



2022 Harvest Review & 2023 Forecast

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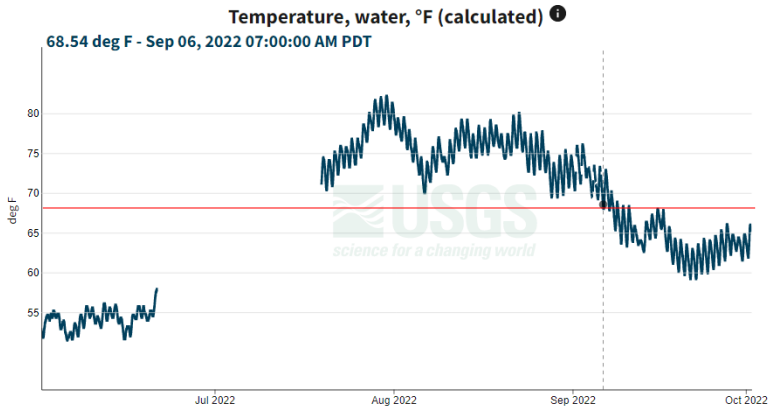


CCT Harvest Program Goals

- * *Collect summer Chinook broodstock for the hatchery: natural-origin (NOR) & hatchery-origin (HOR)*
- * *Affect pHOS and improve PNI in summer/fall Chinook spawning areas*
 - * *Selectively removing HORs*
 - * *Successfully releasing NORs*
- * *Provide harvest data to hatchery staff for help in setting the yearly, hatchery-production target*
- * *Provide harvest food for subsistence, cultural and ceremonial purposes*



Thermal Barrier



2022 Upper Columbia Summer Chinook Allocations <i>(All data preliminary and includes kept + release mortalities)</i>				
	Pre		Post	
Runsize	→ 56,346		→ 78,444	
Harvest allocated	Allowed		Actual	Actual/
Fishery	Pre	Post	Take	Allowed
PFMC Ocean Fisheries	7,880	7,880	7,880	100%
Below Priest Rapids Dam (PRD)	<i>22.7%</i>	<i>35.7%</i>	<i>33.5%</i>	
Commercial below BON	361	1,159	65	6%
Recreational Below Bonneville	1,074	3,449	3,549	103%
Recreational BON to PRD	190	609	302	50%
unallocated	180	580	n/a	n/a
Below PRD Total	1,805	5,796	3,916	68%
Above Priest Rapids Dam (PRD)	<i>77.3%</i>	<i>64.3%</i>	<i>66.5%</i>	
Wanapum Tribal	94	314	19	6%
→ Colville Tribal →	→ 3,075 →	→ 5,745 →	→ 1,202 →	→ 21%
Recreational above PRD	2,981	4,386	6,561	150%
Above PRD Total	6,150	10,445	7,782	75%
Non-Treaty Total	15,835	24,122	19,578	81%

Activity	Summer/Fall Chinook									
	<u>Ad Present</u>	<u>Ad Absent</u>	<u>Ad Present</u>	<u>Ad Present</u>	<u>Ad Present</u>	<u>Ad Present</u>	<u>Ad Absent</u>	<u>Ad Absent</u>	<u>Ad Absent</u>	<u>Total Adults</u>
	<u>Adult</u>	<u>Adult</u>	<u>Adults</u>	<u>Adults</u>	<u>Jacks Released</u>	<u>Jacks</u>	<u>Adults</u>	<u>Adults</u>	<u>Jacks</u>	
	<u>Broodfish</u>	<u>Broodfish</u>	<u>Released^{1/}</u>	<u>Retained/Mort</u>	<u>Retained/Mort</u>	<u>Retained/Mort</u>	<u>Retained/Mort</u>	<u>Released^{1/}</u>	<u>Retained</u>	<u>Removed</u>
CCT F&W Parse Seine	265	516	0	0	25	0	0	5	45	781
Fribal Member Alt Fishery ^{3/}	0	0	0	0	0	0	0	0	0	0
CJD Tailrace Fishery expanded; includes snag, dip net and hook and line effort and a calculated release mortality ^{4/}	0	0	14	215	0	0	969	96	47	1,184
CCT F&W Okanogan Weir	43	13	1	3	1	0	15	0	1	74
Chief Joseph Hatchery Ladder	90	174	0	0	0	0	743	699	307	1,007
Sub-total Fish Released	0	0	15	0	26	0	0	800	0	0
Adult Non Tailrace Release Mortality	0	0	0.01	0	0.01	0	0	7	0	7
Total Adult Fish Removed	398	703	0.0	218	0.0	0	1,727	7	400	3,053
Grand Total of Adult Fish Removed	CHK Broodstock			CHK Harvest			CHK Surplus			
	→ 1,101			→ 1,184			→ 750			

