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## **2015 NASS RIVER SALMON STOCK ASSESSMENT UPDATE – MONDAY, 17 AUGUST**

The following is the eighth general update for Nass River salmon and summer-run steelhead stock assessment from the Nisga'a Lisims Government Fisheries and Wildlife Department.

**All data presented in this update are preliminary and subject to change with further assessment information that becomes available and should be interpreted cautiously. For in-season assessment purposes only.**

### **NASS RIVER ASSESSMENT OPERATIONS UPDATE**

#### **OPERATIONAL ASSESSMENT INFORMATION FOR 2015**

1. Fishwheel Assessment data: 4 June–16 August (see below)
2. Meziadin Fishway data: 1 July–16 August
  - Counts to date are near average for large Sockeye (107,574 [1749 tagged] vs. 109,000) and below average for Chinook (47 [4 tagged] vs. 265) when compared to returns since 1994. Other counts include small salmon (1226 Sockeye and 3 Chinook) and 2 Bull Trout. Water temperature is just below average (16.0°C vs. 16.5°C) when compared from 1999–2014.
3. Kwinageese Weir data: 3 July–16 August
  - Counts to date are above average for large Chinook (916 [62 tags] vs 520) and Sockeye (3362 [23 tags] vs. 2600) since monitoring began in 2002. Counts of Sockeye continue to pass in high numbers (>400 per day). Fish passage through the downstream barrier has occurred and water pooling is fine for 2015 based on upstream movements through the weir and survey results from the NFWD helicopter flight on 23 July. Water temp. is cooler (14°C) than average (16°C).

#### **GITWINKSIHLKW (GW) FISHWHEELS (NASS TEST FISHERY –STARTED IN 1994 [22<sup>nd</sup> year]):**

The Nass River test fishery fishwheels began operation on 4 June (FW1 and FW2) for tagging and historical catch index assessments for salmon and summer-run steelhead. All fish caught in the GW fishwheels are released alive after tagging and/or counting. Fishwheels 1 and 2 are currently operating at below average water levels (1.3 m vs. 1.9 m) based on 1994–2014 operations. A chart of the water levels at the test fishery follows the text summary that compares current levels to historical levels. The Nass River water temperature is the same (10.0°C) as the 1994–2014 average.

#### **GREASE HARBOUR (GH) FISHWHEELS:**

Start-up dates of the GH fishwheels were 10 June (FW5), 12 June (FW3 and FW6), and 28 June (FW4). Four fishwheels are currently operating at Grease Harbour (upstream of Ts'im Anwiilist). The GH fishwheels are used for in-season mark-recapture tag recoveries, abundance estimates passing upstream, additional tagging (adult Chinook and Chum salmon, and Pacific Lamprey), and for selective harvesting when permitted by NLG (e.g., Sockeye Salmon for the Nisga'a Lisims Government's Nass River In-land Demonstration Fishery that is part

of DFO's Inland Selective Demonstration Fishery Program for 2015). Of the 58,209 Sockeye caught at all fishwheels to date, 7161 were harvested and 51,048 released. The Nass fishwheel catches are currently above average for Sockeye and Pacific Lamprey; average for steelhead; and below average for Chinook, Coho, Pink, and Chum salmon. Weekly comparisons of catches at the Gitwinksihlkw fishwheels to historical levels since 1994 follow the text summary as well as all species. Total fishwheel catches of salmon, steelhead, and Pacific Lamprey to date are shown below including tagging results and jacks caught.

FISHWHEEL CATCH SUMMARIES	SOCK	CHIN	COHO	STEEL	PINK-ODD	CHUM	LAMP
FISHWHEEL TOTAL CATCH OF ADULTS	58,209	3,346	3,143	301	5,270	36	710
HISTORICAL AVG CUM CATCH (00-14) TO DATE	38,400	5,400	6,000	300	15,000	50	400
HISTORICAL AVG CUM TOTAL CATCH (00-14)	42,000	5,400	13,000	1,000	22,000	130	500
AVERAGE DAILY CATCH (5 D) OF ADULTS - GW	283	2	61	4	81	1	1
AVERAGE DAILY CATCH (5 D) OF ADULTS - GH	850	2	139	7	57	0	2
FISHWHEEL TOTAL TAGGED (OR ADIPOSE FIN MARKED)	11,320	2,777	795	203	NA	34	391
FISHWHEEL TOTAL JACKS - GW ONLY	1,059	150	6	NA	NA	NA	NA
HISTORICAL MEAN JACKS AT GW (94-14) TO DATE	1,140	200	80	NA	NA	NA	NA

Other adult species and juvenile salmon catches at the fishwheels to date include: 167 Dolly Varden, 111 Pike Minnow, 82 Whitefish sp., 67 Rainbow Trout, 51 Cutthroat Trout, 42 Peamouth Chub, 10 Red-Side Shiner, 10 Sucker, 1 River Lamprey, 93 salmon smolts (16 Coho, 71 Chinook, 6 Sockeye), and 1 Otter.

#### RUN SIZE AND ESCAPEMENT ESTIMATES FOR NASS SALMON & SUMMER-RUN STEELHEAD

In-season estimates of run size and projected forecasts to Gitwinksihlkw fishwheels for adult Nass salmon and summer-run steelhead are shown below. The current run sizes for 2015 are above average for Nass Sockeye, Chinook, and summer-run steelhead, and below average for Coho when compared to means to date from 1994–2014.

	SOCK	CHIN	COHO	STEEL
<b>IN-SEASON RUN SIZE ESTIMATE TO DATE</b>	<b>384,310</b>	<b>26,243</b>	<b>24,360</b>	<b>4,772</b>
HISTORICAL MEAN RUN SIZE TO GW FOR DATE (94-14)	256,000	20,200	40,349	4,190
<b>RUN SIZE TARGET 2015 (MIN. FOR STEELHEAD)</b>	<b>250,000</b>	<b>15,000</b>	<b>65,000</b>	<b>4,200</b>

The current in-season Nass Sockeye estimates are generated using mark-recapture data from GH fishwheels that fluctuate over a 5 d period as GW tagged fish pass the GH site. In comparison, in-season fishwheel catch index estimates to date at GW are ranging from 179,000 to 807,000 with a mean estimate of 426,000. The MR estimate is considered more accurate at predicting the in-season abundance of the run passing the GW fishwheels. The MR estimate (~384,000) is based on tags applied at GW fishwheels (n=11,320), total catch at GH and Upper Stratum IS fisheries (n=75,419), and tag recoveries in the Upper Stratum (n=2237).

The current in-season Upper Nass Chinook estimate (~26,500) is generated using a new method being evaluated since 2014 that uses tags applied at GH fishwheels (n=1533), total catch (n=2266), tag recoveries (n=190), and estimated harvests between GW and GH to estimate mark rates and compute daily abundance estimates to Gitwinksihlkw. Estimates fluctuate over 10 d periods as marked fish begin to pass upstream sites. In comparison, in-season fishwheel catch index estimates to date are ranging from 11,500 to 48,000 with a mean estimate of 20,500 passing GW fishwheels.

The current in-season Nass Coho estimate (~24,500) is generated using mark-recapture data from GH fishwheels that fluctuate over a 7 d period as GW tagged fish pass the GH site. In comparison, in-season fishwheel catch index estimates to date at GW are ranging from 11,500 to 30,000 with a mean estimate of 18,000. The MR estimate is considered more accurate at predicting the in-season abundance of the run passing the GW fishwheels. The MR estimate is based on tags applied at GW fishwheels (n=795), total catch at GH and Upper Stratum IS fisheries (n=3143), and tag recoveries in the Upper Stratum (n=76).

The current in-season Nass summer-run steelhead estimate (~4,800) is generated using the Coho mark-recapture data to estimate the steelhead population that passed GW fishwheels. In comparison, the in-season fishwheel catch index estimates to date, based on historical steelhead catch rates at GW are ranging from 2,000 to 9,600 with a mean estimate of 4,500.

In-season projected return forecasts to date are below and suggest targets have been reached for Sockeye, Chinook, and summer-run steelhead (minimum); and are tracking below target for Coho. Coho numbers have been increasing over the past week. Estimates to GW are based on two methods, mean run timing and log-regression of the in-season to final estimate and are shown in table below.

IN-SEASON FORECASTS TO GW - METHODS:	SOCK	CHIN	COHO	STEEL	16-Aug-15	
1. RUN TIMING METHOD (94-14) - Mean Run timing	415,000	27,000	49,800	13,000		
Lower (-2 S.D.)	374,000	26,000	33,800	8,300		
Upper (+2 S.D.)	465,000	27,000	100,000	26,100		In-season to Final
2. IN-SEASON TO FINAL (regression):	405,000	27,000	55,000	13,000	$r^2$ (CH) =	1.00
95% CI - lower	281,000	26,000	23,000	7,000	$r^2$ (SO) =	0.93
95% CI - upper	530,000	27,000	88,000	19,000	$r^2$ (CO) =	0.78
GW RUN SIZE TARGET (DEPENDING ON HARVESTS ABOVE GW)	250,000	15,000	65,000	4,200	$r^2$ (ST) =	0.74

Net Escapement Estimates for adult Nass salmon and summer-run steelhead to date are shown below. Based on preliminary in-season estimates, aggregate escapement targets have been reached for Sockeye, Chinook, and summer-run steelhead (minimum).

IN-SEASON NET ESCAPEMENT ESTIMATES	SOCK	CHIN	COHO	STEEL
HARVEST ESTIMATES ABOVE GW TO DATE	74,884	3,479	758	39
<b>NET ESCAPEMENT (ABOVE GW):</b>	<b>309,426</b>	<b>22,764</b>	<b>23,602</b>	<b>4,733</b>
NET ESCAPEMENT TARGET (UPPER RIVER ONLY)	200,000	13,000	60,000	4,000

### HARVEST ESTIMATES FOR ADULT NASS SALMON & STEELHEAD

ALASKAN FISHERIES IN SE ALASKA (information courtesy from ADFG's website):

Alaskan gillnet fisheries start dates in 2015: District 101 (Tree Point) on 21 June and District 106 (Sumner and Upper Clarence) on 17 June. Alaskan seine fisheries start dates in 2015: District 101 (Lower Clarence/Revilla) on 5 July; District 102 (Middle Clarence) on 21 June; District 103 (Cordova) on 19 July, and District 104 (Noyes/Dall) on 5 July. The table below shows the current estimates of catches of salmon in Alaskan net fisheries in Districts 101–104 (and mean catch comparisons between 2000 and 2014) to week ending **15 AUGUST** based on data from ADFG's website. Current catches are above average for Sockeye and Chum, and below average for Chinook, Pink, and Coho. Of the total in-season Sockeye catch reported in Alaskan fisheries to date (639,000), approximately 116,000 (18%) are estimated as Nass origin based on mean stock composition estimates from 1982–2014 and are currently below average (124,000) to date. The average total mean harvest of Nass Sockeye in Alaskan fisheries from 2000–2014 is 129,000 (range: 47,000-300,000).

IN-SEASON SE ALASKAN CUM. SALMON CATCH ESTIMATES (ADFG WEBSITE) - 2015								WEEK END:			15-Aug-15
DISTRICTS	AREA	SOCK CATCH	AVG (00-14)	CHIN CATCH	AVG (00-14)	PINK CATCH	AVG ODD (00-13)	CHUM CATCH	AVG (00-14)	COHO CATCH	AVG (00-14)
DIST 101 GN	TREE PT	20,000	74,000	1,100	1,400	109,000	276,000	294,000	197,000	8,000	16,000
DIST 106 GN	UPP. CLAR	100,000	85,000	1,500	1,400	183,000	111,000	198,000	131,000	70,000	61,000
DIST 101 SN	LOW CLAR	69,000	53,000	200	800	1,354,000	3,284,000	592,000	225,000	19,000	27,000
DIST 102 SN	MID CLAR.	70,000	30,000	600	770	2,214,000	2,188,000	633,000	357,000	43,000	36,000
DIST 103 SN	CORDOVA	14,000	20,000	100	400	1,025,000	825,000	28,000	56,000	9,000	17,000
DIST 104 SN	NOYES/DALL	366,000	225,000	6,300	5,700	3,176,000	1,898,000	192,000	148,000	56,000	58,000
<b>CUMULATIVE TOTAL</b>		<b>639,000</b>	<b>487,000</b>	<b>9,800</b>	<b>10,470</b>	<b>8,061,000</b>	<b>8,582,000</b>	<b>1,937,000</b>	<b>1,114,000</b>	<b>205,000</b>	<b>215,000</b>

\*Chinook catch data were not available from June to 11 July. For those weeks, mean weekly catches from 2000-2014 were used as approximate estimates for 2015.

CANADIAN COMMERCIAL NET FISHERIES IN AREA 3 (information courtesy from DFO Prince Rupert):

Area 3 commercial fisheries start dates in 2015 were 9 June for gillnet and 6 July for seines. DFO commercial net fishery openings in Area 3 for 2015 to date are 27 gillnet and 13 seine. No commercial openings in Area 3 have been announced for gillnets recently with the last fishery conducted on 11 August. Openings for seines in Area 3 have not occurred since 31 July due to poor returns of Nass Area Pink salmon. Commercial net harvest and release data to **10 August** for salmon and steelhead in Area 3 are shown below by week-ending Saturday periods:

GEAR	AK V	Vessels	SO-harv	SO-Rel	CO-HARV	CO-Rel	PK-HARV	PK-Rel	Chum-harv	Chum-Rel	CH-harv	CH-Rel	STEEL-Rel
GN	24	104	2,223	0	4	0	0	2	0	5	0	90	38
	25	283	9,880	0	9	3	2	0	0	80	0	675	20
	26	512	18,371	0	1,893	14	828	9	0	1,249	783	234	80
	27	339	21,845	0	326	0	5,154	7	2,738	797	469	118	16
	28	317	29,136	0	1,179	4	25,976	82	23,935	1,160	169	85	39
	29	471	37,915	0	1,694	11	55,300	104	29,932	1,744	147	95	57
	31	300	26,975	1	2,062	64	49,199	322	0	10,673	100	59	87
	32	209	24,743	0	1,870	5	18,989	0	0	4,364	51	13	116
	33	46	4,252	0	502	0	1,548	0	0	582	7	3	47
<b>GN Total</b>		<b>2,581</b>	<b>175,340</b>	<b>1</b>	<b>9,539</b>	<b>101</b>	<b>156,996</b>	<b>526</b>	<b>56,605</b>	<b>20,654</b>	<b>1,726</b>	<b>1,372</b>	<b>500</b>
SN	28	29	6,746	0	651	0	25,205	0	24,818	13	0	182	28
	29	106	9,543	0	4,104	0	79,295	0	85,068	0	0	499	104
	30	16	0	5,641	312	1	12,944	2	0	8,454	0	51	7
	31	37	5,760	0	2,573	43	63,774	0	0	14,613	0	111	25
<b>SN Total</b>		<b>188</b>	<b>22,049</b>	<b>5,641</b>	<b>7,640</b>	<b>44</b>	<b>181,218</b>	<b>2</b>	<b>109,886</b>	<b>23,080</b>	<b>0</b>	<b>843</b>	<b>164</b>
<b>Grand Total</b>		<b>2,769</b>	<b>197,389</b>	<b>5,642</b>	<b>17,179</b>	<b>145</b>	<b>338,214</b>	<b>528</b>	<b>166,491</b>	<b>43,734</b>	<b>1,726</b>	<b>2,215</b>	<b>664</b>

