Alaska Department of Fish and Game: Hatchery Enhancement

			Rec	ent Hatchery Prod	duction			
RELEASE YEAR	SPECIES	TAG	GGED		UNTA	GGED		TOTAL RELEASED
RELEASE TEAR	3FECIES -	AD + CWT	AD + TM + CWT	AD	TM	AD + TM	NO MARK	- TOTAL RELEASED
	Chinook	414,026	680,897	¹ 45,689	6,109,010	¹ 303,685	2,039,914	9,593,221
	Coho	715,942	191,776	¹ 21,928	8,847,815	¹ 6,692	20,897,556	30,681,709
2019	Sockeye	0	0	0	² 42,606,536	15,230	0	42,621,766
	Pink	0	0	0	816,764,027	0	117,946,803	934,710,830
	Chum	0	0	0	689,578,906	0	0	689,578,906
	Year Totals:	1,129,968	872,673	67,617	1,563,906,294	325,607	140,884,273	1,707,186,432
	Chinook	534,275	524,810	¹ 11,716	6,582,592	¹ 308,633	2,684,759	10,646,785
	Coho	834,060	188,418	¹ 16,817	8,965,895	¹ 4,751	26,847,648	36,857,589
2020	Sockeye	034,000	0	16,817	² 44,907,932	4,751 0	20,847,048	44,907,932
2020	Pink	0	0	0	44,907,932 873,683,659	0	762,491	874,446,150
	Chum	0	0	0	768,097,239	0	120,000	768,217,239
	Year Totals:	1,368,335	713,228	28,533	1,702,237,317	313,384	30,414,898	1,735,075,695
	real Totals.	1,300,333	/13,220	20,333	1,702,237,317	313,364	50,414,696	1,733,073,093
	Chinook	235,862	538,811	¹ 2,322	7,374,656	¹ 310,584	1,120,479	9,582,714
	Coho	747,812	257,170	¹ 19,116	14,992,077	¹ 2,752	22,252,242	38,271,169
2021	Sockeye	0	0	0	² 43,024,537	0	383,941	43,408,478
	Pink	0	0	0	869,213,697	0	1,340,307	870,554,004
	Chum	0	0	0	720,607,491	0	30,000,000	750,607,491
	Year Totals:	983,674	795,981	21,438	1,655,212,458	313,336	55,096,969	1,712,423,856
	Chinook	285,608	1,040,182	^{1,3} 942,833	6,150,411	^{1,3} 1,690,741	550,526	10,660,301
	Coho	843,841	234,912	¹ 22,217	13,876,421	¹ 2,510	20,281,672	35,261,573
2022	Sockeye	0	0	0	² 42,118,063	0	584,983	42,703,046
	Pink	0	0	0	1,033,865,173	0	5,186,382	1,039,051,555
	Chum	0	0	0	729,657,802	0	30,800,000	760,457,802
	Year Totals:	1,129,449	1,275,094	965,050	1,825,667,870	1,693,251	198,404,232	1,888,134,277
	Chinook	270,535	985,285	^{1,3} 893,074	4,970,768	^{1,3,4} 2,448,667	552,427	10,120,755
	Coho	270,535 785,414	218,069	¹ 20,020	4,970,768 11,670,552	¹ 4,176	22,569,780	35,268,010
2023 (est)	Sockeye	765,414	218,069	20,020	, ,	4,176 3,808	242,231	43,410,306
2023 (631)	Pink		_	0	² 43,164,267	3,808	,	
	Chum	0 0	0	0	898,381,639 726,985,360	0	31,308,996 15,230,000	929,690,635 742,215,360
	Year Totals:	1,055,948	1,203,354	913,093	1,685,964,650	1,664,586	69,903,433	1,760,705,065
	icai iotais.	1,033,946	1,203,334	313,033	1,003,304,030	1,004,360	05,505,453	1,700,705,005

¹ These values include small portions of coded wire tagged releases that lost their tags prior to release. They were not all intended to be released without a CWT

² These values include sockeye that Snettisham Hatchery releases in BC as part of the TBR enhancement activities. There were 3,618,900 released in 2019; 4,569,300 released in 2020; 1,930,000 released in 2021; and 2,982,600 released in 2022. We estimate that ~2.3million will be released in 2023.