Sockeye		Steelhead				Coho	
<u>Sockeye</u> <u>Harvested/Morts</u>	<u>Sockeye</u> <u>Released</u>	<u>Ad Present</u> <u>Released</u> ^{2/}	<u>Ad</u> <u>Absent</u> <u>Released</u>	<u>Ad</u> <u>Present</u> <u>Harvest</u>	<u>Ad</u> <u>Absent</u> <u>Harvest</u>	<u>Released</u>	<u>Harvested</u>
9,331	1,411	1	0	0	0	0	0
0	0	0	0	0.0	0.0	0	0
474	0	0	0	31	60	0	0
128	9	0	4	0	0	0	0
0	0	0	0	0	0	0	0
0	1,420	1	4	0	0	0	0
0	14	0.01	0.04	0	0	0.0	0
9,933	14	0.0	0.0	31	60	0	0
Sockeye		Steelhead				Coho	
9,947		91				0.0	

Collection Data

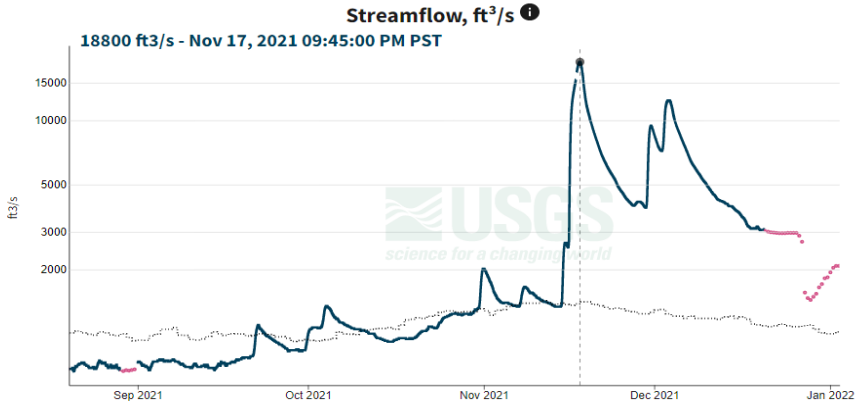
2021 Purse Seine fishing effort



HOR brood collected	516
NOR brood collected	265
NOR Chinook released	0
HOR Released	5
HOR Harvested	0
Sockeye harvested	9,947
Sockeye released	1,420

	Ad Present Adult Broodfish (CJH) 1'	Leavenworth NFH Brood 2'	Ad Present Adults Released	Ad Present Adults Harvested/Morts	Ad Present Jacks Released	Ad Present Jacks Harvested/Morts	10J Harvest	10J Adult Released	10J Jack Released	Ad Absent Adults Harvested/Morts	Ad Absent Adults Released	Ad Absent Jacks Harvested	Ad Absent Jacks Released	SubTotal Harvest - Chinook Adults Only
Chief Joseph Dam, Creel (June 29 - June 30) Expanded with calculated release mortality. Includes 10J proportion	—	—	Ceremonial Only CJH Spring Chinook Fishery in 2022											—
Chief Joseph Hatchery Ladder Surplus	38	591	0	0	0	0	0	0	0	0	0	0	0	0.0
Icicle Creel (May 12-June 30) 3'	0	0	21.0		23					1,308	123		1,329.0	
Post Release Mortality	0	0	0	0	0.00	0.0	0	0	0	0	0.0	0	0	0.0
Sub Total of Adult Fish Handled	38	591	0.0	21.0	0.0	0.0	0.0	0.0	0.0	1,308.0	0.0	0.0	0.0	1,329.0
Grand Total of NOR Handling Mortality	0	0	0.0	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—
Adult Harvest Total Counted Towards Allocation	0	0	Spring Chinook Harvest 0.0											
Spring Chinook Adults Removed from the System							1,329.0							

