0	0	0	49,763,000	0	347,000	50,110,000
	Pink	0	0	0	774,333,000	0	66,781,000	841,114,000
	Chum	0	0	0	650,873,000	0	4,340,000	655,213,000
Year Totals:		1,098,000	915,000	0	1,487,210,000	152,000[5]	96,085,000	1,585,460,000

[1] These values represent a small portion of coded wire tagged releases that lost their tags prior to release. They were not intentionally released without a CWT

[2] These values include sockeye that Snettisham Hatchery released in BC as part of the TBR enhancement activities. There were 3,852,800 released in 2014; 3,770,900 released in 2015; 3,870,000 released in 2016; and 4,550,000 released in 2017.

[3] In 2014, one hatchery intentionally released 405,723 adipose clipped and thermal marked Chinook without CWTs. The remaining 9,464 adipose clipped and thermal marked Chinook released without CWTs were small portions of coded wire tagged fish that lost their tag prior to release. These fish were not intended to be released without a CWT.

[4] In 2017, one hatchery intentionally released 147,953 adipose clipped and thermal marked Chinook without CWTs. The remaining 20,623 adipose clipped and thermal marked Chinook released without CWTs were small portions of coded wire tagged fish that lost their tag prior to release. These fish were not intended to be released without a CWT.

[5] This estimate based on 2017 releases, which may not occur in 2018

Pacific Northwest USFWS – 2018 Planned Releases of Hatchery Fish – by Mark and Tag Status

