



Nisga'a Lisims Government

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## 2020 NASS STOCK ASSESSMENT UPDATE

FISHWHEEL OPERATIONAL DATA TO:	23-Jul-20
WATER LEVEL FOR DATE AT GITWINKSIHLKW (m)	2.7
HISTORICAL LEVEL FOR DATE - MEAN 94-19 (m)	2.3
WATER TEMPERATURE FOR DATE AT GITWINKSIHLKW (m)	9.1
HISTORICAL WATER TEMP FOR DATE - MEAN 94-19 (m)	10.1

FISHWHEEL CATCH SUMMARIES	SOCK	CHIN	COHO	STEEL	PINK-EVE	CHUM	LAMP
FISHWHEEL TOTAL CATCH OF ADULTS	18,047	2,410	13	6	224	3	201
HISTORICAL AVG CUM CATCH (00-19) TO DATE	20,700	3,900	62	20	320	6	270
HISTORICAL AVG CUM TOTAL CATCH (00-19)	42,000	4,000	14,000	1,000	12,000	130	700
AVERAGE DAILY CATCH (5 D) OF ADULTS - GW	234	6	1	0	36	0	0
AVERAGE DAILY CATCH (5 D) OF ADULTS - GH	605	34	1	0	3	0	5
FISHWHEEL TOTAL TAGGED (OR ADIPOSE FIN MARKED)	4,116	2,199	8	4	0	2	142
FISHWHEEL TOTAL JACKS	1,442	1,926	0	NA	NA	NA	NA
HISTORICAL MEAN JACKS (00-19) TO DATE	1,478	631	7	NA	NA	NA	NA

IN-SEASON RUN SIZE SUMMARIES	SOCK	CHIN	COHO	STEEL	23-Jul-20
IN-SEASON RUN SIZE ESTIMATE TO DATE	95,789	8,435	117	43	
HISTORICAL MEAN RUN SIZE TO GW FOR DATE (94-19)	157,000	18,000	735	340	
RUN SIZE TARGET 2020 (MIN. FOR STEELHEAD)	230,000	15,000	65,000	4,200	

IN-SEASON FORECASTS TO GW - METHODS:	SOCK	CHIN	COHO	STEEL	23-Jul-20
1. RUN TIMING METHOD (94-19) - Mean Run timing	172,000	9,000	15,000	2,000	
Lower (-2 S.D.)	127,000	8,000	5,000	1,000	
Upper (+2 S.D.)	267,000	10,000	29,000	4,000	In-season/Final
2. IN-SEASON TO FINAL (regression):	209,000	10,000	82,000	10,000	r <sup>2</sup> (CH) = 0.99
95% CI - lower	113,000	9,000	44,000	7,000	r <sup>2</sup> (SO) = 0.64
95% CI - upper	305,000	11,000	91,000	13,000	r <sup>2</sup> (CO) = 0.28
GW RUN SIZE TARGET (DEPENDING ON HARVESTS ABOVE GW)	230,000	15,000	65,000	4,200	r <sup>2</sup> (ST) = 0.35
Mean Run Timing % Return Estimate to GW fishwheels (94-19)	56%	93%	1%	2%	
Late run	41%	74%	0%	0%	
Early run	78%	98%	3%	8%	

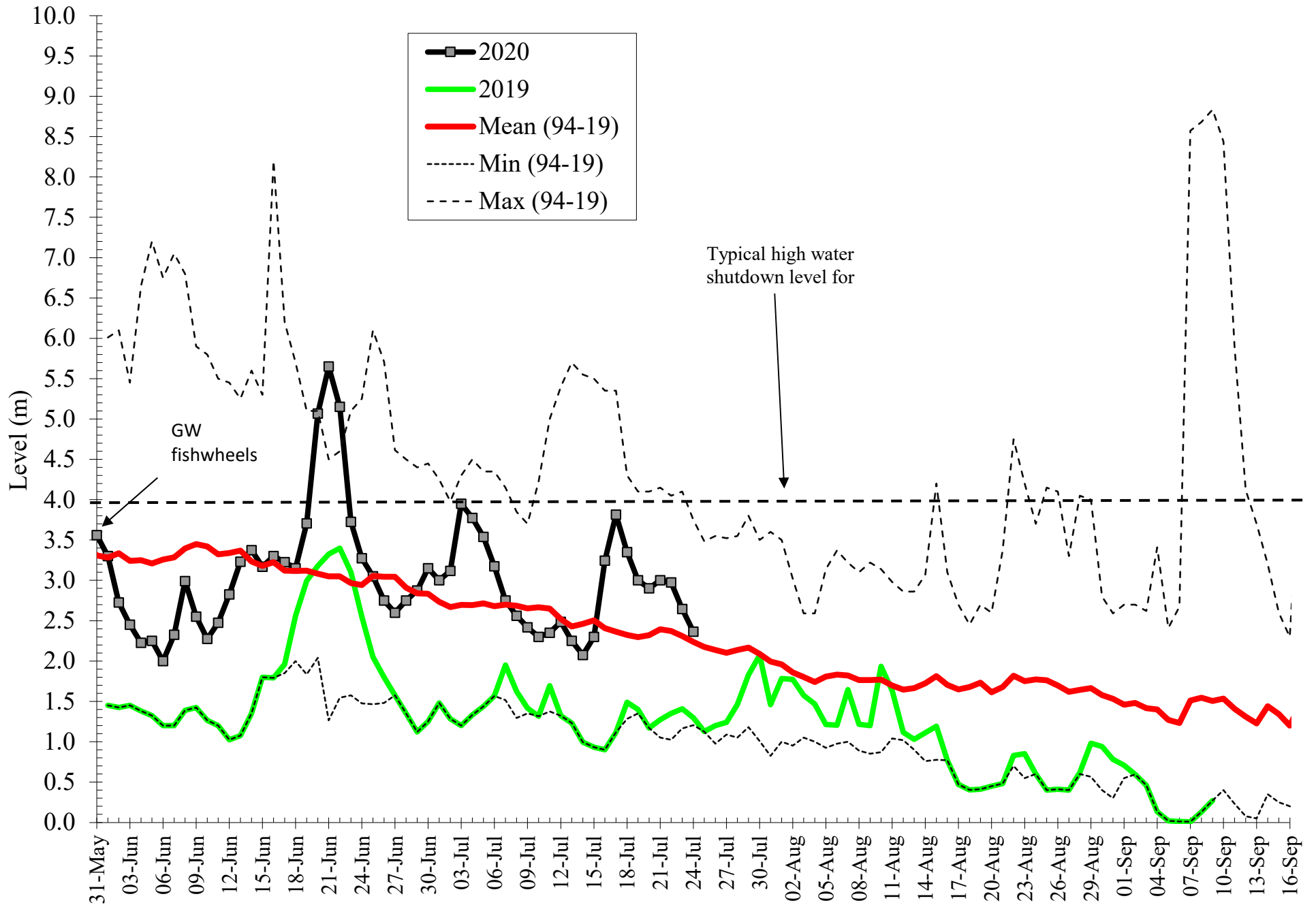
IN-SEASON NET ESCAPEMENT ESTIMATES	SOCK	CHIN	COHO	STEEL	23-Jul-20
HARVEST ESTIMATES ABOVE GW TO DATE	7,938	1,611	-	-	
NET ESCAPEMENT (ABOVE GW):	87,851	6,824	117	43	
NET ESCAPEMENT TARGET (UPPER RIVER ONLY)	200,000	13,000	60,000	4,000	

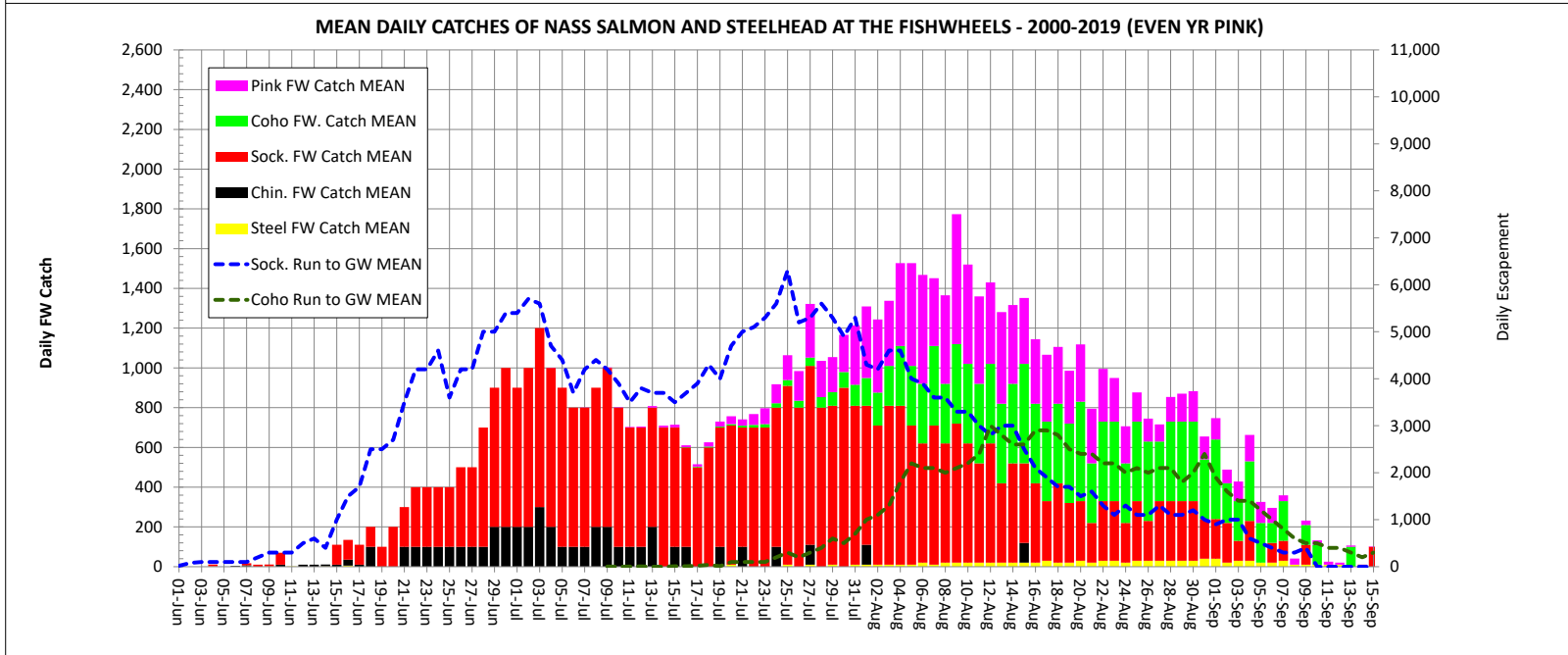
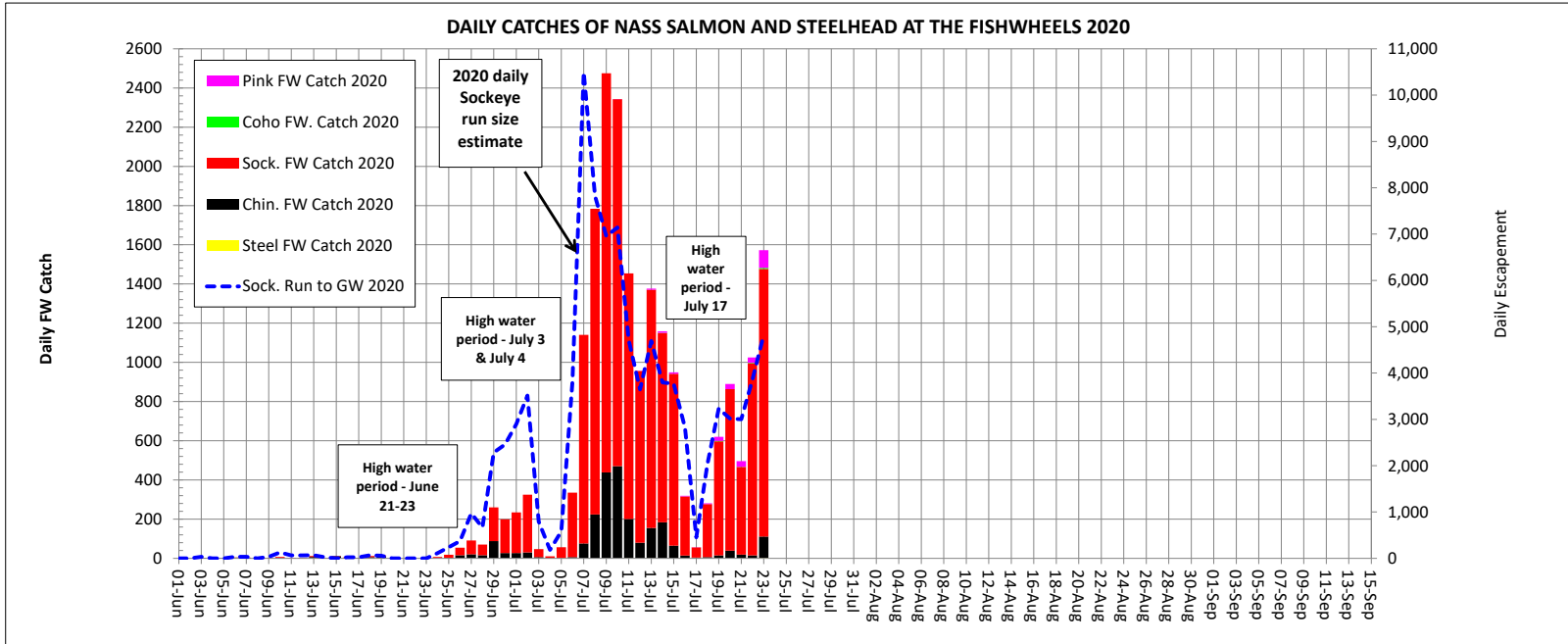
NISGA'A TOTAL HARVEST SUMMARY	SOCK	CHIN	COHO	PINK-EVE	CHUM	STEEL
MARINE SALE FISHERY TOTAL	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
IN-RIVER SALE FISHERY TOTAL	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
INDIVIDUAL SALE (IS) FISHERY TOTAL	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
NLG COMMUNAL SELECTIVE 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: 18 JULY	24,196	5,296	2	1,224	31	35
SUB TOTAL (NLG TREATY FISHERIES)	24,196	5,296	2	1,224	31	35
NLG SOCK DEMONSTRATION FISHERY HARVEST - DFO INVENTORY	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
GRAND TOTAL	24,196	5,296	2	1,224	31	35