2021 Fall Blowout





Wells Pool Draw Down Timing



2023 Summer Fall Chinook Forecast

Columbia River Run to Mouth: 84,800

CTCR Draft Allocation: 6,870 - 7,109 (PFMC)

Numbers include ocean Harvest

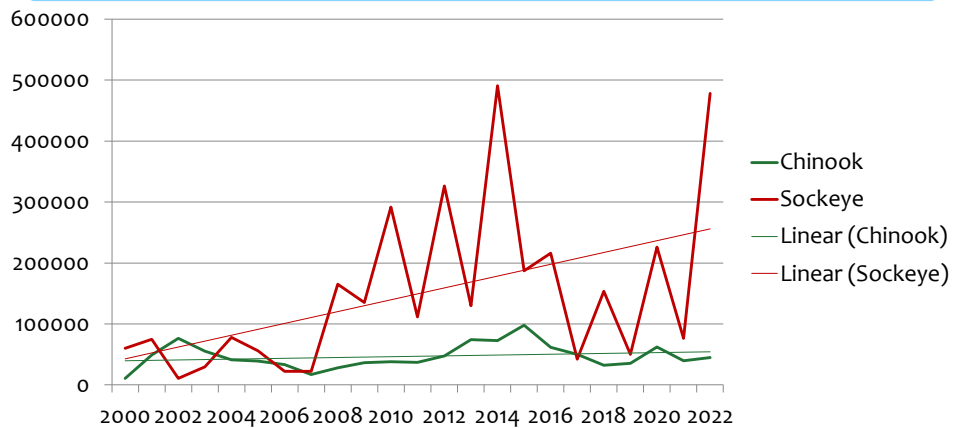
Sockeye Return Forecast

Sockeye Run at Columbia River Mouth: 234,500

Of those, 187,400 are estimated to be Ok origin

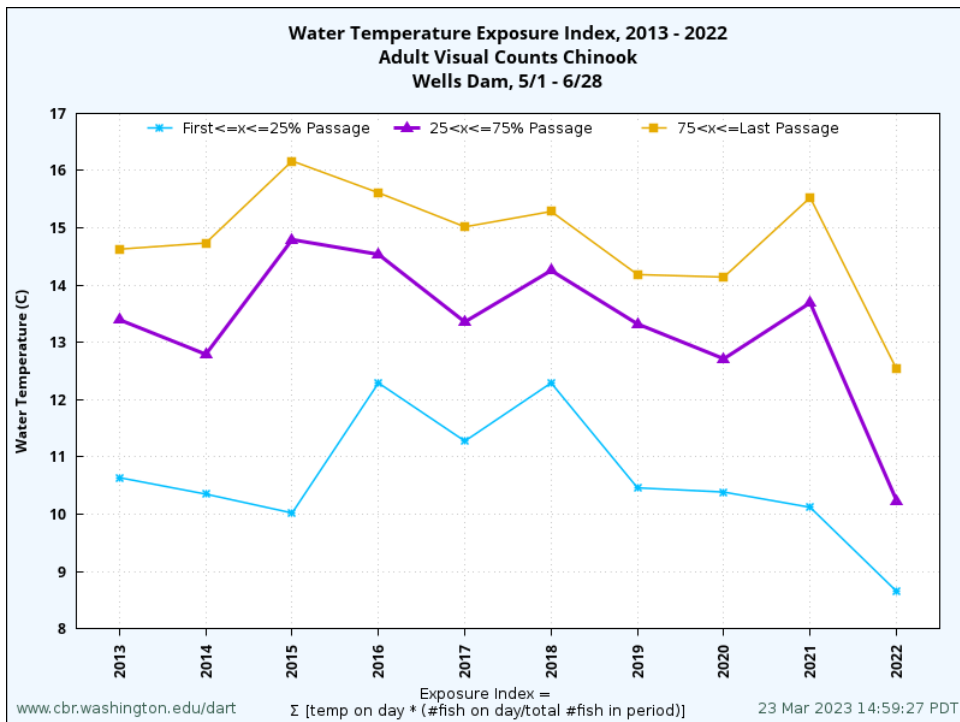
CCT Allocation = Excess of Escapement

Summer Chinook and Sockeye Over Wells Dam Since 2000



Springer Expectations

- * 2023 forecasts 41,400 adults to the upper Columbia River
- * Estimated adults to Chief Joseph Hatchery: 4,560
- * Estimated adults to Okanogan River: 116
- * 29,605 adults returned to upper the Columbia River in 2022





