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2018 NASS RIVER SALMON STOCK ASSESSMENT UPDATE – TUESDAY, 7 AUGUST

The following is the eighth general public update for 2018 of Nass River salmon and summer-run steelhead stock assessments 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 2018

1. **Fishwheel Assessment data:** 1 June to 6 August. Data summary below.
2. **Meziadin Fishway data:** Operations began on June 30.
 - Water temperature: 19.0°C (98-17 mean=16.4°C). Water temp was 22.0°C from July 31 to Aug 3.
 - Counts to date: 15,562 Sockeye (14,978 large (161 tagged) and 584 small) and 4 Chinook (3 large and 1 small). The average (94-17) large counts for date: 77,700 Sockeye and 177 Chinook.
 - Projection to fishway based on sockeye counts and regression of in-season to final counts to date from 1994 to 2017 ($r^2=0.82$): 94,000 large Sockeye (95% CI: 70,000, 118,000).
3. **Kwinageese Weir data:** Video-weir operations began on 6 July.
 - Water temperature is 17.0°C (98-17 mean=16.8°C).
 - Counts to date: 63 large Chinook (1 tags), 7 Sockeye (0 tags), and 27 Bull Trout. The average (09-17) large counts for date: 314 Chinook, 500 Sockeye, and 12 Bull Trout.

GITWINKSIHLKW (GW) FISHWHEELS (NASS TEST FISHERY –STARTED IN 1994 [25th year]):

The Nass River test fishery fishwheels began operation on 1 June for tagging and historical catch index assessments for salmon and summer-run steelhead. All fish caught in the GW fishwheels to date were released alive after tagging and/or counting. Fishwheels 1 and 2 are currently operating at 0.6 m lower than average water levels (1.3 m vs. 1.9 m) based on 1994–2017 operations and were at record low water levels from the 1–17 June period (up to 2.4 m lower than historical averages). 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 currently 0.1°C below average (10.4°C vs. 10.5°C) based on the 1994–2017 operations.

GREASE HARBOUR (GH) FISHWHEELS:

Start-up dates of the GH fishwheels were on 5 June (FW5), 6 June (FW6), 7 June (FW3), and 15 June (FW4) for operating four fishwheels at Grease Harbour (upstream of Ts'im Anwiihlist). 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 Nisga'a Lisims Government. No harvesting from the fishwheels has been directed to date.

Of the 16,888 Sockeye caught at all fishwheels to date, all have been released. The Nass fishwheel catches are currently below average for Sockeye, Chinook, Coho, Pink, and Chum, and above average for steelhead and Pacific Lamprey. Weekly comparisons of salmon and steelhead catches at the fishwheels to historical levels since 1994 follow the text summary as well as a catch summary of all fish species to date. 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-EVE	CHUM	LAMP
FISHWHEEL TOTAL CATCH OF ADULTS	16,888	818	713	223	2,644	17	1,005
HISTORICAL AVG CUM CATCH (00-17) TO DATE	33,000	4,500	2,000	130	4,530	30	360
HISTORICAL AVG CUM TOTAL CATCH (00-17)	43,000	5,000	14,000	1,000	13,000	130	600
AVERAGE DAILY CATCH (5 D) OF ADULTS - GW	207	2	41	10	193	1	22
AVERAGE DAILY CATCH (5 D) OF ADULTS - GH	508	2	55	5	71	0	20
FISHWHEEL TOTAL TAGGED (OR ADIPOSE FIN MARKED)	4,145	758	297	201	229	16	800
FISHWHEEL TOTAL JACKS - GW ONLY	1,741	471	17	NA	NA	NA	NA
HISTORICAL MEAN JACKS AT GW (94-17) TO DATE	1,010	200	37	NA	NA	NA	NA

Other adult species and juvenile salmon catches at the fishwheels to date include: 91 Whitefish, 81 Rainbow Trout, 50 Dolly Varden, 42 Peamouth Chub, 28 Pikeminnow, 26 Redside Shiner, 17 Cutthroat Trout, 4 Suckers, 43 salmon smolts (3 Coho, 4 Chinook, 36 Sockeye), 4 frogs, and 3 seals.

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 and are based on historical catch index and mark-recapture methods. The current run sizes for 2018 are currently below average for Nass Sockeye, Chinook, and Coho, and above average for summer-run steelhead when compared to means to date from 1994 to 2017. Summer-run steelhead estimates began on 1 July and the run size target is based on a minimum return goal as steelhead will continue to enter the Nass River after the fishwheels shutdown in mid-September.

	SOCK	CHIN	COHO	STEEL
IN-SEASON RUN SIZE ESTIMATE TO DATE	164,245	9,094	7,701	3,717
HISTORICAL MEAN RUN SIZE TO GW FOR DATE (94-17)	230,000	19,000	15,590	2,240
RUN SIZE TARGET 2018 (MIN. FOR STEELHEAD)	250,000	15,000	65,000	4,200

In-season forecast projections above Gitwinksihlkw are shown below. Estimates to Gitwinksihlkw are based on two methods, mean run timing and log-regression of the in-season to final estimates to date. The current run size projection for Nass Sockeye is ranging between 165,000 and 316,000 to reach the run size goal (250,000) based on the in-season to final method with a point estimate of 217,000 based on 81% of the run entered to date based on mean-run timing. The current run size projection for Nass Chinook is ranging between 9,000 and 11,000 to reach the run size goal (15,000) based on in-season to final method with a point estimate of 10,000 based on 96% of the run entered to date based on mean-run timing. Of note, by 6 Aug, in-season run size forecasts for Nass Sockeye are performing well (mean absolute percent accuracy 89%; range=67–99% from 1994 to 2017). For in-season Chinook estimates to 6 Aug, mean percent accuracy is 80%; range: 57–93% from 2013 to 2018. Coho and summer-run steelhead projections to date are below.

IN-SEASON FORECASTS TO GW - METHODS:	SOCK	CHIN	COHO	STEEL	6-Aug-18
1. RUN TIMING METHOD (94-17) - Mean Run timing	203,000	10,000	43,000	21,300	
Lower (-2 S.D.)	165,000	9,000	24,000	11,100	
Upper (+2 S.D.)	261,000	10,000	87,000	42,700	In-season to Final
2. IN-SEASON TO FINAL (regression):	217,000	10,000	63,000	15,500	r ² (CH) = 1.00
95% CI - lower	119,000	9,000	30,000	8,600	r ² (SO) = 0.78
95% CI - upper	316,000	10,000	95,000	22,500	r ² (CO) = 0.54
GW RUN SIZE TARGET (DEPENDENT ON HARVESTS ABOVE GW)	250,000	15,000	65,000	4,200	r ² (ST) = 0.46
Run Timing % Return Estimate to GW	81%	96%	18%	17%	

Net Escapement Estimates for adult Nass salmon and summer-run steelhead to date are shown below and relative to the Upper Nass net aggregate escapement goals.

IN-SEASON NET ESCAPEMENT ESTIMATES	SOCK	CHIN	COHO	STEEL
HARVEST ESTIMATES ABOVE GW TO DATE	10,036	1,754	6	44
NET ESCAPEMENT (ABOVE GW):	154,209	7,340	7,695	3,673
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 2018: District 101 (Tree Point) and District 106 (Sumner and Upper Clarence) opened on 17 June. Alaskan seine fisheries start dates in 2018: District 101 (Lower Clarence/Revilla) on 1 July; District 102 (Middle Clarence) on 17 June; District 103 (Cordova) on 22 July, and District 104 (Noyes/Dall) on 15 July. The table below shows the current estimates of catches of salmon in Alaskan net fisheries in Districts 101–106 (and mean catch comparisons from 2000 to 2017) to week ending **4 AUG 2018** based on data from ADFG. Current salmon catches are below average for all salmon species. Of the total in-season Sockeye catch reported in Alaskan fisheries to date (70,460), approximately 15,000 (21%) are estimated as Nass origin based on mean stock composition estimates from 1982 to 2017 and are below average (71,000) to date. The average total mean harvest of Nass Sockeye in Alaskan fisheries from 2000 to 2017 was 120,000 (range: 28,000–300,000).

IN-SEASON SE ALASKAN CUM. SALMON CATCH ESTIMATES (ADFG WEBSITE) - 2018									WEEK END:		4-Aug-18
DISTRICTS	AREA	SOCK CATCH	AVG (00-17)	CHIN CATCH	AVG (00-17)	PINK CATCH	AVG EVE (00-16)	CHUM CATCH	AVG (00-17)	COHO CATCH	AVG (00-17)
DIST 101 GN	TREE PT	10,800	55,000	1,400	1,400	69,000	201,300	125,000	182,000	1,590	9,500
DIST 106 GN	UPP. CLAR	14,000	72,000	2,000	1,400	113,000	133,000	92,000	119,000	13,800	46,000
DIST 101 SN	LOW CLAR	6,700	33,400	0	600	346,500	1,901,200	75,000	186,300	4,000	13,600
DIST 102 SN	MID CLAR.	12,960	19,100	0	700	264,100	899,900	311,000	341,000	10,100	23,200
DIST 103 SN	CORDOVA	4,000	5,000	0	100	188,000	622,000	10,000	7,000	4,000	4,000
DIST 104 SN	NOYES/DALL	22,000	117,000	0	2,300	374,000	1,527,000	52,000	89,000	20,000	36,000
CUMULATIVE TOTAL		70,460	302,000	3,400	7,000	1,354,600	5,280,000	665,000	924,000	53,490	132,000

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

Area 3 commercial net fisheries in 2018 started on 25 June for gillnets and 5 July. Total net fisheries conducted in Area 3 to date are four gillnet and five seine fisheries. Commercial net harvest and release data to **6 AUG 2018** for salmon and steelhead in Area 3 are shown below:

GEAR	DATE	Vessel days	SO-harv	SO-Rel	CO-HARV	CO-Rel	PK-HARV	PK-Rel	Chum-harv	Chum-Rel	CH-harv	CH-Rel	STEEL-Rel
GN	6/25/2018	120	3,521	0	8	1	0	0	1,254	36	0	169	4
	6/26/2018	57	1,285	0	0	0	9	0	364	8	0	38	4
	7/2/2018	103	3,770	0	36	2	306	1	5,119	455	0	84	8
	7/3/2018	99	3,051	0	49	2	503	6	1,769	25	0	50	11
GN Total		379	11,627	0	93	5	818	7	8,506	524	0	341	27
SN	7/5/2018	21	159	0	13	1	234	0	1,654	0	0	95	50
	7/11/2018	27	0	921	81	16	6,669	0	7,814	0	0	240	155
	7/16/2018	21	0	805	132	0	20,994	0	10,229	0	0	123	131
	7/19/2018	21	0	1,143	309	0	34,579	0	10,046	0	0	181	45
	7/20/2018	21	0	1,072	375	0	25,765	0	7,721	0	0	131	35
SN Total		111	159	3,941	910	17	88,241	0	37,464	0	0	770	416
Grand Total		490	11,786	3,941	1,003	22	89,059	7	45,970	524	0	1,111	443

Of the total commercial catch of sockeye (23,500) in Area 3 (11,786) and outside Area 4 (11,630) to date, NFWD is estimating approximately 10,500 are of Nass origin (45%) based on stock composition modeling. The average total mean harvest of Nass Sockeye in Canadian commercial net fisheries in Areas 3–5 from 2000 to 2017 was 84,000 (range: 11,000–280,000). DFO implemented management actions in Area 3 to reduce harvest impacts on the Kwinageese Sockeye stock during their migration through Area 3 in mid-July. The Nass Sockeye stock requires rebuilding from a past spawning barrier detected in 2011 that resulted in extreme poor returns in 2013 (only 397 spawners) and 2014 (only 498 spawners). Sockeye retention was not permitted in commercial fisheries in Area 3 from **9 July to 22 July**, the anticipated peak of the Kwinageese Sockeye migration, as documented in DFO's 2018 Integrated Fisheries Management Plan (IFMP).

NISGA'A DOMESTIC AND SALE FISHERIES:

Nisga'a domestic and sale fisheries are monitored by the Nisga'a Fisheries and Wildlife Department and began on 6 May 2018. Cumulative harvests to week ending **28 JULY** are shown in the table below for Food, Social, and Ceremonial (FSC) catches. For the same week ending period, mean cumulative harvests from 2000 to 2017 are shown for comparison. The current total harvests estimated in 2018 to date, including Nisga'a sale fisheries in the marine and in-river that occurred in June and July, are below average for all Nass salmon and steelhead. Due to low returns of Nass Sockeye and Chinook, total salmon and steelhead harvests (40,000) in the Nisga'a fisheries to date are currently 52,000 fewer fish than on average harvests (92,000) based on returns from 2000 to 2017.

FSC Reported Week Ending Period		DOMESTIC (FSC) HARVESTS TO WK END - 2018		TOTAL HARVESTS TO DATE INCLUDING SALE FISHERIES - 2018	
NASS SPECIES	Wk end	Harvest	Mean*	Harvest	Mean*
CHINOOK	28-Jul-18	4,554	4,900	4,554	5,600
SOCKEYE	28-Jul-18	24,363	23,100	34,698	74,000
PINK	28-Jul-18	268	2,108	552	11,100
COHO	28-Jul-18	24	273	24	500
CHUM	28-Jul-18	86	290	86	300
STEELHEAD	28-Jul-18	121	130	121	130
TOTAL		29,000	31,000	40,000	92,000

* Mean harvests from 2000-2017 for week end periods. Harvests include all gear types estimates (net, angling, seine, etc.).