PRE-SEASON TRTC & ENTITLEMENT FORECASTS	SOCK	CHIN	COHO	PINK-EVE	CHUM
HISTORICAL MEAN TRTC (1994-2019)	548,000	30,000	194,000	540,000	42,000
PRE-SEASON TRTC FORECAST (50% PROBABILITY)	386,000	23,000	290,000	291,000	29,000
PRE-SEASON NISGA'A ENTITLEMENT	59,000	4,800	19,200	11,000	500
CUM UNDERAGE (+)/OVERAGE (-) AVAILABLE OR OWED: 2000-19	-1,828	rebuild	2,067	-2,886	< esc. goal
TOTAL PRE-SEASON NISGA'A CATCH POTENTIAL	57,000	4,800	21,000	8,000	500

IN-SEASON TRTC & ENTITLEMENT ESTIMATES	SOCK	CHIN	COHO	PINK-EVE	CHUM
PROJECTED TRTC BASED ON INSEASON TO FINAL REGRESSION	250,000	18,000	Pre-season	Pre-season	Pre-season
ESTIMATED %TRTC TO DATE: MEAN. RUN TIMING	63%	92%	0%	1%	3%
Lower (95% CI)	159,000	17,000	Pre-season	Pre-season	Pre-season
Upper (95% ci.)	341,000	19,000	Pre-season	Pre-season	Pre-season
IN-SEASON NISGA'A ENTITLEMENT TARGET	25,000	3,800	Pre-season	Pre-season	Pre-season
MINIMUM	17,000	3,600			
MAXIMUM	49,000	4,000			

# Daily Water Level at Gitwinksihlkw Fishwheels 2020





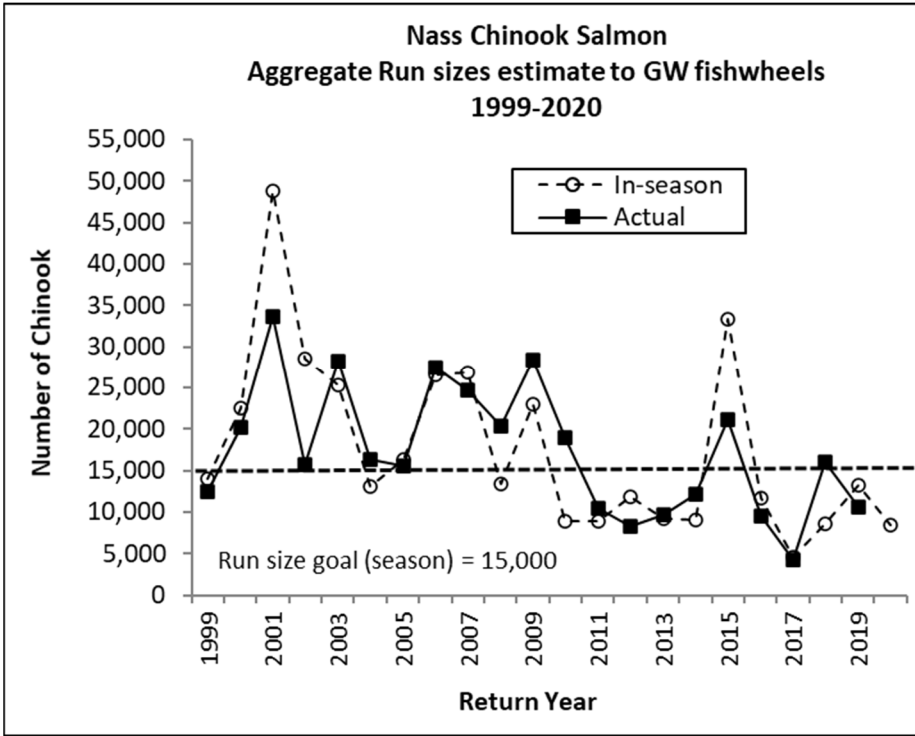
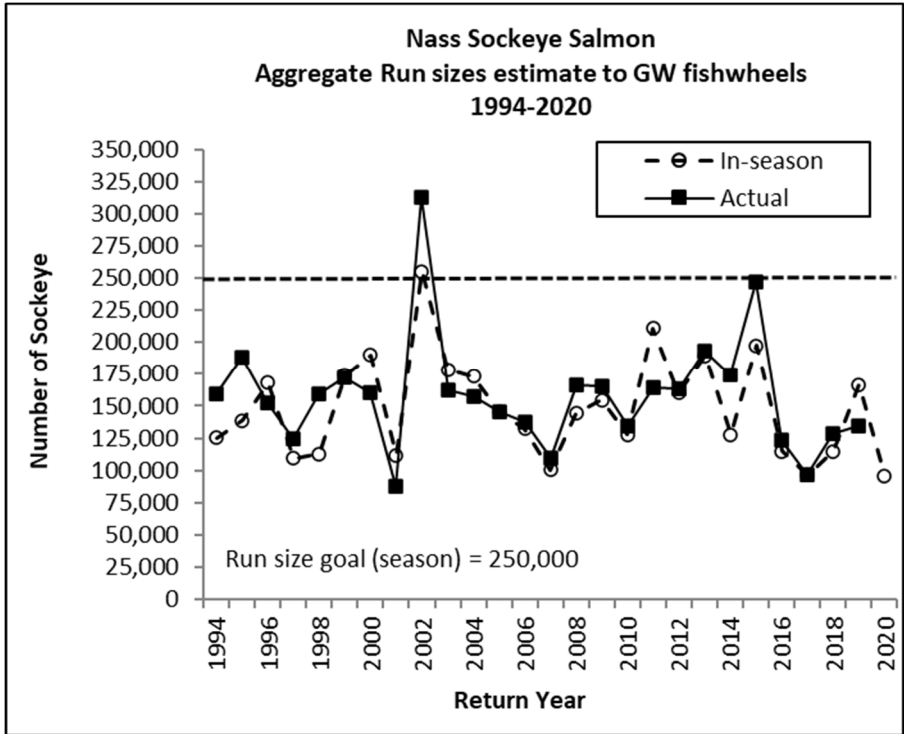


Table 1. In-season and post-season estimates of aggregate run sizes to date for Nass adult sockeye salmon to Gitwinksihlkw test fishery fishwheels, 1994-2020.

Year	Date	Wk	In-season	Actual	Raw Error	Raw Error%	Abs Error	Abs Error%	Abs Acc%
1994	23-Jul	30	125,433	159,670	-34,237	-21.4%	34,237	21%	79%
1995	23-Jul	30	138,953	188,209	-49,256	-26.2%	49,256	26%	74%
1996	23-Jul	30	167,927	152,522	15,405	10.1%	15,405	10%	90%
1997	23-Jul	30	109,259	125,047	-15,788	-12.6%	15,788	13%	87%
1998	23-Jul	30	112,808	159,233	-46,425	-29.2%	46,425	29%	71%
1999	23-Jul	30	174,262	172,021	2,241	1.3%	2,241	1%	99%
2000	23-Jul	30	189,986	160,552	29,434	18.3%	29,434	18%	82%
2001	23-Jul	30	111,678	87,412	24,265	27.8%	24,265	28%	72%
2002	23-Jul	30	254,977	312,922	-57,945	-18.5%	57,945	19%	81%
2003	23-Jul	30	178,643	162,777	15,865	9.7%	15,865	10%	90%
2004	23-Jul	30	172,929	157,073	15,856	10.1%	15,856	10%	90%
2005	23-Jul	30	145,549	145,381	168	0.1%	168	0%	100%
2006	23-Jul	30	132,360	137,407	-5,047	-3.7%	5,047	4%	96%
2007	23-Jul	30	100,433	109,959	-9,526	-8.7%	9,526	9%	91%
2008	23-Jul	30	144,238	166,548	-22,310	-13.4%	22,310	13%	87%
2009	23-Jul	30	154,759	165,073	-10,314	-6.2%	10,314	6%	94%
2010	23-Jul	30	127,983	134,395	-6,412	-4.8%	6,412	5%	95%
2011	23-Jul	30	210,839	164,784	46,055	27.9%	46,055	28%	72%
2012	23-Jul	30	160,348	163,011	-2,663	-1.6%	2,663	2%	98%
2013	23-Jul	30	189,520	192,810	-3,291	-1.7%	3,291	2%	98%
2014	23-Jul	30	127,927	174,522	-46,594	-26.7%	46,594	27%	73%
2015	23-Jul	30	197,701	247,385	-49,683	-20.1%	49,683	20%	80%
2016	23-Jul	30	115,100	123,543	-8,443	-6.8%	8,443	7%	93%
2017	23-Jul	30	96,208	96,693	-485	-0.5%	485	1%	99%
2018	23-Jul	30	114,762	128,663	-13,901	-10.8%	13,901	11%	89%
2019	23-Jul	30	166,841	134,700	32,141	23.9%	32,141	24%	76%
2020	23-Jul	30	95,789						
MAPE <sup>1</sup>								13.2%	
Min (MAPE)								0.1%	71%
Max (MAPE)								29.2%	100%
MAA <sup>2</sup>									87%