³ These values include mass marked Chinook that Southern Southeast Regional Aquaculture Association (SSRAA) began releasing for the first time in 2022. They intend to continue releasing mass marked Chinook.

⁴ This value includes the first mass marked releases from Macaulay Hatchery (operated by DIPAC). They also plan to otolith mark all of these fish. They will likely continue releasing mass marked Chinook in the future.

Alaska Department of Fish and Game: Hatchery Enhancement

Projected 2023 Hatchery Production by Region

REGION	SPECIES	TAG	GED		UNTA	GGED		TOTAL RELEASED
REGION	SPECIES	AD + CWT	AD + TM + CWT	AD	TM	AD + TM	NO MARK	- IOIAL KELEASED
	Chinook	270,535	985,285	^{1,3} 893,074	3,110,622	^{1,3} 2,165,867	513,753	7,939,135
	Coho	785,414	218,069	¹ 20,020	4,634,954	¹ 4,176	21,990,338	27,652,970
Southeast	Sockeye	0	0	0	² 10,222,400	0	0	10,222,400
	Pink	0	0	0	51,289,047	0	1,889,730	53,178,777
	Chum	0	0	0	571,704,096	0	15,230,000	586,934,096
Regio	n Sub Totals:	1,055,948	1,203,354	0	640,961,118	2,170,043	39,623,821	685,927,379
	Chinook	0	0	0	1,859,072	282,800	1,889	2,143,761
	Coho	0	0	0	5,758,536	0	1,063	5,759,598
Southcentral	Sockeye	0	0	0	30,100,538	3,808	0	30,104,346
	Pink	0	0	0	714,912,482	0	0	714,912,482
	Chum	0	0	0	127,535,735	0	0	127,535,735
Regio	n Sub Totals:	0	0	0	880,166,363	286,608	2,952	880,455,922
						,	•	
Arctic, Yukon,	Chinook	0	0	0	1,075	0	0	1,075
Kuskokwim	Coho	0	0	0	47,402	0	0	47,402
	Chum	0	0	0	125,561	0	0	125,561
Regio	n Sub Totals:	0	0	0	174,038	0	0	174,038
	Chinook	0	0	0	0	0	36,785	36,785
	Coho	0	0	0	1,229,661	0	578,379	1,808,040
Westward	Sockeye	0	0	0	2,841,329	0	242,231	3,083,560
	Pink	0	0	0	132,180,110	0	29,419,266	161,599,376
	Chum	0	0	0	27,619,967	0	0	27,619,967
Regio	n Sub Totals:	0	0	0	163,871,066	0	30,276,660	194,147,727
	Chin I	270 525	005 205	1.3	4.070.700	1.3	FF2 427	10 120 755
	Chinook	270,535	985,285	^{1,3} 893,074	4,970,768	^{1,3} 2,448,667	552,427	10,120,755
All Dogions	Coho	785,414	218,069	¹ 20,020	11,670,552	¹ 4,176	22,569,780	35,268,010
All Regions	Sockeye	0	0	0	² 43,164,267	3,808	242,231	43,410,306
	Pink	0	0	0	898,381,639	0	31,308,996	929,690,635
	Chum	0	0	0	726,985,360	0	15,230,000	742,215,360
(Grand Totals:	1,055,948	1,203,354	0	1,685,172,585	2,456,651	69,903,433	1,760,705,065

Projections are based on the average releases from 2019 - 2022

¹ These values include small portions of coded wire tagged releases that lost their tags prior to release. They were not all intended to be released without a CWT

² These values include sockeye that Snettisham Hatchery releases in BC as part of the TBR enhancement activities. We estimate that ~2.3million will be released in 2023.

³ These values include projected mass marked releases conducted by Southern Southeast Regional Aquaculture Association (SSRAA) and Macaulay Salmon Hatchery. Hatcheries operated by SSRAA began releasing mass marked Chinook for the first time in 2022 and Macaulay Hatchery will be releasing their first mass marked Chinook in 2023.