Nisga'a Sale fishery information to date:

- Total Individual-sale (IS) fisher permits issued in 2018 to date are 123 (including 47 elder permits). Of the permits issued, 53 fishers have participated in IS fisheries to date.
- Summary of permits issued by community are: 42 Gitlaxt'aamiks, 21 Gingolx, 16 Laxgalts'ap, 15 Gitwinksihlkw, 13 Prince Rupert, 9 Terrace, and 5 other areas.
- Future sale fisheries: Closed until further notice due to low return status. Sale fisheries were closed to allow passage of the Kwinageese sockeye stock in the marine (9-22 July) and in-river (12-25 July) Nass areas.
- Individual-sale fishery data to date is as follows:

NISGA'A MARINE SALE FISHERY:			
NUMBER OF NISGA'A MARINE FISHERIES (16 HR OPENINGS):		4	JUNE 28, JUNE 29, JULY 5, JULY 6
DATA FROM JUNE 28 FISHERY (21 BOATS; 12 FISHERS SOLD) - FINAL			809 SOCKEYE
DATA FROM JUNE 29 FISHERY (17 BOATS; 21 FISHERS SOLD) - FINAL			2,147 SOCKEYE
DATA FROM JULY 5 FISHERY (18 BOATS; 8 FISHERS SOLD) - FINAL			617 SOCKEYE AND 24 PINK
DATA FROM JULY 6 FISHERY (17 BOATS; 19 FISHERS SOLD) - FINAL			1,811 SOCKEYE AND 245 PINK
NEXT NISGA'A MARINE SALE FISHERY PLANNED:			CLOSED UNTIL FURTHER NOTICE - LOW RETURN STATUS
NISGA'A IN-RIVER SALE FISHERY:			
NUMBER OF NISGA'A IN-RIVER FISHERIES (10 HR OPENINGS):		2	JULY 9, JULY 10
DATA FROM JULY 9 FISHERY (30 FISHERS SOLD) - FINAL			2,778 SOCKEYE
DATA FROM JULY 10 FISHERY (27 FISHERS SOLD) - FINAL			2,173 SOCKEYE
NEXT NISGA'A IN-RIVER SALE FISHERY PLANNED:			CLOSED UNTIL FURTHER NOTICE - LOW RETURN STATUS

The total harvest summary of Nass salmon and steelhead to date in all of the Nisga'a harvest fisheries is as follows:

NISGA'A TOTAL HARVEST SUMMARY	SOCK	CHIN	COHO	PINK-EVE	CHUM	STEEL
MARINE SALE FISHERY TOTAL	5,384	CLOSED	0	284	CLOSED	CLOSED
IN-RIVER SALE FISHERY TOTAL	4,951	CLOSED	0	CLOSED	CLOSED	CLOSED
INDIVIDUAL SALE (IS) FISHERY TOTAL	10,335	CLOSED	0	284	CLOSED	CLOSED
NLG COMMUNAL SELECTIVE TREATY FISHERY - GH FISHWHEELS	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
NLG COMMUNAL SELECTIVE TREATY FISHERY - SEINE	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
DOMESTIC (FSC) GILLNET FISHERY - WK END: JULY 28	24,363	4,554	24	268	86	121
SUB TOTAL (NLG TREATY FISHERIES)	34,698	4,554	24	552	86	121
NLG SOCK DEMONSTRATION FISHERY HARVEST - DFO INVENTORY	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
GRAND TOTAL	34,698	4,554	24	552	86	121

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

Pre-season TRTC and Nisga'a entitlement forecasts:

Based on the preliminary Nass salmon return and age information from 2017, preliminary forecasts for Nass salmon and Nisga'a entitlement allocations for 2018 were calculated using pre-season forecast models. Forecast models used were a combination of sibling (Sockeye and Chinook only) and brood year mean returns that project 25%, 50%, and 75% probability point estimates.

Pre-season TRTC forecasts (50% probability estimates) for 2018 predicted a below average return forecast for Nass Sockeye (377,000 vs. 570,000), Nass Area even-year Pink (635,000 vs. 740,000), Nass Chinook (19,000 vs. 31,000), Nass Chum (33,000 vs. 52,000; well below the 45,000 escapement goal), and above average return forecast for Nass Coho (223,000 vs. 200,000) based on mean TRTC estimates from 1994 to 2017. When reviewing Nass salmon returns over a 34-year period (1985–2017), the forecasted returns in 2018 are projected to be poor for Chinook (28th), Sockeye (27th) and Chum (22nd); fair for Pink (17th); and good for Coho (10th) with caution for Coastal Nass Coho salmon returns that returned in low numbers in 2015.

PRE-SEASON TRTC & ENTITLEMENT FORECASTS	SOCK	CHIN	COHO	PINK-EVE	CHUM
HISTORICAL MEAN TRTC (1994-2017)	570,000	31,000	200,000	740,000	52,000
PRE-SEASON TRTC FORECAST (50% PROBABILITY)	377,000	19,000	223,000	635,000	33,000
PRE-SEASON NISGA'A ENTITLEMENT	57,000	4,000	17,800	65,000	2,640
CUM NISGA'A UNDERAGE (+)/OVERAGE (-) AVAILABLE OR OWED: 2000-17	4,109	no surplus	3,988	16,356	-1,198
TOTAL PRE-SEASON NISGA'A CATCH POTENTIAL	61,000	4,000	22,000	81,000	1,400

In-season TRTC and Nisga'a entitlement estimates for Nass salmon:

Preliminary in-season TRTC estimates estimated by NFWF for Nass Sockeye and Chinook are 253,000 (220,000–310,000) and 13,000 (12,000–14,000), respectively, based on preliminary harvest and run size data and mean run timing to date (Sockeye 84% and Chinook 95%) to Area 3 with standard deviation range estimates from 1994 to 2017 returns. The current in-season TRTC estimates are tracking below pre-season forecasts for Nass Sockeye and Chinook salmon with ranges indicating returns that are early or late.

Current Nisga'a entitlement ranges for: Nass Sockeye is between 30,000 and 51,000 with a current harvest estimate of 35,000 to date, and for Nass Chinook, between 2,500 and 3,500, with a current harvest of 4,554. The Nisga'a Nation also has an underage of 5,700 Nass Chinook accumulated from 2000 to 2017 fisheries.

IN-SEASON TRTC & ENTITLEMENT ESTIMATES	SOCK	CHIN	COHO	PINK-EVE	CHUM
PROJECTED TRTC BASED ON MEAN RUN % & MR EST.	253,000	13,000	Pre-season	Pre-season	Pre-season
ESTIMATED %TRTC TO DATE: MEAN. RUN TIMING	84%	95%	18%	12%	13%
Lower (-2 S.D.)	220,000	12,000	Pre-season	Pre-season	Pre-season
Upper (+2 S.D.)	310,000	14,000	Pre-season	Pre-season	Pre-season
IN-SEASON NISGA'A ENTITLEMENT TARGET	33,000	2,700	18,000	65,000	2,600
IN-SEASON UNDERAGE (+)/OVERAGE (-) AVAILABLE OR OWED	4,109	no surplus	3,988	16,356	- 1,198
TOTAL IN-SEASON NISGA'A TREATY CATCH POTENTIAL	37,000	2,700	22,000	81,000	1,400
MINIMUM ENTITLEMENT FORECAST	30,000	2,500	Pre-season	Pre-season	Pre-season
MAXIMUM ENTITLEMENT FORECAST	51,000	3,500	Pre-season	Pre-season	Pre-season

The next Nass River general stock assessment update from the Nisga'a Fisheries and Wildlife Department is planned for: **Monday, 13 August 2018.**

Nass stock assessment updates are available at the following links (no passwords are required):

Weekly updates are posted after each Monday's update to DFO and NLG's websites:

- DFO: <http://www.pac.dfo-mpo.gc.ca/fm-gp/northcoast-cotenord/nass-eng.html>
- NLG: <http://www.nisgaanation.ca/stock-assessments>

Daily and weekly run size information are also posted on Mondays, Wednesdays, and Fridays to the following site:

- <ftp://ftp.lgl.com/Nass%20Stock%20Assessment%20Updates/>



Photo 1. Fishwheel 1 operating at Gitwinksihlkw on 30 July 2018.



Photo 2. Sockeye Salmon caught and spaghetti tagged at Gitwinksihlkw fishwheels on 21 July 2018.



Photo 3. Chinook Salmon caught and tagged at Gitwinksihlkw fishwheels on 3 August 2018.



Photo 4. Chinook Salmon caught and tagged at Gitwinksihlkw fishwheels on 3 August 2018.



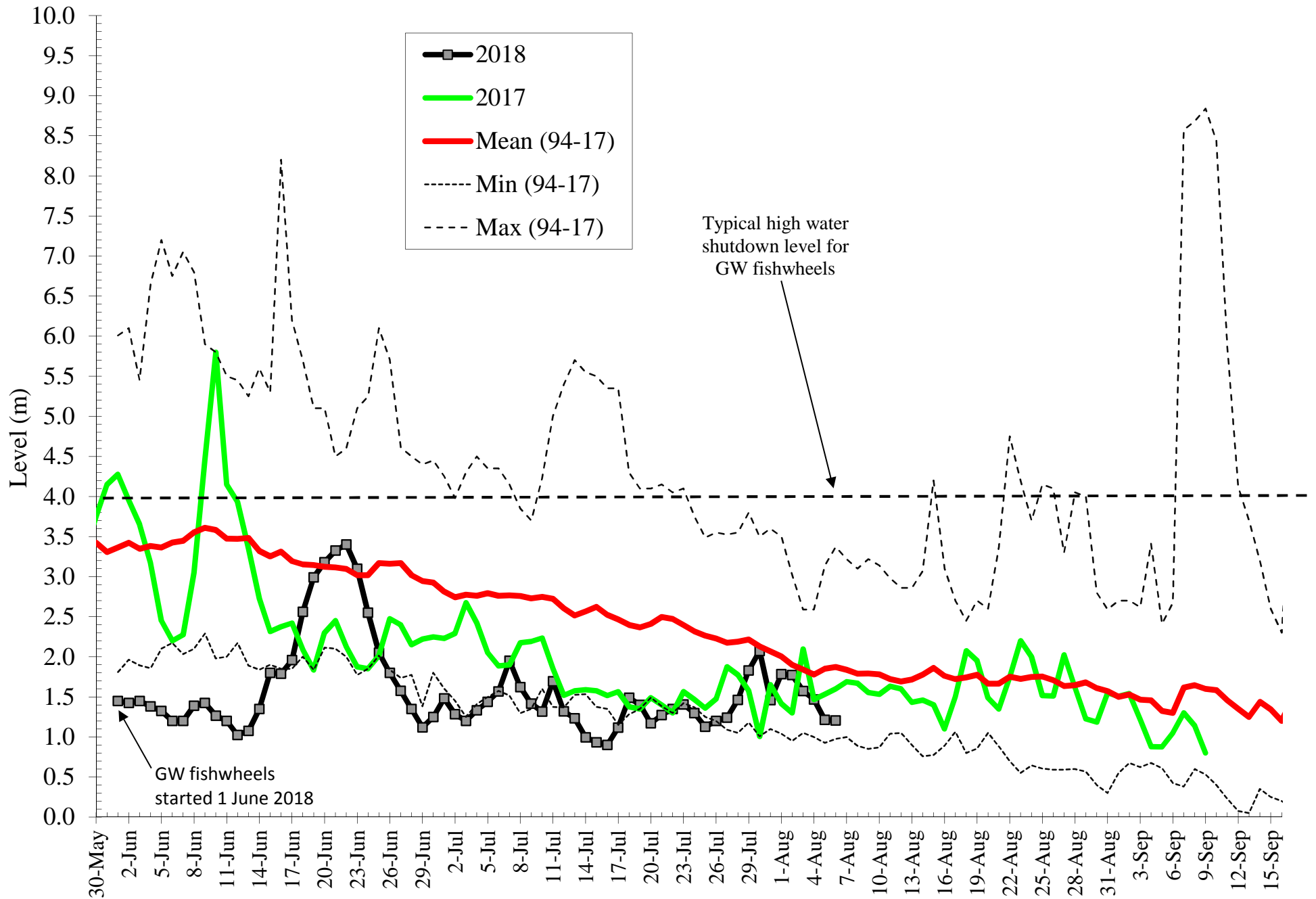
Photo 5. Summer-run steelhead caught and fin marked at Gitwinksihlkw fishwheels on 14 July 2018.