<sup>1</sup> MAPE = Mean Absolute Percent Error

<sup>2</sup> MAA = Mean Absolute Accuracy

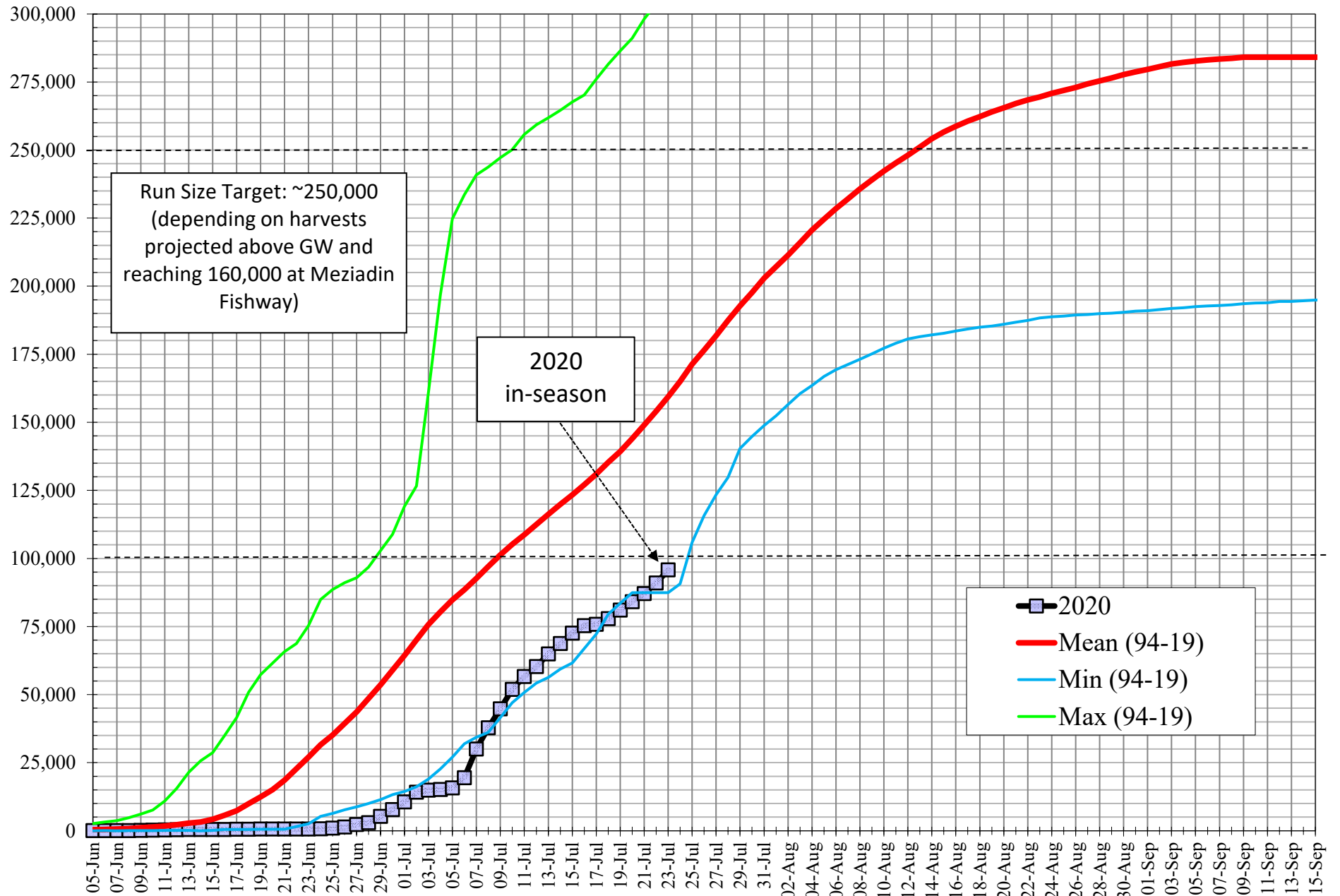
Table 2. In-season and post-season estimates of aggregate run sizes to date for Nass adult Chinook salmon to Gitwinksihlkw test fishery fishwheels, 1999-2020.

Year	Date	Wk	In-season	Actual	Raw Error	Raw Error%	Abs Error	Abs Error%	Abs Acc%
1999	23-Jul	30	14,014	12,546	1,468	11.7%	1,468	12%	88%
2000	23-Jul	30	22,542	20,239	2,303	11.4%	2,303	11%	89%
2001	23-Jul	30	48,749	33,654	15,095	44.9%	15,095	45%	55%
2002	23-Jul	30	28,593	15,671	12,922	82.5%	12,922	82%	18%
2003	23-Jul	30	25,379	28,268	-2,889	-10.2%	2,889	10%	90%
2004	23-Jul	30	13,101	16,304	-3,203	-19.6%	3,203	20%	80%
2005	23-Jul	30	16,405	15,595	810	5.2%	810	5%	95%
2006	23-Jul	30	26,573	27,525	-952	-3.5%	952	3%	97%
2007	23-Jul	30	26,788	24,700	2,087	8.5%	2,087	8%	92%
2008	23-Jul	30	13,324	20,412	-7,089	-34.7%	7,089	35%	65%
2009	23-Jul	30	23,036	28,432	-5,395	-19.0%	5,395	19%	81%
2010	23-Jul	30	8,944	19,014	-10,069	-53.0%	10,069	53%	47%
2011	23-Jul	30	8,979	10,426	-1,447	-13.9%	1,447	14%	86%
2012	23-Jul	30	11,819	8,286	3,534	42.6%	3,534	43%	57%
2013	23-Jul	30	9,271	9,738	-467	-4.8%	467	5%	95%
2014	23-Jul	30	9,125	12,230	-3,105	-25.4%	3,105	25%	75%
2015	23-Jul	30	33,394	21,062	12,331	58.5%	12,331	59%	41%
2016	23-Jul	30	11,668	9,573	2,095	21.9%	2,095	22%	78%
2017	23-Jul	30	4,636	4,346	290	6.7%	290	7%	93%
2018	23-Jul	30	8,676	16,077	-7,401	-46.0%	7,401	46%	54%
2019	23-Jul	30	13,303	10,604	2,699	25.5%	2,699	25%	75%
2020	23-Jul	30	8,435						
MAPE <sup>1</sup>								26%	
Min (MAPE)								3%	18%
Max (MAPE)								82%	97%
MAA (all years) <sup>2</sup>									74%

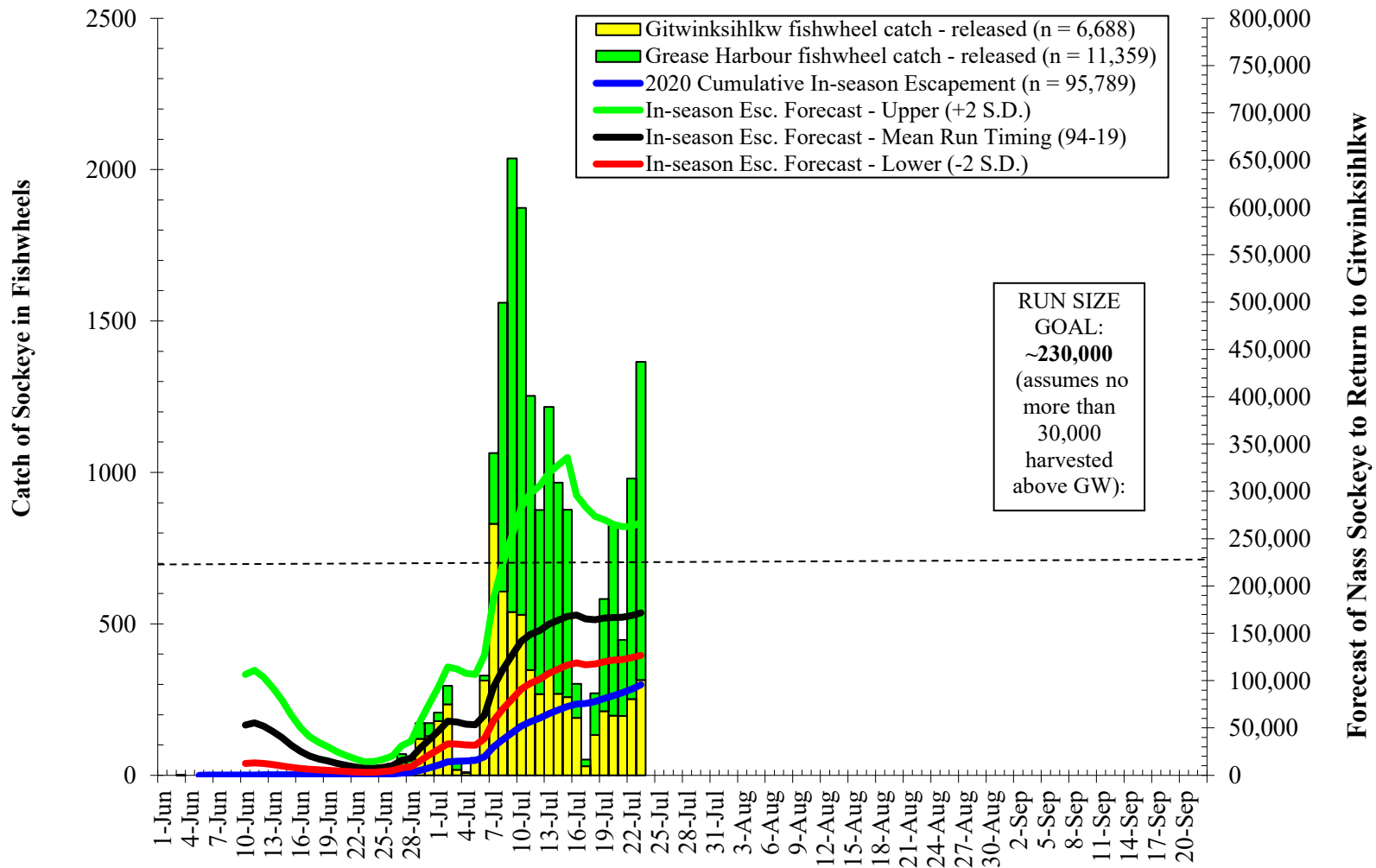
<sup>1</sup> MAPE = Mean Absolute Percent Error

<sup>2</sup> MAA = Mean Absolute Accuracy

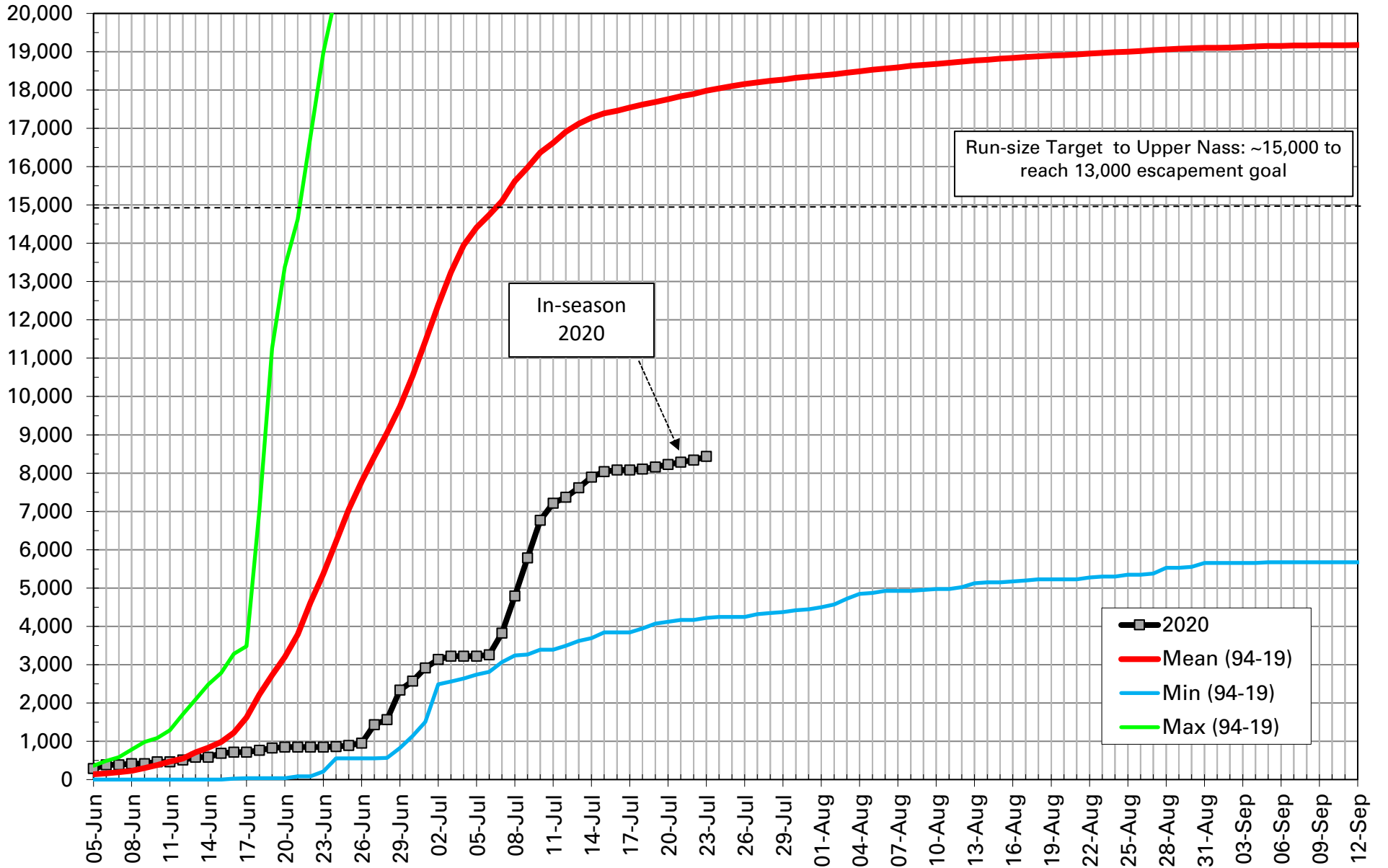
## Nass Sockeye Cum. Run Size to Gitwinksilkw Fishwheels 2020 versus 94-19 Mean, Min, Max returns (before upriver harvests)