**LABELS: SO=SOCKEYE, PK=PINK, CO=COHO, CH=CHINOOK; STEEL=STEELHEAD, HARV=HARVESTED, AND REL=RELEASED.**

Sub-area breakout of catch is as follows:

GEAR	AREA 3	Vessels	SO-harv	SO-Rel	CO-HARV	CO-Rel	PK-HARV	PK-Rel	Chum-harv	Chum-Rel	CH-harv	CH-Rel	STEEL-Rel
GN	3-12	1131	82,714	0	3,051	36	68,170	93	0	6,715	652	656	283
	3-7A	517	30,980	0	1,822	23	28,368	307	0	5,702	479	347	96
	3-7B	779	52,220	1	3,587	42	48,990	89	33,213	8,133	504	333	106
	BOSTON ROCKS	105	6,761	0	786	0	9,545	27	20,088	0	71	25	15
	TRACEY BAY	46	2,556	0	274	0	1,856	9	3,304	73	20	11	0
<b>GN Total</b>		<b>2,581</b>	<b>175,340</b>	<b>1</b>	<b>9,539</b>	<b>101</b>	<b>156,996</b>	<b>526</b>	<b>56,605</b>	<b>20,654</b>	<b>1,726</b>	<b>1,372</b>	<b>500</b>
SN	3-7A	8	237	1,675	351	0	8,890	0	0	3,665	0	28	4
	3-7B	77	13,405	1,108	3,565	30	100,831	0	32,846	12,763	0	398	72
	BOSTON ROCKS	70	5,369	2,050	2,639	14	44,959	2	53,455	4,980	0	307	69
	TRACEY BAY	29	3,038	0	1,013	0	23,906	0	23,585	3	0	92	19
<b>SN Total</b>		<b>188</b>	<b>22,049</b>	<b>5,641</b>	<b>7,640</b>	<b>44</b>	<b>181,218</b>	<b>2</b>	<b>109,886</b>	<b>23,080</b>	<b>0</b>	<b>843</b>	<b>164</b>
<b>Grand Total</b>		<b>2,769</b>	<b>197,389</b>	<b>5,642</b>	<b>17,179</b>	<b>145</b>	<b>338,214</b>	<b>528</b>	<b>166,491</b>	<b>43,734</b>	<b>1,726</b>	<b>2,215</b>	<b>664</b>

\*Sub-area catches reporting fewer than 5 boats are not shown by sub area but included in totals by gear type.

Note that DFO implemented management actions in Area 3 to reduce harvest impacts on the Kwinageese Sockeye stock during their migration through Area 3 in July. The stock required rebuilding from a past spawning barrier detected in 2011 and poor returns from 2010 and 2012–2014. Sockeye retention was not be permitted in commercial fisheries in Area 3 from 19-25 July (WK 30), the anticipated peak of the Kwinageese Sockeye migration, as documented in DFO’s 2015 Integrated Fisheries Management Plan (IFMP).

Of the total commercial catch of Sockeye in Area 3, NFWA is estimating approximately **146,500** are of Nass origin (74%) based on stock composition modeling. We anticipate higher than average catches of Nass Sockeye in future Area 3 fisheries with fisheries limiting outside catches due to below average return of Skeena Sockeye to date (955,500 to Tyee vs. 1,370,000 mean).

UPPER NASS HARVESTS – GITANYOW FISHERIES

Estimates of harvests in Gitanyow fisheries to date are 21,500 Sockeye and 500 Chinook based on preliminary FSC (10,000) and inland demonstration catch (11,500) targets as catch data have not been made public since 25 July. The Gitanyow acquired 55 Area C license for the inland Sockeye economic fishery at Mezaidin. Of the total

catch reported in Gitanyow fisheries, 122 tags (117 Sockeye and 5 Chinook) were returned to NFWD. The average salmon harvests in Gitanyow fisheries from 2000–2014 are 8000 Sockeye, 150 Chinook (large), and 200 Coho.

**NISGA'A DOMESTIC (FSC) AND SALE FISHERIES:**

Nisga'a domestic and sale fisheries are monitored by the Nisga'a Fisheries and Wildlife Department and began on 2 May 2015. Cumulative harvests to week ending **15 AUGUST** are shown in the table below for FSC catches. For the same week ending period, mean cumulative harvests from 2000–2014 are shown for comparison. The current total harvests estimated in 2015 including sale fishery catches as of 16 August are above average for Nass Chinook, Sockeye, and Pink; and below average for Coho, Chum, and steelhead to date.

NISGA'A NATION CUMULATIVE DOMESTIC (FSC) AND TOTAL CATCH SUMMARY FOR NASS SALMON AND STEELHEAD, 2015.					
FSC Reported Week Ending Period		DOMESTIC (FSC) HARVESTS TO WK END - 2015		TOTAL HARVESTS TO DATE INCLUDING SALE FISHERIES - 2015	
NASS SPECIES	Wk end	Harvest	Mean*	Harvest	Mean
CHINOOK	15-Aug-15	5,749	5,000	7,732	5,800
SOCKEYE	15-Aug-15	30,715	26,500	127,504	87,000
PINK	15-Aug-15	2,698	2,660	21,806	17,970
COHO	15-Aug-15	532	1,410	2,082	7,710
CHUM	15-Aug-15	209	430	209	550
STEELHEAD	15-Aug-15	133	230	133	300

\* Mean harvests from 2000-2014 for week end periods. Harvests include all gear types estimates (net, angling, seine, fishwheels, etc.)

**Nisga'a Sale fishery information to date:**

- Total Individual-sale (IS) fisher permits issued to date are 293 (including 62 elder permits). Of the permits issued to date, 182 have sold in the 2015 Nisga'a sale fisheries for salmon.
- Summary of permits issued by community are: 85 Gitlaxt'aamiks, 49 Laxgalts'ap, 45 Gingolx, 35 Gitwinksihlkw, 34 Prince Rupert, 32 Terrace, and 13 other areas.
- The Nisga'a sale fisheries closure periods for the Kwinageese Sockeye stock to pass upriver were: 19-25 July for Marine and 23–29 July (and 29 July to 4 August above GH) for In-river sale fisheries.
- Individual-sale fishery data to date for Nisga'a **Marine** is as follows including future fisheries:

NUMBER OF NISGA'A MARINE FISHERIES (16 HR OPENINGS):	13	JUNE 18; JULY 2, 3, 7, 8, 12, 13, 15, 16, 29, 30; AUGUST 16, 17
DATA FROM JUNE 18 FISHERY (25 BOATS; 22 FISHERS SOLD) - FINAL		1853 SOCKEYE
DATA FROM JULY 2 FISHERY (24 BOATS; 23 FISHERS SOLD) - FINAL		3403 SOCKEYE, 51 CHINOOK, AND 456 PINKS
DATA FROM JULY 3 FISHERY (25 BOATS; 32 FISHERS SOLD) - FINAL		3665 SOCKEYE, 48 CHINOOK, 543 PINKS, AND 1 COHO
DATA FROM JULY 7 FISHERY (23 BOATS; 14 FISHERS SOLD) - FINAL		2064 SOCKEYE, 12 CHINOOK, AND 685 PINKS
DATA FROM JULY 8 FISHERY (25 BOATS; 27 FISHERS SOLD) - FINAL		2574 SOCKEYE, 28 CHINOOK, AND 1523 PINKS
DATA FROM JULY 12 FISHERY (23 BOATS; 17 FISHERS SOLD) - FINAL		2430 SOCKEYE, 13 CHINOOK, 1403 PINKS, AND 3 COHO
DATA FROM JULY 13 FISHERY (23 BOATS; 24 FISHERS SOLD) - FINAL		2452 SOCKEYE, 14 CHINOOK, 1564 PINKS, AND 3 COHO
DATA FROM JULY 15 FISHERY (23 BOATS; 17 FISHERS SOLD) - FINAL		2633 SOCKEYE, 31 CHINOOK, 1998 PINKS, AND 13 COHO
DATA FROM JULY 16 FISHERY (23 BOATS; 31 FISHERS SOLD) - FINAL		3797 SOCKEYE, 31 CHINOOK, 2634 PINKS, AND 24 COHO
DATA FROM JULY 29 FISHERY (20 BOATS; 18 FISHERS SOLD) - REVIEWED		1299 SOCKEYE, 11 CHINOOK, 3031 PINKS, AND 118 COHO
DATA FROM JULY 30 FISHERY (18 BOATS; 19 FISHERS SOLD) - REVIEWED		1883 SOCKEYE, 26 CHINOOK, 2325 PINKS, AND 103 COHO
DATA FROM AUG 16 FISHERY (12 BOATS; 13 FISHERS SOLD) - PRELIMINARY		3040 SOCKEYE, 20 CHINOOK, 116 PINKS, AND 366 COHO
NEXT NISGA'A MARINE FISHERY PLANNED:		OPEN MONDAY AUG 17 AND WEDNESDAY AUG 19

- Individual-sale fishery data to date for Nisga'a **In-river** is as follows including future fisheries:

NUMBER OF NISGA'A IN-RIVER FISHERIES (10 HR OPENINGS):	8	JULY 6, 8, 10, 13, 15, 17, 31 & AUGUST 5
DATA FROM JULY 6 FISHERY (64 FISHERS) - FINAL		6318 SOCKEYE AND 336 CHINOOK
DATA FROM JULY 8 FISHERY (63 FISHERS) - FINAL		5920 SOCKEYE, 296 CHINOOK, AND 2 COHO
DATA FROM JULY 10 FISHERY (53 FISHERS) - FINAL		5660 SOCKEYE AND 243 CHINOOK
DATA FROM JULY 13 FISHERY (71 FISHERS) - FINAL		8937 SOCKEYE AND 311 CHINOOK
DATA FROM JULY 15 FISHERY (70 FISHERS) - FINAL		8189 SOCKEYE, 242 CHINOOK, AND 6 COHO
DATA FROM JULY 17 FISHERY (60 FISHERS) - FINAL		5680 SOCKEYE, 210 CHINOOK, AND 31 COHO
DATA FROM JULY 31 FISHERY (54 FISHERS) - PRELIMINARY		10,509 SOCKEYE, 31 CHINOOK, AND 207 COHO
DATA FROM AUG 5 FISHERY (47 FISHERS) - OPEN		7102 SOCKEYE, 29 CHINOOK, AND 645 COHO
NEXT NISGA'A IN-RIVER FISHERY PLANNED:		OPEN TUESDAY AUG 18

- A Nisga'a seiner has been contracted by the Nisga'a Fisheries Limited Partnership to fish the NLG entitlement for Nass Pinks in 2015. Preliminary estimates of harvest to date are: 220 Sockeye, 5 Chinook, 28 Coho, and 2830 Pink for 2 days of fishing (August 2 & 3) in Area 3-12. Releases are: 495 Chum, 8 Chinook jacks, and 3 steelhead.

NLG's inland selective demonstration fishery to date:

NLG were successful in negotiating the leasing of 45 Area C commercial gillnet licenses (20 at start of fisheries and 25 from 27 July onward) to participate in DFO's Inland Selective Demonstration Fishery Program in 2015. DFO allocate weekly gillnet catches of Sockeye to NLG's inland selective fishery program based on a license sharing formula from commercial gillnet catches in Area 3 to date. These harvests are additional to Nisga'a Treaty Allocations (and IS targets) and have to be caught selectively (no gillnets). The Grease Harbour fishwheels are used to harvest these additional catch shares as arranged by NLG and the Nisga'a Fisheries Limited Partnership.

DFO issued a revised allocation of 7323 Sockeye to NLG on 12 August for selectively harvesting from the GH fishwheels based on Area 3 commercial gillnet catches in 2015. Of 38,835 Sockeye caught at the GH fishwheels to date, 7161 were harvested (7154 Sockeye as part of the demonstration fishery from 3-4 July, 9-10 July, 16-17 July, 25-26 July, 5-7 August, and 13-17 August; and 7 as part of the NLG treaty catch) and 31,674 were released. Harvesting continues with remainder of allocation (169) and another allocation expected to be issued by DFO later this week. Note that the Kwinageese Sockeye closure period for GH harvesting was from 29 July to 3 August where no harvesting was permitted as the stock passed upriver.

The total harvest summary to date in all of the Nisga'a harvest fisheries are as follows:

<b>NISGA'A TOTAL HARVEST SUMMARY</b>	<b>SOCK</b>	<b>CHIN</b>	<b>COHO</b>	<b>PINK-ODD</b>	<b>CHUM</b>	<b>STEEL</b>
MARINE SALE FISHERY TOTAL	31,093	285	631	16,278	CLOSED	CLOSED
IN-RIVER SALE FISHERY TOTAL	58,315	1,698	891	0	CLOSED	CLOSED
<b>INDIVIDUAL SALE (IS) FISHERY TOTAL</b>	<b>89,408</b>	<b>1,983</b>	<b>1,522</b>	<b>16,278</b>	<b>CLOSED</b>	<b>CLOSED</b>
NLG COMMUNAL SELECTIVE FISHWHEEL TREATY FISHERY	7	0	0	CLOSED	CLOSED	CLOSED
NLG COMMUNAL SEINE SELECTIVE TREATY FISHERY (REVIEWED)	220	5	28	2,830	CLOSED	CLOSED
<b>DOMESTIC (FSC) GILLNET FISHERY - WK END 15 AUG (DRAFT)</b>	<b>30,715</b>	<b>5,744</b>	<b>532</b>	<b>2,698</b>	<b>209</b>	<b>133</b>
<b>SUB TOTAL (NLG TREATY FISHERIES)</b>	<b>120,350</b>	<b>7,732</b>	<b>2,082</b>	<b>21,806</b>	<b>209</b>	<b>133</b>
NLG SOCK DEMONSTRATION SELECTIVE FISHERY HARVEST	7,154	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
<b>GRAND TOTAL</b>	<b>127,504</b>	<b>7,732</b>	<b>2,082</b>	<b>21,806</b>	<b>209</b>	<b>133</b>

**TOTAL RETURN TO CANADA (TRTC) AND NISGA'A ENTITLEMENT ESTIMATES FOR NASS SALMON**

Pre-season forecasts for Nass salmon returns in 2015 projected below average returns for Sockeye, Chinook, odd-year Pink, and Chum, and an above average return for Coho. Table summary below.