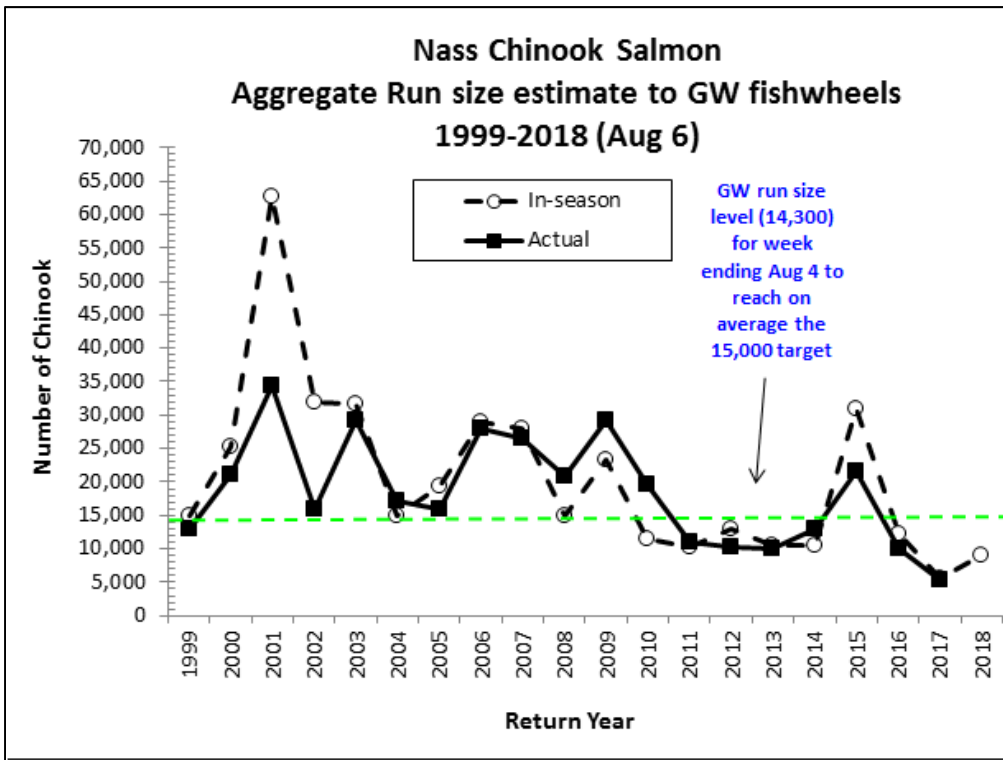
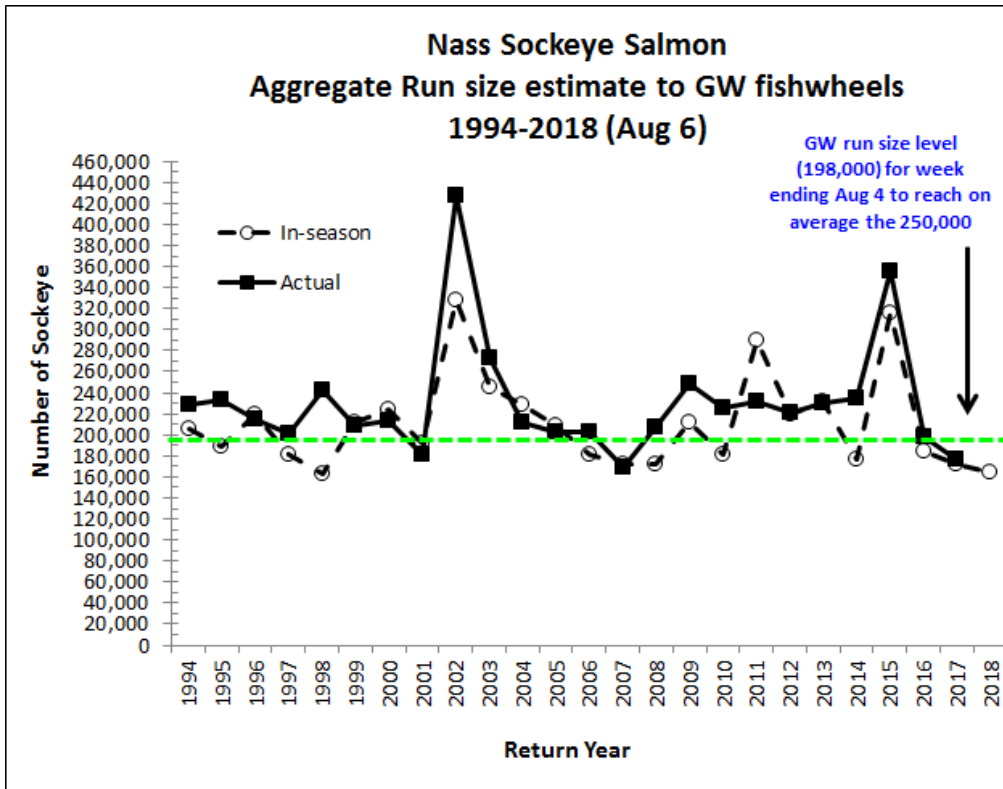


Photo 6. Pink Salmon caught and fin marked at Gitwinksihlkw fishwheels on 13 July 2018.

Photos courtesy of NFWD's senior crew leader, Ben Guno Jr and fishwheel crew.

Daily Water Level at Gitwinksihlkw Fishwheels 2018





Cumulative Daily Run Sizes of Adult Nass River Sockeye Salmon (≥ 45 cm NFL) to Gitwinkshlkw Fishwheels, 2000-2018.

Note: In-season cum. values with yellow shading are preliminary and will change as these fish pass the upper fishwheels to finalize mark-recapture data over a 5-d period.

Date	Cumulative run size																		IN-SEASON (FW-MR)			
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Cum	Mean (94-17)	2018 Daily	
1-Jun													216				0	0	0	100	0	
2-Jun									175	119	0	809	0	0	0	0	0	0	0	100	0	
3-Jun									175	119	0	1,173	93	275	0	0	0	0	0	200	0	
4-Jun									175	158	0	1,609	278	687	0	128	14	34	300	34	0	
5-Jun									175	238	0	2,646	432	824	283	193	58	34	500	0	0	
6-Jun						40			207	175	360	25	3,245	494	1,510	534	324	101	67	600	34	
7-Jun						121			326	175	401	75	3,682	572	2,060	1,069	455	173	67	800	0	
8-Jun						229		47	533	175	441	275	4,754	788	3,444	1,699	618	216	134	900	67	
9-Jun		864				229	209		741	175	645	524	6,136	1,070	5,060	1,983	749	245	134	1,200	0	
10-Jun		1,505				229	419		1,127	175	645	699	7,027	1,523	7,644	2,141	1,010	245	235	1,500	101	
11-Jun		1,521			174	364	419		1,542	175	849	1,024	7,998	2,071	10,921	2,487	1,239	245	268	1,800	34	
12-Jun	111	1,814			1,059	836	419		1,928	175	1,134	1,322	7,413	3,136	15,583	3,811	1,827	245	302	2,300	34	
13-Jun	111	2,577			1,783	1,196	419		2,314	175	1,294	1,620	7,413	4,137	21,491	5,102	2,317	245	369	3,000	67	
14-Jun	111	2,756			1,511	2,375	1,723	419	0	2,551	175	1,414	2,366	8,430	5,436	25,737	7,208	2,839	282	402	3,400	34
15-Jun	111	3,032			5,204	3,328	2,250	419	0	2,758	175	1,733	3,484	10,465	7,174	28,694	9,911	3,002	505	738	4,400	335
16-Jun	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	14,815	3,263	703	1,476	5,900	738
17-Jun	2,517	4,832			15,268	6,689	6,161	419	488	4,587	4,447	2,691	6,990	12,082	9,108	41,540	20,661	3,492	826	2,175	7,700	700
18-Jun	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	26,413	3,851	1,378	3,240	10,300	1,065
19-Jun	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	34,868	4,373	2,018	3,632	12,900	392
20-Jun	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	40,714	5,287	2,431	3,937	15,600	305
21-Jun	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	46,705	6,691	2,883	4,089	19,200	152
22-Jun	24,476	7,075	53,842		52,179	24,670	21,386	7,844	1,077	23,216	31,305	16,811	16,598	17,368	18,620	68,743	56,095	9,042	3,422	4,285	23,400	196
23-Jun	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	65,771	11,883	4,463	4,394	27,800	109
24-Jun	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	75,066	14,169	5,303	4,916	32,300	522
25-Jun	55,229	10,934	88,616		70,810	24,670	33,641	20,461	7,209	36,366	65,154	33,615	26,911	17,866	34,456	75,537	82,174	17,303	6,401	6,741	36,300	1,825
26-Jun	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	44,500	78,019	88,498	20,960	7,698	13,221	40,700	6,479
27-Jun	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	92,872	25,459	8,782	24,958	44,800	11,738
28-Jun	79,898	26,078	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	96,785	29,051	10,051	41,251	49,200	16,292
29-Jun	79,898	25,779	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	102,875	34,029	11,449	44,078	54,100	2,827
30-Jun	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	108,877	38,181	13,322	45,959	59,500	1,881
1-Jul	85,966	33,888	108,610		92,734	51,160	58,512	42,023	43,172	67,993	97,871	62,322	55,482	50,305	98,557	119,099	141,031	41,031	14,430	50,898	65,100	4,939
2-Jul	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	126,156	42,798	16,189	52,957	70,800	2,059
3-Jul	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	132,554	44,816	18,975	55,297	76,400	2,340
4-Jul	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	139,039	47,276	22,723	59,411	81,100	4,114
5-Jul	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	145,982	49,066	27,040	61,870	85,700	2,459
6-Jul	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	153,038	52,046	31,961	64,977	89,300	3,187
7-Jul	117,958	42,261	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	159,675	55,012	34,307	68,816	93,300	3,838
8-Jul	120,535	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	165,412	57,096	36,132	72,003	97,700	3,187
9-Jul	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	171,704	59,973	41,552	75,182	101,800	3,179
10-Jul	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	178,531	63,656	47,060	78,107	105,600	2,925
11-Jul	135,632	50,732	255,678		115,573	104,618	85,967	85,121	85,702	117,038	129,196	93,589	76,521	110,617	128,878	118,206	184,230	66,808	54,638	80,670	109,200	2,563
12-Jul	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	194,202	70,047	61,027	83,235	113,100	2,565
13-Jul	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	200,631	72,877	66,447	85,672	116,700	2,437
14-Jul	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	207,687	75,658	70,941	88,826	120,400	3,154
15-Jul	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	212,945	81,378	75,436	90,703	124,000	1,876
16-Jul	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	136,082	218,285	86,476	80,836	92,249	127,700	1,546
17-Jul	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	221,173	90,853	85,383	94,011	131,500	1,762
18-Jul	151,917	79,555	281,561		134,275	137,506	115,877	111,915	86,278	145,257	146,419	110,337	124,416	131,634	155,582	146,751	226,540	96,399	89,456	96,801	135,800	2,790
19-Jul	153,443	83,510	286,433		136,231	141,050	123,640	114,997	90,356	147,135	147,982	113,473	133,203	137,302	162,850	150,907	229,559	100,385	94,098	99,340	139,800	2,540
20-Jul	154,540	87,412	291,060		142,802	146,018	133,291	119,238	93,290	150,432	150,540	118,716	142,564	145,152	170,566	157,059	232,455	106,275	99,309	101,428	144,700	2,088
21-Jul	155,565	87,412	298,146		146,769	149,068	138,063	124,476	96,029	154,763	154,254	124,889	150,394	152,975	179,125	161,865	234,426	114,234	104,472	104,317	149,600	2,889
22-Jul	157,711	87,412	303,763		155,140	153,585	141,224	130,022	98,444	160,692	159,775	129,446	157,389	156,631	185,644	168,786	239,499	119,947	109,493	107,547	154,400	3,229
23-Jul	160,552	87,412	312,922		162,777	157,073	145,381	135,369	104,582	166,548	165,073	134,395	164,784	163,011	192,810	174,522</						