production in italics will be released and reported by another agency 17-Apr-18

Hatchery	Species/Run	Stock	CWT+AD	CWT only	AD only	None	Total	Comments
Spring Creek NFH	Fall Chinook	Spring Creek - Tule Falls	405,000	405,000	9,690,000	0	10,500,000	John Day Mitigation (JDM) funded
Little White Salmon NFH	URBs	Little White Salmon - URB Falls	200,000	200,000	4,100,000	0	4,500,000	JDM funded program increased in 2015
Willard NFH	URBs	Little White Salmon - URB Falls	100,000	100,000	1,800,000	0	2,000,000	Mitchell Act (MA) funded program
Little White Salmon NFH	URBs	Little White Salmon - URB Falls	200,000	0	1,500,000	0	1,700,000	JDM funded YN-Prosser transfer
Entiat NFH	Summer Chinook	Entiat - Summers 1+	220,000	0	200,000	0	420,000	Bureau Reclamation (BR) funded
Carson NFH	Spring Chinook	Carson - Springs 1+	75,000	0	1,045,000	0	1,120,000	Mitchell Act (MA) funded program/Mass Marking & CWT'ing funded by mass marking congressional funds.
Carson NFH	Spring Chinook	Carson - Springs 1+	50,000	0	200,000	0	250,000	MA Walla Walla R. release/Mass marking and CWT'ing funded by mass marking congressional funds
Little White Salmon NFH	Spring Chinook	Little White Salmon - Springs 1+	75,000	0	925,000	0	1,000,000	MA/Mass marking funded by mass marking congressional funds/CWT'ing funded by BPA (final year)
Warm Springs NFH	Spring Chinook	Warm Springs - Springs 1+	540,000	0	0	0	540,000	
Leavenworth NFH	Spring Chinook	Leavenworth - Springs 1+	200,000	0	1,000,000	0	1,200,000	BR funded
Winthrop NFH	Spring Chinook	Methow - Springs 1+	403,000	0	0	0	403,000	BR funded.
Kooskia NFH	Spring Chinook	Kooskia - Springs 1+	100,000	0	350,000	50,000	500,000	USFWS funded
Dworshak NFH	Spring Chinook	Dworshak - Springs 1+	120,000	0	1,380,000	0	1,500,000	LSRCP funds the chinook production here not ACOE.
Eagle Creek NFH	Spring Chinook	Willamette - Springs 1+	25,000	0	215,000	0	240,000	ODFW marked. Started in 2012 Brood, 2014 Release.
Coleman	Late Fall	Sacramento	1,100,000	0	0	0	1,100,000	
Coleman	Fall Chinook	Sacramento	3,000,000	0	0	9,000,000	12,000,000	25% constant fractional tagging. This is the standard yearly target; however, there are concerns this will not be met this year (BY17, spring 2018 release)
Livington Stone	Winter Chinook	Sacramento	210,000	0	0	0	210,000	
Livington Stone	Winter Chinook	Sacramento	230,000	0	0	0	230,000	Release of captive broodstock progeny into Battle Creek
Makah NFH	Fall Chinook	Tsoo-Yess River Falls	200,000	0	1,000,000	0	1,200,000	did not meet brood goal of producing 2.7 million releases
Chinook Total	Ad-clipped % =	76%	7,453,000	705,000	23,405,000	9,050,000	40,613,000	
Eagle Creek NFH	Coho	Eagle Creek - 1+	25,000	25,000	300,000	0	350,000	
Eagle Creek NFH	*Coho*	*Clearwater River - 1+*	*30,000*	*0*	*277,500*	*0*	*307,500*	*Clear Cr. Release - NPT restoration*
Eagle Creek NFH	*Coho*	*Clearwater River - 1+*	*30,000*	*0*	*277,500*	*0*	*307,500*	*Lapwai Cr. Release - NPT restoration*
Eagle Creek NFH	*Coho*	*Eagle Creek/Yakima R. - 1+*	*0*	*0*	*500,000*	*0*	*500,000*	*Yakima R. Release - YN restoration*
Willard NFH	*Coho*	*Wenatchee R. - 1+*	*0*	*660,000*	*0*	*0*	*660,000*	Wenatchee R. Release - YN restoration. Release target total beginning BY2015 and ending BY2017 is 1,000,000
Cascade Hatchery	*Coho*	*Wenatchee R. - 1+*	*0*	*667,000*	*0*	*0*	*667,000*	Wen. R. Rel. - (Tagged by FWS) YN restoration .
Winthrop NFH	*Coho*	*Wenatchee R. - 1+*	*0*	*275,000*	*0*	*0*	*275,000*	*YN restoration program - 125,000 PBT (no mark)*
Makah NFH	Coho fry	Cook Creek/Quinault	0	0	180,000	0	180,000	*fry release*
Makah NFH	Coho smolts	Tsoo-Yess River	55,000	0	143,000	0	198,000	Goal was 230K; however, lack of water resulted in some released as fry before they were marked
Quinault NFH	Coho	Cook Creek	80,000	0	580,000	0	660,000	DIT program discontinued with BY 12
Quicene NFH	Coho	Big Quilcene River	72,000	72,000	256,000	0	400,000	
Quicene NFH NP	Coho	Big Quilcene River	40,000	0	160,000	0	200,000	*Quilcene Bay Net Pens - usually reported by NWIFC, but these will be released on-station in 2018 and reported by FWS*
Coho Total	Ad-clipped % =	64%	332,000	1,699,000	2,674,000	0	4,705,000	
Winthrop NFH	Steelhead	Wells/Methow	220,000	0	0	0	220,000	Release target is 200k for 2017 and beyond
Eagle Creek NFH	Steelhead	Eagle Creek	0	0	95,000	0	95,000	MOA states 95,0000 as targeted release
Abernathy FTC	Steelhead	Abernathy	5,400	0	0	0	5,400	Release target is 20k. BPA funding ended in 2017. One final release of 5,400 in spring 2018
Dworshak NFH	Steelhead	Dworshak	180,000	0	2,000,000	0	2,180,000	Future plans are to continue tagging 180k
Dworshak NFH	Steelhead	Dworshak	0	0	0	200,000	200,000	
Hagerman NFH	Steelhead	Salmon River	80,000	0	1,020,000	0	1,100,000	
Coleman	Steelhead	Coleman NFH	0	0	600,000	0	600,000	down from 700k in the previous yr
Makah NFH	Steelhead	Tsoo-Yess River	0	0	175,000	0	175,000	goal is now 180,000
Quinault NFH	Steelhead	Cook Creek/Quinault	20,000	0	160,000	0	180,000	
Steelhead Total	Ad-clipped % =	96%	505,400	0	4,050,000	200,000	4,755,400	
Quinault NFH	Chum Salmon	Cook Creek/Quinault	0	0	0	1,850,000	1,850,000	
Chum Total	Ad-clipped % =	0%	0	0	0	1,850,000	1,850,000	
		Total	8,290,400	2,404,000	30,129,000	11,100,000	51,923,400	

IDFG production plans and marking/tagging for 2018

Mass Marking - With the exception of some limited releases intended for supplementation or specific broodstock management purposes, most spring/summer chinook salmon (93%) and steelhead (85%) are mass marked with an adipose fin clip (see tables below).