Alaska Department of Fish and Game: Wild Coded Wire Tagged Releases

Recent Wild Tagged Releases

Release Year	SPECIES _	TAG	GED		TOTAL RELEASED			
Release Fear	3FLCIL3	AD + CWT	AD + TM + CWT	AD ¹	TM	AD + TM	NO MARK ²	TOTAL KELLASED
2019	Chinook	160,095	0	327	0	0	0	160,422
2019	Coho	70,738	0	357	0	0	135	71,230
	Year Totals:	230,833	0	684	0	0	135	231,652
2020	Chinook	161,952	0	106	0	0	0	162,058
2020	Coho	67,385	0	482	0	0	0	67,867
	Year Totals:	229,337	0	588	0	0	0	229,925
	Т		T					
2021	Chinook	129,055	0	67	0	0	0	129,122
2021	Coho	57,581	0	576	0	0	0	58,157
	Year Totals:	186,636	0	643	0	0	0	187,279
	Chinook	133,186	0	95	0	0	0	133,281
2022	Coho	93,830	0	621	0	0	0	94,451
	Year Totals:	227,016	0	716	0	0	0	227,732
	T							
2023 (est)	Chinook	146,070	0	150	0	0	0	146,220
2023 (631)	Coho	72,380	0	510	0	0	30	72,920
	Year Totals:	218,450	0	660	0	0	30	219,140

¹ The values in this column represent small portions of coded wire tagged releases that lost their tags. They were not intended to be released without a CWT

Projected 2023 Wild Tagged Releases by Region

REGION	CDECIEC	TAG	GED	UNTAGGED					
REGION	SPECIES	AD + CWT	AD + TM + CWT	AD	TM	AD + TM	NO MARK	TOTAL RELEASED	
Southeast	Chinook	117,260	0	110	0	0	0	117,370	
Southeast	Coho	72,380	0	510	0	0	30	72,920	
Regio	n Sub Totals:	189,640	0	620	0	0	30	190,290	
				0					
Southcentral	Chinook	28,810	0	40	0	0	0	28,850	
Regio	n Sub Totals:	28,810	0	40	0	0	0	28,850	
				0					
All Regions	Chinook	146,070	0	150	0	0	0	146,220	
All regions	Coho	72,380	0	510	0	0	30	72,920	
(Grand Totals:	218,450	0	660	0	0	30	219,140	

² The values in this column represent fish that were captured and counted during wild tagging operations, but were released without being marked or tagged.

2023 CWT & MM Plans for NWIFC Member Tribes*

Species	Run	AD+CWT	CWT Only	AD Only	Total
Chinook	Spring	600,000	250,000	4,600,000	5,450,000
	Summer	300,000	1,900,000	400,000	2,600,000
	Fall	1,680,000	800,000	7,350,000	9,830,000
	sub total	2,580,000	2,950,000	12,350,000	17,880,000
Coho	Summer	100,000	0	0	100,000
	Fall	825,000	250,000	6,825,000	7,900,000
	sub total	925,000	250,000	6,825,000	8,000,000
Steelhead	Winter	70,000	0	335,000	405,000

Totals 3,575,000 3,200,000 19,510,000 26,285,000

^{*}Includes marking conducted by WDFW

IDFG production plans and marking/tagging in 2023

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 spring/summer Chinook salmon and steelhead in Idaho are mark selective. Tribal fisheries in Idaho are non-selective.