Surplus



11 Surplus events at 4 different hatcheries

Distributed:

2,348 Chinook

5,837 Sockeye



Salmon Storage



1,552 Chinook into Fillets

3,494 Sockeye Frozen Whole



Sturgeon



Ungulates and Trades



Deer

Elk

Moose

Buffalo



Coded Wire Tag Analysis (CWT)

- * Creel Harvest
- * Ladder Surplus
- * Purse Seine Harvest

CJD Creel - Tailrace Harvest

* July 1st – October

* Effort Hours

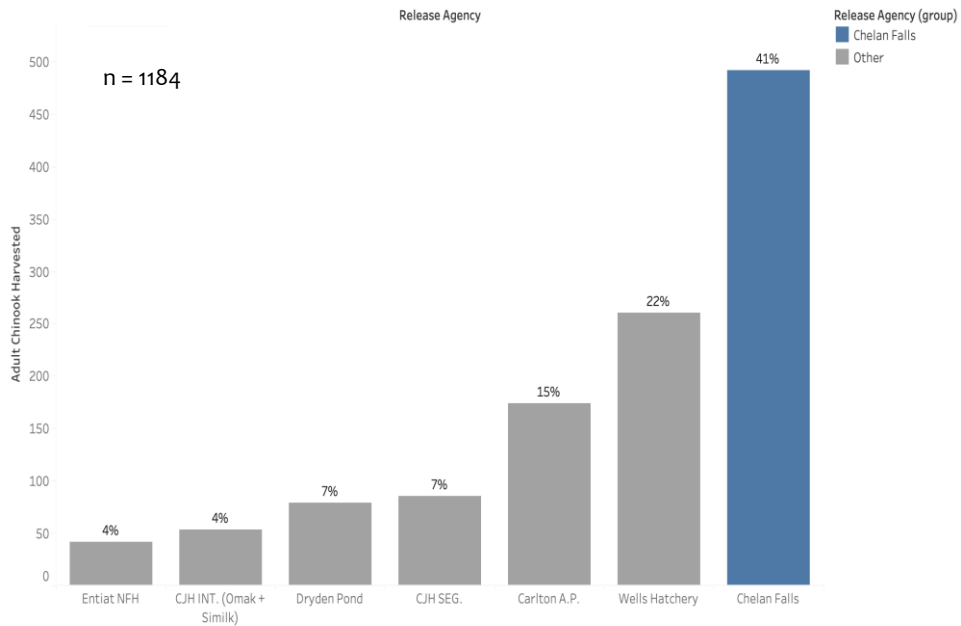
1. Snag – 7,097 hours
2. Hook and line – 644 hours
3. Dip Net – 71 hours

Age: (Years)

3	4	5	6
3%	63%	31%	3%

* 2,114 Bank Observations, 610 Interviews conducted

2022 CJD Tailrace Harvest (Adults)



Sum of Est. # for each Release Agency. Color shows details about Release Agency (group). The marks are labeled by sum of Percentage. The view is filtered on Release Agency, which excludes Null.