Mark Selective Fisheries- Recreational fisheries for Chinook salmon and steelhead in Idaho are mark selective. Tribal fisheries in Idaho are non-selective.

Brood Year 2017 Spring/Summer Chinook and Sockeye Salmon Production Plan Marking/Tagging in 2018

				Marks & Tags				
Species	**Fish Hatchery**	**Stock**	**Release Site**	**AD**	**AD/CWT**	**CWT**	**PBT Only**	**Grand Total**
Chinook	Clearwater	S.F. Clearwater R.	Red River Pond	1,160,000	120,000			1,280,000
		Kooskia/Dworshak	Clear Creek	600,000	120,000			720,000
			Lower Selway R.	145,000	120,000	135,000		400,000
			NF Clearwater	321,000	389,000			710,000
		Powell (summers)	Powell Pond	200,000	120,000	120,000	200,000	640,000
	Clearwater Total			2,426,000	869,000	255,000	200,000	3,750,000
	McCall	S.F. Salmon R.	Knox Bridge S.F. Salmon R. (Seg)	730,000	120,000			850,000
			Knox Bridge S.F. Salmon R. (Int)			150,000		150,000
	McCall Total			730,000	120,000	150,000		1,000,000
	Pahsimeroi	Pahsimeroi	Pahsimeroi R. (Seg)	680,000	120,000			800,000
			Pahsimeroi R. (Int)			65,000		65,000
	Pahsimeroi Total			680,000	120,000	65,000		865,000
	Rapid River	Rapid River	Hells Canyon	350,000				350,000
			Little Salmon	150,000				150,000
			Rapid River	2,380,000	120,000			2,500,000
	Rapid River Total			2,880,000	120,000			3,000,000
	Sawtooth	Upper Salmon R.	Yankee Fork		100,000			100,000
			Sawtooth weir (Seg)	880,000	120,000			1,000,000
			Sawtooth weir (Int)			80,000		80,000
	Sawtooth Total			880,000	220,000	80,000		1,180,000
	Springfield	Upper Salmon R.	Yankee Fork		100,000			100,000
	Springfield Total				100,000			100,000
Chinook Total				**7,596,000**	**1,549,000**	**550,000**	**200,000**	**9,895,000**
Sockeye	Sawtooth	Snake R.-Redfish L	Upper Salmon R. & Redfish Lake Cr.	300,000				300,000
	Sawtooth Total			300,000				300,000
	Springfield	Snake R.-Redfish L	Upper Salmon R. & Redfish Lake Cr.	450,000				450,000
	Springfield Total			450,000				450,000
Sockeye Total				**750,000**				**750,000**

Does not include spring Chinook production from Dworshak National Fish Hatchery (USFWS/NPT), Kooskia National Fish Hatchery (NPT), or Nez Perce Tribal Hatchery (NPTH), or Fall Chinook from NPTH. Also, does not include Fall Chinook production (1.0M sub-yearlings) from the Idaho Power Company because these fish are reared and marked/tagged at Irrigon Fish Hatchery in Oregon.

IDFG-Brood Year 2018 Summer Steelhead Produciotn Pan- Marking/Tagging in 2018

			Marks & Tags			
Fish Hatchery	Release Site	Stock	AD	AD/CWT	CWT Only	Grand Total
Clearwater	Newsome Cr.	SFCLW			123,000	123,000
	Red House Hole	SFCLW	219,000			219,000
	Meadow Cr	SFCLW	291,000		210,000	501,000
Clearwater Total			510,000		333,000	843,000
Hagerman National	Sawtooth Weir	SAWA	1,230,000			1,230,000
	Upper EF.Salmon R. (Weir)	EFNat			60,000	60,000
	Sawtooth Weir (Control)	SAWA		180,000		180,000
	Sawtooth Weir (PRAS)	SAWA		90,000		90,000
Hagerman National Total			1,230,000	270,000	60,000	1,560,000
Magic Valley	Pahsimeroi Trap	DWOR			93,000	93,000
		USAL			155,000	155,000
	Sawtooth Weir	SAWA	279,000			279,000
	Little Salmon R.	DWOR/US	217,000			217,000
		PAH	186,000			186,000
	Yankee Fork	DWOR/US	403,000		217,000	620,000
Magic Valley Total			1,085,000		465,000	1,550,000
Niagara Springs	Hells Canyon Dam	OX	550,000			550,000
	Pahsimeroi Trap	PAH	800,000			800,000
	Little Salmon R.	PAH	200,000			200,000
		OX	250,000			250,000
Niagara Springs Total			1,800,000			1,800,000
Grand Total			4,625,000	270,000	858,000	5,753,000

Does not include production from Dworshak National Fish Hatchery (USFWS/NPT).