<b>PRE-SEASON TRTC &amp; ENTITLEMENT FORECASTS</b>	<b>SOCK</b>	<b>CHIN</b>	<b>COHO</b>	<b>PINK-ODD</b>	<b>CHUM</b>
HISTORICAL MEAN TRTC (1994-2014)	580,000	33,000	210,000	1,020,000	54,000
PRE-SEASON TRTC FORECAST	<b>562,000</b>	<b>24,000</b>	<b>236,000</b>	<b>734,000</b>	<b>15,000</b>
PRE-SEASON NISGA'A ENTITLEMENT	98,399	5,040	18,880	80,093	No surplus
CUM NISGA'A UNDERAGE (+)/OVERAGE (-): 2000-14	21,000	8,000	9,000	-21,000	15,000
<b>TOTAL PRE-SEASON NISGA'A CATCH POTENTIAL</b>	<b>119,000</b>	<b>13,000</b>	<b>28,000</b>	<b>59,000</b>	<b>No surplus</b>

The current tracking of in-season TRTC and Nisga'a entitlement estimates for Nass salmon to **16 AUGUST** are based on mean run timing to date (Sockeye 94%, Chinook 98%, Coho 49%, Pink 57%, and Chum 28%) with minimum and maximum run timing for range estimates from 1994–2014 returns. The current in-season TRTC estimates are currently tracking above the pre-season forecasts for Nass Sockeye, Chinook, and Chum; and below pre-season forecasts for Coho and Pink.

IN-SEASON TRTC & ENTITLEMENT ESTIMATES	SOCK	CHIN	COHO	PINK-ODD	CHUM
PROJECTED TRTC BASED ON MEAN RUN % & MR EST.	647,000	37,000	133,000	420,000	29,000
ESTIMATED %TRTC TO DATE: MEAN. RUN TIMING	94%	98%	49%	57%	28%
MINIMUM FORECAST	621,000	36,000	100,000	291,000	14,000
MAXIMUM FORECAST	735,000	38,000	230,000	976,000	80,000
IN-SEASON NISGA'A ENTITLEMENT TARGET	113,000	7,800	10,600	31,000	No surplus
IN-SEASON UNDERAGE (+)/OVERAGE (-)	21,000	-	-	- 5,250	small return
TOTAL IN-SEASON NISGA'A TREATY CATCH POTENTIAL	134,000	7,800	10,600	26,000	No surplus
MINIMUM ENTITLEMENT FORECAST	131,000	7,600	8,000	11,000	No surplus
MAXIMUM ENTITLEMENT FORECAST	145,000	8,000	18,400	123,250	6,400
NLG SELECTIVE DEMONSTRATION FISHERY ALLOCATION	7,323	NA	NA	NA	NA
TOTAL IN-SEASON NISGA'A CATCH POTENTIAL - ALL FISHERIES	141,000	7,800	10,600	26,000	No surplus

The in-season Nisga'a entitlement estimate for Nass Sockeye is ranging from 131,000 to 145,000 (min/max run timing) with a point estimate of approximately **134,000** based on the in-season TRTC mean point estimate (647,000) and the cumulative underage (21,000) from 2000–2014 including Nass Chum species conversion. The current catch of Nass Sockeye to date in NLG's treaty fisheries is approximately **120,500** leaving approximately **13,500** remaining to be caught to reach the entitlement for 2015. Of the 7323 allocated for the inland demonstration fishery, 7154 Sockeye have been harvested to date as part of the Nass inland selective demonstration fishery program.

The in-season Nisga'a entitlement estimate for Nass Chinook is about **7,800** based on the in-season TRTC mean point estimate (37,000). The current catch of Nass Chinook to date in all Nisga'a fisheries is just over **7,750**.

The in-season Nisga'a entitlement estimate for Nass Coho is ranging from 8,000 to 18,400 (min/max run timing) with a point estimate of approximately **10,600** based on the in-season TRTC mean point estimate (133,000) and not including the underage (9000) from 2000–2014. The current catch of Nass Coho to date in Nisga'a fisheries is approximately **2,100** leaving approximately **8,500** remaining to be caught to reach the entitlement for 2015.

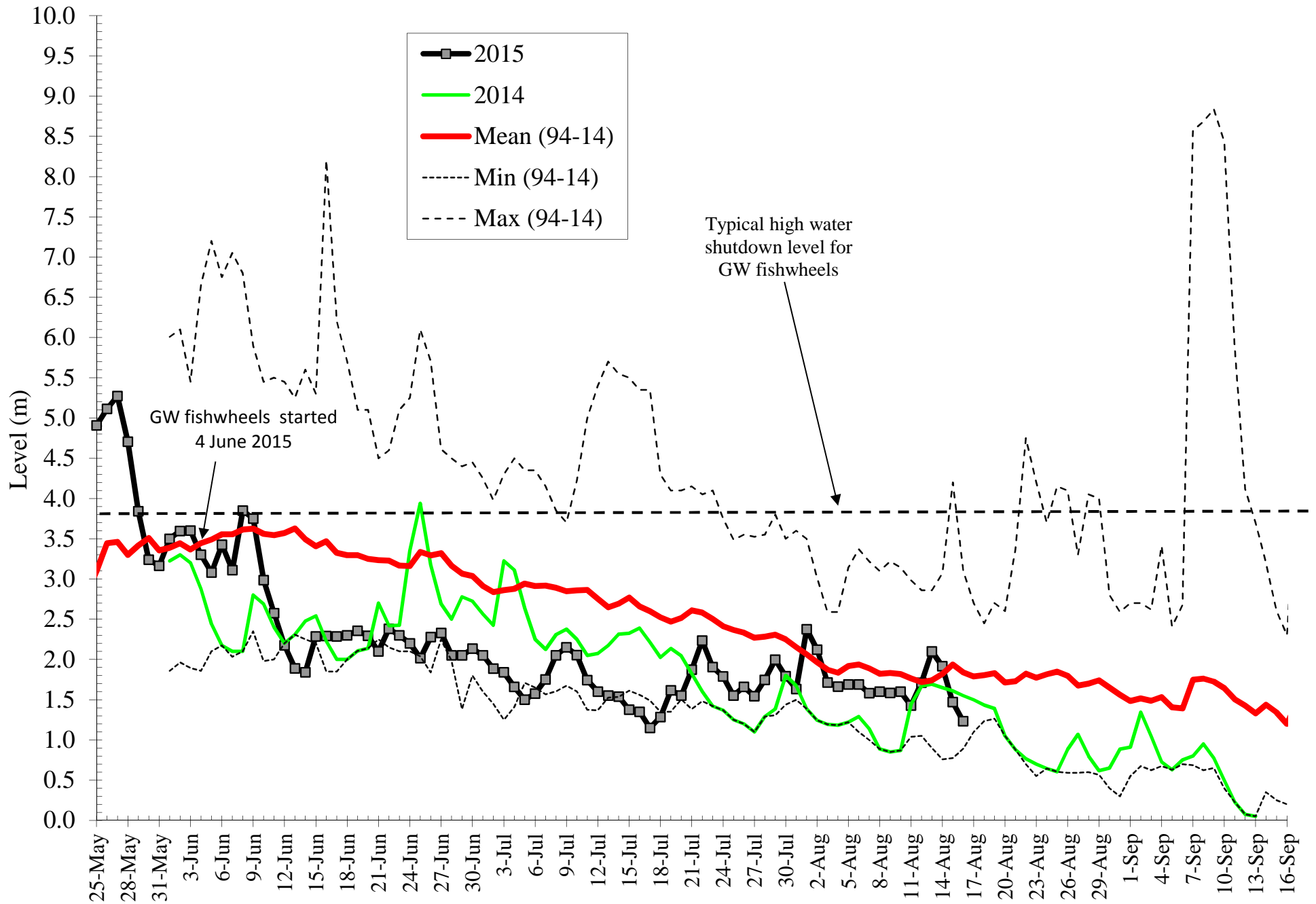
The in-season Nisga'a entitlement estimate for Nass Pink is ranging from 11,000 to 123,000 (min/max run timing) with a point estimate of approximately **26,000** based on the in-season TRTC mean point estimate (420,000) and 25% overage repayment (5250) accumulated from 2000–2014. The in-season TRTC estimate of odd-year Nass Pink is now based on fishwheel catch expanded by Coho mark rate (3.3%), difference in method from 2013 escapement (169%), and mean run timing (60%; range is 31-85%). The current catch of Nass Pink to date in NLG's treaty fisheries is approximately **22,000** leaving approximately **4,000** remaining to be caught to reach the entitlement depending on how much more of the overage is applied for 2015.

The in-season Nass Chum TRTC estimate is 29,000. The in-season TRTC estimate is based on Area 3 commercial catch of Chum to date (210,225) expanded by a mean harvest rate (6%; range 2-12%) and a mean Nass stock composition estimate (28%) from 2000 to 2013. Based on the current in-season estimates for Nass Chum, the TRTC is just below the minimum (30,000) and target (45,000) escapement goals to date so no directed harvests are planned and incidental catch is anticipated to be **<500** for 2015. The current catch of Nass Chum to date in all Nisga'a fisheries is **209**.

The next Nass River general stock assessment update from Nisga'a Fisheries is planned for:  
**Monday, 24 August 2015.**

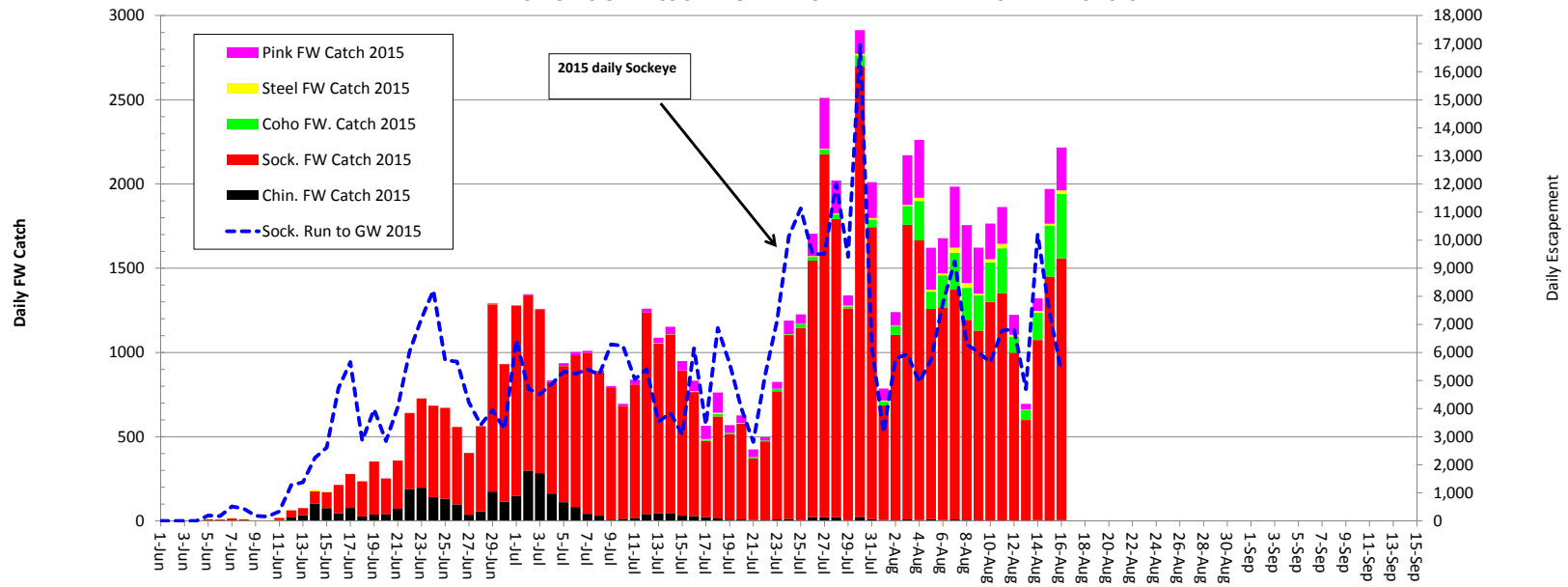
Nisga'a Fisheries Stock Assessment Update link (please remember to refresh these links by pushing F5):  
<ftp://ftp.lgl.com/Nass%20Stock%20Assessment%20Updates/>