Cumulative Daily Run Sizes of Adult Nass River Chinook Salmon (≥ 50 cm NFL) to Gitwinksihkw Fishwheels, 2000-2018.																			IN-SEASON		
Note: In-season cum. values with yellow shading are preliminary and will change as mark-recapture data finalize over a 5-d period as fish pass the upper fishwheels.																					
Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Cum	Mean (94-17)	2018 Daily
5-Jun-18																			201	205	201
6-Jun-18						14			23		488		24	0	0	0	0	0	201	205	0
7-Jun-18		23				72			69		548		24	17	97	0	46	0	235	205	34
8-Jun-18		168				72	47		115		731		24	50	97	0	68	25	235	205	0
9-Jun-18		306				72	141		138		914		47	67	161	59	91	50	235	205	0
10-Jun-18		345				72	157		208		975		71	67	290	88	114	151	235	269	0
11-Jun-18		352			16	101	157		600		1,219	21	71	84	483	133	228	201	268	355	34
12-Jun-18	32	559			49	173	157		669		1,280	106	95	134	772	177	319	226	369	439	101
13-Jun-18	32	1,248			98	404	157		669		1,524	212	102	167	901	177	410	251	402	567	34
14-Jun-18	32	1,409		31	147	505	157		715		1,645	212	126	301	1,030	177	547	251	537	660	134
15-Jun-18	32	1,471		279	245	549	157		738		1,828	212	134	318	1,287	251	707	251	604	787	67
16-Jun-18	161	1,731		1,164	636	664	157	25	853	159	2,499	276	142	318	1,706	487	912	251	805	961	201
17-Jun-18	850	2,252		2,513	1,908	1,141	157	37	1,222	319	2,742	467	142	351	2,092	811	1,322	301	967	1,386	162
18-Jun-18	1,410	2,903		5,042	3,946	2,065	157	37	1,315	546	3,352	616	142	485	2,478	1,976	1,527	352	1,190	2,045	222
19-Jun-18	2,013	3,209		6,035	4,386	2,628	173	37	1,730	865	4,083	722	300	619	2,768	2,403	1,573	553	1,280	2,602	91
20-Jun-18	2,928	3,278		7,059	4,418	2,859	361	37	2,168	1,275	5,058	892	457	686	2,929	2,624	1,687	653	1,280	3,074	0
21-Jun-18	4,188	3,278	866	11,838	4,418	3,148	896	86	2,629	2,345	6,643	977	457	686	3,315	3,170	1,801	754	1,280	3,637	0
22-Jun-18	5,480	3,278	2,553	16,771	4,418	3,725	1,760	86	2,883	4,484	8,471	1,253	489	719	3,701	3,361	2,006	904	1,280	4,418	0
23-Jun-18	7,450	3,278	4,421	18,974	4,418	4,592	3,284	210	2,883	6,738	9,933	1,401	505	803	3,991	3,730	2,165	1,181	1,309	5,146	28
24-Jun-18	9,452	3,286	5,816	20,510	4,418	6,122	5,357	1,479	3,114	11,109	11,335	1,593	520	837	4,280	4,172	2,553	1,281	1,336	5,959	27
25-Jun-18	11,659	3,692	6,144	21,240	4,418	7,826	9,662	1,886	3,483	15,388	12,615	1,869	528	937	4,474	5,086	2,826	1,306	1,449	6,809	113
26-Jun-18	12,746	6,380	6,354	21,519	4,418	9,270	12,553	2,613	4,475	15,912	13,834	2,187	544	1,054	4,860	6,767	3,100	1,331	2,034	7,562	585
27-Jun-18	12,972	9,827	6,354	21,798	4,484	9,949	13,024	3,919	5,766	16,686	14,992	2,718	552	1,104	4,924	7,976	3,373	1,482	3,683	8,145	1,649
28-Jun-18	12,972	10,546	6,354	22,093	4,516	10,544	13,134	5,201	6,873	20,100	15,845	3,164	552	1,221	5,600	9,259	3,738	1,784	4,899	8,697	1,216
29-Jun-18	12,972	10,738	8,168	22,512	4,908	11,003	13,590	5,571	7,289	22,172	16,454	3,461	552	1,238	5,697	10,615	4,331	1,859	5,556	9,250	657
30-Jun-18	12,972	11,067	9,864	22,776	5,658	11,249	16,292	6,076	7,496	23,447	16,637	3,843	552	1,389	5,761	11,676	4,923	2,035	6,018	10,006	462
1-Jul-18	13,134	13,495	10,821	22,900	6,130	11,494	19,340	6,187	8,027	24,198	16,759	4,311	552	1,506	6,276	12,148	5,334	2,085	6,511	10,855	493
2-Jul-18	13,747	19,538	11,933	22,915	7,370	11,711	21,414	6,434	8,811	24,721	16,820	4,757	568	3,079	6,855	12,826	5,676	2,135	6,646	11,864	135
3-Jul-18	14,727	24,501	12,544	23,117	9,163	12,028	22,419	7,679	8,811	24,949	17,003	5,181	828	5,287	7,531	14,168	6,542	2,236	6,888	12,833	243
4-Jul-18	15,244	25,688	13,291	23,427	10,761	12,360	23,001	11,968	8,811	25,382	17,124	5,861	1,135	6,592	8,143	14,890	7,020	2,286	6,999	13,646	110
5-Jul-18	15,405	26,110	13,829	23,877	12,408	12,635	23,535	13,287	8,811	25,837	17,124	6,901	1,506	7,061	8,625	15,849	7,431	2,437	7,137	14,199	139
6-Jul-18	15,405	26,393	14,385	24,637	13,337	12,649	23,786	13,521	8,811	26,087	17,246	7,475	2,578	7,479	9,108	16,999	7,750	2,487	7,221	14,614	84
7-Jul-18	15,416	26,860	14,786	25,211	13,386	12,707	24,053	15,924	8,857	26,224	17,307	8,324	4,233	7,646	9,526	17,765	7,864	2,562	7,305	15,049	84
8-Jul-18	15,545	29,418	15,051	25,956	13,467	13,010	24,116	19,807	9,872	26,338	17,734	8,515	5,574	8,115	9,526	18,620	7,909	2,638	7,472	15,650	167
9-Jul-18	15,911	30,008	15,124	26,189	13,630	13,487	24,242	21,878	12,224	26,543	17,917	8,685	6,062	8,684	9,687	19,078	8,046	2,738	7,527	16,084	55
10-Jul-18	16,406	30,958	15,224	26,406	13,859	14,079	24,367	23,110	15,799	26,747	18,039	8,812	6,819	8,935	10,234	19,387	8,183	2,814	7,609	16,554	82
11-Jul-18	16,826	31,379	15,279	26,530	14,169	14,526	24,587	23,172	18,152	26,952	18,160	9,046	7,434	9,219	10,428	19,579	8,570	3,065	7,691	16,890	81
12-Jul-18	18,161	32,221	15,306	26,654	14,690	14,728	25,137	23,172	19,190	26,998	18,282	9,195	7,671	9,286	10,653	19,741	8,753	3,241	7,825	17,203	135
13-Jul-18	18,753	32,681	15,370	26,732	15,342	14,858	26,064	23,172	19,351	27,066	18,404	9,301	7,789	9,387	10,975	19,756	8,981	3,266	7,852	17,421	27
14-Jul-18	19,345	32,911	15,406	26,840	15,783	15,017	26,661	23,172	19,513	27,294	18,465	9,471	7,797	9,420	11,168	19,770	9,163	3,391	7,879	17,594	27
15-Jul-18	19,582	32,987	15,443	26,996	15,946	15,104	26,834	23,172	19,836	27,521	18,587	9,556	7,797	9,504	11,297	19,829	9,231	3,391	7,934	17,699	54
16-Jul-18	19,776	33,148	15,452	27,058	16,027	15,133	26,944	23,172	20,043	27,544	18,587	9,640	7,797	9,520	11,747	20,051	9,322	3,492	8,124	17,791	190
17-Jul-18	19,970	33,317	15,507	27,213	16,027	15,219	27,148	23,172	20,159	27,749	18,648	9,768	7,805	9,537	11,876	20,286	9,414	3,617	8,204	17,884	81
18-Jul-18	20,013	33,508	15,534	27,476	16,092	15,277	27,227	23,283	20,228	27,863	18,648	9,895	7,915	9,587	12,005	20,493	9,482	3,693	8,204	17,974	0
19-Jul-18	20,077	33,608	15,543	27,709	16,174	15,364	27,352	23,369	20,274	27,954	18,770	10,023	7,994	9,604	12,069	20,581	9,505	3,843	8,231	18,051	26
20-Jul-18	20,153	33,654	15,580	27,926	16,223	15,407	27,384	23,542	20,297	28,022	18,770	10,108	8,018	9,604	12,101	20,655	9,550	3,843	8,335	18,108	105
21-Jul-18	20,163	33,654	15,607	28,082	16,272	15,479	27,478	23,862	20,343	28,159	18,953	10,235	8,025	9,621	12,101	20,714	9,550	3,843	8,387	18,174	52
22-Jul-18	20,163	33,654	15,625	28,159	16,288	15,479	27,525	24,257	20,389	28,318	19,014	10,362	8,120	9,704	12,165	20,788	9,550	3,944	8,438	18,238	51
23-Jul-18	20,239	33,654	15,671	28,268	16,304	15,595	27,525	24,700	20,412	28,432	19,014	10,426	8,286	9,738	12,230	20,802	9,573	4,070	8,614	18,307	176
24-Jul-18	20,325	33,700	15,680	28,361	16,386	15,624	27,541	25,082	20,412	28,477	19,014	10,490	8,609	9,755	12,262	20,817	9,573	4,120	8,713	18,369	99
25-Jul-18	20,368	33,769	15,707	28,438	16,516	15,653	27,541	25,551	20,459	28,500	19,014	10,554	9,082	9,771	12,294	20,832	9,596	4,170	8,738	18,440	24
26-Jul-18	20,411	33,853	15,707	28,531	16,533	15,692	27,572	25,748	20,528	28,591	19,075	10,596	9,184	9,805	12,455	20,847	9,642	4,170	8,811	18,494	73
27-Jul-18	20,422	33,960	15,735	28,563	16,630	15,739	27,588	25,994	20,574	28,637	19,075	10,660	9,271	9,838	12,584	20,935	9,687	4,220	8,860	18,548	49
28-Jul-18	20,433	34,021	15,744	28,609	16,647	15,739	27,604	26,192	20,620	28,705	19,136	10,702	9,331	9,855	12,616	21,009	9,710	4,245	8,860	18,595	0
29-Jul-18	20,443	34,075	15,753	28,656	16,696	15,768	27,604	26,266	20,666	28,728	19,196	10,787	9,768	9,855	12,616	21,038	9,710	4,245	8,860	18,630	0
30-Jul-18	20,486	34,167	15,789	28,764	16,728	15,783	27,667	26,364	20,689	28,751	19,257	10,830	9,870	9,888	12,713	21,127	9,710	4,245	8,860	18,673	