## Nass Sockeye ( $\geq 45$ cm NFL) Run Forecasts to Gitwinksihlkw Fishwheels 2020 (Mean Run timing - 1994-19)

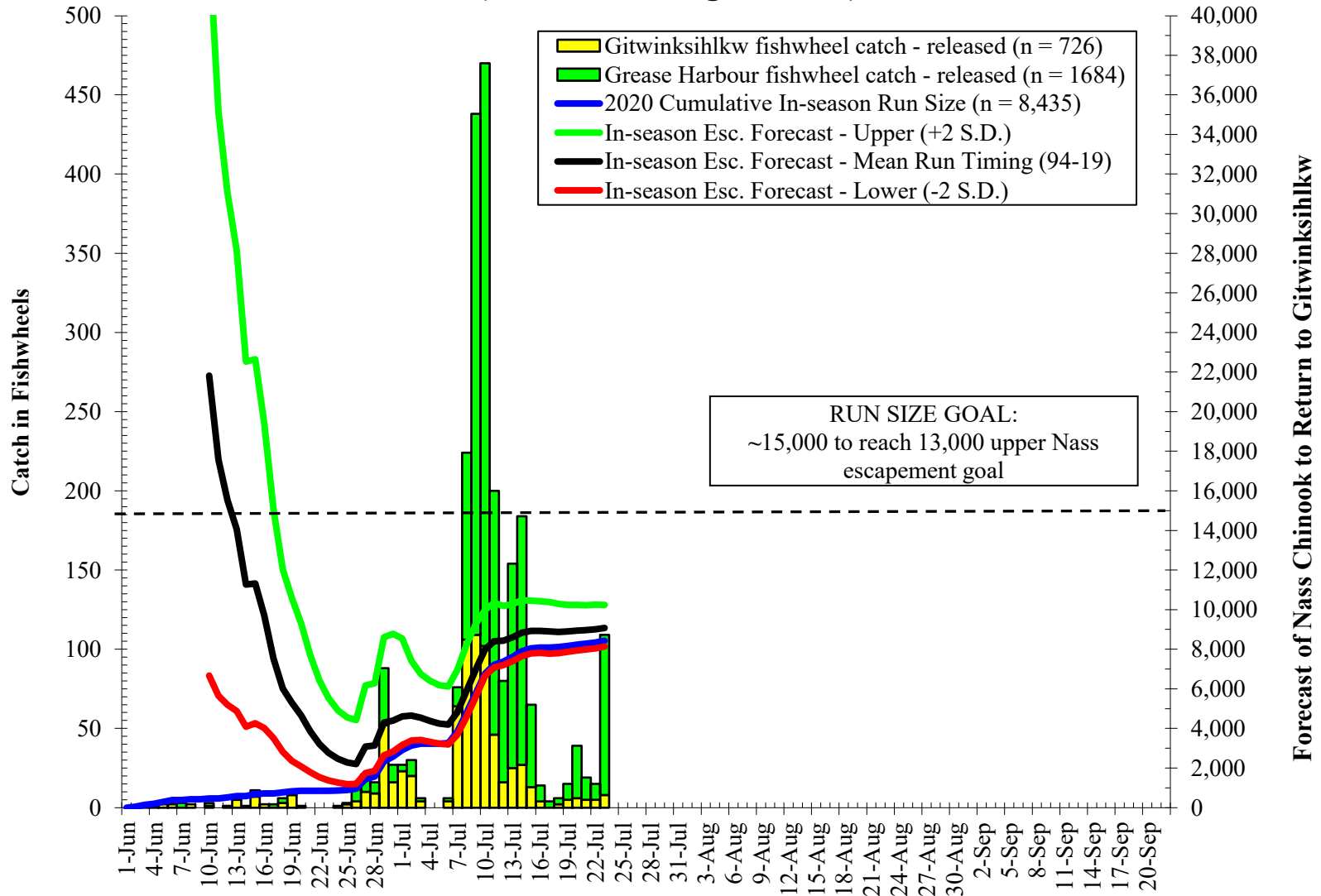


# Cumulative Nass Adult Chinook Run Size to Gitwinksihlkw 2020 vs 94-19 Mean, Minimum and Maximum returns (before up river harvests)





### Nass Chinook ( $\geq 50$ cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2020 (Mean Run timing - 1994-19)



**Cumulative Daily Run Sizes of Adult Nass River Sockeye Salmon (≥ 45 cm NFL) to Gitwinksihkw Fishwheels, 2000-2020.**

IN-SEASON (FW-MR)

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	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 Cum	Mean (94-19)	2020 Daily		
01-Jun										0	0	0	216	0	0	0	0	0	0	0	0	0	20	0	
02-Jun										175	119	0	809	0	0	0	0	0	0	0	0	0	100	0	
03-Jun										175	119	0	1,173	93	275	0	0	0	0	36		32	200	32	
04-Jun										175	158	0	1,609	278	687	0	127	14	34	72		32	300	0	
05-Jun										175	238	0	2,646	432	824	283	190	58	34	107		32	400	0	
06-Jun						40			207	175	360	25	3,245	494	1,510	534	318	101	67	143		66	500	34	
07-Jun		0				121			326	175	401	75	3,682	572	2,060	1,069	445	173	67	197		98	600	32	
08-Jun		864				229	52		533	175	441	275	4,754	788	3,444	1,699	604	216	135	286		98	800	0	
09-Jun		1,326				229	234		741	175	645	524	6,136	1,070	5,060	1,983	732	245	135	483		131	1,100	32	
10-Jun		1,505				229	468		1,127	175	645	699	7,027	1,523	7,644	2,141	987	245	232	662		260	1,400	129	
11-Jun		1,521			174	364	469		1,542	175	849	1,024	7,398	2,071	10,921	2,487	1,210	245	264	822		325	1,700	65	
12-Jun	111	1,814			1,059	836	469		1,928	175	1,134	1,322	7,413	3,136	15,583	3,811	1,784	245	296	1,180		389	2,200	65	
13-Jun	111	2,577			1,783	1,196	469		2,314	175	1,294	1,620	7,413	4,137	21,491	5,102	2,263	245	361	1,412		455	2,800	66	
14-Jun	111	2,756			2,375	1,723	469	0	2,551	175	1,414	2,366	8,430	5,436	25,737	7,208	2,773	282	393	1,680		477	3,200	22	
15-Jun	111	3,032			5,204	3,328	2,250	469	154	2,758	175	1,733	3,484	10,465	7,174	28,694	9,911	2,933	505	715	2,234		477	4,200	0
16-Jun	553	3,877			10,343	4,973	3,776	469	488	3,466	1,773	2,092	5,671	12,009	8,441	34,958	14,815	3,188	703	1,425	3,341		499	5,700	22
17-Jun	2,517	4,832			15,268	8,689	6,161	469	561	4,587	4,447	2,691	6,690	12,082	9,108	41,540	20,661	3,411	826	2,160	4,804		521	7,400	22
18-Jun	4,342	6,216			20,996	17,734	9,656	469	561	6,210	8,336	4,327	9,126	12,446	10,816	50,857	26,413	3,762	1,378	3,279	5,785		586	9,900	66
19-Jun	7,799	6,687			27,393	23,851	11,760	667	561	9,868	13,233	6,282	10,577	13,478	12,777	57,344	34,868	4,271	2,018	3,855	8,408		643	12,400	57
20-Jun	11,781	7,033			39,866	24,670	13,426	2,818	659	13,792	17,748	9,109	12,107	13,711	13,684	61,573	40,714	5,161	2,431	4,302	11,352		643	15,100	0
21-Jun	17,506	7,075	29,917		49,020	24,670	15,863	5,018	1,077	19,605	23,523	12,059	13,836	14,572	15,845	65,738	46,705	6,528	2,883	4,526	15,830		643	18,600	0
22-Jun	24,476	7,075	53,842		52,179	24,670	21,386	8,356	1,616	23,216	31,305	16,811	16,598	17,368	18,620	68,743	56,095	8,816	3,422	4,814	19,845		643	27,800	0
23-Jun	32,662	7,075	75,318		55,636	24,670	26,505	13,795	2,573	24,852	40,581	23,210	19,996	17,866	24,605	70,093	65,771	11,582	4,463	4,974	22,952		643	20,000	0
24-Jun	42,231	7,741	84,932		63,106	24,670	31,011	18,170	7,209	30,400	53,871	28,552	24,229	17,866	32,181	73,868	75,066	13,807	5,303	5,750	26,176		753	31,600	110
25-Jun	55,229	10,934	88,616		70,810	24,670	33,641	20,639	10,058	36,366	65,154	33,615	26,911	17,866	34,456	75,537	82,174	16,858	6,401	7,692	28,449		994	35,200	241
26-Jun	72,182	16,443	91,072		76,530	26,511	35,773	22,750	15,416	40,975	72,579	39,888	30,271	17,866	44,050	78,019	88,498	19,816	7,698	14,586	30,954		1,366	39,400	372
27-Jun	79,898	22,058	91,072		80,990	29,568	38,720	24,384	22,065	45,804	79,358	45,962	35,037	17,888	51,420	87,281	92,872	23,117	8,782	25,913	33,053		2,336	43,600	970
28-Jun	79,898	25,084	91,072		84,831	35,665	42,868	26,461	29,196	50,633	86,952	51,354	39,940	18,832	77,165	91,753	96,785	26,471	10,051	41,674	35,117		3,003	48,600	666
29-Jun	79,898	26,779	98,717		86,967	41,467	48,063	31,347	36,770	54,242	91,203	55,440	43,995	31,382	91,289	94,676	102,875	31,119	11,449	47,758	36,392		5,287	53,600	2,285
30-Jun	79,898	30,487	102,127		89,504	48,006	54,382	37,066	43,172	58,643	94,237	58,436	48,384	42,726	96,013	97,207	108,877	34,394	13,232	51,512	39,234		7,744	59,000	2,456
01-Jul	85,966	33,888	108,610		92,742	51,160	58,517	41,833	45,336	67,993	97,871	61,322	52,772	55,482	100,305	98,557	119,099	36,586	14,430	56,874	43,247		10,640	64,400	2,896
02-Jul	103,938	35,981	126,584		93,809	56,227	61,515	46,050	48,452	76,305	102,054	62,848	55,662	75,066	104,651	101,507	126,156	38,038	16,189	59,108	48,638		14,153	70,100	3,514
03-Jul	112,961	37,197	160,994		96,534	62,259	63,453	52,191	53,305	76,305	105,208	63,774	58,654	88,722	108,543	103,801	132,554	40,013	18,975	60,793	55,451		14,945	75,700	792
04-Jul	115,310	38,313	196,911		99,054	65,054	64,892	59,800	59,239	76,305	107,865	64,777	60,738	95,873	111,235	104,522	139,039	42,466	22,723	62,905	59,881		15,127	80,400	182
05-Jul	117,760	39,513	224,762		101,438	69,166	67,550	66,871	62,785	76,305	110,495	66,514	62,650	98,807	112,684	106,109	145,982	44,770	27,040	64,469	63,162		15,707	84,800	580
06-Jul	117,760	40,914	233,579		103,953	74,438	69,271	71,193	64,873	76,305	112,850	68,813	65,152	103,551	113,873	108,589	153,038	48,449	31,961	66,480	67,530		19,516	88,500	3,808
07-Jul	117,958	42,161	240,891		106,318	79,176	72,042	74,310	71,881	86,686	115,714	73,241	69,761	105,988	116,880	110,309	159,675	52,159	34,307	69,079	72,318		30,013	92,700	10,497
08-Jul	120,535	45,210	243,807		109,093	88,294	75,611	78,513	76,646	96,917	117,862	80,018	72,385	107,844	119,621	112,591	165,412	54,672	36,132	72,018	77,506		37,838	97,100	7,825
09-Jul	126,179	46,974	247,158		111,492	94,159	77,789	81,699	81,381	105,678	122,393	83,125	73,734	109,302	122,422	114,737	171,704	57,634	41,552	75,304	85,327		44,792	101,300	6,954
10-Jul	132,168	49,577	250,162		113,304	100,632	81,564	84,898	85,702	112,694	125,670	87,773	74,808	110,104	125,989	116,806	178,531	62,294	47,060	78,335	88,859		51,935	105,200	7,143
11-Jul	135,632	50,732	255,678		115,573	104,618	85,967	89,194	86,278	117,038	129,196	93,589	76,521	110,617	128,878	118,206	184,230	66,419	54,638	81,019	91,253		56,642	108,700	4,707
12-Jul	140,067	54,206	259,269		117,890	108,888	90,486	94,456	86,278	119,205	131,682	98,109	79,745	111,188	131,649	120,808	194,202	70,260	61,027	83,680	95,603		60,288	112,500	3,646
13-Jul	142,248	56,301	261,891		119,333	115,590	95,442	99,692	86,278	122,817	134,647	101,199	85,035	113,917	132,769	123,616	200,631	73,850	66,447	85,624	100,551		64,981	116,200	4,693
14-Jul	145,873	59,389	264,572		122,672	121,616	100,230	103,675	86,278	126,974	137,077	103,602	95,295	117,312	134,614	127,659	207,687	76,967	70,941	87,753	104,421		68,779	119,900	3,798
15-Jul	147,184	61,634	267,697		124,472	128,259	102,695	105,908	86,278	131,854	139,073	106,100	104,110	120,872	137,242	132,123	212,945	82,257	75,436	89,803	107,735		72,545	123,400	3,766
16-Jul	149,032	66,920	270,225		127,797	130,229	104,339	109,428	86,278	137,633	141,826	106,863	112,758	124,421	141,659	136,082	218,285	88,208	80,836	91,976	111,470		75,362	127,100	2,817
17-Jul	150,546	72,272	276,077		130,616	133,526	108,093	112,389	86,278	142,705	144,324	107,740	117,770	126,835	147,866	141,276	221,173	92,180	85,383	94,792	115,570		75,815	131,000	4,53
18-Jul	151,917	79,555	281,561		134,275	137,506	115,877	115,909	90,356	145,257	146,419	110,337	124,416	131,634	155,582	146,751	226,540	97,518	89,456	99,139	118,788		77,853	135,300	2,037
19-Jul	153,443	83,510	286,433		136,231	141,050	123,640	118,705	93,290	147,135	147,982	113,473	133,203	137,302											