WA 2018 WDFW and Tribal Mass Marking and Coded-Wire Tagging Plans

10/20/2017

		Number of fish to be released with a CWT		Number of fish to be released without a CWT		
Area	Species	Ad Clipped	Unclipped	Ad Clipped	Unclipped	Total Production
Puget Sound	Spring Chinook	877,500	1,795,000	710,000	800,000	4,182,500
	Summer Chinook	820,000	300,000	3,200,000	0	4,320,000
	Fall Chinook	3,265,000	1,925,000	28,015,000	3,250,000	36,455,000
	Coho	1,240,000	300,000	11,119,000	0	12,659,000
Coast	Spring Chinook	0	50,000	0	0	50,000
	Summer Chinook	150,000	0	170,000	0	320,000
	Fall Chinook	800,000	400,000	7,200,000	0	8,400,000
	Coho	300,000	300,000	4,420,000	0	5,020,000
Columbia R.	Spring Chinook	1,392,670	600,000	3,221,899	0	5,214,569
	Summer Chinook	2,247,001	0	0	0	2,247,001
	Fall Chinook	3,925,000	825,000	26,949,543	0	31,699,543
	Coho	1,518,000	720,000	7,460,000	0	9,698,000
Total	Spring Chinook	2,270,170	2,445,000	3,931,899	800,000	9,447,069
	Summer Chinook	3,217,001	300,000	3,370,000	0	6,887,001
	Fall Chinook	7,990,000	3,150,000	62,164,543	3,250,000	76,554,543
	Coho	3,058,000	1,320,000	22,999,000	0	27,377,000
Grand Total		16,535,171	7,215,000	92,465,442	4,050,000	120,265,613

ODFW: 2018 FISH MARKING PROGRAM

2018 PRODUCTION					
STOCK	TAGGED (CWT)		UNTAGGED		
	AD+CWT	CWT only[1]	AD Clip	No AD Clip	Total Marked
Spring Chinook	2,952,000	290,000	9,592,100	55,000 **(LM only)**	12,889
Fall Chinook	*2,755,000*	0	9,915,100	*300,000* ***(LV only clip)***	12,970
Coho	365,000	100,000	4,709,000	0	5,174
Sum. Steelhead	315,000	0	1,657,000	25,000	2,022
Win. Steelhead	0	0	762,000	0	762
Chum	0	0	40,000	0	40
Sockeye	0	0	0	0	0
TOTALS:	**6,387**	**415**	**26,675**	**380**	**33,857**

1) ODFW no longer is marking any DIT groups for Chinook or coho. The 'CWT Only' marked fish are limited to conservation purposes.

2) Fall Chinook 'Ad Clip' includes 300,000 '**AD Agency only wire**' used to mark Little White Salmon stock at Umatilla Hatchery.

3) Left Max only clip used at Wizard Falls to identify Warm Springs Hatchery spring Chinook in the upper Deschutes R drainage.

4) Fall Chinook 'No AD Clip' total is 300,000 LV clipped Rogue stock marked for Select Area Fisheries Enhancement (SAFE) terminal fishery in Youngs Bay (lower Col. R).

5) Coho: The 100,000 'CWT only' fish are Umatilla 9115 stock reared at Cascade Hatchery.