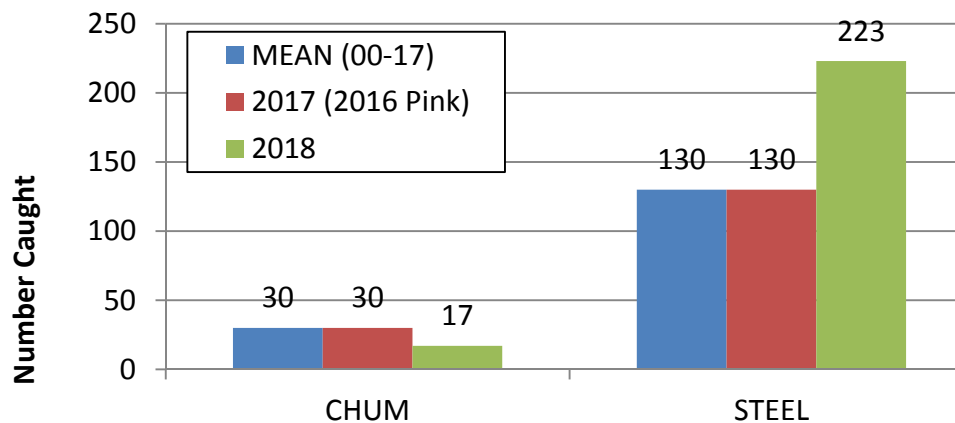
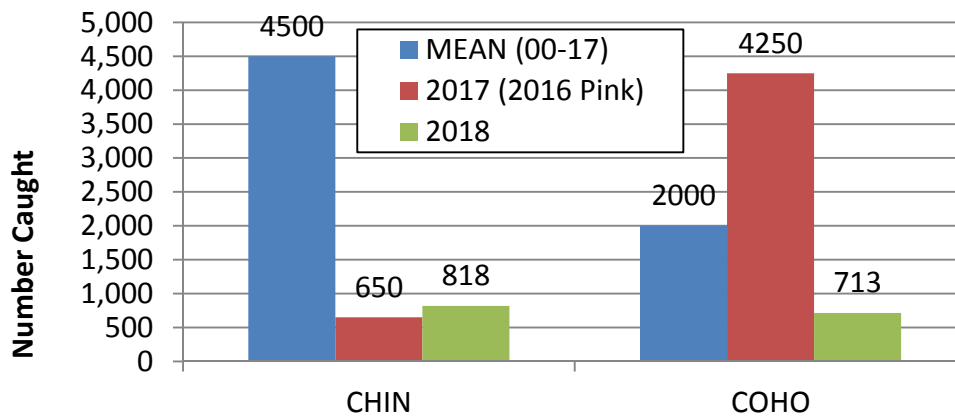
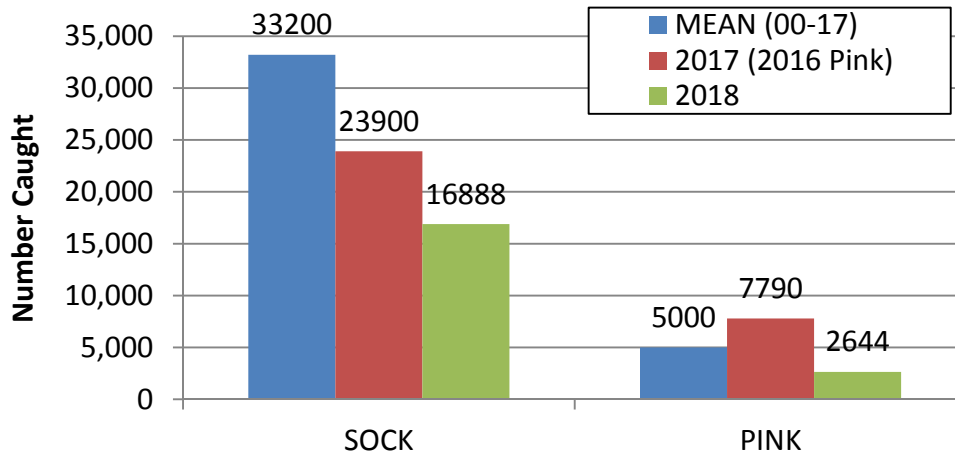
Cumulative Daily Run Sizes of Adult Nass River Coho Salmon (≥ 40 cm NFL) to Gitwinksihkw Fishwheels, 2000-2018.																		In-season	Mean Cum	Daily	
Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	(94-17)	2018
9-Jul-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	21	0	0	0
10-Jul-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	21	0	0	0
11-Jul-18	-	-	-	-	-	19	-	-	-	-	-	-	-	30	-	-	62	21	0	0	10
12-Jul-18	-	-	-	32	-	39	-	-	16	32	-	-	-	30	-	-	62	42	0	0	10
13-Jul-18	-	-	-	32	16	39	-	-	33	32	-	-	-	30	-	-	92	42	0	0	10
14-Jul-18	-	-	33	63	16	39	-	-	33	64	-	-	-	119	-	-	123	42	0	0	20
15-Jul-18	-	-	33	127	32	39	29	-	49	64	47	-	-	119	-	23	154	84	23	30	23
16-Jul-18	-	-	33	190	65	39	29	-	66	64	71	-	-	238	-	45	246	105	23	50	0
17-Jul-18	-	-	66	190	113	96	72	-	99	159	95	-	-	565	19	113	370	189	23	90	0
18-Jul-18	25	-	66	190	161	116	173	-	99	222	142	239	26	891	37	227	585	231	23	100	0
19-Jul-18	51	-	66	317	210	154	288	-	165	318	284	342	38	1,337	74	294	739	357	23	200	0
20-Jul-18	51	-	66	412	403	193	447	25	329	477	332	512	64	1,723	148	317	1,016	588	69	300	46
21-Jul-18	101	-	265	508	500	193	562	25	379	699	474	649	103	2,110	333	385	1,416	945	91	400	23
22-Jul-18	127	-	563	698	629	251	634	25	461	1,048	616	820	115	2,912	500	521	2,002	1,366	183	600	91
23-Jul-18	152	-	629	1,301	742	771	778	25	692	1,557	711	1,195	205	3,536	870	634	2,340	1,660	183	800	0
24-Jul-18	202	-	795	1,777	1,161	1,041	908	99	972	2,065	876	1,400	231	4,398	1,314	702	3,264	1,849	274	1,000	91
25-Jul-18	228	49	894	2,411	1,629	1,368	1,124	669	1,334	2,383	1,066	1,571	384	5,259	1,684	997	3,849	2,437	434	1,300	160
26-Jul-18	329	81	1,060	2,982	2,000	1,657	1,427	818	1,647	3,145	1,350	1,912	449	6,091	2,332	1,404	4,742	2,920	640	1,600	206
27-Jul-18	405	146	1,226	3,427	2,807	1,869	1,657	1,065	2,009	4,670	1,918	2,356	564	7,102	2,924	1,654	5,327	3,635	777	2,000	137
28-Jul-18	658	211	1,755	4,347	3,404	2,197	2,118	1,462	2,503	6,259	2,416	2,698	730	8,439	4,183	2,084	6,651	3,971	1,188	2,500	411
29-Jul-18	759	454	2,451	5,172	3,968	2,525	2,997	1,635	2,767	7,816	3,363	3,074	987	10,014	5,275	2,311	7,914	5,484	1,623	3,100	434
30-Jul-18	1,088	908	3,875	6,123	4,662	2,737	3,703	2,478	3,508	8,673	4,216	4,098	1,333	11,707	6,219	2,945	9,392	6,513	1,691	3,800	69
31-Jul-18	1,493	1,557	4,736	7,361	5,711	3,373	4,640	2,998	4,249	10,897	6,111	5,225	1,833	14,144	7,477	3,285	11,578	8,068	2,377	4,800	686
1-Aug-18	2,100	2,432	5,664	8,122	6,904	4,221	5,879	3,791	5,188	12,708	7,437	6,352	2,755	15,957	9,513	3,624	13,426	11,640	3,039	5,800	663
2-Aug-18	2,733	3,713	6,790	9,233	7,840	4,741	7,537	4,683	5,912	15,155	9,877	8,708	3,742	18,512	12,289	4,213	15,920	15,065	3,634	7,200	594
3-Aug-18	5,365	4,945	8,678	11,295	8,421	5,338	8,891	5,426	7,049	23,225	13,074	10,587	4,793	23,415	17,675	5,391	18,537	18,678	3,748	9,100	114
4-Aug-18	12,830	6,275	11,394	13,104	9,824	5,705	10,606	6,169	8,762	30,310	16,461	12,328	5,754	27,872	22,135	7,000	20,231	23,742	4,959	11,300	1,211
5-Aug-18	16,778	7,459	13,315	14,309	11,308	6,379	12,047	7,433	11,298	40,159	20,061	13,285	6,831	32,924	24,985	7,702	23,803	28,595	6,239	13,500	1,280
6-Aug-18	20,296	8,237	14,607	16,879	13,776	6,957	13,949	8,399	13,982	46,989	23,330	14,275	8,676	35,954	28,076	8,630	29,069	31,285	7,701	15,600	1,463
7-Aug-18	26,218	9,761	15,865	19,290	14,373	8,210	15,505	9,192	16,897	53,280	26,006	15,641	11,201	38,956	30,704	9,423	32,363	34,037			17,700
8-Aug-18	30,520	12,809	17,886	21,892	16,922	9,540	16,990	10,282	19,137	57,093	28,588	16,632	14,405	42,818	33,295	10,443	35,843	39,306			19,800
9-Aug-18	33,202	17,285	18,648	24,272	20,261	11,236	18,820	11,620	22,069	60,301	33,348	17,485	16,814	46,860	35,349	11,598	39,076	39,308			22,000
10-Aug-18	36,745	20,998	20,238	26,461	23,262	12,835	21,024	12,883	24,589	63,606	36,546	18,305	18,916	52,565	37,552	12,459	43,818	42,946			24,500
11-Aug-18	39,301	24,370	23,715	29,538	26,133	14,839	22,538	14,692	28,591	66,910	40,075	18,988	24,183	57,111	38,403	13,184	48,684	45,866			27,600
12-Aug-18	41,047	29,689	28,021	32,553	27,537	16,593	24,411	16,699	31,802	69,166	43,533	19,910	29,232	62,192	39,810	13,523	52,348	48,156			30,400
13-Aug-18	42,363	35,331	31,797	34,837	30,037	18,597	26,803	18,929	33,680	74,249	47,322	20,969	32,308	64,480	41,549	14,180	57,152	51,350			33,100
14-Aug-18	43,452	38,963	35,142	38,327	32,957	21,970	29,195	20,737	34,684	78,538	51,538	21,754	35,666	67,689	45,029	15,630	61,863	53,808			35,700
15-Aug-18	44,287	43,503	42,429	41,373	35,441	26,114	32,668	22,447	35,771	83,780	54,215	22,847	38,280	70,928	50,544	17,963	67,036	56,813			38,600
16-Aug-18	45,071	47,168	52,598	44,958	37,344	27,944	35,593	24,553	37,912	89,976	56,891	23,120	41,035	73,276	56,818	20,047	70,300	59,607			41,600
17-Aug-18	45,982	49,778	60,150	46,957	39,248	32,589	37,582	25,643	39,279	96,393	61,320	24,384	42,676	76,782	62,814	21,814	77,537	61,351			44,500
18-Aug-18	47,323	52,243	66,641	49,114	40,764	36,867	39,498	26,931	41,832	102,938	64,778	26,125	44,662	79,664	66,738	22,811	82,925	61,897			47,100
19-Aug-18	48,589	55,486	71,842	51,843	42,716	41,242	41,905	27,625	44,697	108,308	68,141	27,252	46,610	81,417	72,994	23,604	87,729	62,738			49,600
20-Aug-18	49,525	57,594	76,015	54,952	45,588	42,822	44,427	29,607	47,629	113,073	71,173	28,106	48,366	83,884	78,065	24,283	91,455	64,628			52,100
21-Aug-18	49,881	58,988	79,592	58,125	48,637	43,497	46,386	31,540	51,153	117,553	72,689	28,721	50,006	89,203	81,452	25,710	94,596	67,633			54,400
22-Aug-18	50,132	60,237	80,652	60,536	51,121	45,520	47,712	33,299	57,922	123,907	73,399	28,721	52,133	92,441	84,098	27,545	100,077	72,150			56,800
23-Aug-18	50,132	62,426	82,606	62,757	52,186	51,745	48,519	34,736	61,644	129,594	73,968	28,721	53,915	96,483	86,800	29,108	103,495	73,726			58,800
24-Aug-18	50,487	63,820	83,931	65,232	53,363	57,527	49,052	36,123	64,444	136,044	74,773	29,131	55,094	100,108	89,373	30,467	107,806	75,869			60,900
25-Aug-18	51,550	65,506	87,608	66,914	54,170	60,977	49,686	36,991	64,741	140,682	76,241	30,599	56,260	103,436	91,316	32,143	111,440	79,924			62,800
26-Aug-18	51,980	67,112	94,431	68,817	54,734	63,848	50,248	38,229	65,613	149,388	77,189	33,980	57,016	105,605	93,796	33,503	113,257	82,824			64,800
27-Aug-18	52,638	67,112	98,041	69,928	55,363	68,377	50,767	39,468	68,413	155,932	77,970	37,942	57,862	107,536	95,536	34,930	114,673	85,429			66,700
28-Aug-18	54,080	67,339	99,134	70,975	55,863	72,771	51,171	40,781	72,086	161,079	78,515	42,894	58,554	110,092	97,738	35,632	117,167	90,093			68,400
29-Aug-18	58,129	70,079	99,962	72,434	56,718	75,431	51,603	41,450	74,523	166,925	79,155	46,138	59,323	112,350	99,441	36,447	118,861	93,182			70,200
30-Aug-18	60,736	74,084	114,834	72,974	57,364	78,264	52,338	42,342	77,521	172,231	79,723	50,987	60,476	114,281	101,014	37,308	120,123	96,880			72,600
31-Aug-18	63,520	76,857	124,804	73,703	57,622	80,480	53,116	43,432	80,073	177,886	80,315	54,983	61,335	115,619	102,994	37,852	121,201	99,149			74,600
1-Sep-18	65,013	78,997	134,542	74,528	57,993	83,005	53,534	44,448	82,379	182,620	80,599	57,613	62,014	117,253	103,864	38,509	122,895	101,418			76,200
2-Sep-18	66,405	79,370	141,862	75,036	58,380	84,778	53,995	45,290	82,824	185,511	80,765	60,276	62,745	118,649	105,326	39,437	125,605	104,233			77,600
3-Sep-18	67,240	81,494	150,705	75,988	58,654	86,763	54,730	46,306	83,631	188,116	81,120	62,189	63,321	119,600	107,621	40,887	127,729	107,196			

Nass Summer-run Steelhead Cumulative Daily Run Size Estimates to Gitwinksihlkw Fishwheels, 2000-2018.																		IN-SEASON	Mean Cum	Daily		
Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	(94-17)	2018	
1-Jul-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jul-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jul-18	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	27	0	27
4-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	49	0	0	0	0	0	27	10	0	
5-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	49	0	0	0	0	0	27	10	0	
6-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	49	0	0	0	0	0	27	10	0	
7-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	73	0	32	39	48	0	27	20	0	
8-Jul-18	0	0	0	0	0	0	0	67	0	0	0	116	73	0	32	39	48	0	27	20	0	
9-Jul-18	0	0	0	0	0	0	0	67	0	0	0	116	73	0	32	39	144	0	54	30	27	
10-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	32	39	192	0	54	30	0	
11-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	32	39	241	0	81	30	27	
12-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	64	39	241	0	81	40	0	
13-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	95	77	241	0	81	50	0	
14-Jul-18	31	28	0	0	0	41	0	100	0	0	0	116	73	0	159	116	241	0	136	100	54	
15-Jul-18	31	28	0	0	0	41	0	100	0	0	0	116	73	0	191	116	241	0	163	100	27	
16-Jul-18	62	28	0	0	0	41	30	100	0	0	77	174	73	0	191	155	241	0	163	100	0	
17-Jul-18	155	57	52	0	0	41	30	100	0	0	77	174	73	0	191	232	241	0	217	100	54	
18-Jul-18	155	57	52	0	0	83	30	133	82	0	77	290	73	0	223	348	241	0	271	100	54	
19-Jul-18	155	57	52	0	18	83	30	133	123	0	153	407	73	0	223	348	241	0	298	100	27	
20-Jul-18	155	57	52	0	36	83	30	133	123	0	153	465	73	0	223	387	241	29	353	100	54	
21-Jul-18	155	57	52	0	54	83	59	133	123	0	307	465	73	0	254	387	241	58	597	100	244	
22-Jul-18	155	57	52	59	54	166	59	133	164	0	460	465	97	53	350	387	385	58	733	200	136	
23-Jul-18	186	57	104	59	54	249	59	133	246	51	537	639	97	105	572	387	385	58	1,031	200	298	
24-Jul-18	310	57	156	178	72	249	59	133	328	103	690	755	146	158	700	425	577	58	1,275	300	244	
25-Jul-18	310	85	208	415	72	290	89	133	492	103	690	871	170	264	891	425	625	115	1,329	300	54	
26-Jul-18	372	113	208	771	90	290	89	133	615	205	844	871	218	264	1,050	542	866	202	1,709	400	380	
27-Jul-18	372	170	259	831	180	332	89	133	738	308	1,074	1,103	243	316	1,209	580	1,684	259	2,062	500	353	
28-Jul-18	434	198	363	1,068	198	332	89	133	902	461	1,304	1,278	267	422	1,336	735	2,501	288	2,171	600	109	
29-Jul-18	465	283	571	1,365	270	332	148	133	984	667	1,381	1,394	267	686	1,431	774	3,175	288	2,306	700	136	
30-Jul-18	527	311	934	1,661	288	332	177	133	1,229	718	1,457	1,394	364	791	1,463	928	3,560	346	2,363	800	27	
31-Jul-18	682	396	1,297	1,958	324	373	236	200	1,434	718	1,688	1,452	412	844	1,590	1,006	4,185	375	2,360	1,000	27	
1-Aug-18	744	453	1,608	2,136	451	580	236	233	1,557	718	1,918	1,510	558	844	1,813	1,044	4,618	461	2,415	1,100	54	
2-Aug-18	837	934	2,024	2,789	559	663	266	233	1,762	718	2,148	1,568	728	844	2,258	1,044	5,676	663	2,523	1,300	109	
3-Aug-18	1,209	1,076	2,127	2,907	649	705	295	267	1,967	923	2,455	1,742	946	844	2,926	1,160	6,446	836	2,577	1,500	54	
4-Aug-18	1,829	1,218	2,335	3,085	793	705	325	366	2,008	1,333	2,455	1,858	1,116	844	3,180	1,508	7,119	980	2,903	1,600	326	
5-Aug-18	2,449	1,218	2,750	3,441	901	746	384	433	2,377	1,743	2,761	1,975	1,189	844	3,530	1,741	7,552	1,153	3,147	1,800	244	
6-Aug-18	2,759	1,246	2,854	3,619	991	871	561	566	2,500	1,897	2,838	2,033	1,358	896	4,007	1,934	8,707	1,210	3,717	2,000	570	
7-Aug-18	3,162	1,359	2,906	3,916	1,009	912	708	633	2,746	2,718	2,992	2,149	1,552	896	4,262	2,205	9,669	1,297		2,200		
8-Aug-18	3,409	1,586	3,165	4,272	1,118	1,078	797	666	2,869	3,230	2,992	2,555	1,892	1,002	4,580	2,553	10,005	1,441		2,400		
9-Aug-18	4,122	2,124	3,321	4,865	1,172	1,161	826	733	2,951	4,102	3,375	2,788	2,062	1,213	4,771	2,785	10,005	1,470		2,600		
10-Aug-18	4,649	2,322	3,321	5,459	1,460	1,244	944	833	3,033	4,564	3,835	3,020	2,329	1,424	5,184	2,978	10,438	1,671		2,900		
11-Aug-18	5,331	2,633	3,373	6,052	1,658	1,285	1,003	900	3,197	4,717	4,449	3,543	2,692	1,529	5,248	3,172	10,967	1,729		3,100		
12-Aug-18	5,703	3,086	3,580	6,527	1,766	1,368	1,092	1,099	3,279	4,717	4,679	3,833	3,274	1,635	5,343	3,288	11,208	1,873		3,300		
13-Aug-18	6,013	3,370	3,840	6,942	1,911	1,493	1,210	1,233	3,361	5,743	4,909	4,065	3,541	1,740	5,502	3,288	11,689	2,305		3,600		
14-Aug-18	6,385	3,483	3,943	7,476	2,235	1,617	1,269	1,333	3,361	6,717	5,830	4,356	4,026	1,740	5,725	3,558	12,218	2,363		3,800		
15-Aug-18	6,664	3,766	3,943	7,773	2,451	1,617	1,328	1,533	3,443	7,538	6,213	4,530	4,730	1,740	6,011	3,674	12,988	2,536		4,000		
16-Aug-18	7,005	3,964	4,358	8,010	2,487	1,658	1,417	1,832	3,565	7,948	6,827	4,588	5,239	1,793	6,234	4,023	13,228	3,026		4,300		
17-Aug-18	7,160	4,332	5,137	8,485	2,632	1,658	1,564	2,066	3,729	8,614	7,210	4,588	5,724	1,846	6,520	4,680	13,709	3,141		4,600		
18-Aug-18	7,377	4,446	5,759	8,603	2,758	1,949	1,682	2,199	3,852	9,743	7,441	4,588	6,137	2,109	6,870	4,990	14,094	3,141		4,800		
19-Aug-18	7,563	4,785	6,071	8,722	2,830	1,990	1,918	2,265	4,262	10,255	7,594	4,704	6,670	2,109	7,379	5,222	14,960	3,141		5,100		
20-Aug-18	7,873	4,984	6,330	9,256	2,920	1,990	2,095	2,299	4,959	10,563	7,747	4,820	7,010	2,215	7,665	5,299	15,489	3,170		5,300		
21-Aug-18	8,090	5,380	6,797	9,909	3,028	1,990	2,361	2,465	5,287	10,666	8,131	4,820	7,398	2,215	8,460	5,802	15,585	3,314		5,600		
22-Aug-18	8,121	5,663	7,108	10,383	3,244	1,990	2,479	2,532	6,065	11,383	8,438	4,820	7,689	2,478	9,128	6,769	15,826	3,602		5,900		
23-Aug-18	8,121	5,805	7,264	10,680	3,371	2,405	2,656	2,732	6,721	12,409	8,514	4,820	7,980	2,847	10,209	7,272	16,259	3,689		6,200		
24-Aug-18	8,121	6,314	7,264	11,451	3,425	2,861	2,892	2,865	7,500	12,768	8,975	4,937	8,271	3,269	11,386	7,658	16,788	3,919		6,600		
25-Aug-18	8,245	6,682	7,316	11,985	3,479	3,234	3,040	3,032	7,500	13,434	9,282	5,111	8,538	3,375	12,117	8,045	17,124	4,323		6,800		
26-Aug-18	8,276	7,079	7,731	12,282	3,641	3,358	3,128	3,165	7,500	13,793	9,588	5,227	8,683	3,480	13,167	8,896	17,221	4,582		7,100		
27-Aug-18	8,338	7,079	8,042	12,757	3,803	3,773	3,158	3,232	7,705	14,101	10,355	6,156	8,950	3,691	13,708	9,824	17,317	4,813		7,400		
28-Aug-18	8,369	7,079	8,094	13,172	3,875	3,939	3,305	3,332	8,360	14,563	10,509	7,318	9,120	3,902	14,185	10,134	17,365	5,187		7,700		
29-Aug-18	8,834	7,277	8,146	13,291	3,893	4,188	3,482	3,432	8,975	15,127	10,892	8,247	9,654	4,166	15,043	10,173	17,509	5,389		8,000		
30-Aug-18	9,516	7,673	8,509	13,669	3,947	4,519	3,482	3,565	9,795	15,998	10,892	9,234	9,896	4,429	15,393	10,250	17,654	5,879		8,400		
31-Aug-18	10,290	8,325	9,287	13,647	4,037	4,644	3,600	3,831	10,287	17,178	11,123	10,512	10,211	4,482	15,743	10,443	17,942	6,138		8,700		
1-Sep-18	10,755	8,806	9,599	13,765	4,056	4,892	3,777	4,031	10,901	18,870	11,429	12,138	10,406	4,588	15,902	10,482	18,327	6,282		9,100		
2-Sep-18																						