Brood Year 2022 Spring/Summer Chinook and Sockeye Salmon- Marking/Tagging in 2023

					Marks & Tags		
Fish Hatchery	Species	Release Site	AD	AD/CWT	CWT	PBT Only	Total
Clearwater	Spring Chinook Salmon	Clear Creek	620,000	120,000			740,000
	Spring Chinook Salmon	Lower Selway R.	155,000	120,000	136,000		411,000
	Spring Chinook Salmon	NF Clearwater	490,000	120,000		***************************************	610,000
	Summer Chinook Salmon	Powell Pond	20,000	120,000	120,000	200,000	460,000
	Spring Chinook Salmon	Red River Pond	1,010,000	120,000			1,130,000
Clearwater Total			2,295,000	600,000	256,000	200,000	3,351,000
McCall	Summer Chinook Salmon	S.F. Salmon R. (Integrated)			130,000		130,000
	Summer Chinook Salmon	S.F. Salmon R. (Segregated)	800,000	120,000			920,000
McCall Total			800,000	120,000	130,000	0	1,050,000
Pahsimeroi	Summer Chinook Salmon	Pahsimeroi R. (Integrated)			65,000		65,000
	Summer Chinook Salmon	Pahsimeroi R. (Segregated)	910,000	120,000			1,030,000
Pahsimeroi Total			910,000	120,000	65,000	0	1,095,000
Rapid River	Spring Chinook Salmon	Hells Canyon	350,000				350,000
	Spring Chinook Salmon	Little Salmon	150,000	***************************************		***************************************	150,000
	Spring Chinook Salmon	Rapid River	2,680,000	120,000			2,800,000
Rapid River Total			3,180,000	120,000	0	0	3,300,000
Sawtooth	Spring Chinook Salmon	Sawtooth weir (Integrated)			163,000		163,000
	Spring Chinook Salmon	Sawtooth weir (Segregated)	1,400,000	120,000			1,520,000
	Spring Chinook Salmon	Yankee Fork	193,000	120,000			313,000
Sawtooth Total			1,593,000	240,000	163,000	0	1,996,000
Springfield	Sockeye Salmon	Upper Salmon R. & Redfish Lake Cr.	1,000,000				1,000,000
Grand Total			9,778,000	1,200,000	614,000	200,000	11,792,000

Does not include spring Chinook production from Dworshak National Fish Hatchery (NPT), Kooskia National Fish Hatchery (NPT), Nez Perce Tribal Hatchery (NPT), 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.

Brood Year 2023 Steelhead- Marking/Taggging in 2023

			Marks & Tags	
Fish Hatchery	Release Site	AD-Clip	CWT Only	Grand Total
Clearwater	Newsome Cr.		123,000	123,000
	Red House Hole	219,000		219,000
	Meadow Cr	291,000	210,000	501,000
Clearwater Total		510,000	333,000	843,000
Hagerman National	Sawtooth Weir	1,410,000		1,410,000
	Upper EF.Salmon R. (Weir)		60,000	60,000
***************************************	Sawtooth Weir (PRAS)	90,000		90,000
Hagerman National Tota	I	1,500,000	60,000	1,560,000
Magic Valley	Pahsimeroi Trap		434,000	434,000
	Sawtooth Weir	279,000		279,000
***************************************	Little Salmon R.	403,000		403,000
	Yankee Fork	434,000		434,000
Magic Valley Total		1,116,000	434,000	1,550,000
Niagara Springs	Hells Canyon Dam	550,000		550,000
	Pahsimeroi Trap	800,000		800,000
	Little Salmon R.	450,000		450,000
Niagara Springs Total		1,800,000	0	1,800,000
Grand Total		4,926,000	827,000	5,753,000

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

Pacific Northwest USFWS – 2023 Planned Releases of Hatchery Fish – by Mark and Tag Status