Comparison of AD+CWT and AD Clip Only Marks (2011 - 2018)						
	Spring Chinook		Fall Chinook		Coho	
Year	AD+CWT	AD Clip only	AD+CWT	AD Clip only	AD+CWT	AD Clip only
2011	4,130,000	8600000	2,665,000	16,760,000	250,000	5,330,000
2012	3,210,000	9265000	2,955,000	15,775,000	350,000	5,494,000
2013	2,825,000	7285000	2,860,000	18,740,000	300,000	5,585,000
2014	2,710,000	9278000	2,820,000	18,691,000	300,000	5,187,000
2015	2,749,000	9783000	3,305,000	13,289,000	390,000	5,927,000
2016	2,780,000	9,456,200	3,200,000	13,638,500	365,000	5,762,000
2017	2,112,000	9,647,250	4,190,000	11,028,100	415,000	5,660,000
2018	**2,952,000**	**9,592,100**	**2,755,000**	**9,915,100**	**365,000**	**4,709,000**

2018 ODFW FISH PRODUCTION AND MARKING PROGRAM

			No. Tagged x1000		No. Untagged x 1000		
Hatchery	**Species**	**Stock / Br Year**	**AD+CWT**	**CWT Only**	**AD Clip**	**No AD Clip**	**Release**
NORTH OREGON COAST							
Cedar Creek	ChS	Nestucca 4717	25	0	205	0	Nestucca, Three Rivers
	ChS	Trask-3417	30	0	185	0	Trask R
	Co	Big Cr 1317	25	0	350	0	Klaskanine R
		Totals:	**80**		**740**		
Trask	ChS	Trask 3417	30	0	120	0	Trask R
	ChF	Trask 3417	0	0	158	0	Trask R
	StW	Wilson R 12118	0	0	110	0	Wilson R
		Totals:	**30**		**388**		
Salmon R	ChF	Salmon R 3617	**200**				Salmon R
	Co	Trask 3417	0	0	100	0	Trask R
	Co	Fish Lake 9917	0	0	100	0	N. Nehalem R
	StW	Nehalem 3218	0	0	132	0	N. Nehalem R
		Totals:			**332**		
SOUTH OREGON COAST							
Millicoma	ChF	Coos 3717	**30**	0	**70**	0	Millicoma R.
Morgan Cr.	ChF	Coos 3717	**30**	0	**615**	0	Morgan Cr
Noble Creek	ChF	Coos 3717	**30**	0	**570**	0	Noble Creek
Cole Rivers	ChS	Rogue 5217	180	0	1728.1	0	Rogue R
	ChF	Coos 3717	30	0	170	0	Morgan Cr (Coos Bay)
	ChF	Coquille 4417	0	0	144.6	0	Morgan Cr (Coos Bay)
	Co	Rogue 5217	25	0	50	0	Rogue R
	StS	Rog-5218	0	0	300	0	Rogue R.
	StW	Coos-3718	0	0	170	0	Coos Area
	StW	Ten-8818	0	0	30	0	Ten ML Area
		Totals:	**235**		**2592.7**		
Indian Creek	ChF	L Rogue 6117	25		**65**	0	Rogue R
Bandon	ChF	Coos-3717	0	0	10	0	Ferry Cr.
	ChF	Coos-3717	0	0	100	0	Fourth Cr.
	ChF	Coos-3717	0	0	200	0	Blossom Gl.
	ChF	Coos-3717	0	0	242.5	0	Morgan Cr.
		Totals:	**0**		**552.5**		
Elk River	ChF	Elk R 3517	255	0	0	0	Elk R.
	ChF	Chetco 9617	25	0	115	0	Chetco R.
	ChF	Chetco 9617	25	0	10	0	Ferry Cr.
		Totals:	**305**		**125**		
COLUMBIA RIVER							
Big Creek	ChS	Clackamas 1917	25	0	225	0	Gnat Creek
	ChF	Big Cr 1317	400	0	1850	0	Big Creek
	ChF	Big Cr 1317	50	0	2350	0	Klaskanine
	Co	Big Cr 1317	50	0	685	0	Big Creek
	Co	Big Cr 1317	25	0	385	0	LHC / Klask
	Chum	Big Cr 1317	0	0	40	0	Big Creek
	StW	Big Cr 1317	0	0	150	0	Big Creek
		Totals:	**550**		**5685**		