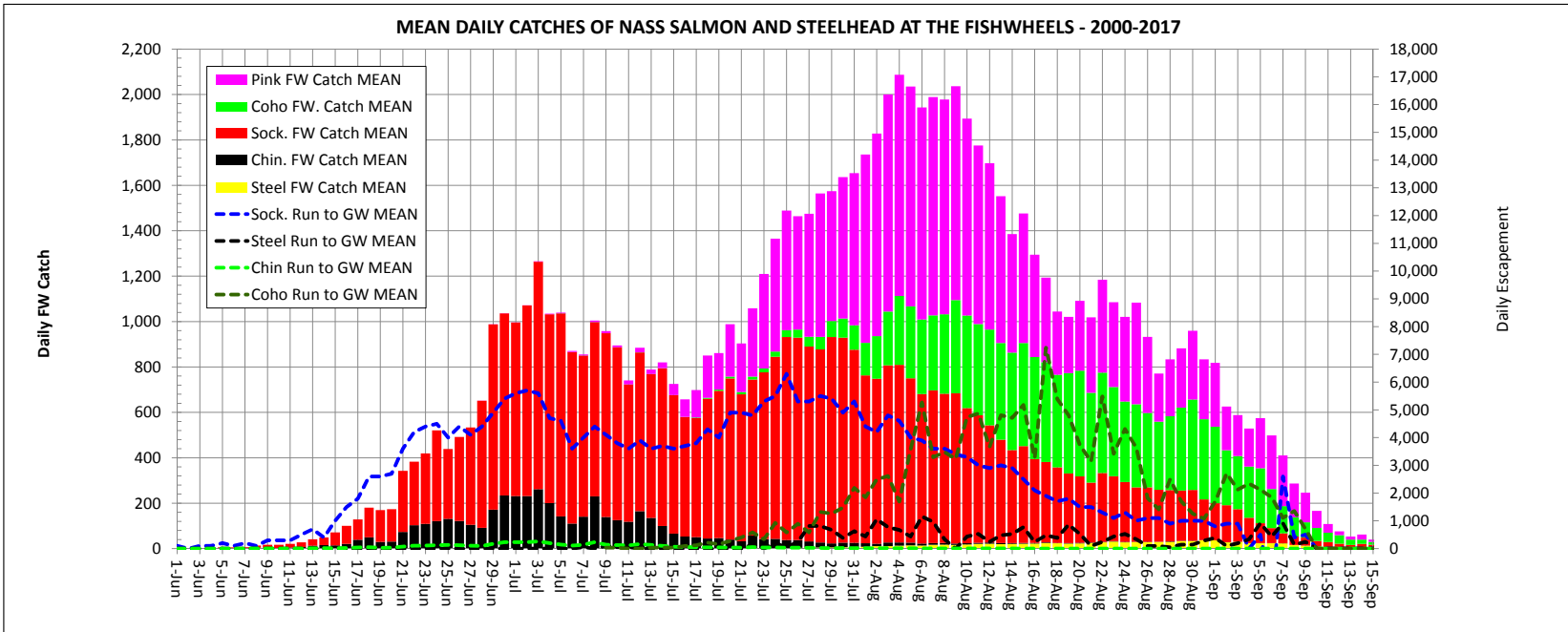
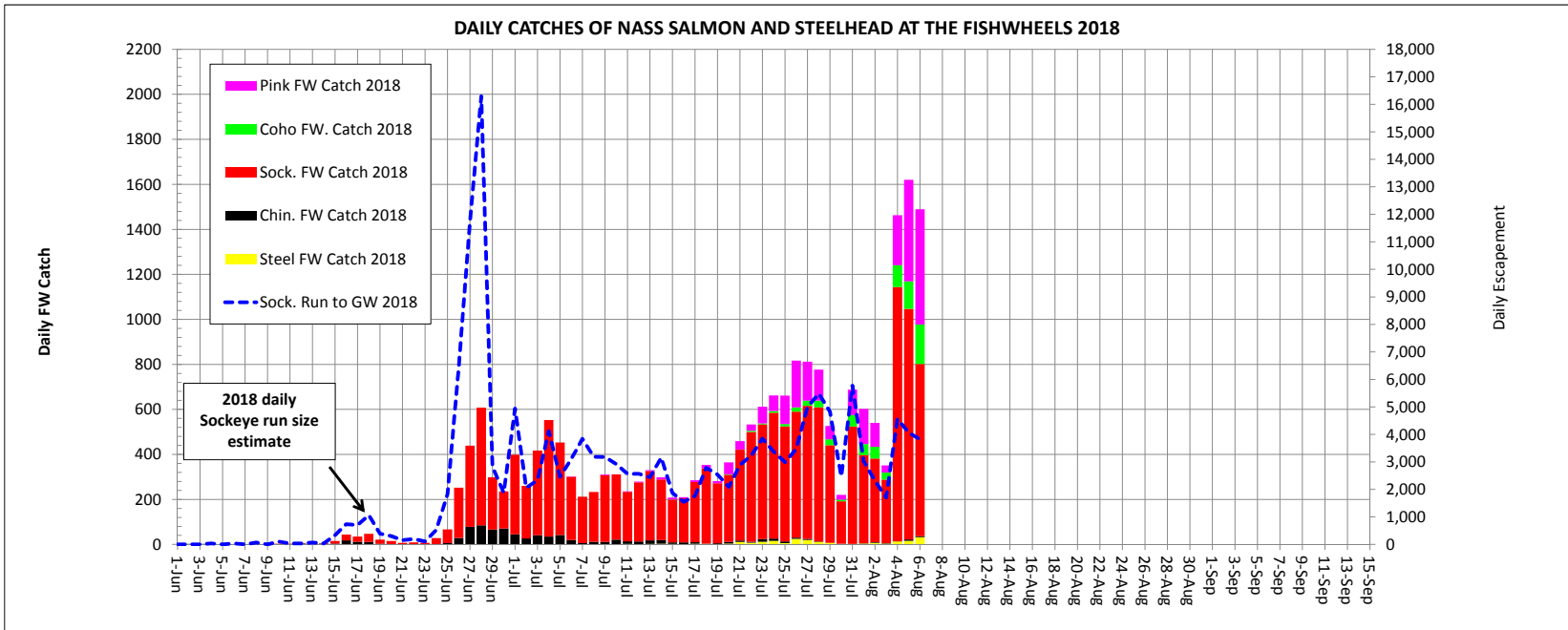
2018 Nass Fishwheel Catches

	GW		GW Total	GH				GH Total	Grand Total
Data	FW1	FW2		FW3	FW4	FW5	FW6		
Chin-adult catch	94	216	310	117	144	205	42	508	818
Chin-tagged	88	205	293	112	134	180	39	465	758
Chin-recaps	9	9	18	5	9	30	5	49	67
Chin-Jacks	38	108	146	55	97	96	77	325	471
Sum of CH Harv	0	0	0	0	0	0	0	0	0
Sockeye-adult catch	1,457	5,730	7,187	2,566	1,847	3,953	1,335	9,701	16,888
Sockeye-tagged	1,182	2,963	4,145	0	0	0	0	0	4,145
Sum of sk-radio	163	367	530	0	0	0	0	0	530
Sockeye-recaps	69	127	196	68	61	132	38	299	495
Sockeye_jacks	502	1239	1741	240	220	518	206	1184	2925
Sum of sk_harvest_total	0	0	0	0	0	0	0	0	0
Coho-adult catch	109	228	337	76	33	179	88	376	713
Coho-tagged	101	196	297	0	0	0	0	0	297
Coho-recaps	4	2	6	1	0	1	0	2	8
Coho-jack	6	3	9	1	0	4	3	8	17
Sum of co_harvest_total	0	0	0	0	0	0	0	0	0
Steel-adult catch	23	114	137	14	9	45	18	86	223
Steel-Adipose marked	20	107	127	13	7	39	15	74	201
Steel-unmarked	3	7	10	1	2	6	3	12	22
Steel-recap-total	1	1	2	0	0	3	0	3	5
Pacific Lamprey-catch	161	179	340	57	173	250	185	665	1005
Lamprey-tagged	115	157	272	43	139	201	145	528	800
Lamprey-released	46	20	66	14	34	49	40	137	203
Lamprey-recaps	0	1	1	0	8	9	6	23	24
River Lamprey	0	0	0	0	0	2	0	2	2
Pink-adult-catch	441	1567	2008	181	114	232	109	636	2644
Chum-adult-catch	3	11	14	0	0	2	1	3	17
Chum-tagged	3	10	13	0	0	2	1	3	16
Chum-punched	0	0	0	0	0	0	0	0	0
Chum-recaps	0	1	1	1	0	0	0	1	2
Whitefish	5	3	8	9	12	27	35	83	91
Rainbow Trout	12	3	15	16	7	14	29	66	81
Dolly Varden	33	12	45	2	0	0	3	5	50
Peamouth Chub	0	0	0	8	1	19	14	42	42
Pikeminnow	0	0	0	6	1	13	8	28	28
Redside Shiner	0	1	1	6	1	9	9	25	26
Sculpin	2	0	2	0	3	11	1	15	17
Cutthroat Trout	10	2	12	3	2	0	0	5	17
Suckers	0	0	0	1	0	2	1	4	4
Seals	0	2	2	1	0	0	0	1	3