Ladder Surplus

* 3 – Ladder Surplus Events Throughout August
8/18, 8/25, 8/31

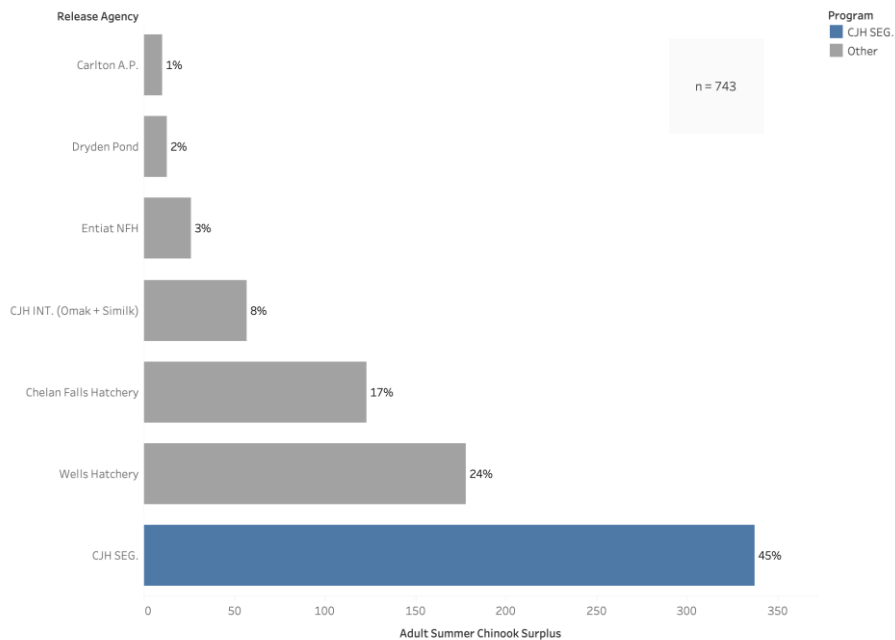
Surplus Totals:

- * 743 adipose- clip Adults
- * 307 adipose – clip Jacks

Adult Ladder Age (Years)

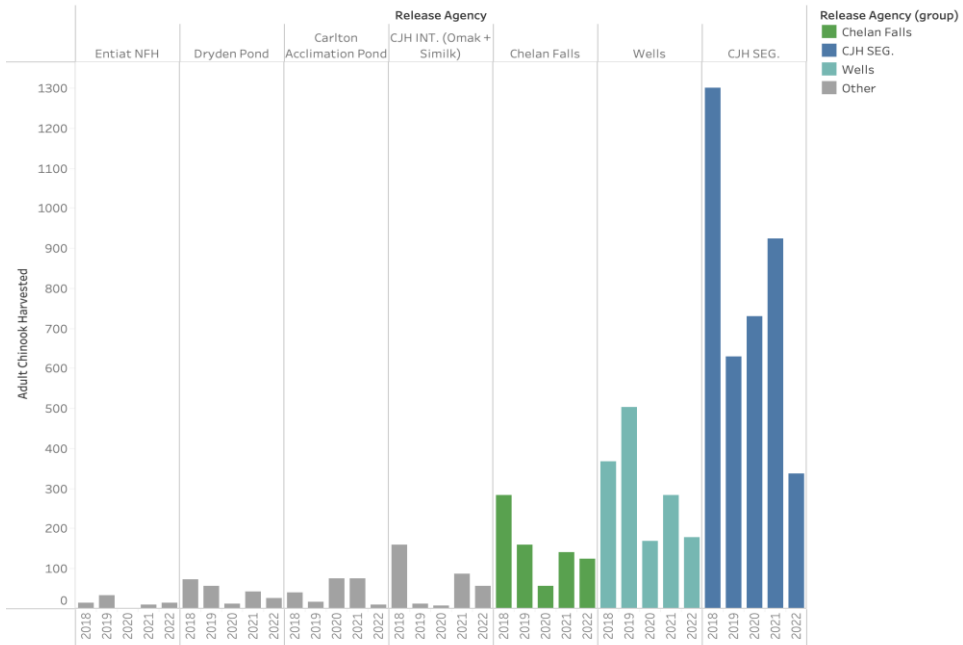
3	4	5	6
11%	73%	15%	1%

Ladder Surplus Composition by CWT Analysis (Adults)



Sum of Adult Summer Chinook Surplus for each Release Agency. Color shows details about Program. The marks are labeled by sum of Percentage. The view is filtered on Release Agency, which excludes Null.