			No. Tagged x1000		No. Untagged x 1000		
Hatchery	**Species**	**Stock/Br Yr**	**AD+CWT**	**CWT Only**	**AD Clip**	**No AD Clip**	**Release**
Klaskanine	ChF	Rogue 5217	100	0	0	300 (LV only)	N Fk Klaskanine R
	Co	Big Cr 1317	25	0	575	0	N Fk Klaskanine R
		Totals:	**125**		**725**	**300**	
Gnat Creek	ChS	Mck-2317	25	0	375	0	Youngs Bay
	ChS	Mck-2317	25	0	125	0	Blind Slough
	ChS	Mck-2317	25	0	375	0	Gnat Creek
		Totals:	**75**		**875**		
Bonneville	ChF	Tann-1417	150	0	1450	0	Tanner Cr
	ChF	URB-4517	400	0	3220	0	Ringold
	ChS	Clack-1917	50	0	300	0	Clackamas
	Co	Tann-1417	25	0	520	0	Tongue Pt
	StS	S Santiam 2418	0	0	225	0	S. Santiam R
	StW	Clackamas 12218	0	0	100	0	Clackamas R
		Totals:	**625**		**5815**		
Sandy R	Co	Sandy 1117W	25	0	185	0	Sandy R, Blind Slough
	ChS	San 1117	140	0	0	0	Sandy R
	StW	Sandy 1118W	0	0	170	0	Sandy R
		Totals:	**50**		**355**		
Cascade	Co	Umatilla 9117	0	100	400	0	Umatilla R
	Co	Nez Perce 8517	90	0	414	0	Lostine River
		Totals:	**90**	**100**	**814**		
Oxbow	ChS	S. Sant-2417	132	0	0	0	Sandy R (Bull Run)
	Co	Tann-1417	25	0	385	0	Blind Slew
	Co	Tann-1417	25	0	385	0	Tong Point
	Co	Tann-1417	25	0	175	0	S Fk Klaskanine
		Totals:	**207**		**945**		
Round Butte	ChS	Deschutes 6617	255	0	140	0	Deschutes R (Pelton ladder)
	ChS	Hood R 5017	0	0	80	0	
		Totals:	**255**		**220**		
Wizard Falls	ChS	Desc-6617	0	0	0	55 (LMax)	Upper Deschutes R
	StS	Desc 6618	0	25	0	25 (LMax)	Upper Deschutes R
		Totals:		**25**		**80**	
Irrigon	ChF	Snake R 9717	400	0	800	0	LGr Ronde, Hells Canyon
	StS	Little Sheep 2918	25	0	190	0	Little Sheep Creek
	StS	Wallowa 5618	100	0	220	0	Big Canyon
	StS	Wallowa 5618	0	0	140	0	Outside ODFW
	StS	Wallowa 5618	150	0	190	0	Wallowa R.
		Totals:	**675**		**1540**		

			No. Tagged x1000		No. Untagged x 1000		
Hatchery	**Species**	**Stock/Br Yr**	**AD+CWT**	**CWT Only**	**AD Clip**	**No AD Clip**	**Release**
Umatilla	ChF	Umatilla 9117	300	0	300	0	Umatilla R
	ChS	Umatilla 9117	0	165	0	0	Umatilla R
	ChS	Umatilla 9117	40	0	400	0	Imeques
	ChS	Umatilla 9117	50	0	170	0	Thornhollow
	StS	Umatilla 9118	40	0	110	0	Umatilla R.
		Totals:	**430**	**165**	**980**		
WILLAMETTE RIVER							
Eagle Creek	ChS	Clackamas 1917	40	0	200	0	Eagle Creek
	StW	Eagle-122H18	0	0	100	0	Eagle Creek
		Totals:	**40**		**300**		
Elk River	ChF	Elk-3517	255	0	0	0	Elk R.
	ChF	Chet-9617	25	0	115	0	Chetco R.
	ChF	Chet-9617	25	0	10	0	Ferry Cr.
		Totals:	**305**		**125**		
Marion Forks	ChS	N San-2117	50	0	400	0	Tongue Pt, Blind Slough
	ChS	N San-2117	25	0	275	0	Youngs Bay
	ChS	N San-2117	25	0	25	0	Trout Cr.
	ChS	N San-2117	50	0	654	0	N. Santiam R
		Totals:	**150**		**1354**		
S. Santiam	StS	S Santiam 2418	0	0	**282**	0	S. Santiam R
McKenzie	ChS	McKenzie 2317	**300**	0	**500**	0	McKenzie R
Willamette	ChS	Willamette 2217	500	0	1247	0	Willamette R (Dexter)
	ChS	Willamette 2217	75	0	192	0	Willamette Coast Fork
	ChS	Willamette 2217	0	0	100	0	Hills Creek
	ChS	S Santiam 2417	110	0	758	0	S. Santiam R
	ChS	S Santiam 2417	0	0	269	0	Various
		Totals:	**685**		**2566**		
SNAKE RIVER							
Lookingglass	ChS	Grande Ronde 8015	125	125	0	0	Upper Grande Ronde
	ChS	Lostine 20015	120	0	150	0	Lostine R
	ChS	Catherine Cr 20115	120	0	10	0	Catherine Creek
	ChS	Lookingglass 8015	140	0	124	0	Lookingglass R
	ChS	Imnaha 2915	240	0	260	0	Imnaha R
		Totals:	**745**	**125**	**544**		

* All production fish marking totals are preliminary and based on January 2018 projections.