Cumulative Daily Run Sizes of Adult Nass River Chinook Salmon (≥ 50 cm NFL) to Gitwinksihkw Fishwheels, 2000-2020.																				IN-SEASON			
Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Mean (94-19)	2020 Daily
01-Jun-20										0	0	0	8	0	0	0	0	0	48	0	0	10	
02-Jun-20										0	0	0	24	0	0	0	0	0	144	40	48	20	48
03-Jun-20										0	0	0	24	17	97	0	46	0	240	100	144	50	96
04-Jun-20										0	122	0	24	50	97	0	68	25	288	181	192	80	48
05-Jun-20										0	244	0	47	67	161	59	91	50	288	361	288	140	96
06-Jun-20						14			23	0	488	0	71	67	290	88	114	151	288	442	384	160	96
07-Jun-20		23				72			69	0	548	21	71	84	483	133	228	201	336	582	384	190	0
08-Jun-20		168				72	47		115	0	731	106	95	134	772	177	319	226	336	783	414	230	30
09-Jun-20		306				72	141		138	0	914	212	102	167	901	177	410	251	336	984	414	300	0
10-Jun-20		345				72	157		208	0	975	212	126	301	1,030	177	547	251	336	1,084	462	380	48
11-Jun-20		352			16	101	157		600	0	1,219	212	134	318	1,287	251	707	251	384	1,144	462	470	0
12-Jun-20	32	559			49	174	157		669	0	1,280	276	142	318	1,706	487	912	251	529	1,184	510	550	48
13-Jun-20	32	1,248			98	405	157		669	0	1,524	467	142	351	2,092	811	1,322	301	577	1,204	584	710	74
14-Jun-20	32	1,409		31	147	506	157	0	715	0	1,645	616	142	485	2,478	1,976	1,527	352	769	1,224	584	830	0
15-Jun-20	32	1,471		279	245	550	157	0	738	0	1,828	722	300	619	2,768	2,403	1,573	553	865	1,245	688	980	104
16-Jun-20	162	1,731		1,164	636	665	157	25	853	159	2,499	892	457	686	2,929	2,624	1,687	653	1,153	1,365	718	1,220	30
17-Jun-20	851	2,252		2,513	1,908	1,143	157	37	1,222	319	2,742	977	457	686	3,315	3,170	1,801	754	1,393	1,606	718	1,620	0
18-Jun-20	1,411	2,903		5,042	3,946	2,068	157	37	1,315	546	3,352	1,253	489	719	3,701	3,361	2,006	904	1,730	1,766	762	2,220	44
19-Jun-20	2,014	3,209		6,035	4,386	2,633	173	37	1,730	865	4,083	1,401	505	803	3,991	3,730	2,165	1,181	1,874	1,807	823	2,730	61
20-Jun-20	2,930	3,278		7,059	4,418	2,864	361	37	2,168	1,275	5,058	1,593	520	837	4,592	4,172	2,553	1,281	1,874	2,168	846	3,200	23
21-Jun-20	4,190	3,278	866	11,838	4,418	3,153	896	86	2,629	2,345	6,643	1,869	528	937	4,474	5,086	2,826	1,306	1,874	3,473	846	3,790	0
22-Jun-20	5,482	3,278	2,553	16,771	4,418	3,732	1,760	86	2,883	4,484	8,471	2,187	544	1,054	4,860	6,767	3,100	1,331	1,874	4,717	846	4,620	0
23-Jun-20	7,453	3,278	4,421	18,974	4,418	4,600	3,284	210	2,883	6,738	9,933	2,718	552	1,104	4,924	7,976	3,373	1,482	1,922	5,761	846	5,370	0
24-Jun-20	9,457	3,286	5,816	20,510	4,418	6,133	5,357	1,479	3,114	11,109	11,335	3,164	552	1,221	5,600	9,259	3,738	1,784	1,970	6,403	861	6,210	15
25-Jun-20	11,665	3,692	6,144	21,240	4,418	7,840	9,662	1,886	3,483	15,388	12,615	3,461	552	1,238	5,697	10,615	4,331	1,859	2,162	6,945	891	7,050	30
26-Jun-20	12,752	6,380	6,354	21,519	4,418	9,286	12,553	2,613	4,475	15,912	13,834	3,843	552	1,389	5,697	11,676	4,923	2,035	3,123	7,327	950	7,780	59
27-Jun-20	12,979	9,827	6,354	21,798	4,484	9,966	13,024	3,919	5,766	16,686	14,992	4,311	552	1,506	6,276	12,148	5,334	2,085	5,670	8,029	1,431	8,430	481
28-Jun-20	12,979	10,546	6,354	22,093	4,516	10,472	13,134	5,201	6,873	20,100	15,845	4,757	568	3,079	6,855	12,826	5,676	2,135	7,496	8,390	1,564	9,050	133
29-Jun-20	12,979	10,738	8,168	22,512	4,908	11,022	13,590	5,571	7,289	22,172	16,454	5,181	828	2,587	7,531	14,168	6,542	2,236	8,553	8,611	2,335	9,740	771
30-Jun-20	12,979	11,067	9,864	22,776	5,658	11,268	16,292	6,076	7,496	23,447	16,637	5,861	1,135	6,592	8,143	14,890	7,020	2,286	9,322	8,712	2,572	10,540	237
01-Jul-20	13,140	13,495	10,821	22,900	6,130	11,514	19,340	6,187	8,027	24,198	16,759	6,901	1,506	7,061	8,625	15,849	7,431	2,437	10,187	8,977	2,913	11,440	341
02-Jul-20	13,754	19,538	11,933	22,915	7,370	11,731	21,414	6,434	8,811	24,721	16,820	7,475	2,578	7,479	9,108	16,999	7,750	2,487	10,427	9,089	3,136	12,390	222
03-Jul-20	14,734	24,501	12,544	23,117	9,163	12,049	22,419	7,679	8,811	24,949	17,003	8,324	4,233	7,646	9,526	17,765	7,864	2,562	10,859	9,138	3,223	13,240	87
04-Jul-20	15,251	25,688	13,291	23,427	10,761	12,382	23,001	11,968	8,811	25,382	17,124	8,515	5,574	8,115	9,526	18,620	7,909	2,638	11,052	9,198	3,223	13,950	0
05-Jul-20	15,413	26,110	13,829	23,877	12,408	12,657	23,535	13,287	8,811	25,837	17,124	8,685	6,062	8,684	9,687	19,078	8,046	2,738	11,292	9,313	3,223	14,410	0
06-Jul-20	15,413	26,393	14,385	24,637	13,337	12,671	23,786	13,521	8,811	26,087	17,246	8,812	6,819	9,935	10,234	19,387	8,183	2,814	11,436	9,693	3,257	14,740	34
07-Jul-20	15,424	26,860	14,786	25,211	13,386	12,729	24,053	15,924	8,857	26,224	17,307	9,046	7,434	9,219	10,428	19,579	8,570	3,065	11,580	10,375	3,826	15,100	569
08-Jul-20	15,553	29,418	15,051	25,956	13,467	13,033	24,116	19,807	9,872	26,338	17,734	9,195	7,671	9,286	10,653	19,741	8,753	3,241	11,868	10,907	4,791	15,620	965
09-Jul-20	15,919	30,008	15,124	26,189	13,630	13,510	24,242	21,878	12,224	26,543	17,917	9,301	7,789	9,387	10,975	19,756	8,981	3,266	11,964	11,049	5,785	15,980	994
10-Jul-20	16,414	30,958	15,224	26,406	13,859	14,103	24,367	23,110	15,799	26,747	18,039	9,471	7,797	9,420	11,168	19,770	9,163	3,391	12,109	11,172	6,768	16,370	984
11-Jul-20	16,835	31,379	15,279	26,530	14,169	14,551	24,587	23,172	18,152	26,952	18,160	9,556	7,797	9,504	11,297	19,829	9,231	3,391	12,253	11,239	7,216	16,620	447
12-Jul-20	18,170	32,221	15,306	26,654	14,690	14,754	25,137	23,172	19,190	26,998	18,282	9,640	7,797	9,520	11,747	20,051	9,322	3,492	12,493	11,335	7,372	16,910	156
13-Jul-20	18,762	32,681	15,370	26,732	15,342	14,884	26,064	23,172	19,351	27,066	18,404	9,768	7,805	9,537	11,876	20,286	9,414	3,617	12,541	11,456	7,621	17,120	249
14-Jul-20	19,355	32,911	15,406	26,840	15,783	15,043	26,661	23,172	19,513	27,294	18,465	9,895	7,915	9,587	12,005	20,493	9,482	3,693	12,589	11,560	7,898	17,280	277
15-Jul-20	19,592	32,987	15,443	26,996	15,946	15,130	26,834	23,172	19,836	27,521	18,587	10,023	7,994	9,604	12,069	20,581	9,505	3,843	12,685	11,688	8,037	17,390	139
16-Jul-20	19,786	33,148	15,452	27,058	16,027	15,159	26,944	23,172	20,043	27,544	18,587	10,108	8,018	9,604	12,101	20,655	9,550	3,843	13,022	11,726	8,080	17,460	44
17-Jul-20	19,980	33,317	15,507	27,213	16,027	15,246	27,148	23,172	20,159	27,749	18,648	10,235	8,025	9,621	12,101	20,714	9,550	3,843	13,166	11,792	8,080	17,540	0
18-Jul-20	20,023	33,508	15,534	27,476	16,092	15,304	27,227	23,283	20,228	27,863	18,648	10,362	8,120	9,704	12,165	20,788	9,550	3,944	13,166	11,864	8,103	17,620	23
19-Jul-20	20,087	33,608	15,543	27,709	16,174	15,390	27,352	23,369	20,274	27,954	18,770	10,426	8,286	9,738	12,230	20,802	9,573	4,070	13,214	11,907	8,160	17,690	57
20-Jul-20	20,163	33,654	15,580	27,926	16,223	15,434	27,384	23,542	20,297	28,022	18,770	10,490	8,609	9,755	12,262	20,817	9,573	4,120	13,406	11,979	8,229	17,760	69
21-Jul-20	20,173	33,654	15,607	28,082	16,272	15,506	27,478	23,862	20,343	28,159	18,953	10,554	9,082	9,771	12,294	20,832	9,596	4,170	13,502	12,052	8,286	17,840	57
22-Jul-20	20,173	33,654	15,625	28,159	16,288	15,506	27,525	24,257	20,389	28,318	19,014	10,596	9,184	9,805	12,455	20,847	9,642	4,170	13,598	12,074	8,343	17,900	57
23-Jul-20	20,249	33,654	15,671	28,268	16,304	15,622	27,525	24,700	20,412	28,432	19,014	10,660	9,271	9,838	12,584	20,935	9,687	4,220	13,935	12,114	8,43		