# Daily Water Level at Gitwinksihlkw Fishwheels 2015

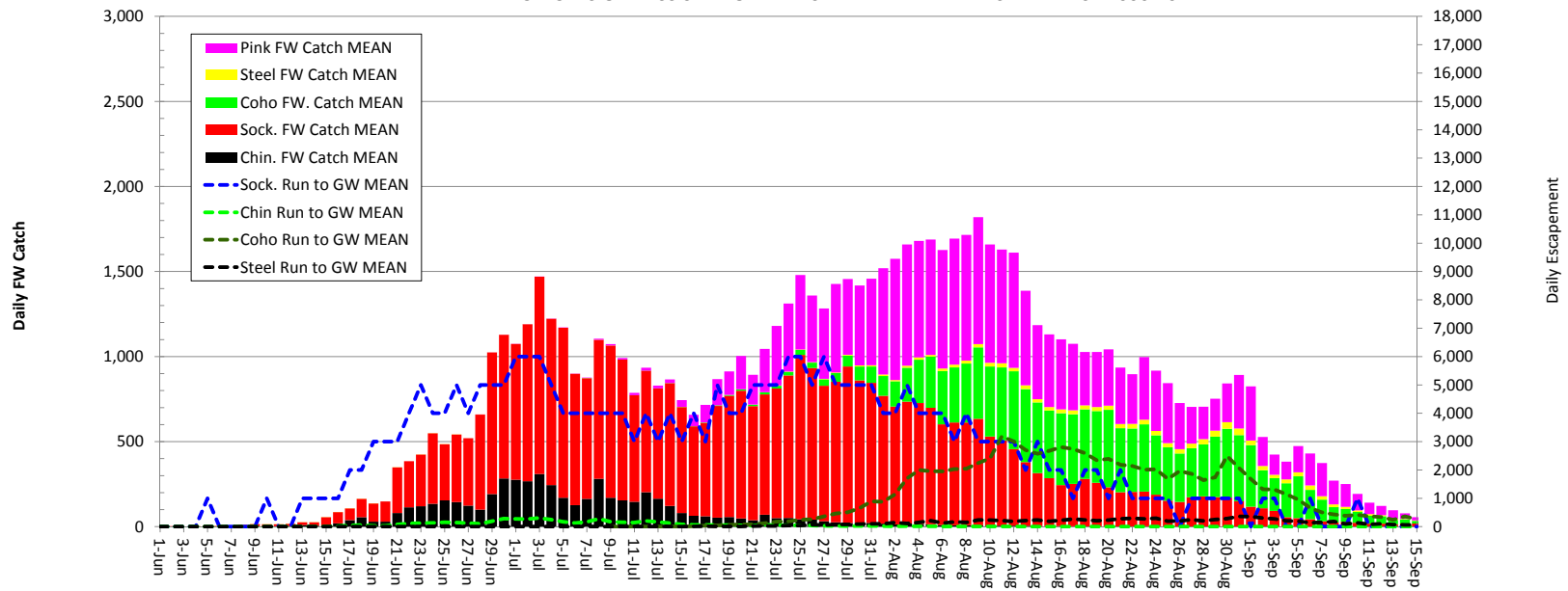




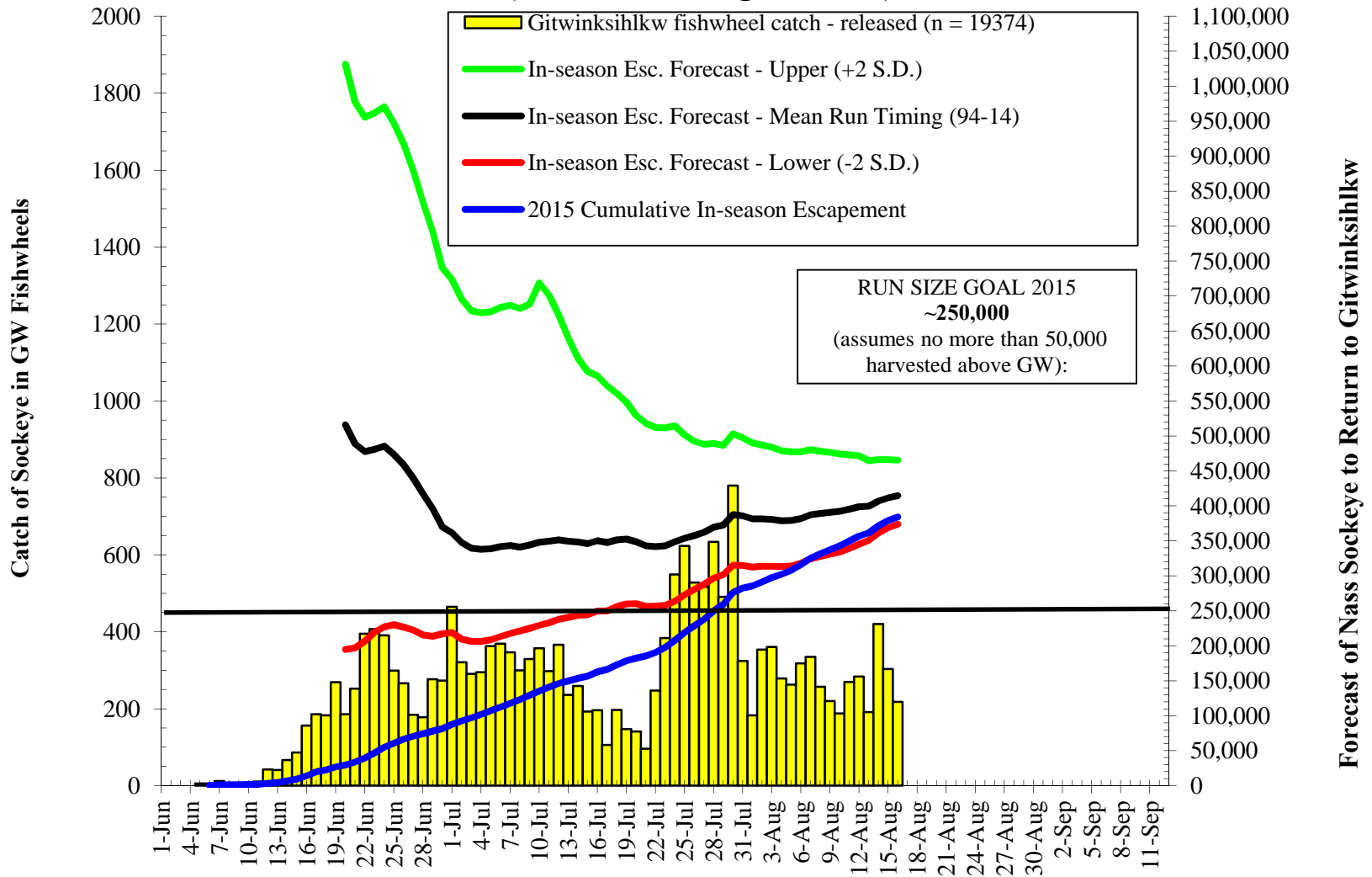
DAILY CATCHES OF NASS SALMON AND STEELHEAD AT THE FISHWHEELS 2015



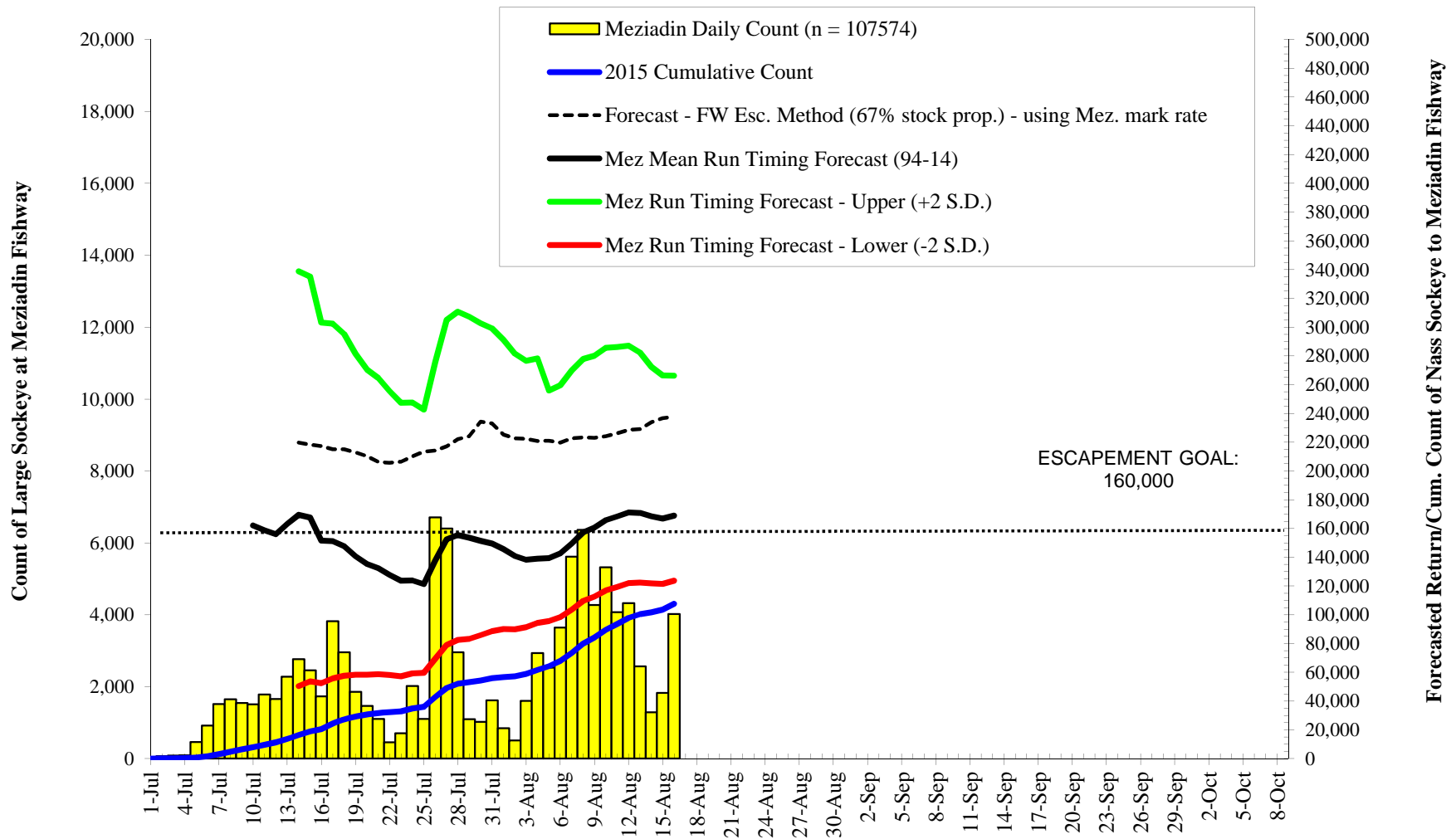
MEAN DAILY CATCHES OF NASS SALMON AND STEELHEAD AT THE FISHWHEELS - 2000-2014



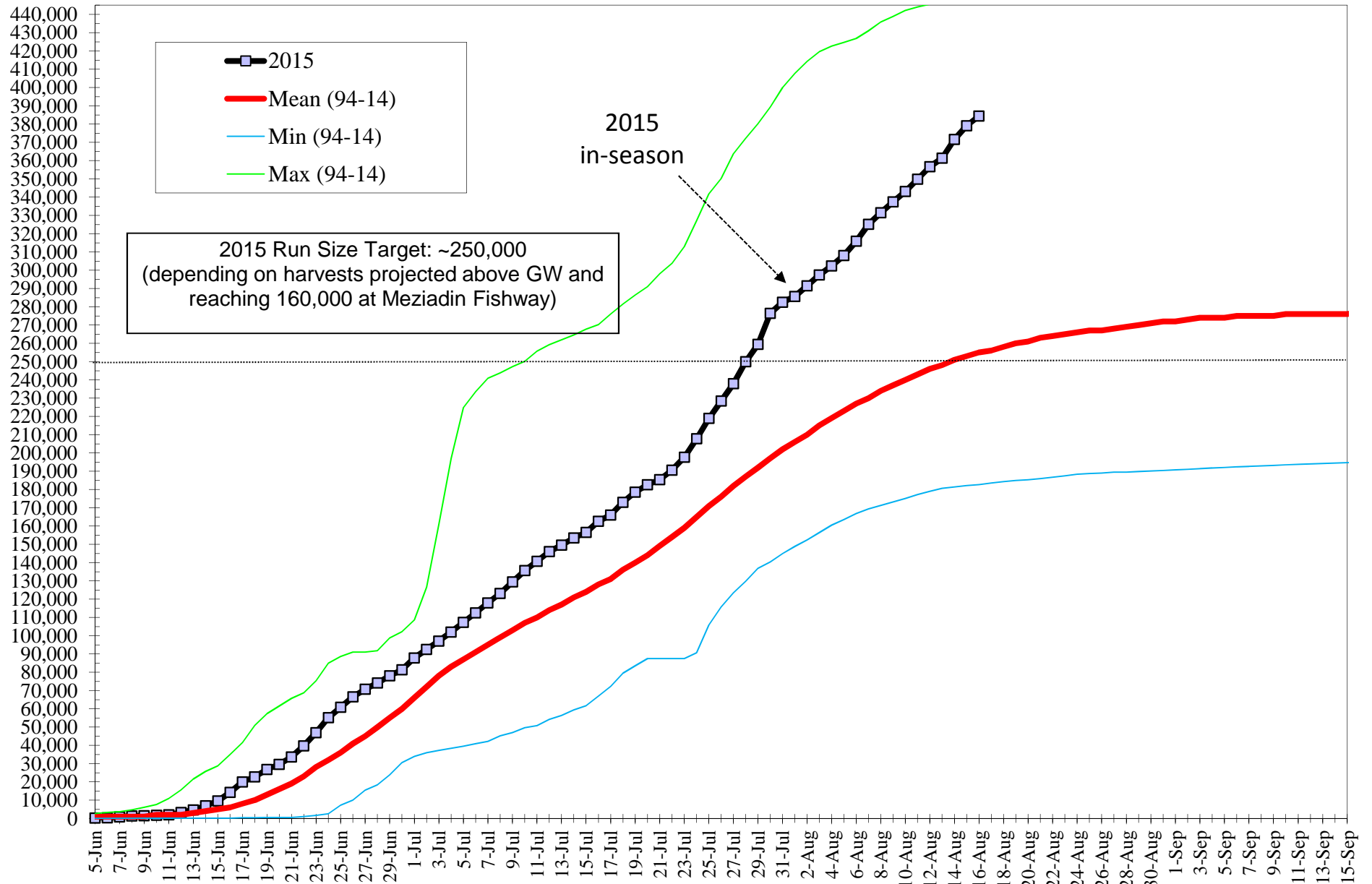
## Nass Sockeye ( $\geq 45$ cm NFL) Run Forecasts to Gitwinksihlkw Fishwheels 2015 (Mean Run timing - 1994-14)



### Meziadin Fishway Sockeye Counts & In-season Forecast Data 2015



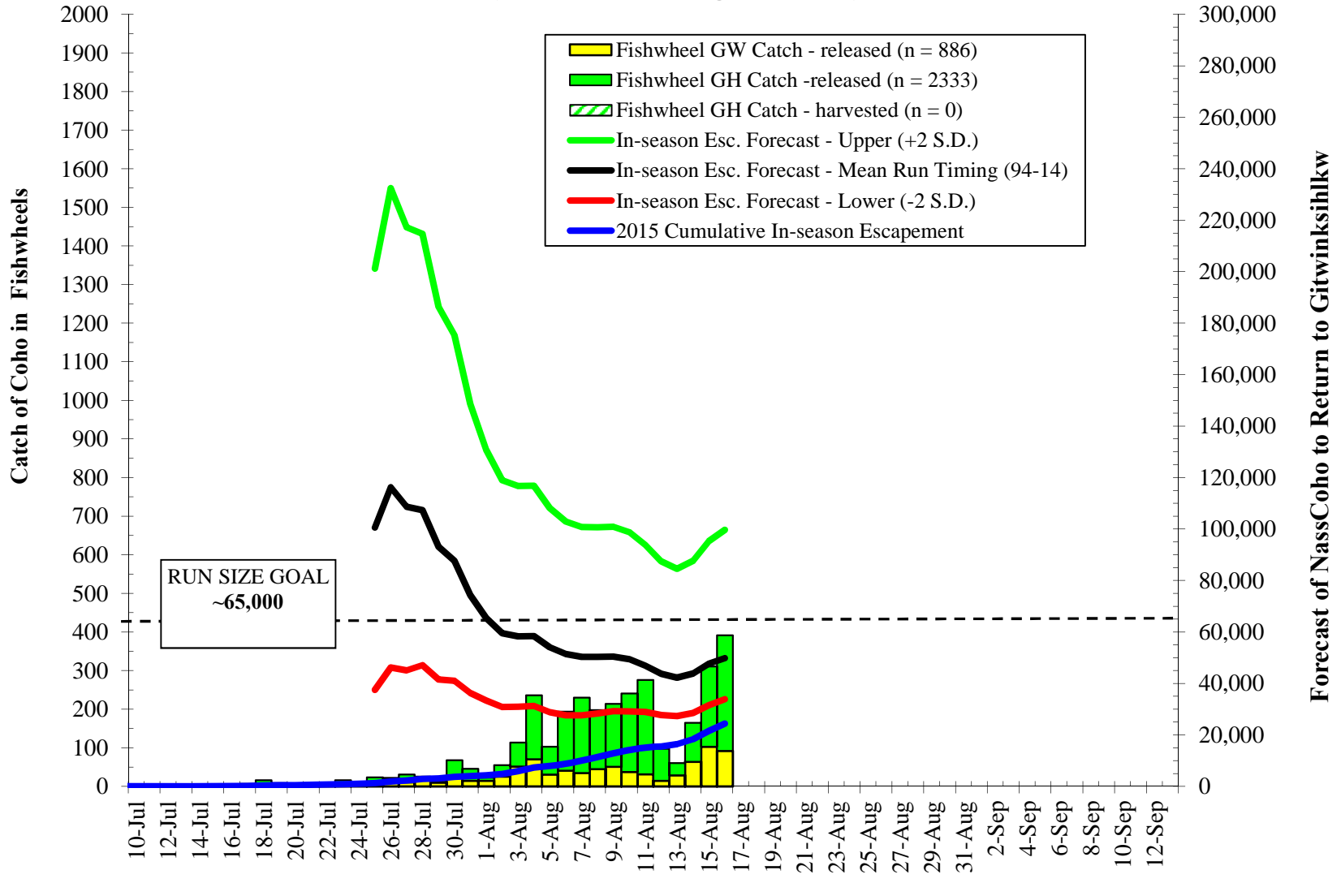
## Nass Sockeye Cum. Run Size to Gitwinksilhkw Fishwheels 2015 versus 94-14 Mean, Min, Max returns (before upriver harvests)