Fish Id Project Manager: Trevor R Clark; trevor.t.clark@state.or.us; Telephone: 971-673-6059

Yakama Nation -- update

From: Bill Bosch
To: Jim Longwill
Cc: MCCM@critfc.org; Bill Sharp; Bill Sharp (shab@yakamafish-nsn.gov); Jason Rau (jayrau@ykfp.org); Cory Kamphaus; Todd Newsome; Melinda Davis; Bill Fiander
Subject: RE: RCMT 2018 Meeting – Draft Agenda + Preparation
Date: Thursday, March 29, 2018 4:01:01 PM

Our releases are expected to be reduced compared to recent years' releases due to low brood returns of some species.

Approximate Yakama Nation Planned 2018 releases:

Yakima Basin
- Spring Chinook: ~669,500 total release (89% CWT in snout, 11% CWT in post-dorsal)
- Fall Chinook (subyearlings):
  - LWS NFH transfers released from Prosser, ~0.4m total release, 10% CWT
  - Ringold Hatchery transfers released from Prosser, ~150,000 total release, 10% CWT
  - Prosser URBs released from Prosser, ~330,000, 20% PIT, no CWT
- Summer Chinook: ~70,000 Wells stock released from Yakima R. acclimation sites, 100% CWT
- Sockeye: natural-origin progeny of adult plants; minimal marking (PIT) at downstream juvenile sampling stations
- Coho: ~0.6million total release, ~63% CWT- all blank wire tag

Mid-Columbia Coho: ~0.8million total release, ~53% CWT (of which some blank wire tag)

Klickitat Basin
- Spring Chinook: ~300,000 total release, ~25% CWT
- Fall Chinook: ~1.5m total release, ~15% CWT
- Coho:
  - Lewis stock released from Klick. Hatchery, ~0.7m, ~5% CWT
  - Washougal stock direct released in lower Klick. R., ~1.5m, <5% CWT

Bill Bosch, Data Manager
Yakama Nation Fisheries
Yakima-Klickitat Fisheries Project
509-972-8847
3/29/2018

Appendix C

Idaho Fish and Game CWT Procedures

1) Snout bags
   - Idaho uses labeled bags with a corresponding CWT Snout Data Card
   - Labels printed on Avery Print Labels, attached to zip-loc bag and covered with packing tape
   - Bag labels contain:

     o Year (the year of the recovery). Ex. 10 (for year 2010)
     o Letter denoting location. Ex. S (Sawtooth Hatchery)
     o Letter denoting the recovery type. Ex. S (Steelhead Rack)
     o Bag #. Ex. 001, 002, 003…
     o Description of the bag's use. Ex. Sawtooth Steelhead Rack Recovery

     Label for 2010 Sawtooth Steelhead rack looks like:

10SS001

Sawtooth Steelhead Rack

   - Snout Data Cards are printed on 'Rite in the Rain' paper and contain the following:

     o Section #: Used only on creel and spawning ground surveys.
     o Bag #: The sample number.
     o Date: The date the snout was collected.
     o Length: The length of the fish.
     o Sex: The gender of the fish.
     o Marks: Any marks on the fish (Ex. adipose clipped (AD)).

   - All Snout bags are assembled at the CWT lab and distributed to field crews

2) Snout transportation from field to lab.
   - Snouts are transported through coordination between CWT Lab and field crews. Transported to the lab by field personal.
     o Field crews send an electronic inventory sheet to lab and a hard copy with snouts.

3) CWT extraction process
   - Snouts are extracted in a lab setting
     o Lab tech uses a cutting board, V box, and knife for extractions

4) CWT code reading and recording
   - CWTs are manually read with a dissecting microscope fitted with a digital camera.
     o CWT code is transcribed then attached to a data sheet.
       - A digital picture of the tag is taken and archived.