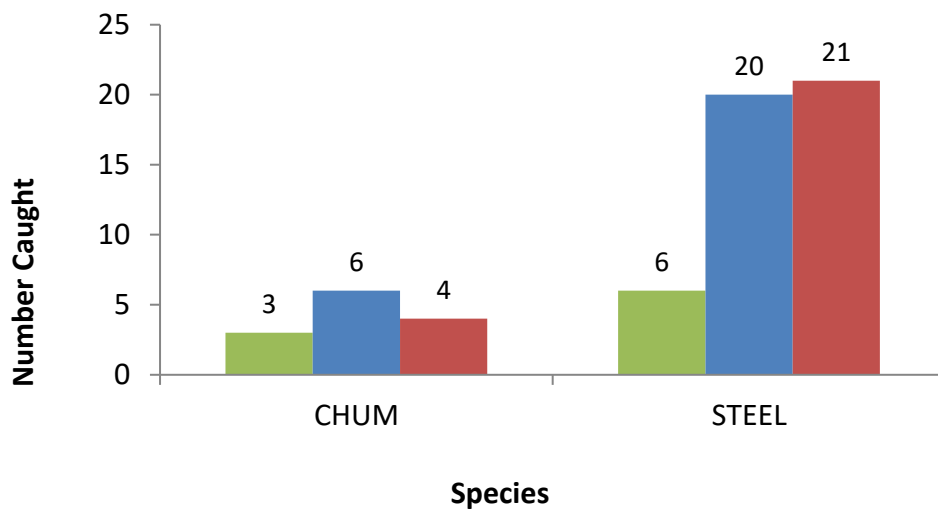
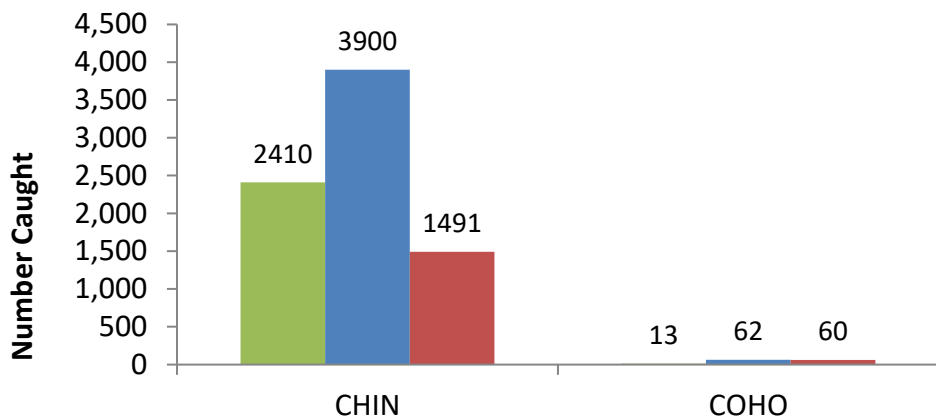
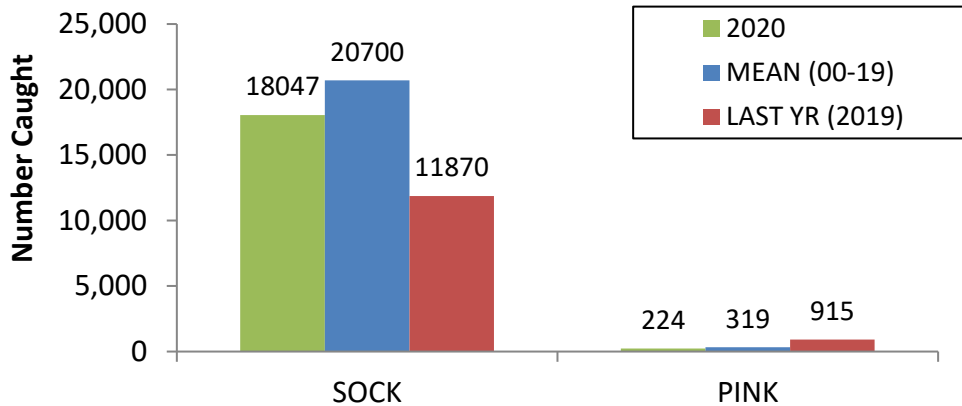
Cumulative Daily Run Sizes of Adult Nass River Coho Salmon (≥ 40 cm NFL) to Gitwinksihkw Fishwheels, 2000-2020.																					In-season 2020	Mean Cum (94-19)	Daily 2020	
Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019				
8-Jul-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21	0	0	0	0	2	
9-Jul-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	21	0	0	0	0	2	
10-Jul-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	21	0	0	0	0	3	
11-Jul-20	0	0	0	0	0	19	0	0	0	0	0	0	0	30	0	0	62	21	0	0	0	0	10	
12-Jul-20	0	0	0	32	0	39	0	0	16	32	0	0	0	30	0	0	62	42	0	0	0	0	10	
13-Jul-20	0	0	0	32	16	39	0	0	33	32	0	0	0	30	0	0	92	42	0	19	0	0	10	
14-Jul-20	0	0	33	63	16	39	0	0	33	64	0	0	0	119	0	0	123	42	0	19	0	13	20	13
15-Jul-20	0	0	33	127	32	39	29	0	49	64	47	0	0	119	0	23	154	84	39	19	0	13	30	0
16-Jul-20	0	0	33	190	65	39	29	0	66	64	71	0	0	238	0	45	246	105	39	19	0	13	50	0
17-Jul-20	0	0	66	190	113	96	72	0	99	159	95	0	0	565	19	113	370	189	39	19	0	13	90	0
18-Jul-20	25	0	66	190	161	116	173	0	99	222	142	239	26	891	37	227	585	231	39	19	13	100	0	0
19-Jul-20	51	0	66	317	210	154	288	0	165	318	284	342	38	1,337	74	294	739	357	39	57	41	200	28	0
20-Jul-20	51	0	66	412	403	193	447	25	329	477	332	512	64	1,723	148	317	1,016	588	116	113	41	300	0	0
21-Jul-20	101	0	265	508	500	193	562	25	379	699	474	649	103	2,110	333	385	1,416	945	154	170	41	400	0	0
22-Jul-20	127	0	563	698	629	251	634	25	461	1,048	616	820	115	2,912	500	521	2,002	1,366	309	264	86	500	45	0
23-Jul-20	152	0	629	1,301	742	771	778	25	692	1,557	711	1,195	205	3,536	870	634	2,340	1,660	309	434	117	700	31	0
24-Jul-20	202	0	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	463	585		1,000		0
25-Jul-20	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	733	830		1,200		0
26-Jul-20	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	1,081	1,132		1,500		0
27-Jul-20	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	1,312	1,396		1,900		0
28-Jul-20	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	2,007	1,717		2,500		0
29-Jul-20	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	2,741	2,170		3,000		0
30-Jul-20	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	2,856	2,698		3,700		0
31-Jul-20	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	4,014	3,396		4,700		0
1-Aug-20	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	5,134	4,585		5,800		0
2-Aug-20	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	6,137	5,622		7,100		0
3-Aug-20	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	6,330	6,604		8,900		0
4-Aug-20	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	8,376	7,453		11,100		0
5-Aug-20	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	10,537	8,566		13,200		0
6-Aug-20	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	13,008	9,773		15,300		0
7-Aug-20	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	15,015	11,434		17,300		0
8-Aug-20	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	36,306	16,868	13,132		19,400		0
9-Aug-20	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	39,038	19,029	13,943		21,600		0
10-Aug-20	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	20,033	16,283		24,000		0
11-Aug-20	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	22,156	18,245		27,000		0
12-Aug-20	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	24,510	20,226		29,800		0
13-Aug-20	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	27,521	21,999		32,400		0
14-Aug-20	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	29,335	23,697		35,000		0
15-Aug-20	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	32,616	25,547		37,900		0
16-Aug-20	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	35,009	27,433		40,800		0
17-Aug-20	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	35,820	29,395		43,600		0
18-Aug-20	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	36,939	30,301		46,100		0
19-Aug-20	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	38,367	30,773		48,500		0
20-Aug-20	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	40,452	31,810		50,900		0
21-Aug-20	49,981	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	42,227	32,188		53,100		0
22-Aug-20	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	44,389	32,188		55,300		0
23-Aug-20	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	45,508	32,999		57,300		0
24-Aug-20	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	47,245	35,320		59,400		0
25-Aug-20	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	48,596	39,791		61,400		0
26-Aug-20	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	49,985	45,546		63,500		0
27-Aug-20	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	50,680	54,187		65,600		0
28-Aug-20	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	51,414	58,904		67,400		0
29-Aug-20	58,129</																							