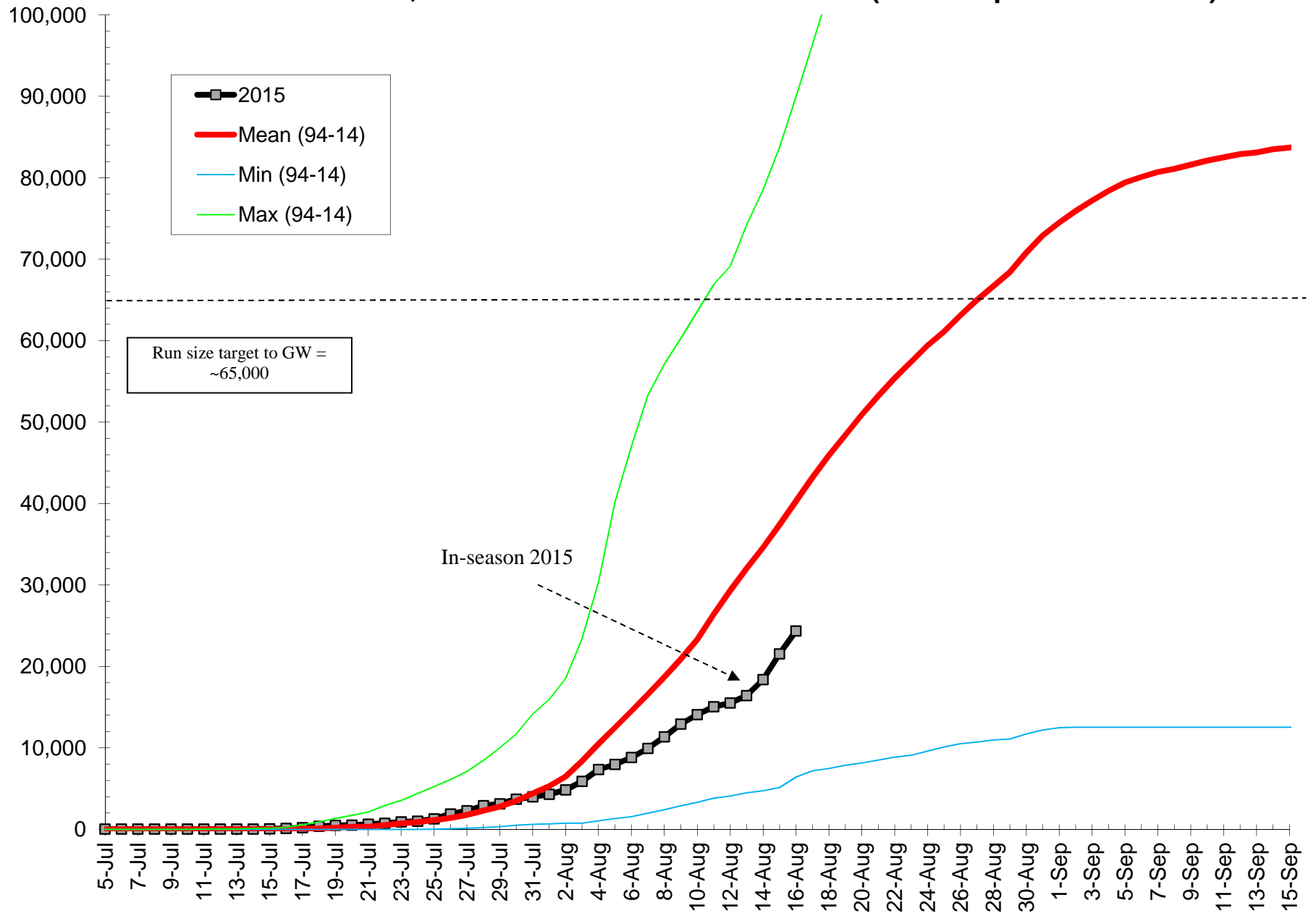
Cumulative Daily Run Sizes of Adult Nass River Sockeye Salmon (≥ 45 cm NFL) to Gitwinksihkw Fishwheels, 1994-2015.													Note: In-season cum. values with shading are preliminary and will change with more data.													
Date	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 Cum	Mean (94-15)	2015 Daily		
1-Jun																			216	0	0		0			
2-Jun																			809	0	0		0			
3-Jun			71													175	119		1,173	93	275		0			
4-Jun			71													175	158		1,609	278	687		0	0		
5-Jun			71										40			175	238		2,646	432	824		195	1,000	195	
6-Jun			71									40	40			207	175	360	25	3,245	494	1,510		368	1,000	173
7-Jun			71									121				326	175	401	75	3,682	572	2,060		885	1,000	517
8-Jun			71	71		107		864					229	47		533	175	441	275	4,754	788	3,444		1,318	1,000	433
9-Jun			71	208		256		1,326					229	209		741	175	645	524	6,136	1,070	5,060		1,501	1,000	184
10-Jun	142		71	394		497		1,505					229	419		1,127	175	645	699	7,027	1,523	7,644		1,653	2,000	152
11-Jun	176		595	546		533		1,521			174	364	419			1,542	175	849	1,024	7,398	2,071	10,921		1,988	2,000	335
12-Jun	224		2,638	908	793	533	111	1,814			1,059	836	419			1,928	175	1,134	1,322	7,413	3,136	15,583		3,266	2,000	1,278
13-Jun	262		4,640	1,135	1,897	533	111	2,577			1,783	1,196	419			2,314	175	1,294	1,620	7,413	4,137	21,491		4,641	3,000	1,375
14-Jun	350	350	7,198	1,422	2,592	533	111	2,756		1,511	2,375	1,723	419			2,551	175	1,414	2,366	8,430	5,436	25,737		6,888	4,000	2,247
15-Jun	526	1,880	9,928	1,969	4,610	533	111	3,032		5,204	3,328	2,250	419			2,758	175	1,733	3,484	10,465	7,174	28,694		9,504	5,000	2,616
16-Jun	956	3,196	11,257	2,236	6,385	533	553	3,877		10,343	4,973	3,776	419	154		3,466	1,773	2,092	5,671	12,009	8,441	34,958		14,249	6,000	4,745
17-Jun	1,841	4,853	12,565	2,466	9,614	533	2,517	4,832		15,268	8,689	6,161	419	488		4,587	4,447	2,691	6,690	12,082	9,108	41,540		19,907	8,000	5,658
18-Jun	2,707	6,792	14,413	2,622	15,508	533	4,342	6,216		20,996	17,734	9,656	419	561		6,210	8,336	4,327	9,126	12,446	10,816	50,857		22,763	10,000	2,856
19-Jun	3,642	9,945	17,344	3,343	18,485	533	7,799	6,687		27,393	23,851	11,760	605	561		9,868	13,233	6,282	10,577	13,478	12,777	57,344		26,734	13,000	3,971
20-Jun	4,483	15,043	21,510	4,077	23,228	533	11,781	7,033		39,866	24,670	13,426	2,630	561		13,792	17,748	9,109	12,107	13,711	13,684	61,573		29,579	16,000	2,845
21-Jun	6,705	23,802	24,447	4,888	28,638	533	17,506	7,075	29,917	49,020	24,670	15,863	4,702	659		19,605	23,523	12,059	13,836	14,572	15,845	65,738		33,627	19,000	4,048
22-Jun	8,698	31,298	26,700	5,953	33,708	1,514	24,476	7,075	53,842	52,179	24,670	21,386	7,844	1,077		23,216	31,350	16,811	16,598	17,368	18,620	68,743		39,665	23,000	6,039
23-Jun	11,915	37,028	27,496	8,389	38,890	4,088	32,662	7,075	75,318	55,636	24,670	26,505	12,966	1,616		24,852	40,581	23,210	19,996	17,866	24,605	70,093		46,879	28,000	7,214
24-Jun	14,787	43,462	27,670	9,930	41,659	9,787	42,231	7,741	84,932	63,106	24,670	31,011	17,086	2,573		30,400	53,871	28,552	24,229	17,866	32,181	73,868		55,909	32,000	8,211
25-Jun	18,868	45,639	27,670	11,330	43,961	17,110	55,229	10,934	88,616	70,100	24,670	33,641	20,461	7,209		36,366	65,154	33,615	26,911	17,866	34,456	75,537		60,816	36,000	5,727
26-Jun	22,949	48,739	27,670	13,727	45,483	24,419	72,182	16,443	91,072	76,530	26,511	35,773	23,347	10,058		40,975	72,579	39,888	30,271	17,866	44,050	78,019		66,492	41,000	5,675
27-Jun	27,030	52,528	27,670	16,093	48,212	29,590	79,898	22,058	91,072	80,990	29,568	38,720	25,582	15,416		45,804	79,358	45,962	35,037	17,888	51,420	87,281		70,718	45,000	4,226
28-Jun	31,111	57,510	27,670	18,390	49,490	33,797	79,898	25,084	91,072	84,831	35,665	42,868	27,728	22,065		50,633	86,952	51,354	39,940	18,832	77,165	91,753		74,140	50,000	3,422
29-Jun	35,192	65,575	28,748	23,756	51,525	38,143	79,898	26,779	98,717	86,966	41,467	48,063	32,777	29,196		54,242	91,203	55,440	43,995	31,382	91,289	94,676		78,087	55,000	3,947
30-Jun	39,273	70,322	53,107	33,827	53,960	42,624	79,898	30,487	102,127	89,501	48,006	54,382	38,689	36,770		58,643	94,237	58,436	48,384	42,726	96,013	97,207		81,359	60,000	3,273
1-Jul	45,347	73,288	74,003	38,742	57,520	47,862	85,966	33,888	108,610	92,734	51,160	58,517	42,023	43,172		67,993	97,871	61,322	52,772	55,482	100,305	98,557		87,821	66,000	6,461
2-Jul	48,668	76,519	84,479	44,099	59,799	54,122	103,938	35,981	126,584	93,814	56,227	61,515	45,858	45,336		76,305	102,054	62,848	55,662	75,066	104,651	101,507		92,531	72,000	4,711
3-Jul	53,904	84,427	87,781	49,583	62,325	61,387	112,961	37,197	160,994	96,537	62,259	63,453	51,443	48,452		76,305	105,208	63,774	58,654	88,722	108,543	103,801		97,041	78,000	4,510
4-Jul	57,474	91,034	91,484	52,799	65,115	67,087	115,310	38,313	196,911	99,056	65,054	64,892	58,362	53,305		76,305	107,865	64,777	60,738	95,873	111,235	104,522		101,921	83,000	4,880
5-Jul	65,386	103,462	93,148	54,428	68,088	71,442	117,760	39,513	224,762	101,438	69,166	67,550	64,793	59,239		76,305	110,495	66,514	62,650	98,807	112,684	106,109		107,238	87,000	5,316
6-Jul	71,808	112,996	94,950	58,430	72,111	75,975	117,760	40,914	233,579	103,953	74,438	69,271	68,722	62,785		76,305	112,850	68,813	65,152	103,551	113,873	108,589		112,479	91,000	5,241
7-Jul	76,708	121,135	96,888	59,386	78,269	84,486	117,958	42,161	240,891	106,318	79,176	72,042	71,557	64,873		86,686	115,714	73,241	69,761	105,938	116,880	110,309		117,882	95,000	5,403
8-Jul	82,695	124,846	98,787	62,048	83,915	97,383	120,533	45,210	243,807	109,093	88,294	75,611	75,379	71,881		96,917	117,862	80,018	72,385	107,844	119,621	112,591		123,087	99,000	5,205
9-Jul	88,318	127,743	100,999	67,207	86,687	108,225	126,179	46,974	247,158	111,492	94,159	77,789	78,285	76,646		105,678	122,393	83,125	73,734	109,302	122,422	114,737		129,376	103,000	6,290
10-Jul	92,446	130,331	102,498	72,507	89,101	114,224	132,168	49,577	250,162	113,304	100,632	81,564	81,203	81,381		112,694	125,670	87,773	74,808	110,104	125,989	116,806		135,608	107,000	6,232
11-Jul	95,831	132,372	108,488	76,123	91,859	118,248	135,632	50,732	255,678	115,573	104,618	85,667	85,121	85,702		117,038	129,196	93,589	76,521	110,617	128,878	118,206		140,655	110,000	5,047
12-Jul	100,701	135,214	113,803	80,856	95,701	123,489	140,067	54,206	259,269	117,890	108,888	90,486	89,920	86,278		119,205	131,682	98,109	79,745	111,188	131,649	120,808		146,059	114,000	5,404
13-Jul	107,664	138,465	117,481	83,919	99,060	127,566	142,248	56,301	261,891	119,333	115,590	95,442	94,695	86,278		122,817	134,647	101,199	85,035	113,917	132,769	123,616		149,585	117,000	3,526
14-Jul	113,685	140,943	120,126	86,826	101,572	130,423	145,873	59,389	264,572	122,672	121,616	100,230	98,327	86,278		126,974	137,077	103,602	95,295	117,312	134,614	127,659		153,431	121,000	3,846
15-Jul	118,774	142,782	123,098	90,226	105,320	135,034	147,184	61,634	267,697	124,472	128,259	102,695	100,895	86,278		131,854	139,073	106,100	104,110	120,872	137,242	132,123		156,503	124,000	3,072
16-Jul	122,563	144,607	125,835	94,076	109,411	141,289	149,032	66,920	270,225	127,797	130,229	104,339	104,774	86,278		137,633	141,826	106,863	112,758	124,421	141,659	136,882		162,647	128,000	6,144
17-Jul	128,444	147,528	130,458	98,726	112,961	147,389	150,546	72,272	276,077	130,616	133,526	108,093	108,037	86,278		142,705	144,324	107,740	117,770	126,835	147,866	141,276		166,078	131,000	3,431
18-Jul	130,243	150,375	134,296	103,349	117,924	150,416	151,917	79,555	281,561																	