Production in italics will be released and reported by another agency

31-Mar-23

Troduction in italics will be rele	азей ани геропей бу аг						3 1-IVIA1-23
Hatchery	Species/Run	Stock	CWT+AD	CWT only	AD only	None	Total
Spring Creek NFH	Fall Chinook	Spring Creek	405,000	405,000	8,690,000	0	9,500,000
Little White Salmon NFH	URB Chinook	Little White Salmon	200,000	200,000	4,100,000	0	4,500,000
Willard NFH	URB Chinook	Little White Salmon	100,000	100,000	1,800,000	0	2,000,000
Little White Salmon NFH	URB Chinook	Little White Salmon	140,000	0	960,000	0	1,100,000
Prosser	URB Chinook	Little White Salmon	60,000	0	540,000	0	600,000
Entiat NFH	Summer Chinook	Entiat - 1+	220,000	0	200,000	0	420,000
Carson NFH	Spring Chinook	Carson - 1+	87,500	0	1,420,000	0	1,507,500
Little White Salmon NFH	Spring Chinook	Little White Salmon - 1+	100,000	0	1,550,000	0	1,650,000
Warm Springs NFH	Spring Chinook	Warm Springs - 1+	188,000	0	0	0	188,000
Warm Springs NFH	Spring Chinook	Wild - 1+	0	0	0	37,000	37,000
Leavenworth NFH	Spring Chinook	Leavenworth - 1+	200,000	0	1,000,000	0	1,200,000
Winthrop NFH	Spring Chinook	Methow - 1+	420,000	0	0	0	420,000
Kooskia NFH	Spring Chinook	Kooskia - 1+	100,000	0	350,000	50,000	500,000
Dworshak NFH	Spring Chinook	Dworshak - 1+	120,000	0	1,530,000	0	1,650,000
Coleman NFH	Late-Fall Chinook	Sacramento	1,000,000	0	0	0	1,000,000
Coleman NFH	Fall Chinook	Sacramento	3,125,000	0	0	9,375,000	12,500,000
Coleman NFH	Fall Chinook	Sacramento - unfed fry	0	0	0	2,750,000	2,750,000
Livingston Stone NFH	Winter Chinook	Sacramento	730,000	0	0	0	730,000
Livingston Stone NFH	Winter Chinook	Sacramento	180,000	0	0	0	180,000
Makah NFH	Fall Chinook	Tsoo-Yess R.	200,000	0	1,500,000	0	1,700,000
Chinook Total	Ad-clipped % =		7,575,500	705,000	23,640,000	12,212,000	44,132,500
Eagle Creek NFH	Coho	Eagle Creek - 1+	25,000	25,000	300,000	0	350,000
Eagle Creek NFH	Coho	Clearwater River - 1+	0	30,000	0	245,000	275,000
Eagle Creek NFH	Coho	Clearwater River - 1+	0	30,000	0	245,000	275,000
Eagle Creek NFH	Coho	Eagle Creek/Yakima R 1+	0	0	500,000	0	500,000
Willard NFH	Coho	Wenatchee R 1+	0	550,000	0	540,000	1,090,000
Cascade Hatchery	Coho	Wenatchee R 1+	0	460,000	0	258,000	718,000
Winthrop NFH	Coho	Wenatchee R 1+	0	420,000	0	0	420,000
Makah NFH	Coho	Cook Creek - 1+	106.000	0	0	0	106,000
Makah NFH	Coho	Cook Creek - pre-smolts	0	0	230,000	0	230,000
Quinault NFH	Coho	Cook Creek - 1+	80,000	0	580,000	0	660,000
Quicene NFH	Coho	Big Quilcene R 1+	80,000	80,000	440,000	0	600,000
Coho Total	Ad-clipped % =		291,000	1,595,000	2,050,000	1,288,000	5,224,000
Winthrop NFH	Steelhead	Wells/Methow	200,000	0	0	0	200,000
Dworshak NFH	Steelhead	Dworshak	180,000	0	1,720,000	200,000	2,100,000
Coleman NFH	Steelhead	Coleman NFH	0	0	600,000	0	600,000
Makah NFH	Steelhead	Makah NFH - Tsoo-Yess R.	0	0	185,000	0	185,000
Quinault NFH	Steelhead	Cook Creek	20,000	0	200,000	0	220,000
Steelhead Total	Ad-clipped % =		400,000	0	2,705,000	200,000	3,305,000
Quinault NFH	Chum	Cook Creek	0	0	0	2,000,000	2,000,000
Chum Total	Ad-clipped % =		0	0	0	2,000,000	2,000,000
	- 10 - 11 P P P P P P P P P P P P P P P P P		<u> </u>				
		Total	8,266,500	2,300,000	28,395,000	15,700,000	54,661,500

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EMIS REPORT
California
Chinook and Coho Coded Wire Tagging
Brood Year (BY) 2021 and projected BY 2022
Jason Azat
4/13/2023