5 Year Returns to CJH Ladder

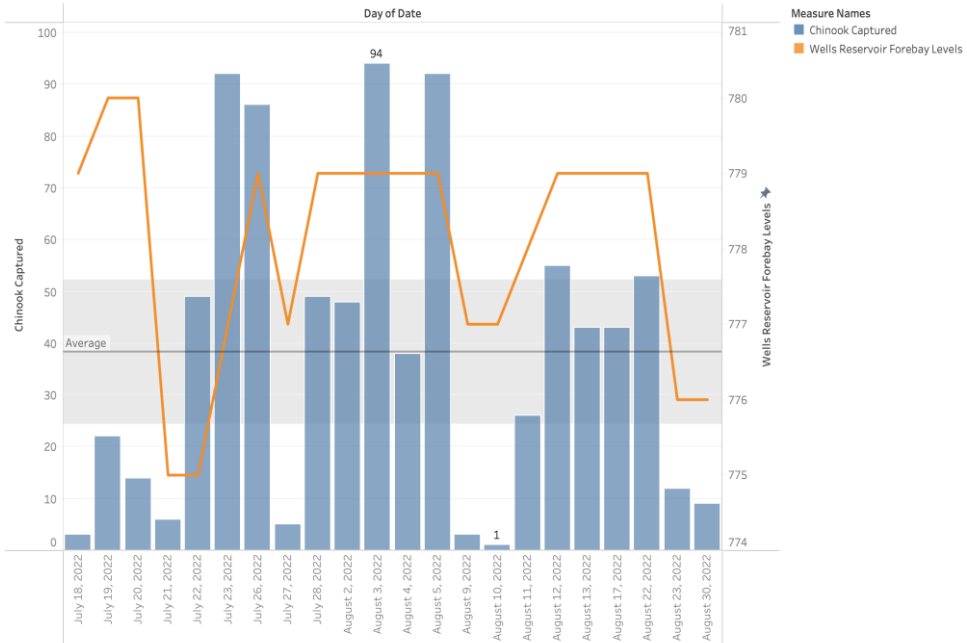


2018, 2019, 2020, 2021 and 2022 for each Release Agency. Color shows details about Release Agency (group). Details are shown for 2018, 2019, 2020, 2021 and 2022.

Purse Seine Effort

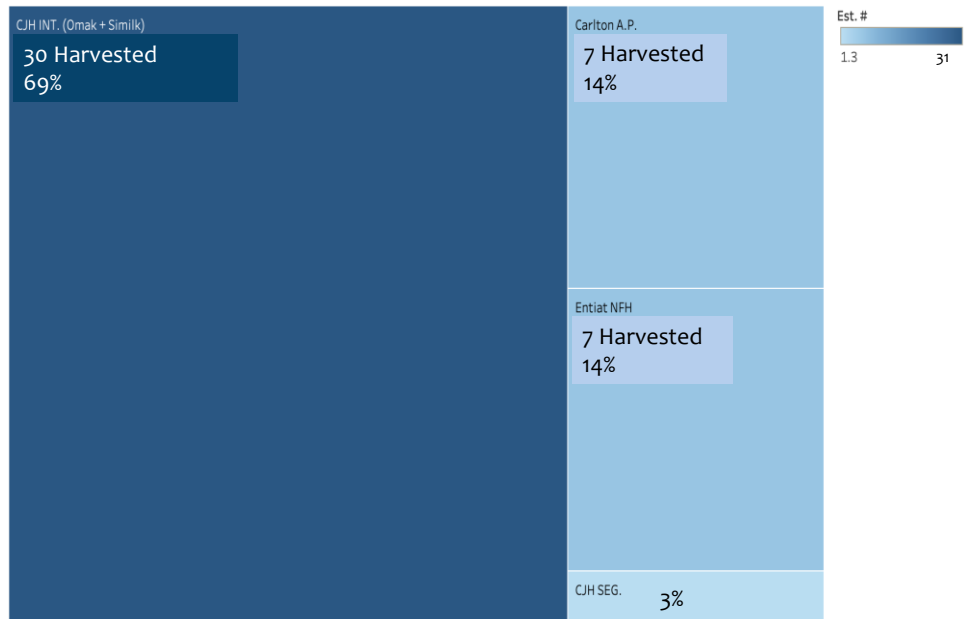
- * 101 Sets
- * CPUE (all Salmonids) : 121/set
- * CPUE (Sockeye) : 113/set
- * CPUE (Chinook): 8/set

Chinook Caught by Date by Forebay Elevation



The trends of Chinook Captured and Wells Reservoir Forebay Levels for Date Day. Color shows details about Chinook Captured and Wells Reservoir Forebay Levels. For pane Sum of Chinook Captured: The marks are labeled by Chinook Captured. The view is filtered on Date Day, which excludes August 31, 2022.

2022 Purse Seine Harvest (Jacks)



Hatchery of Release, sum of Est. # and sum of Percentage. Color shows sum of Est. #. Size shows sum of Est. #. The marks are labeled by Hatchery of Release, sum of Est. # and sum of Percentage.

Questions?