Nass Summer-run Steelhead Cumulative Daily Run Size Estimates to Gitwinksihkw Fishwheels, 2000-2020.																				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	2019	2020	(94-19)	2020	
1-Jul-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jul-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jul-20	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	51	0	0	0	0	0
4-Jul-20	0	0	0	0	0	0	0	0	0	0	0	115	47	0	0	0	0	0	51	0	0	0	0	10
5-Jul-20	0	0	0	0	0	0	0	0	0	0	0	115	47	0	0	0	0	0	51	0	0	0	0	10
6-Jul-20	0	0	0	0	0	0	0	0	0	0	0	115	47	0	0	0	0	0	51	0	0	0	0	10
7-Jul-20	0	0	0	0	0	0	0	0	0	0	0	115	71	0	32	38	48	0	51	0	0	0	0	20
8-Jul-20	0	0	0	0	0	0	0	66	0	0	0	115	71	0	32	38	48	0	51	0	0	0	0	20
9-Jul-20	0	0	0	0	0	0	0	66	0	0	0	115	71	0	32	38	143	0	101	0	0	0	0	30
10-Jul-20	31	0	0	0	0	0	0	99	0	0	0	115	71	0	32	38	191	0	101	0	0	0	0	30
11-Jul-20	31	0	0	0	0	0	0	99	0	0	0	115	71	0	32	38	238	0	152	0	0	12	40	12
12-Jul-20	31	0	0	0	0	0	0	99	0	0	0	115	71	0	63	38	238	0	152	0	0	12	40	0
13-Jul-20	31	0	0	0	0	0	0	99	0	0	0	115	71	0	95	77	238	0	152	0	0	12	50	0
14-Jul-20	31	28	0	0	0	41	0	99	0	0	0	115	71	0	158	115	238	0	253	85	0	12	70	0
15-Jul-20	31	28	0	0	0	41	0	99	0	0	0	115	71	0	189	115	238	0	304	85	0	12	70	0
16-Jul-20	61	28	0	0	0	41	29	99	0	0	76	173	71	0	189	153	238	0	304	85	0	12	80	0
17-Jul-20	154	56	51	0	0	41	29	99	0	0	76	173	71	0	189	230	238	0	405	85	12	90	0	0
18-Jul-20	154	56	51	0	0	82	29	132	81	0	76	288	71	0	221	345	238	0	507	85	12	120	0	0
19-Jul-20	154	56	51	0	17	82	29	132	122	0	152	403	71	0	221	345	238	0	557	85	12	130	0	0
20-Jul-20	154	56	51	0	34	82	29	132	122	0	152	460	71	0	221	383	238	29	659	85	12	140	0	0
21-Jul-20	154	56	51	0	51	82	58	132	122	0	303	460	71	0	252	383	238	57	1,115	85	12	180	0	0
22-Jul-20	154	56	51	59	51	164	58	132	162	0	455	460	95	52	347	383	381	57	1,368	85	12	220	0	0
23-Jul-20	184	56	103	59	51	246	58	132	244	51	531	633	95	104	568	383	381	57	1,926	85	43	280	31	0
24-Jul-20	307	56	154	176	68	246	58	132	325	102	683	748	142	157	694	421	572	57	2,382	113			350	0
25-Jul-20	307	83	206	411	68	287	88	132	487	102	683	863	166	261	884	421	619	114	2,483	113			400	0
26-Jul-20	369	111	206	764	85	287	88	132	609	203	834	863	213	261	1,041	536	858	200	3,193	141			510	0
27-Jul-20	369	167	257	823	169	328	88	132	731	305	1,062	1,093	237	313	1,199	575	1,668	257	3,852	141			630	0
28-Jul-20	430	195	360	1,058	186	328	88	132	893	457	1,290	1,266	261	418	1,326	728	2,478	286	4,054	141			740	0
29-Jul-20	461	278	565	1,352	254	328	146	132	974	660	1,365	1,381	261	679	1,420	766	3,145	286	4,308	141			850	0
30-Jul-20	522	306	925	1,646	271	328	175	132	1,218	711	1,441	1,381	356	783	1,452	920	3,526	343	4,358	226			950	0
31-Jul-20	676	390	1,285	1,940	305	369	234	198	1,421	711	1,669	1,438	403	836	1,578	996	4,146	372	4,409	254			1,070	0
1-Aug-20	738	445	1,593	2,116	423	574	234	232	1,543	711	1,896	1,496	545	836	1,799	1,035	4,574	458	4,510	367			1,170	0
2-Aug-20	830	918	2,004	2,762	525	656	263	232	1,746	711	2,124	1,553	711	836	2,241	1,035	5,623	658	4,713	509			1,360	0
3-Aug-20	1,199	1,057	2,107	2,880	609	697	292	265	1,949	914	2,427	1,726	924	836	2,903	1,149	6,385	829	4,814	565			1,540	0
4-Aug-20	1,813	1,197	2,313	3,056	745	697	322	364	1,989	1,321	2,427	1,841	1,090	836	3,156	1,494	7,052	972	5,423	593			1,730	0
5-Aug-20	2,428	1,197	2,724	3,409	846	738	380	430	2,355	1,727	2,731	1,956	1,161	836	3,503	1,724	7,481	1,144	5,879	593			1,940	0
6-Aug-20	2,735	1,224	2,827	3,585	931	861	556	562	2,476	1,879	2,807	2,014	1,327	888	3,977	1,916	8,625	1,201	6,943	593			2,140	0
7-Aug-20	3,135	1,336	2,878	3,879	948	902	702	629	2,720	2,692	2,958	2,129	1,517	888	4,229	2,184	9,578	1,287	8,109	622			2,380	0
8-Aug-20	3,381	1,558	3,135	4,232	1,049	1,066	789	662	2,842	3,200	2,958	2,531	1,849	992	4,545	2,529	9,911	1,430	9,122	622			2,590	0
9-Aug-20	4,088	2,087	3,289	4,820	1,100	1,147	819	728	2,923	4,064	3,338	2,762	2,015	1,201	4,734	2,759	9,911	1,459	10,288	622			2,830	0
10-Aug-20	4,610	2,282	3,289	5,407	1,371	1,229	936	827	3,004	4,521	3,793	2,992	2,275	1,410	5,144	2,950	10,340	1,659	10,643	706			3,060	0
11-Aug-20	5,286	2,588	3,341	5,995	1,557	1,270	994	893	3,166	4,673	4,399	3,510	2,631	1,515	5,207	3,142	10,864	1,716	10,845	961			3,310	0
12-Aug-20	5,655	3,033	3,546	6,465	1,659	1,352	1,082	1,092	3,248	4,673	4,627	3,797	3,200	1,619	5,302	3,257	11,103	1,859	11,251	989			3,510	0
13-Aug-20	5,963	3,311	3,803	6,877	1,794	1,475	1,199	1,224	3,329	5,689	4,855	4,027	3,460	1,724	5,460	3,257	11,579	2,288	12,568	1,074			3,780	0
14-Aug-20	6,331	3,423	3,906	7,406	2,099	1,598	1,257	1,323	3,329	6,654	5,765	4,315	3,934	1,724	5,681	3,525	12,103	2,345	13,075	1,187			4,030	0
15-Aug-20	6,608	3,701	3,906	7,700	2,302	1,598	1,316	1,522	3,410	7,467	6,144	4,488	4,622	1,724	5,965	3,640	12,866	2,517	13,785	1,215			4,260	0
16-Aug-20	6,946	3,896	4,317	7,935	2,336	1,639	1,403	1,820	3,532	7,873	6,751	4,545	5,120	1,776	6,186	3,985	13,104	3,003	14,595	1,271			4,520	0
17-Aug-20	7,100	4,257	5,088	8,405	2,471	1,639	1,550	2,051	3,694	8,533	7,130	4,545	5,594	1,828	6,470	4,636	13,580	3,117	15,710	1,384			4,820	0
18-Aug-20	7,315	4,369	5,705	8,522	2,589	1,926	1,667	2,183	3,816	9,651	7,358	4,545	5,996	2,089	6,817	4,943	13,962	3,117	17,281	1,441			5,120	0
19-Aug-20	7,499	4,703	6,013	8,640	2,657	1,967	1,900	2,250	4,222	10,159	7,509	4,660	6,518	2,089	7,322	5,173	14,819	3,117	17,991	1,441			5,370	0
20-Aug-20	7,807	4,897	6,270	9,169	2,742	1,967	2,076	2,283	4,912	10,464	7,661	4,775	6,850	2,194	7,606	5,249	15,343	3,146	19,106	1,441			5,620	0
21-Aug-20	8,022	5,287	6,733	9,815	2,843	1,967	2,339	2,448	5,237	10,565	8,040	4,775	7,229	2,194	8,395	5,747	15,439	3,289	19,410	1,441			5,890	0
22-Aug-20	8,052	5,565	7,041	10,286	3,046	1,967	2,456	2,514	6,008	11,276	8,344	4,775	7,513	2,455	9,058	6,705	15,677	3,575	19,765	1,441			6,210	0
23-Aug-20	8,052	5,704	7,195	10,580	3,165	2,377	2,631	2,713	6,658	12,292	8,420	4,775	7,798	2,820	10,131	7,203	16,106	3,661	19,815	1,497			6,500	0
24-Aug-20	8,052	6,205	7,195	11,344	3,216	2,828	2,865	2,845	7,429	12,648	8,875	4,890	8,082	3,238	11,298	7,586	16,630	3,889	20,069	1,526			6,840	0
25-Aug-20	8,175	6,567	7,247	11,873	3,266	3,197	3,011	3,011	7,429	13,308	9,178	5,063	8,343	3,343	12,024	7,970	16,964	4,290	20,424	1,639			7,100	0
26-Aug-20	8,206	6,957	7,658	12,166	3,419	3,320	3,099	3,143	7,429	13,664	9,482	5,178	8,485	3,447	13,066	8,813	17,059	4,547	20,829	1,949			7,380	0

2020 Nass Fishwheel Catches

	GW		GW Total	GH				GH Total	Grand Total
Data	FW1	FW2		FW3	FW4	FW5	FW6		
<b>Chin-adult catch</b>	<b>150</b>	<b>576</b>	<b>726</b>	<b>455</b>	<b>0</b>	<b>727</b>	<b>502</b>	<b>1,684</b>	<b>2,410</b>
Chin-tagged	135	533	668	415	0	668	448	1,531	2,199
Chin-recaps	13	16	29	71	0	101	111	283	312
Chin-Jacks	100	290	390	449	0	476	611	1536	1926
Sum of CH Harv	0	0	0	0	0	0	0	0	0
<b>Sockeye-adult catch</b>	<b>1,984</b>	<b>4,704</b>	<b>6,688</b>	<b>2,753</b>	<b>0</b>	<b>5,425</b>	<b>3,181</b>	<b>11,359</b>	<b>18,047</b>
Sockeye-tagged	1,354	2,762	4,116	0	0	0	0	0	4,116
Sockeye-recaps	162	91	253	74	0	139	94	307	560
Sockeye_jacks	197	775	972	126	0	187	157	470	1442
Sum of sk_harvest_total	0	0	0	0	0	0	0	0	0
<b>Coho-adult catch</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>13</b>
Coho-tagged	2	6	8	0	0	0	0	0	8
Coho-recaps	1	0	1	0	0	0	0	0	1
Coho-jack	0	0	0	0	0	0	0	0	0
Sum of co_harvest_total	0	0	0	0	0	0	0	0	0
<b>Steel-adult catch</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>6</b>
Steel-Adipose marked	1	2	3	0	0	0	1	1	4
Steel-unmarked	1	1	2	0	0	0	0	0	2
Steel-recap-total	0	0	0	0	0	0	0	0	0
<b>Pacific Lamprey-catch</b>	<b>2</b>	<b>17</b>	<b>19</b>	<b>10</b>	<b>0</b>	<b>111</b>	<b>61</b>	<b>182</b>	<b>201</b>
Lamprey-tagged	2	13	15	8	0	74	45	127	142
Lamprey-released	0	4	4	2	0	37	16	55	59
Lamprey-recaps	0	0	0	0	0	1	1	2	2
River Lamprey	0	0	0	0	0	0	0	0	0
<b>Pink-adult-catch</b>	<b>40</b>	<b>169</b>	<b>209</b>	<b>12</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>15</b>	<b>224</b>
<b>Chum-adult-catch</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
Chum-tagged	1	1	2	0	0	0	0	0	2
Chum-punched	0	0	0	0	0	0	0	0	0
Chum-recaps	0	0	0	0	0	0	0	0	0
<b>Rainbow Trout</b>	<b>9</b>	<b>19</b>	<b>28</b>	<b>13</b>	<b>0</b>	<b>18</b>	<b>22</b>	<b>53</b>	<b>81</b>
<b>Whitefish</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>6</b>	<b>13</b>	<b>21</b>
<b>Dolly Varden</b>	<b>2</b>	<b>14</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>17</b>
Dolly-tagged	0	9	9	0	0	0	0	0	9
<b>Cutthroat Trout</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>11</b>
<b>Sculpin</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>7</b>
<b>Peamouth Chub</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>6</b>
<b>Pikeminnow</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>3</b>
<b>Suckers</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>
<b>Redside Shiner</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>

### Nass Fishwheel Catches 2020 - All (May 31 - July 23)



**In-season Nass Sockeye Escapement Estimates to Gitwinksihlkw - 2020 Nass River Fishwheels [Best estimates are bolded]**