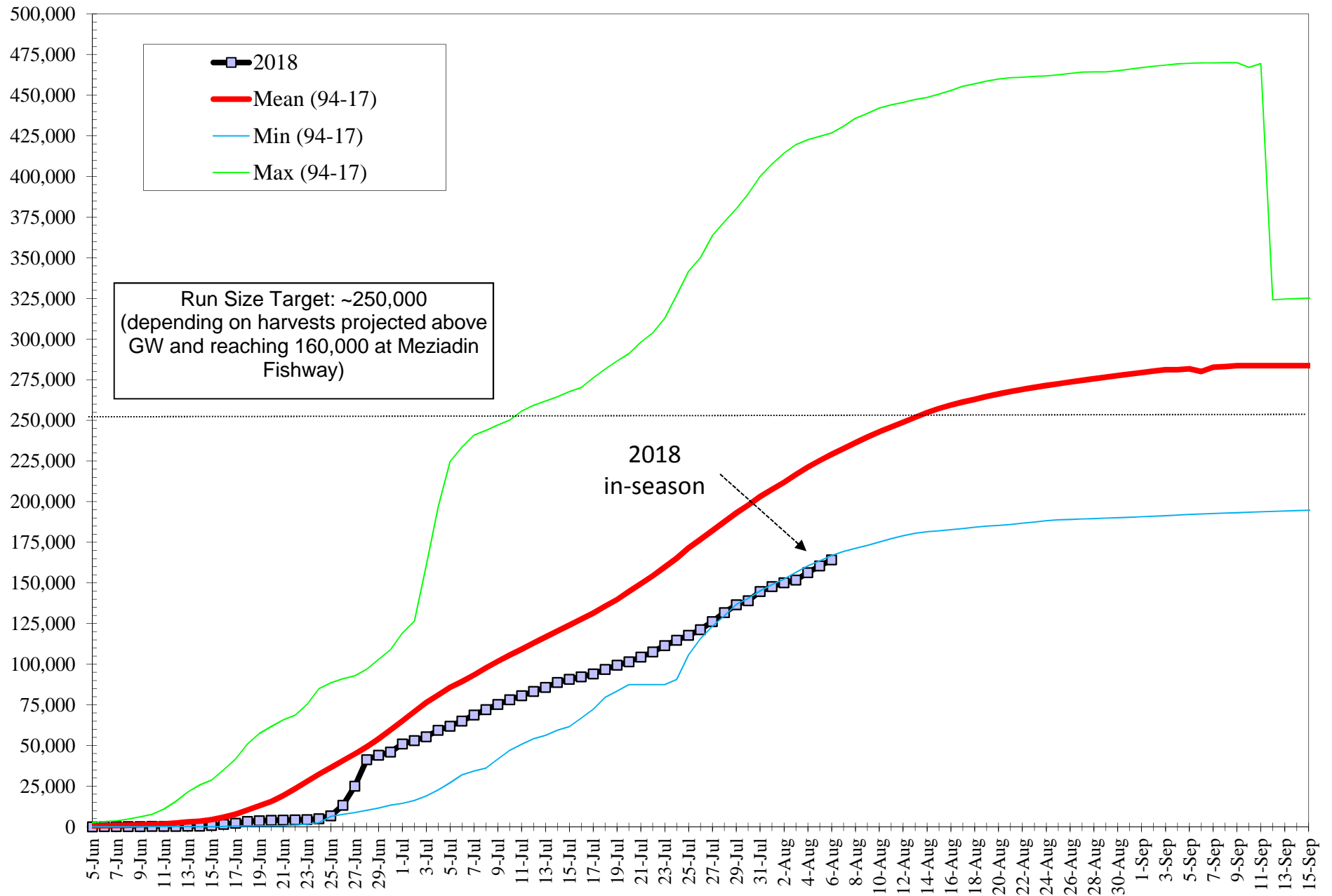
Nass Fishwheel Catches 2018 - 6 AUG



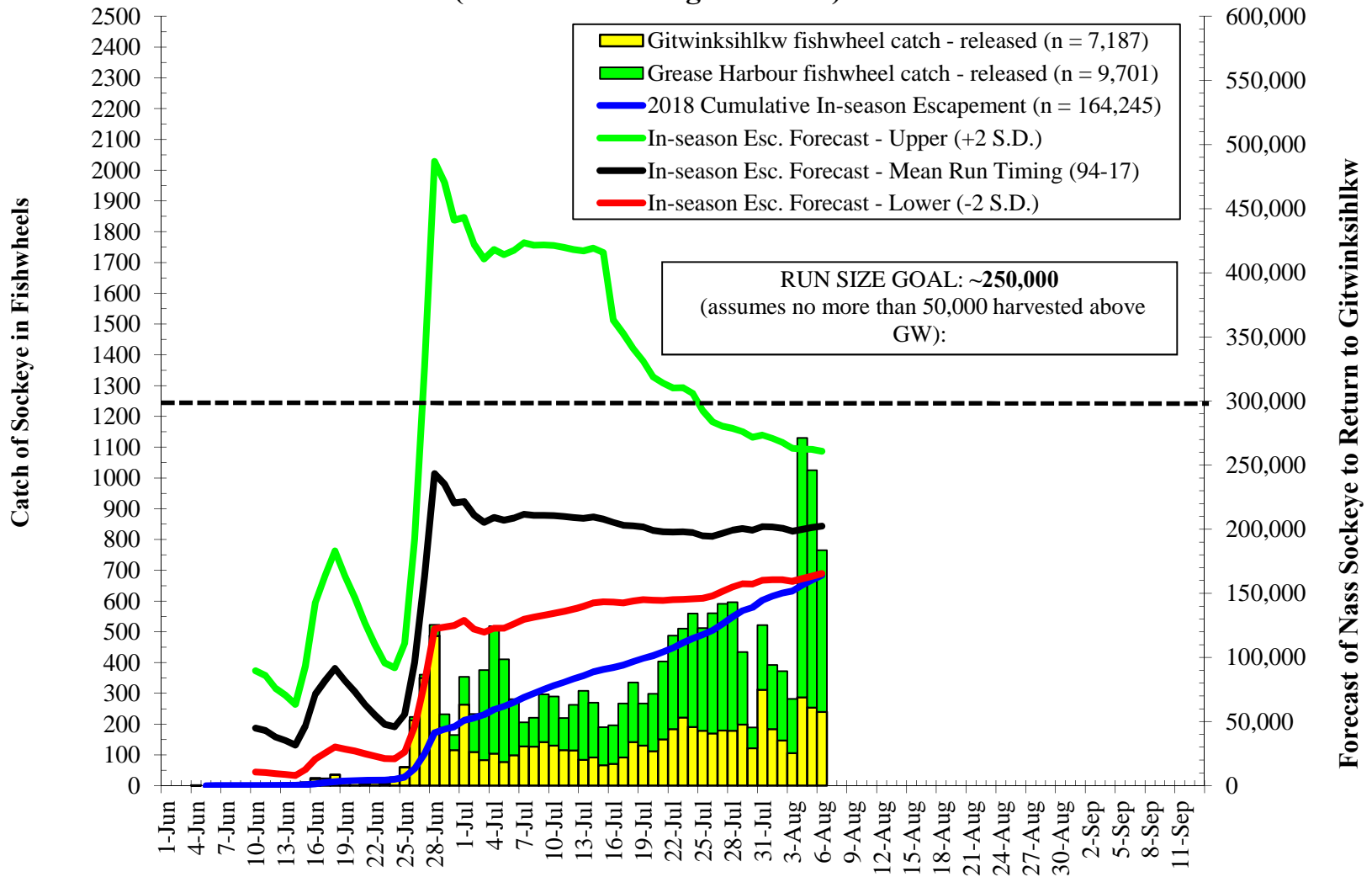
Species



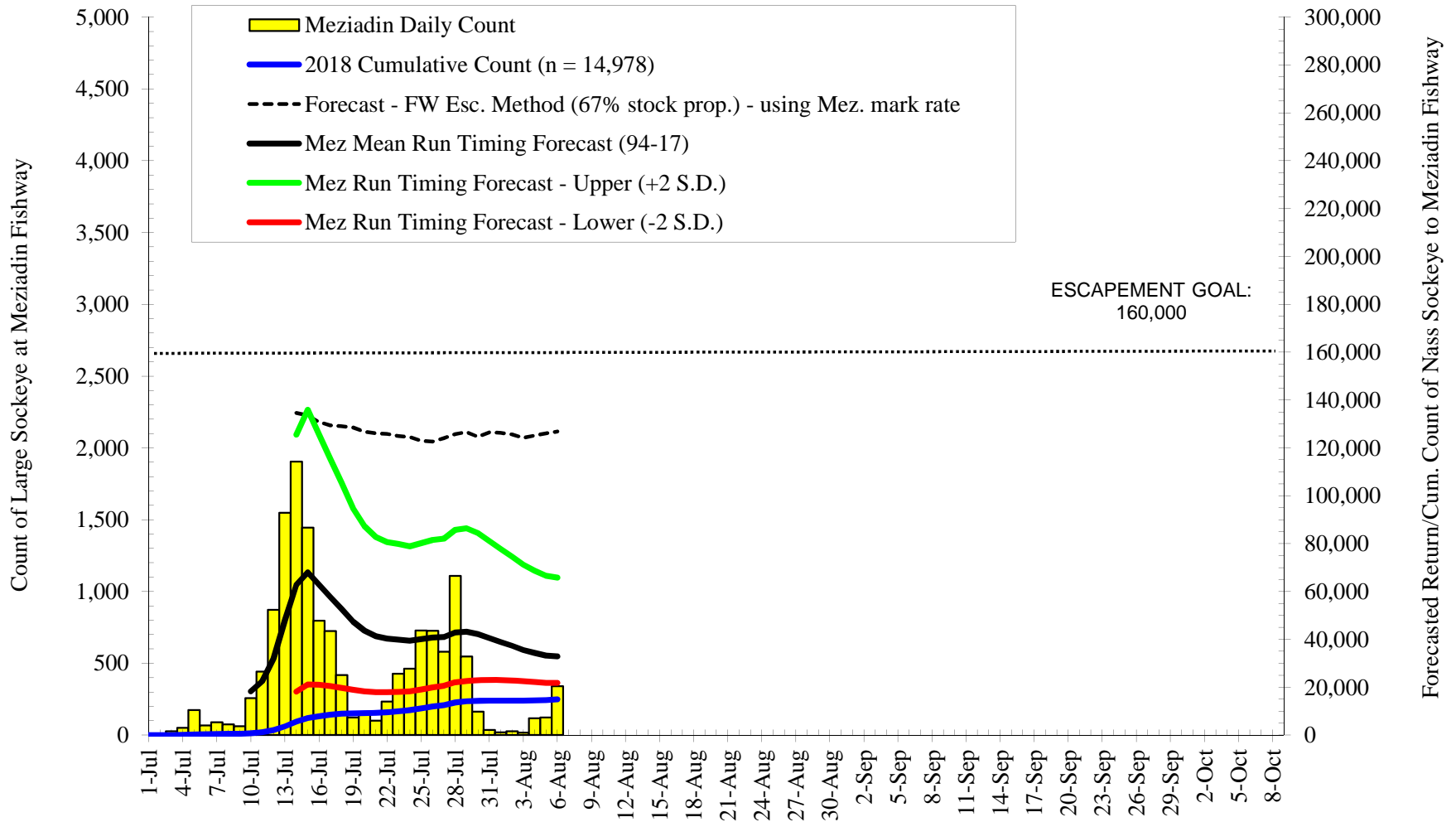
Nass Sockeye Cum. Run Size to Gitwinksilhkw Fishwheels 2018 versus 94-17 Mean, Min, Max returns (before upriver harvests)



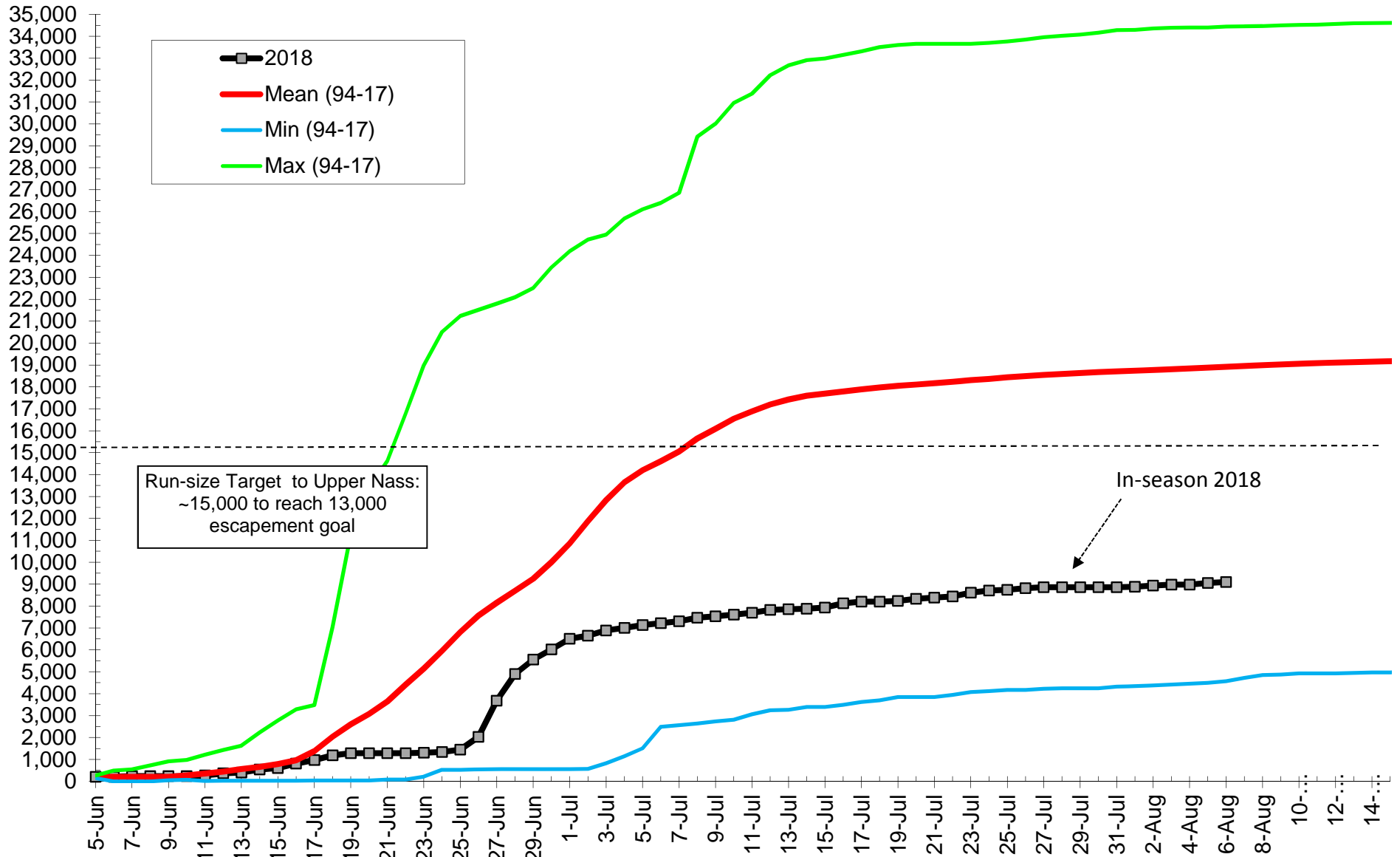
Nass Sockeye (≥ 45 cm NFL) Run Forecasts to Gitwinksihlkw Fishwheels 2018 (Mean Run timing - 1994-17)