Cumulative Daily Run Sizes of Adult Nass River Sockeye Salmon (≥ 45 cm NFL) to Gitwinksihkw Fishwheels, 1994-2015.														Note: In-season cum. values with shading are preliminary and will change with more data.										
Date	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 Cum	Mean (94-15)	2015 Daily
4-Aug	202,998	198,650	208,116	191,377	234,254	199,279	201,010	173,645	422,606	265,940	202,744	194,709	197,765	160,512	204,555	234,990	216,395	227,680	216,824	227,695	227,180	302,342	219,000	4,948
5-Aug	206,079	201,673	212,042	196,004	237,496	204,665	209,054	177,699	424,734	269,727	207,011	198,193	202,526	163,550	206,084	243,140	220,694	229,743	218,700	229,502	231,043	308,089	223,000	5,747
6-Aug	210,825	204,455	215,253	201,810	241,859	208,177	214,015	181,570	426,774	273,061	211,531	201,935	207,823	166,834	207,908	248,345	225,599	231,984	221,103	230,585	234,514	315,850	227,000	7,761
7-Aug	213,872	210,473	216,837	205,079	245,192	210,295	217,680	184,923	431,000	278,577	215,759	204,381	212,293	169,319	210,322	252,180	228,960	236,402	222,858	231,979	239,065	325,095	230,000	9,245
8-Aug	218,173	213,869	218,067	208,055	247,817	213,327	220,499	187,819	435,829	284,498	223,907	207,871	217,130	171,278	213,433	255,896	230,633	242,628	224,647	233,476	241,913	331,396	234,000	6,301
9-Aug	223,270	216,981	219,492	211,445	249,982	217,103	223,168	189,952	438,819	290,979	229,967	210,555	221,833	173,130	216,840	259,860	233,098	247,917	226,160	235,024	243,779	337,397	237,000	6,001
10-Aug	230,540	219,303	220,825	214,698	251,997	218,210	225,686	192,147	442,182	297,973	236,522	212,822	226,271	175,104	218,769	262,646	235,696	251,198	227,387	237,088	245,417	343,053	240,000	5,656
11-Aug	239,109	220,992	222,364	218,445	255,558	219,812	228,035	193,702	444,072	302,418	241,819	215,924	229,992	177,243	220,261	265,411	238,293	253,943	228,882	238,255	247,284	349,832	243,000	6,779
12-Aug	247,556	223,378	223,946	223,561	257,906	221,620	229,500	194,341	445,628	304,869	245,231	219,055	233,739	179,035	222,052	266,956	240,714	257,692	230,719	239,249	250,530	356,667	246,000	6,836
13-Aug	260,961	227,120	224,724	226,517	259,911	223,105	230,009	195,201	447,340	307,713	250,191	221,978	237,779	180,598	223,682	268,562	242,915	260,102	231,691	239,725	254,465	361,363	248,000	4,696
14-Aug	272,447	230,419	225,258	228,122	262,212	224,581	231,268	196,000	448,696	309,968	253,446	226,096	242,110	181,457	224,624	269,721	245,601	262,113	233,188	240,805	259,952	371,581	251,000	10,218
15-Aug	279,458	234,347	225,821	230,526	263,552	225,883	232,095	197,159	450,741	311,994	256,097	229,144	245,997	182,131	225,267	271,083	247,267	263,415	234,592	241,583	265,324	378,992	253,000	7,411
16-Aug	283,285	238,063	226,190	235,411	265,300	227,088	232,552	197,619	452,942	313,824	258,152	230,935	249,965	182,698	226,782	272,194	248,656	263,710	235,780	241,842	267,794	384,310	255,000	5,318
17-Aug	286,754	240,929	226,952	239,027	267,159	227,885	232,780	198,199	455,477	315,330	260,467	233,234	254,393	183,495	227,667	273,062	249,965	264,834	236,397	242,534	268,991		256,000	
18-Aug	290,508	243,691	227,508	241,222	269,027	228,541	233,665	198,679	457,113	316,564	262,577	236,977	259,531	184,261	228,893	273,843	251,195	266,313	237,107	242,815	270,772		258,000	
19-Aug	294,389	245,294	227,948	242,999	270,381	229,069	234,207	198,977	458,680	317,558	265,042	240,186	265,793	184,951	229,847	274,433	252,425	267,674	237,446	243,142	273,221		260,000	
20-Aug	299,267	246,986	228,742	244,010	271,682	229,850	234,749	199,345	459,902	318,702	267,638	241,175	271,023	185,362	230,487	274,972	253,298	269,212	237,894	243,517	275,141		261,000	
21-Aug	306,829	248,684	229,072	245,156	273,307	230,541	235,434	199,828	460,832	320,931	269,543	242,167	273,615	185,995	231,032	275,440	254,687	269,770	238,200	243,844	277,618		263,000	
22-Aug	309,812	250,205	229,553	246,818	274,264	231,034	235,576	200,219	461,090	322,436	272,426	244,266	275,610	186,738	231,876	275,926	255,775	269,770	238,386	244,312	279,204		264,000	
23-Aug	311,806	251,180	229,873	248,710	275,031	231,491	235,576	201,092	461,659	323,581	274,031	249,573	276,734	187,418	232,217	276,266	256,047	269,770	238,670	244,921	281,375		265,000	
24-Aug	313,461	254,164	230,219	250,046	275,745	231,912	235,633	201,644	461,865	324,716	274,625	253,795	277,950	188,319	232,511	276,607	256,513	271,345	238,802	245,717	283,093		266,000	
25-Aug	314,332	256,492	230,424	251,609	276,163	232,680	235,890	201,874	462,629	325,095	275,814	256,287	279,166	188,777	232,548	276,898	256,979	273,445	238,867	246,104	284,910		267,000	
26-Aug	314,841	258,702	230,783	253,021	276,932	233,748	236,033	202,183	463,441	325,527	276,646	258,709	281,116	189,030	232,683	277,481	257,601	275,447	238,942	246,529	286,824		267,000	
27-Aug	315,689	260,005	231,229	254,249	277,368	233,947	236,204	202,183	464,254	326,068	277,954	262,124	283,088	189,435	233,039	278,274	257,873	278,860	239,006	246,761	288,469		268,000	
28-Aug	316,241	261,586	231,603	255,351	277,906	234,222	236,745	202,227	464,416	326,771	279,113	264,283	284,488	189,548	233,665	278,566	258,184	281,871	239,038	247,110	289,082		269,000	
29-Aug	316,835	263,088	231,783	256,391	278,464	234,674	237,664	202,382	464,416	327,041	280,016	266,441	286,781	189,885	234,119	278,809	258,437	285,031	239,124	247,497	289,917		270,000	
30-Aug	317,387	264,392	231,970	259,829	278,610	235,066	238,232	202,890	465,131	327,366	280,467	268,363	289,488	190,087	234,536	279,104	258,690	289,194	239,156	247,729	290,530		271,000	
31-Aug	318,342	266,542	232,154	263,385	279,011	235,430	238,961	203,376	465,992	327,656	280,733	269,895	290,773	190,402	234,731	279,357	258,690	292,316	239,167	247,922	291,428		272,000	
1-Sep	318,745	268,439	232,334	265,113	279,411	235,635	239,475	203,707	466,961	327,850	280,972	272,011	292,149	190,807	234,836	279,621	258,798	295,625	239,210	247,992	292,351		272,000	
2-Sep	319,127	269,516	232,604	266,806	279,615	235,635	239,989	203,851	467,788	327,996	281,343	273,263	294,626	191,010	234,875	279,673	258,943	299,119	239,220	248,026	293,326		273,000	
3-Sep	319,551	272,433	232,844	266,806	279,714	235,708	240,394	203,959	468,498	328,189	281,795	274,429	296,338	191,387	235,005	279,779	259,160	301,275	239,260	248,096	294,198		274,000	
4-Sep	319,700	273,159	233,084	266,806	279,971	235,843	240,637	204,013	469,402	328,577	282,007	275,182	296,338	191,794	235,083	279,863	259,340	302,279	239,280	248,131	295,096		274,000	
5-Sep	319,784	274,422	233,234	266,806	280,131	236,113	241,313	204,084	469,596	328,916	282,470	276,152	296,338	192,085	235,161	280,032	259,846	302,874	239,300	248,200	296,224		274,000	
6-Sep	320,187	275,590	233,324	266,806	280,270	236,564	241,746	204,192	469,919	328,916	282,742	276,865	296,338	192,463	235,222	280,053	259,918	303,097	239,310	248,270	297,481		275,000	
7-Sep	320,293	276,601	233,354	266,806	280,409	236,959	242,097	204,300	469,957	328,916	283,178	278,014	296,338	192,695	235,222	280,116	260,062	303,097	239,330	248,304	298,251		275,000	
8-Sep	321,276	277,609	233,384	266,806	280,573	237,380	242,395	204,354	470,014	328,916	283,287	278,411	296,338	192,928	235,222	280,190	260,459	303,097	239,330	248,339	298,687		275,000	
9-Sep	322,600	278,966	233,504	266,806	280,969	238,010	242,557	204,479	470,083	328,916	283,532	278,668	296,338	193,131	235,222	280,253	260,892	303,097	239,360	248,339	299,200		275,000	
10-Sep	323,259	279,641	233,504	266,806	281,132	238,249	242,746	204,497	470,083	328,916	283,695	279,619	296,338	193,553	235,222	280,295	261,072	303,097	239,380	248,339	299,789		276,000	
11-Sep	323,737	280,132	233,534	266,806	281,325	238,458	242,773	204,497	470,083	328,916	283,695	280,702	296,338	193,821	235,222	280,527	261,145	303,097	239,380	248,339	300,149		276,000	
12-Sep	324,164	280,569	233,534	266,806	281,466	238,538	242,935	204,497	470,083	328,916	283,712	281,491	296,338	193,936	235,222	281,234	261,253	303,097	239,390	248,513	300,687		276,000	
13-Sep	324,656	281,074	233,594	266,806	281,599	238,631	243,151	204,515	470,083	328,916	283,712	282,573	296,338	194,358	235,222	281,234	261,397	303						

### Nass Coho ( $\geq 40$ cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2015 (Mean Run timing - 1994-14)



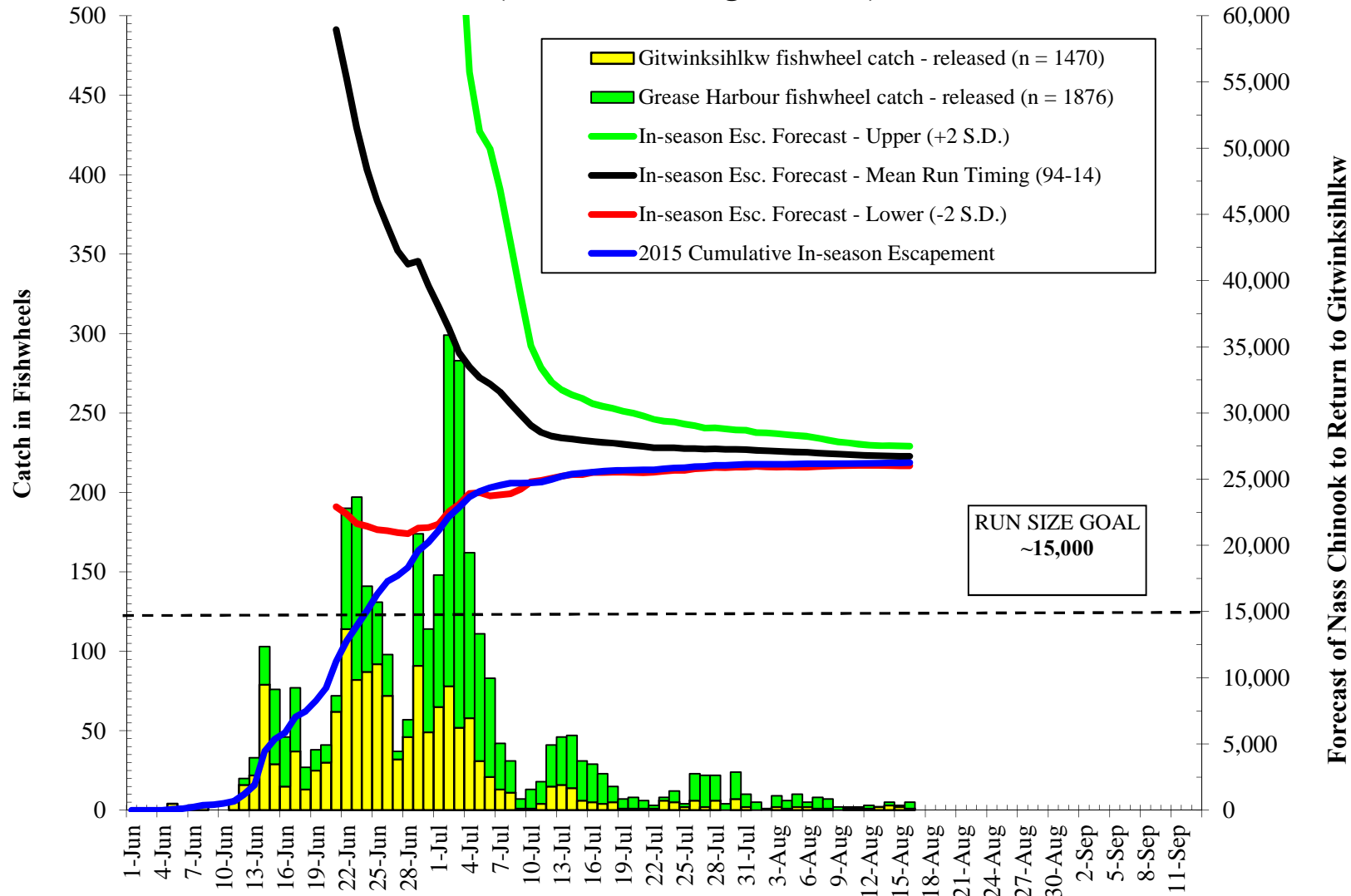
## Cumulative Nass Adult Coho Run Size to Gitwinksihkw 2015 vs. 94-14 Mean, Minimum and Maximum returns (before up river harvests)