Feather Hatchery
Chinook Fall
BY 2021 8,700,000 27%
BY 2022 8,800,000 27%
Chinook Spring
BY 2021 2,400,000 60%
BY 2022 2,300,000 100%
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Merced Hatchery

Chinook Fall

BY 2021 90,000 100% CWT BY 2022 1,000,000 25% CWT

Mokelumne Hatchery

Chinook Fall

By 2021 6,700,000 28% CWT By 2022 7,000,000 28% CWT

Nimbus Hatchery

Chinook Fall

BY 2021 4,500,000 25% CWT

BY 2022 4,500,000 25% CWT

BY 2022 1,000,000 0% CWT, genetic

Iron Gate Hatchery

Chinook Fall

By 2021 5,200,000 46% CWT By 2022 5,500,000 25% CWT

Trinity Hatchery

Chinook Fall

BY 2021 2,800,000 25% CWT

BY 2022 2,400,000 25% CWT

Chinook Spring

BY 2021 1,100,000 25% CWT

BY 2022 1,500,000 25% CWT

Coho Fall

BY 2021 250,000 100% CWT

BY 2022 190,000 100% CWT

 From:
 Bill Bosch

 To:
 Jim Longwill

 Cc:
 Marianne McClure

Subject: RE: Announcing RCMT Hybrid Meeting Hosted in Portland for 2023 Tuesday, March 21, 2023 1:51:42 PM

Date:

Hi Jim,

Here are approximate Yakama Nation Planned 2023 releases:

Yakima Basin

Spring Chinook: ~800,000-850,000 total release (89% CWT in snout, 11% CWT in post-dorsal)

Fall Chinook:

released from Prosser, approximately 1.6m subyearlings (LWS NFH transfers) and 210,000 yearlings (Bonneville Hatchery transfers)

Prosser URBs released from Prosser, ~430,000, 20% PIT, no CWT

Summer Chinook: ~500,000 Wells stock subyearlings released from Yakima R. acclimation sites, 100% CWT

Sockeye: natural-origin progeny of adult plants; minimal marking (PIT) at downstream juvenile sampling stations

Coho: ~0.5million total release from Prosser (adipose fin clip only) and about 189,400 release from Melvin Sampson facility near Ellensburg (no mark)

Mid-Columbia Coho: ~1.7million total release, 70% CWT, 100% PBT

Klickitat Basin

Spring Chinook: ~570,000 total release, ~25% CWT Fall Chinook: ~5.3m total release, ~15% CWT

Coho:

Lewis stock released from Klick. Hatchery, ~1.1m, ~5% CWT Washougal stock direct released in lower Klick. R., ~1.5m

Bill Bosch Research and Data Coordinator Yakima-Klickitat Fisheries Project 760 Pence Road Yakima, WA 98908

509-945-5475

CHIEF JOSEPH HATCHERY PROGRAM SUMMER CHINOOK

Mark Group	Target max smolt released	Life-stage released	% CWT (#)	Adipose Fin-Clip	PIT tag
<u>Okanogan</u> <u>Integrated</u>	1,100,000				
Similkameen Pond	400,000	Yearling	100%	100%	5,000
Omak Pond	400,000	Yearling	100%	100%	5,000
Omak Pond	300,000	Sub-yearling	100%	100%	5,000
Chief Joseph Segregated	900,000				
	500,000	Yearling	20% (100,000)	100%	5,000
	400,000	Sub-yearling	25% (100,000)	100%	5,000
Natural-Origin	RST and Confluence Seine	N/A	0%	0%	≤ 30,000

CHIEF JOSEPH HATCHERY PROGRAM SPRING CHINOOK

Mark Group	Smolt released	Life-stage released	% CWT (#)	Adipose Fin-Clip	PIT tag
<u>Chief Joseph</u> <u>Segregated</u>	700,000	Yearling	29% (200,000)	100%	5,000
Reintroduction Integrated (§10(j) fish from Winthrop)					
Riverside Pond	200,000	Yearling	100%	0%	5,000
Natural-Origin	RST	Yearling	0%	0%	≤ 5,000