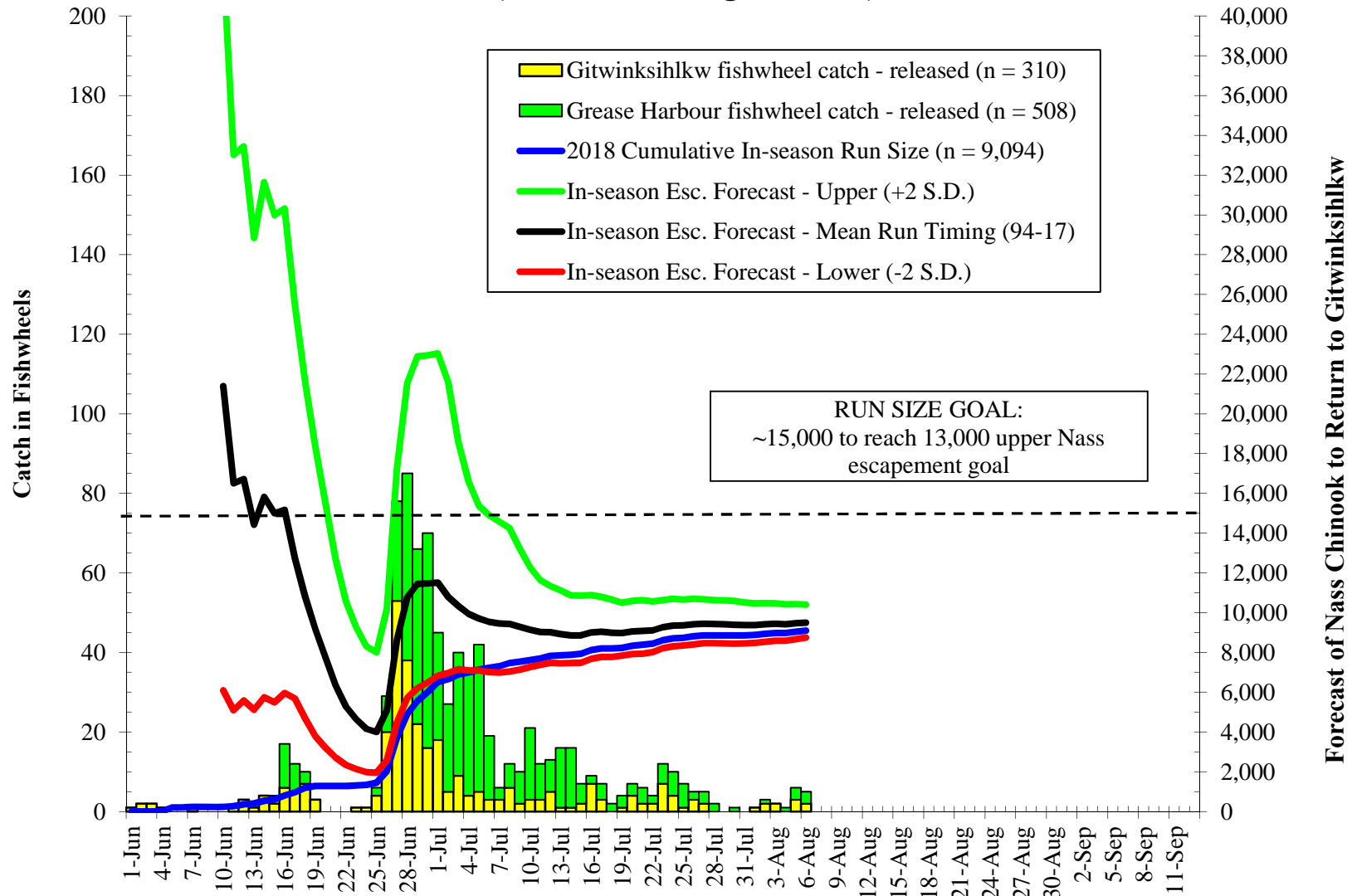
Meziadin Fishway Sockeye Counts & In-season Forecast Data 2018



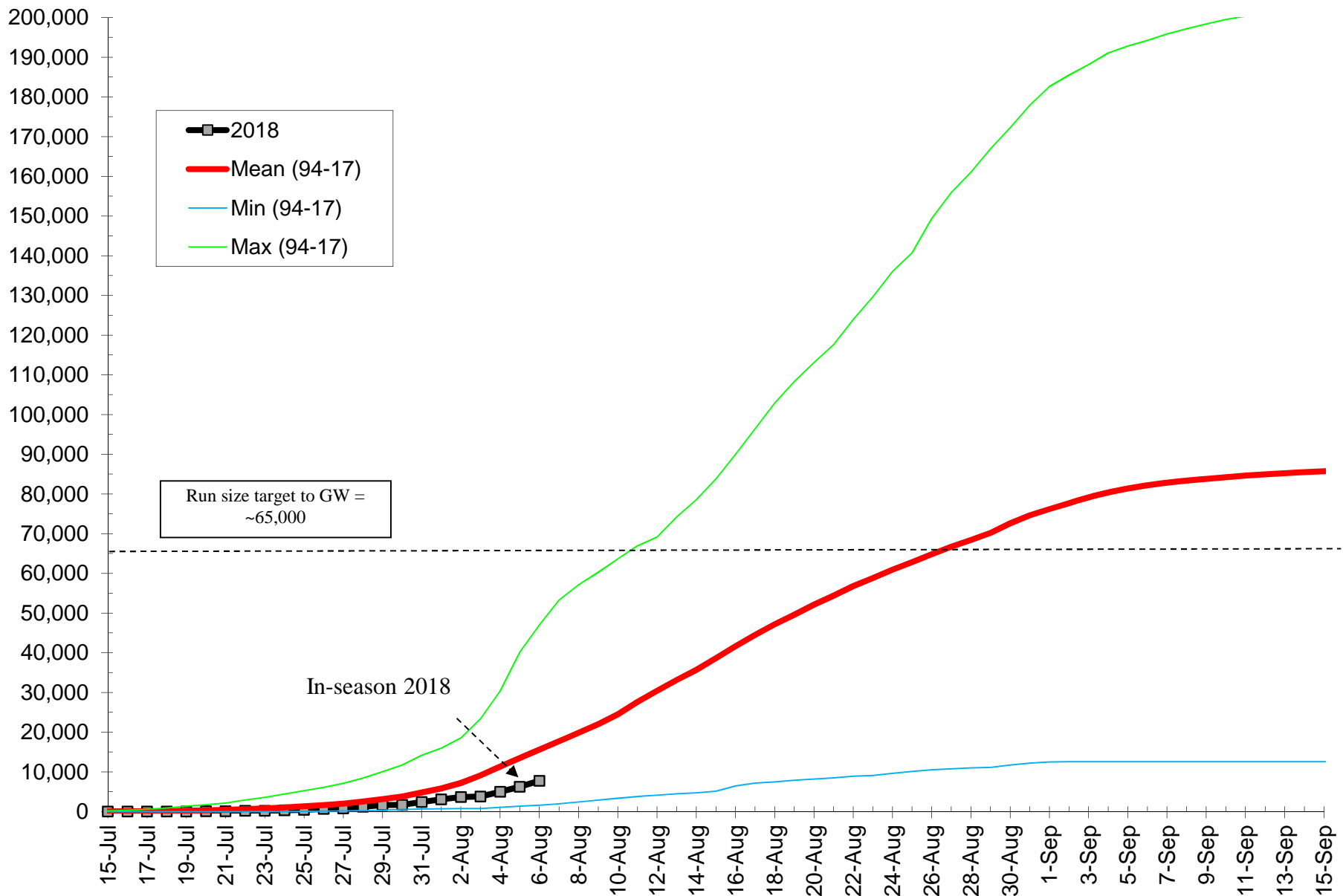
Cumulative Nass Adult Chinook Run Size to Gitwinksihlkw 2018 vs 94-17 Mean, Minimum and Maximum returns (before up river harvests)



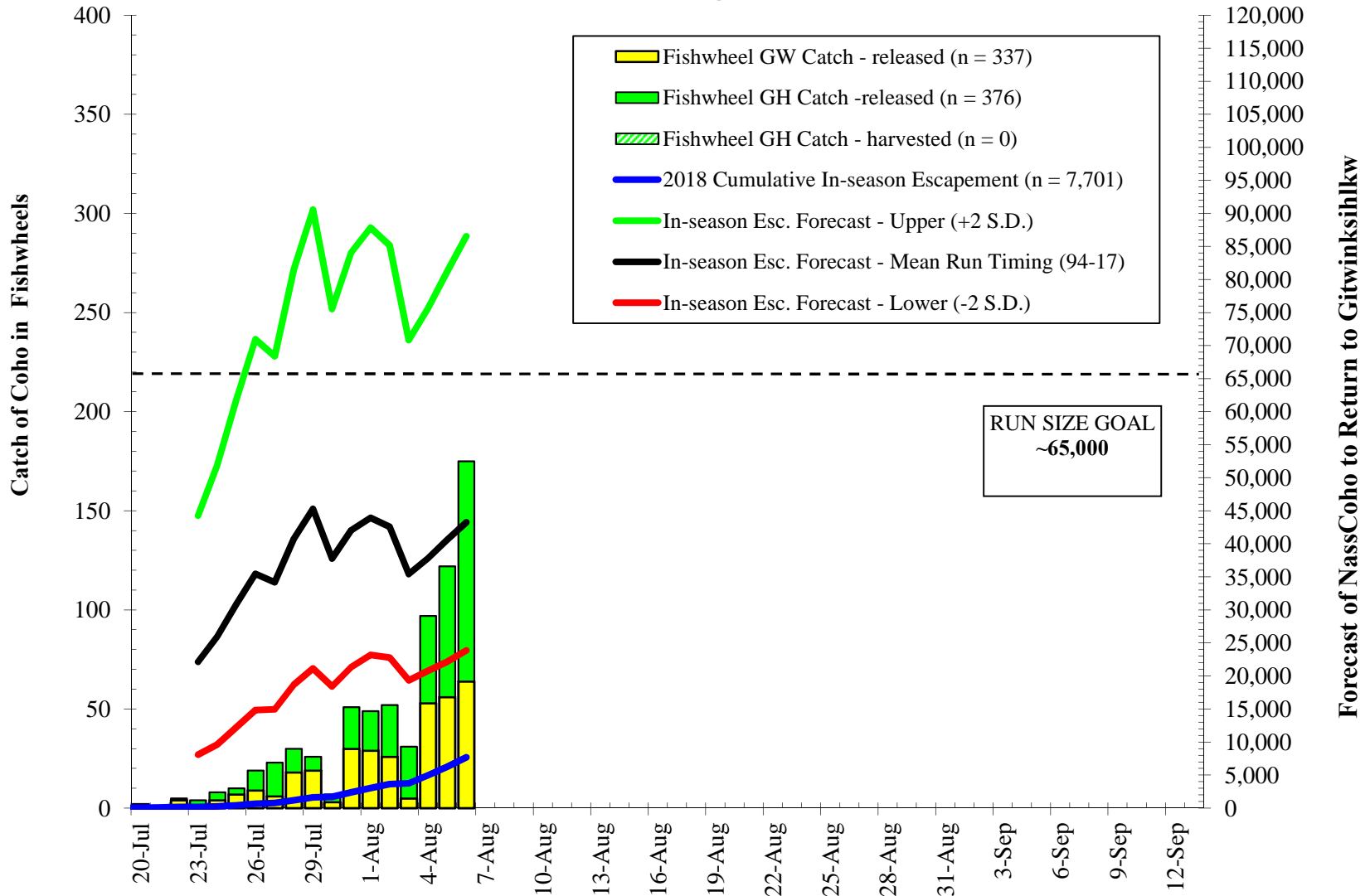
Nass Chinook (≥ 50 cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2018 (Mean Run timing - 1994-17)



Cumulative Nass Adult Coho Run Size to Gitwinksihkw 2018 vs. 94-17 Mean, Minimum and Maximum returns (before up river harvests)



Nass Coho (≥ 40 cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2018 (Mean Run timing - 1994-2017)



Nass Pink Salmon Returns to Gitwinksihlkw and Grease Harbour Fishwheels 2018