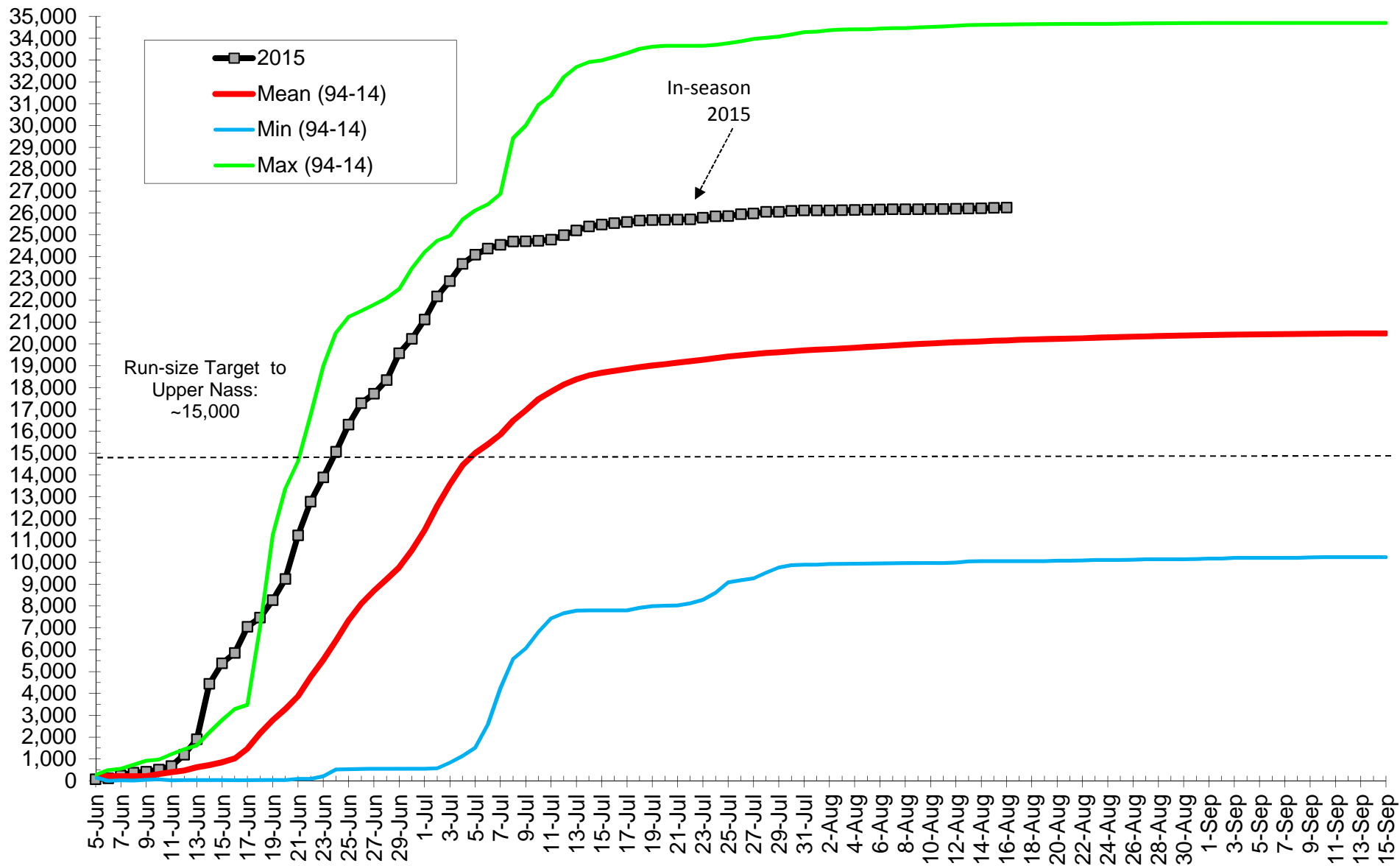




### Nass Chinook ( $\geq 50$ cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2015 (Mean Run timing - 1994-14)



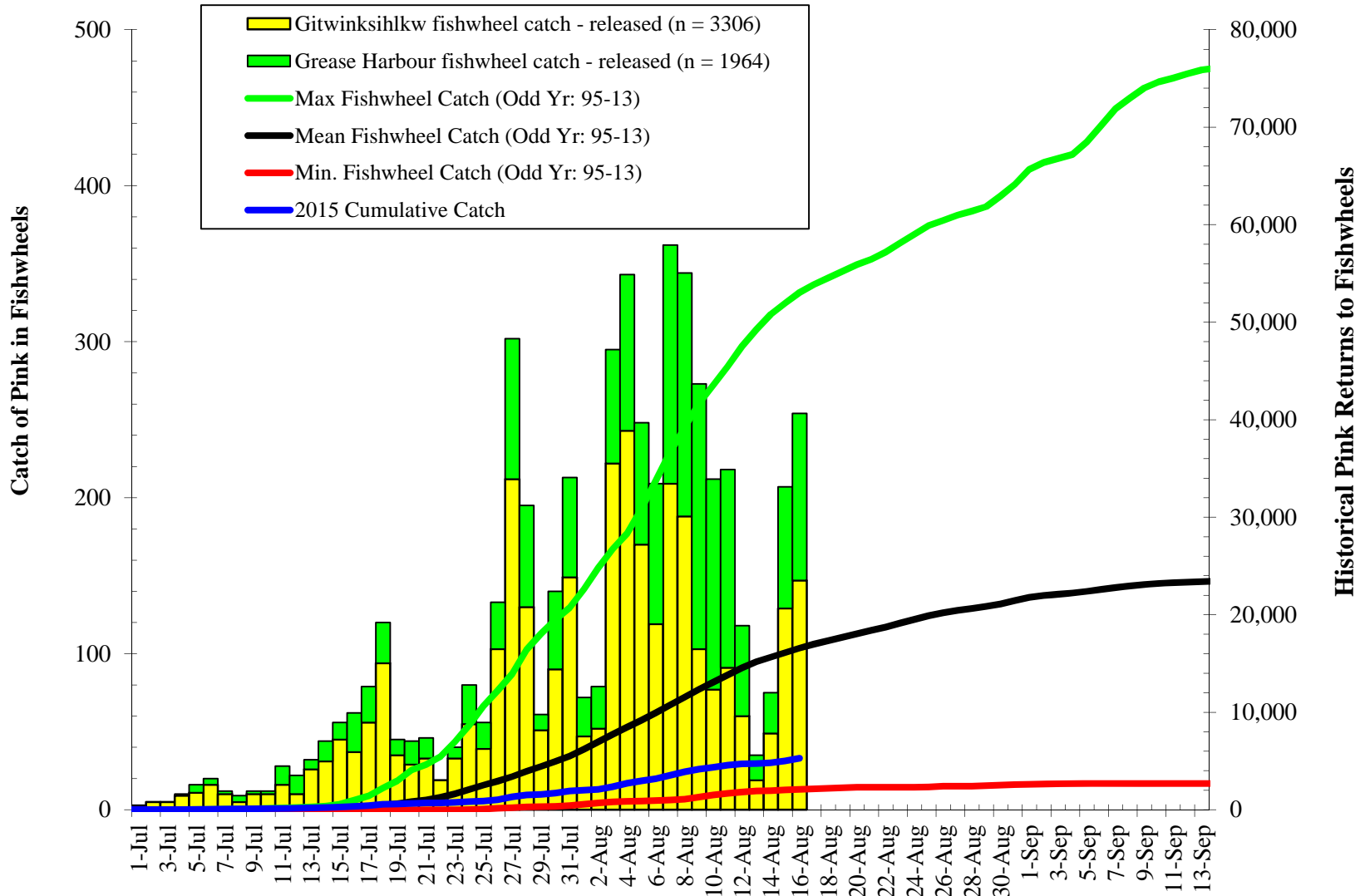
## Cumulative Nass Adult Chinook Run Size to Gitwinksihlkw 2015 vs 94-14 Mean, Minimum and Maximum returns (before up river harvests)



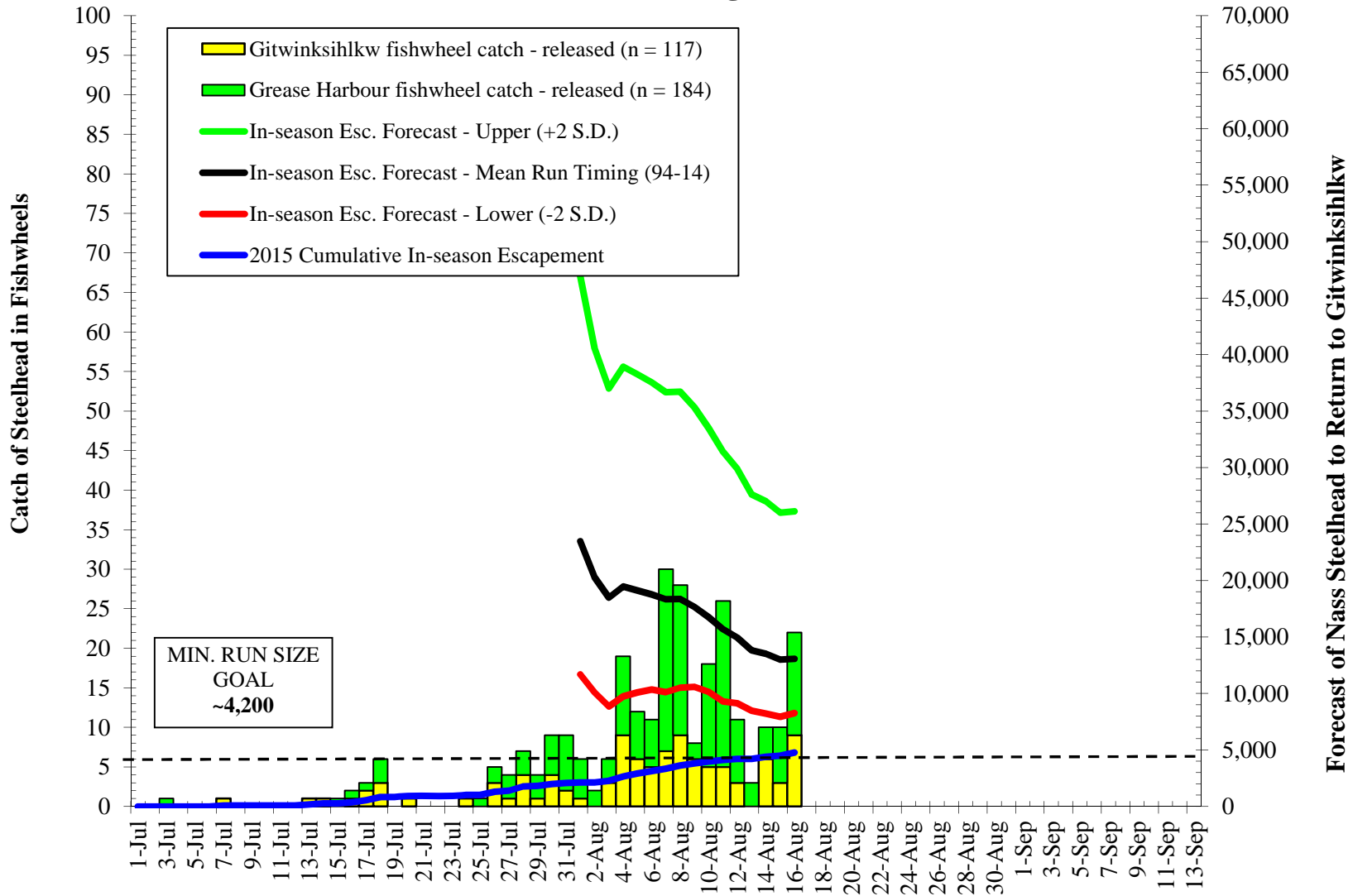


Cumulative Daily Run Sizes of Adult Nass River Chinook Salmon (≥ 50 cm NFL) to Gitwinksihkw Fishwheels, 1994-2015.																					IN-SEASON			
Date	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 Cum	Mean (94-15)	2015 Daily
5-Aug-15	23,945	10,280	23,617	20,358	24,788	12,962	20,960	34,404	15,853	29,090	16,989	15,941	27,880	26,532	20,787	29,146	19,488	10,866	10,327	9,939	12,970	26,148	19,863	12
6-Aug-15	23,945	10,280	23,666	20,367	24,830	12,982	21,003	34,443	15,871	29,106	17,054	15,941	27,958	26,569	20,787	29,192	19,549	10,866	10,359	9,955	13,002	26,160	19,892	12
7-Aug-15	23,957	10,293	23,698	20,395	24,850	12,992	21,068	34,458	15,890	29,106	17,087	15,985	27,990	26,582	20,880	29,351	19,610	10,929	10,383	9,955	13,099	26,165	19,931	6
8-Aug-15	23,969	10,293	23,780	20,422	24,892	13,011	21,111	34,466	15,890	29,121	17,120	15,999	28,037	26,582	20,926	29,488	19,671	10,950	10,398	9,972	13,228	26,171	19,968	6
9-Aug-15	23,969	10,306	23,780	20,440	24,913	13,011	21,175	34,496	15,899	29,152	17,217	16,028	28,084	26,606	20,949	29,556	19,732	10,971	10,430	9,972	13,324	26,171	20,001	0
10-Aug-15	23,969	10,306	23,780	20,449	24,933	13,031	21,208	34,519	15,899	29,183	17,332	16,028	28,084	26,643	20,949	29,556	19,732	10,971	10,454	9,972	13,388	26,177	20,018	6
11-Aug-15	23,981	10,319	23,796	20,495	24,933	13,091	21,283	34,535	15,908	29,183	17,413	16,043	28,131	26,705	20,995	29,602	19,853	10,992	10,461	9,972	13,453	26,183	20,054	6
12-Aug-15	23,981	10,345	23,796	20,504	24,933	13,120	21,305	34,565	15,935	29,230	17,413	16,057	28,178	26,717	21,018	29,602	19,975	11,013	10,485	9,989	13,517	26,189	20,080	6
13-Aug-15	24,005	10,345	23,828	20,513	24,933	13,130	21,348	34,596	15,935	29,245	17,462	16,071	28,194	26,729	21,064	29,602	20,036	11,013	10,493	10,039	13,517	26,200	20,100	12
14-Aug-15	24,017	10,358	23,828	20,513	24,933	13,190	21,401	34,596	15,935	29,261	17,527	16,086	28,194	26,754	21,064	29,670	20,097	11,013	10,525	10,056	13,517	26,218	20,121	17
15-Aug-15	24,041	10,358	23,845	20,522	24,933	13,229	21,434	34,619	15,944	29,292	17,625	16,086	28,241	26,766	21,064	29,784	20,097	11,034	10,564	10,056	13,517	26,229	20,145	12
16-Aug-15	24,041	10,358	23,861	20,522	24,933	13,249	21,466	34,634	15,944	29,307	17,641	16,086	28,273	26,816	21,087	29,852	20,097	11,034	10,611	10,056	13,549	26,243	20,163	14
17-Aug-15	24,064	10,371	23,910	20,540	24,954	13,259	21,498	34,634	15,953	29,307	17,674	16,115	28,288	26,828	21,156	29,852	20,158	11,076	10,643	10,056	13,582		20,187	
18-Aug-15	24,088	10,371	23,942	20,577	24,996	13,298	21,498	34,634	15,972	29,307	17,690	16,144	28,320	26,840	21,156	29,898	20,158	11,076	10,643	10,056	13,646		20,205	
19-Aug-15	24,088	10,371	23,959	20,604	24,996	13,318	21,520	34,642	15,972	29,307	17,707	16,172	28,398	26,865	21,179	29,920	20,219	11,076	10,666	10,056	13,678		20,224	
20-Aug-15	24,088	10,384	23,991	20,641	24,996	13,338	21,531	34,657	15,999	29,338	17,739	16,172	28,445	26,877	21,179	29,920	20,219	11,076	10,666	10,073	13,678		20,239	
21-Aug-15	24,100	10,384	23,991	20,686	25,017	13,348	21,531	34,657	16,017	29,338	17,772	16,172	28,461	26,877	21,203	29,943	20,219	11,076	10,682	10,073	13,678		20,249	
22-Aug-15	24,124	10,384	23,991	20,732	25,017	13,348	21,541	34,657	16,017	29,338	17,853	16,187	28,477	26,902	21,203	29,966	20,219	11,076	10,682	10,089	13,678		20,261	
23-Aug-15	24,136	10,384	23,991	20,750	25,058	13,348	21,541	34,657	16,017	29,354	17,902	16,230	28,477	26,964	21,272	30,057	20,219	11,076	10,714	10,106	13,710		20,284	
24-Aug-15	24,160	10,384	23,991	20,750	25,058	13,348	21,541	34,657	16,017	29,385	17,935	16,317	28,493	26,988	21,387	30,080	20,219	11,098	10,722	10,106	13,710		20,302	
25-Aug-15	24,160	10,384	24,007	20,750	25,079	13,358	21,541	34,665	16,017	29,385	17,935	16,346	28,493	27,001	21,387	30,080	20,280	11,098	10,729	10,106	13,871		20,318	
26-Aug-15	24,160	10,384	24,056	20,768	25,100	13,378	21,541	34,680	16,017	29,400	17,935	16,389	28,508	27,001	21,387	30,125	20,280	11,098	10,745	10,123	13,871		20,331	
27-Aug-15	24,172	10,384	24,056	20,786	25,162	13,378	21,552	34,680	16,017	29,400	17,967	16,418	28,524	27,001	21,410	30,125	20,280	11,098	10,745	10,139	13,903		20,343	
28-Aug-15	24,196	10,397	24,056	20,795	25,183	13,387	21,563	34,680	16,017	29,416	17,967	16,505	28,555	27,001	21,479	30,148	20,280	11,098	10,753	10,139	13,968		20,361	
29-Aug-15	24,256	10,397	24,089	20,795	25,204	13,387	21,574	34,688	16,017	29,416	17,967	16,533	28,555	27,001	21,502	30,194	20,280	11,098	10,753	10,139	14,000		20,374	
30-Aug-15	24,256	10,410	24,089	20,795	25,224	13,387	21,584	34,695	16,017	29,447	17,967	16,533	28,571	27,038	21,549	30,194	20,341	11,119	10,753	10,139	14,097		20,391	
31-Aug-15	24,256	10,410	24,105	20,795	25,224	13,387	21,595	34,695	16,017	29,447	17,984	16,577	28,571	27,050	21,595	30,194	20,341	11,119	10,761	10,156	14,097		20,399	
1-Sep-15	24,256	10,423	24,105	20,795	25,224	13,387	21,595	34,695	16,026	29,447	17,984	16,577	28,571	27,050	21,595	30,216	20,341	11,140	10,777	10,173	14,129		20,405	
2-Sep-15	24,256	10,423	24,105	20,823	25,224	13,397	21,595	34,695	16,035	29,447	17,984	16,606	28,571	27,062	21,595	30,216	20,341	11,203	10,777	10,173	14,161		20,414	
3-Sep-15	24,256	10,423	24,121	20,823	25,266	13,397	21,606	34,695	16,035	29,462	17,984	16,620	28,618	27,062	21,618	30,216	20,341	11,224	10,777	10,206	14,161		20,424	
4-Sep-15	24,280	10,423	24,170	20,823	25,266	13,407	21,606	34,695	16,072	29,462	17,984	16,620	28,618	27,075	21,664	30,216	20,341	11,224	10,777	10,206	14,161		20,433	
5-Sep-15	24,280	10,423	24,170	20,823	25,266	13,417	21,606	34,695	16,072	29,462	17,984	16,620	28,618	27,075	21,687	30,216	20,402	11,287	10,777	10,206	14,161		20,440	
6-Sep-15	24,280	10,423	24,186	20,823	25,266	13,417	21,606	34,695	16,072	29,462	17,984	16,620	28,618	27,075	21,687	30,216	20,523	11,371	10,785	10,206	14,161		20,451	
7-Sep-15	24,280	10,423	24,186	20,823	25,266	13,417	21,606	34,695	16,072	29,462	17,984	16,635	28,618	27,099	21,687	30,216	20,523	11,392	10,785	10,206	14,161		20,454	
8-Sep-15	24,280	10,423	24,186	20,823	25,266	13,417	21,606	34,703	16,072	29,462	17,984	16,649	28,618	27,112	21,687	30,239	20,523	11,392	10,785	10,206	14,193		20,458	
9-Sep-15	24,280	10,423	24,202	20,823	25,307	13,417	21,606	34,703	16,081	29,462	17,984	16,649	28,618	27,124	21,687	30,239	20,523	11,413	10,785	10,223	14,225		20,466	
10-Sep-15	24,280	10,423	24,202	20,823	25,349	13,427	21,606	34,703	16,081	29,462	17,984	16,692	28,618	27,124	21,687	30,239	20,523	11,413	10,785	10,240	14,257		20,472	
11-Sep-15	24,280	10,423	24,202	20,823	25,349	13,427	21,606	34,703	16,081	29,462	17,984	16,692	28,618	27,124	21,687	30,239	20,523	11,413	10,785	10,240	14,290		20,474	
12-Sep-15	24,280	10,423	24,202	20,823	25,349	13,427	21,606	34,703	16,081	29,462	17,984	16,707	28,618	27,136	21,687	30,262	20,584	11,413	10,785	10,240	14,290		20,479	
13-Sep-15	24,280	10,423	24,202	20,823	25,349	13,427	21,606	34,703	16,081	29,462	17,984	16,736	28,618	27,136	21,687	30,262	20,584	11,413	10,785	10,240	14,290		20,481	

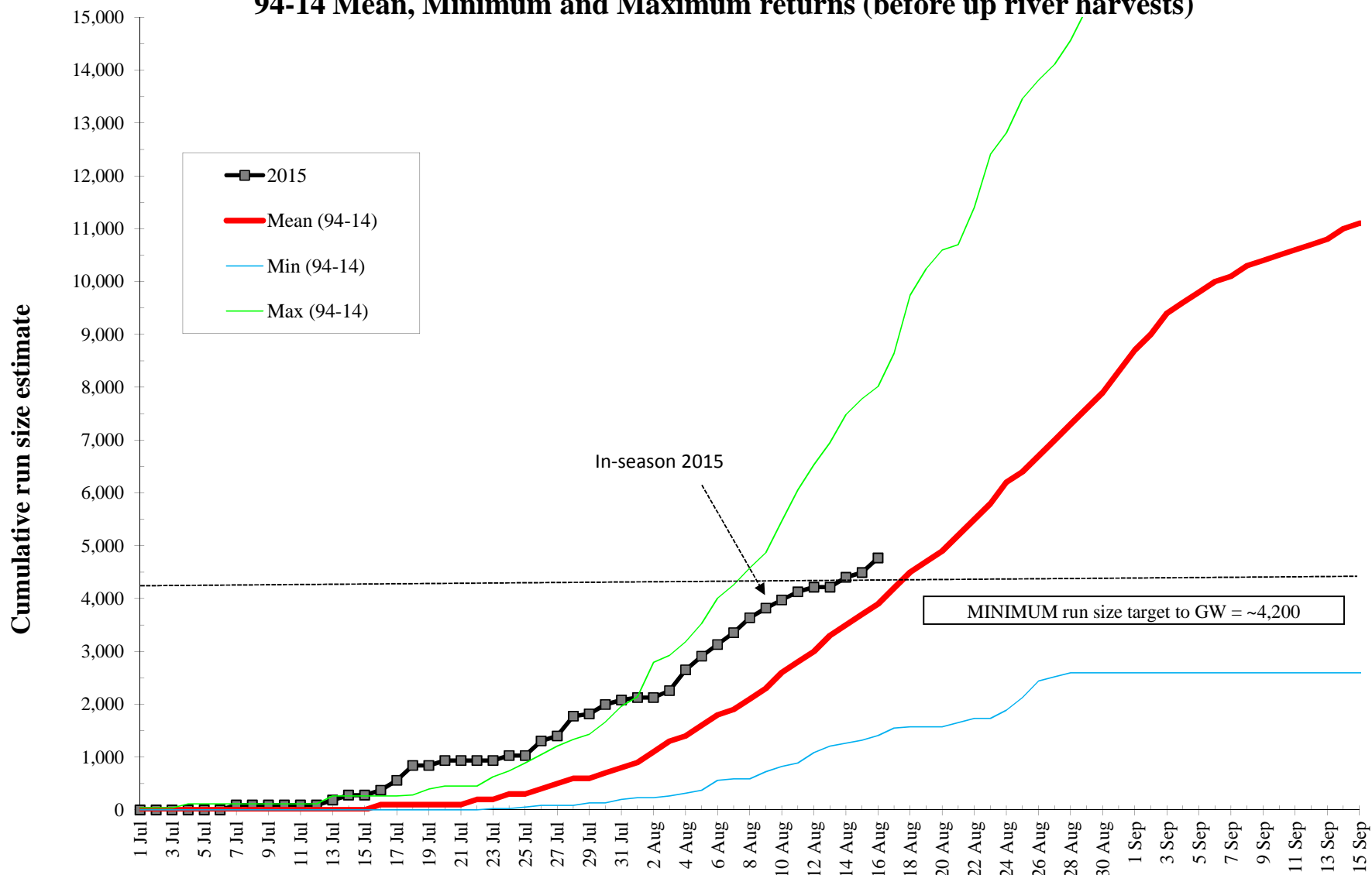
### Nass Pink Salmon Returns to Gitwinksihlkw and Grease Harbour Fishwheels 2015



### Nass Summer Run Steelhead Forecasts to Gitwinksihlkw Fishwheels 2015 (Mean Run timing - 1994-14)



## Cumulative Nass Adult Summer-run Steelhead Return to Gitwinksihlkw 2015 vs. 94-14 Mean, Minimum and Maximum returns (before up river harvests)







2015 Nass Fishwheel Catches

	GW		GW Total	GH				GH Total	Grand Total
Data	FW1	FW2		FW3	FW4	FW5	FW6		
<b>Chin-adult catch</b>	<b>270</b>	<b>1,200</b>	<b>1,470</b>	<b>629</b>	<b>260</b>	<b>696</b>	<b>291</b>	<b>1,876</b>	<b>3,346</b>
Chin-tagged	243	1,001	1,244	526	191	576	240	1,533	2,777
Chin-recaps	21	30	51	90	58	179	63	390	441
Chin-Jacks	52	98	150	42	40	58	75	215	365
Sum of CH Harv	0	0	0	0	0	0	0	0	0
<b>Sockeye-adult catch</b>	<b>6,065</b>	<b>13,309</b>	<b>19,374</b>	<b>10,593</b>	<b>5,160</b>	<b>14,881</b>	<b>8,201</b>	<b>38,835</b>	<b>58,209</b>
Sockeye-tagged	4,146	7,174	11,320	0	0	0	0	0	11,320
Sockeye-recaps	251	245	496	232	142	512	211	1097	1593
Sockeye_jacks	189	870	1059	138	97	287	178	700	1759
Sum of Sk Harv	0	0	0	1891	1390	2239	1641	7161	7161
<b>Coho-adult catch</b>	<b>511</b>	<b>375</b>	<b>886</b>	<b>356</b>	<b>344</b>	<b>1,051</b>	<b>506</b>	<b>2,257</b>	<b>3,143</b>
Coho-tagged	467	328	795	0	0	0	0	0	795
Coho-recaps	23	26	49	6	8	46	16	76	125
Coho-jack	4	2	6	4	0	2	1	7	13
Sum of CO Harv	0	0	0	0	0	0	0	0	0
<b>Steel-adult catch</b>	<b>33</b>	<b>84</b>	<b>117</b>	<b>62</b>	<b>14</b>	<b>69</b>	<b>39</b>	<b>184</b>	<b>301</b>
Steel-Adipose marked	30	70	100	31	11	34	27	103	203
Steel-unmarked	3	14	17	31	3	35	12	81	98
Steel-recap-total	2	4	6	9	3	11	12	35	41
<b>Pacific Lamprey-catch</b>	<b>8</b>	<b>130</b>	<b>138</b>	<b>92</b>	<b>28</b>	<b>284</b>	<b>168</b>	<b>572</b>	<b>710</b>
Lamprey-tagged	7	102	109	41	10	153	78	282	391
Lamprey-released	1	28	29	51	18	131	90	290	319
Lamprey-recaps	0	0	0	1	0	14	8	23	23
River Lamprey	0	0	0	0	0	1	0	1	1
<b>Pink-adult-catch</b>	<b>1419</b>	<b>1887</b>	<b>3306</b>	<b>684</b>	<b>270</b>	<b>710</b>	<b>300</b>	<b>1964</b>	<b>5270</b>
<b>Chum-adult-catch</b>	<b>6</b>	<b>21</b>	<b>27</b>	<b>3</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>9</b>	<b>36</b>
Chum-tagged	6	20	26	2	0	5	1	8	34
Chum-punched	0	0	0	0	0	0	0	0	0
Chum-recaps	0	0	0	1	0	0	1	2	2
<b>Dolly Varden</b>	<b>37</b>	<b>109</b>	<b>146</b>	<b>6</b>	<b>0</b>	<b>10</b>	<b>5</b>	<b>21</b>	<b>167</b>
<b>Pike Minnow</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>52</b>	<b>0</b>	<b>34</b>	<b>22</b>	<b>108</b>	<b>111</b>
<b>Whitefish sp.</b>	<b>7</b>	<b>8</b>	<b>15</b>	<b>22</b>	<b>3</b>	<b>19</b>	<b>23</b>	<b>67</b>	<b>82</b>
<b>Rainbow Trout</b>	<b>13</b>	<b>5</b>	<b>18</b>	<b>14</b>	<b>5</b>	<b>11</b>	<b>19</b>	<b>49</b>	<b>67</b>
<b>Cutthroat Trout</b>	<b>19</b>	<b>25</b>	<b>44</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>7</b>	<b>51</b>
<b>Peamouth Chub</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>21</b>	<b>0</b>	<b>10</b>	<b>8</b>	<b>39</b>	<b>42</b>
<b>Red-Side Shiner</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>10</b>
<b>Sucker</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>10</b>
<b>Sculpin</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>6</b>
Sum of chin_smolt	29	6	35	14	5	6	11	36	71
Sum of co_smolt	7	2	9	2	0	1	4	7	16
Sum of sk_smolt	1	4	5	1	0	0	0	1	6