Date	Gitwinksihlkw (GW) Test Fishery Catch <sup>1,2</sup>					Fishwheel Tags				Grease Harbour (FW3, 4, 5, 6, IS Fishery) <sup>1,2</sup>						In-season Cum. Esc. at GW based on:					In-season Cum. Estimate <sup>5</sup>	Daily Esc.													
	Daily		Adj.			Daily		Cum.		Prop.		Catch		Cum.		IS		Raw		Adj.			Exp.		Historical catchability (q) <sup>3</sup>			Daily Water Level <sup>4</sup>	Mark rec. (-10% TL)						
	FW1	FW2	Total	catch	catch	FW1	FW2	Total	Tag	Tag (incl. rcps)	catch	catch	Recaps	recaps	Recaps	Factor	High q	Mean (94-19)	Low q	Level <sup>4</sup>															
																	12.6%	5.4%	2.8%	5.3%			7.0%												
31-May-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1-Jun-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jun-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jun-20	0	1	1	1	1	0	1	1	1	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	22	32	32	32	32	32	32	32	32
4-Jun-20	0	0	0	0	1	0	0	0	1	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	22	32	32	32	32	32	32	32	32	0
5-Jun-20	0	0	0	0	1	0	0	0	1	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	22	32	32	32	32	32	32	32	32	0
6-Jun-20	0	1	1	1	2	0	1	1	2	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	44	65	66	66	66	66	66	66	66	34
7-Jun-20	0	1	1	1	3	0	1	1	3	100%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	66	97	98	98	98	98	98	98	98	32
8-Jun-20	0	0	0	0	3	0	0	0	3	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	66	97	98	98	98	98	98	98	98	0
9-Jun-20	1	0	1	1	4	1	0	1	4	100%	1	1	0	0	0	0	0	0	0	0	0	0	0	0	46	88	129	131	131	131	131	131	131	131	32
10-Jun-20	0	4	4	4	8	0	3	3	7	75%	0	1	0	0	0	0	0	0	0	0	0	0	0	0	91	175	259	260	260	260	260	260	260	260	129
11-Jun-20	1	1	2	2	10	1	1	2	9	100%	0	1	0	0	0	0	0	0	0	0	0	0	0	0	114	219	323	325	325	325	325	325	325	325	65
12-Jun-20	0	2	2	2	12	0	2	2	11	100%	0	1	0	0	0	0	0	0	0	0	0	0	0	0	137	263	388	389	389	389	389	389	389	389	65
13-Jun-20	0	3	3	3	15	0	3	3	14	100%	2	3	0	0	0	0	0	0	0	0	0	0	0	0	171	329	485	455	455	455	455	455	455	455	66
14-Jun-20	0	1	1	1	16	0	1	1	15	100%	0	3	0	0	0	0	0	0	0	0	0	0	0	0	182	350	517	477	477	477	477	477	477	477	22
15-Jun-20	0	0	0	0	16	0	0	0	15	0%	2	5	0	0	0	0	0	0	0	0	0	0	0	0	182	350	517	477	477	477	477	477	477	477	0
16-Jun-20	0	1	1	1	17	0	1	1	16	100%	2	7	0	0	0	0	0	0	0	0	0	0	0	0	194	372	550	499	499	499	499	499	499	499	22
17-Jun-20	0	1	1	1	18	0	1	1	17	100%	0	7	0	0	0	0	0	0	0	0	0	0	0	0	205	394	582	521	521	521	521	521	521	521	22
18-Jun-20	1	2	3	3	21	1	2	3	20	100%	3	10	0	0	0	0	0	0	0	0	0	0	0	0	239	460	679	586	586	586	586	586	586	586	66
19-Jun-20	2	3	5	5	26	2	3	5	25	100%	0	10	0	0	0	0	0	0	0	0	0	0	0	0	296	569	841	643	643	643	643	643	643	643	57
20-Jun-20	0	0	0	0	26	0	0	0	25	0%	0	10	0	0	0	0	0	0	0	0	0	0	0	0	296	569	841	643	643	643	643	643	643	643	0
21-Jun-20	0	0	0	0	26	0	0	0	25	0%	0	10	0	0	0	0	0	0	0	0	0	0	0	0	296	569	841	643	643	643	643	643	643	643	0
22-Jun-20	0	0	0	0	26	0	0	0	25	0%	0	10	0	0	0	0	0	0	0	0	0	0	0	0	296	569	841	643	643	643	643	643	643	643	0
23-Jun-20	0	0	0	0	26	0	0	0	25	0%	0	10	0	0	0	0	0	0	0	0	0	0	0	0	296	569	841	643	643	643	643	643	643	643	0
24-Jun-20	2	3	5	5	31	2	3	5	30	100%	1	11	0	0	0	0	0	0	0	0	0	0	0	0	353	679	1,002	753	753	753	753	753	753	753	110
25-Jun-20	4	7	11	11	42	4	7	11	41	100%	4	15	0	0	0	0	0	0	0	0	0	0	0	0	478	920	1,358	994	994	994	994	994	994	994	241
26-Jun-20	3	14	17	17	59	3	14	17	58	100%	22	37	1	1	1	1	1	1	1	1	1	1	1	1	672	1,292	1,908	1,366	1,366	1,366	1,366	1,366	1,366	1,366	372
27-Jun-20	5	25	30	30	89	5	24	29	87	97%	40	77	0	1	0	0	0	0	0	0	0	0	0	0	1,014	1,949	2,878	2,336	2,336	2,336	2,336	2,336	2,336	2,336	970
28-Jun-20	4	31	35	35	124	4	30	34	121	97%	20	97	1	2	7	7	7	7	7	7	7	7	7	7	1,344	2,616	3,976	3,003	3,003	3,003	3,003	3,003	3,003	3,003	666
29-Jun-20	6	114	120	120	244	6	88	94	215	78%	55	152	3	5	12	12	12	12	12	12	12	12	12	12	2,475	4,901	7,739	5,287	5,287	5,287	5,287	5,287	5,287	5,287	2,285
30-Jun-20	23	106	129	129	373	22	71	93	308	72%	44	196	1	6	3	3	3	3	3	3	3	3	3	3	3,690	7,357	11,785	7,744	7,744	7,744	7,744	7,744	7,744	7,744	2,456
1-Jul-20	31	148	179	179	552	28	120	148	456	83%	28	224	0	6	0	0	0	0	0	0	0	0	0	0	5,025	10,253	17,225	10,640	10,640	10,640	10,640	10,640	10,640	10,640	2,896
2-Jul-20	42	192	234	234	786	31	76	107	563	46%	63	287	2	8	7	7	7	7	7	7	7	7	7	7	6,770	14,039	24,336	14,426	14,426	14,426	14,426	14,426	14,426	14,426	3,514
3-Jul-20	6	12	18	18	831	6	12	18	581	100%	25	312	2	10	5	5	5	5	5	5	5	5	5	5	7,019	14,579	25,351	14,675	14,675	14,675	14,675	14,675	14,675	14,675	792
4-Jul-20	2	6	8	11	831	2	5	7	588	88%	2	314	0	10	0	0	0	0	0	0	0	0	0	0	7,102	14,760	25,690	14,758	14,758	14,758	14,758	14,758	14,758	14,758	182
5-Jul-20	7	44	51	51	882	6	42	48	636	94%	6	320	0	10	0	0	0	0	0	0	0	0	0	0	7,482	15,585	27,240	15,138	15,138	15,138	15,138	15,138	15,138	15,138	580
6-Jul-20	66	247	313	313	1195	58	187	245	881	78%	16	336	0	10	0	0	0	0	0	0	0	0	0	0	9,816	20,649	36,752	20,202	19,516	19,516	19,516	19,516	19,516	19,516	3,808
7-Jul-20	223	607	830	830	2025	128	317	445	1326	54%	242	578	8	18	9	9	9	9	9	9	9	9	9	9	16,005	34,077	61,975	33,631	30,013	30,013	30,013	30,013	30,013	30,013	10,497
8-Jul-20	218	389	607	607	2632	114	202	316	1642	52%	970	1548	17	35	28	28	28	28	28	28	28	28	28	28	20,531	43,898	80,421	43,451	37,838	37,838	37,838	37,838	37,838	37,838	7,825
9-Jul-20	202	337	539	539	3171	113	204	317	1959	59%	1528	3076	30	65	112	112	112	112	112	112	112	112	112	112	24,550	52,618	96,800	52,172	44,792	44,792	44,792	44,792	44,792	44,792	6,954
10-Jul-20	184	346	530	530	3701	133	205	338	2297	64%	1383	4459	40	105	170	170	170	170	170	170	170	170	170	170	28,502	61,193	112,906	68,278	51,935	51,935	51,935	51,935	51,935	51,935	7,143
11-Jul-20	121	226	347	347	4048	77	110	187	2484	54%	921	5380	15	120	46	46	46	46	46	46	46	46	46	46	31,089	66,807	123,451	73,892	56,642	56,642	56,642	56,642	56,642	56,642	4,707
12-Jul-20	87	181	268	268	4316	62	78	140	2624	52%	619	5999	11	131	29	29	29	29	29	29	29	29	29	29	33,088	71,143	131,596	78,228	60,288	60,288	60,288	60,288	60,288	60,288	3,646
13-Jul-20	140	200	340	340	4656	100	121	221	2845	65%	902	6901	26	157	54	54																			





**In-season Chinook Escapement Estimates to Gitwinksihlkw - 2020 Nass River Fishwheels [Best Estimates are Bolded]**

Date <sup>2</sup>	Gitwinksihlkw catch					Grease Harbour catch					All Wheels		Tags Applied						Cumulative Escapement using (FW1 & FW2):					In-season Estimate <sup>8</sup>	Daily Esc.	
	Test Fishery catch					Upstream fishwheels					Total	Cum.	All Wheels						tagged	Hist. catch index est. 94-19						
	FW1	FW2	Total	Adj	Cum.	FW3	FW5	FW6	Total	Cum.			FW1	FW2	FW3	FW5	FW6	Total		Cum.	High q <sup>3</sup>	Mean <sup>4</sup>	Low q <sup>5</sup>			WL <sup>6</sup>
																			<b>13.06%</b>	<b>6.75%</b>	<b>2.08%</b>	<b>6.63%</b>	<b>8.63%</b>			
31-May-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01-Jun-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02-Jun-20	1	0	1	1	1	0	0	0	0	0	1	1	0	1	0	0	0	1	1	1	100%	8	15	48	48	
03-Jun-20	0	2	2	2	3	0	0	0	0	0	2	3	0	2	0	0	0	2	3	100%	23	44	144	144		
04-Jun-20	0	1	1	1	4	0	0	0	0	0	1	4	0	0	0	0	0	0	3	0%	31	59	192	192		
05-Jun-20	0	2	2	2	6	0	0	0	0	0	2	6	0	2	0	0	0	2	5	100%	46	89	288	288		
06-Jun-20	0	2	2	2	8	0	0	0	0	0	2	8	0	2	0	0	0	2	7	100%	61	119	384	384		
07-Jun-20	0	0	0	0	8	1	1	1	3	3	3	11	0	0	0	1	0	1	8	33%	61	119	384	384		
08-Jun-20	0	2	2	2	10	0	0	0	0	3	2	13	0	2	0	0	0	2	10	100%	77	148	481	414		
09-Jun-20	0	0	0	0	10	0	0	0	0	3	0	13	0	0	0	0	0	0	10	0%	77	148	481	414		
10-Jun-20	0	1	1	1	11	1	0	1	2	5	3	16	0	1	1	0	1	3	13	100%	84	163	529	462		
11-Jun-20	0	0	0	0	11	0	0	0	0	5	0	16	0	0	0	0	0	0	13	0%	84	163	529	462		
12-Jun-20	0	1	1	1	12	0	0	0	0	5	1	17	0	1	0	0	0	1	14	100%	92	178	577	510		
13-Jun-20	2	3	5	5	17	0	0	2	2	7	7	24	2	3	0	0	2	7	21	100%	130	252	817	584		
14-Jun-20	0	0	0	0	17	0	0	1	1	8	1	25	0	0	0	0	1	1	22	100%	130	252	817	584		
15-Jun-20	3	4	7	7	24	0	2	2	4	12	11	36	3	4	0	2	2	11	33	100%	184	356	1,153	688		
16-Jun-20	1	1	2	2	26	0	0	0	0	12	2	38	1	1	0	0	0	2	35	100%	199	385	1,249	718		
17-Jun-20	0	0	0	0	26	0	1	1	2	14	2	40	0	0	0	1	1	2	37	100%	199	385	1,249	718		
18-Jun-20	0	3	3	3	29	2	1	0	3	17	6	46	0	3	1	1	0	5	42	83%	222	430	1,393	762		
19-Jun-20	0	8	8	8	37	2	0	0	2	19	10	56	0	7	2	0	0	9	51	90%	283	548	1,778	823		
20-Jun-20	1	0	1	3	40	0	0	0	0	19	1	57	1	0	0	0	0	1	52	100%	306	593	1,922	846		
21-Jun-20	0	0	0	0	40	0	0	0	0	19	0	57	0	0	0	0	0	0	52	0%	306	593	1,922	846		
22-Jun-20	0	0	0	0	40	0	0	0	0	19	0	57	0	0	0	0	0	0	52	0%	306	593	1,922	846		
23-Jun-20	0	0	0	0	40	0	0	0	0	19	0	57	0	0	0	0	0	0	52	0%	306	593	1,922	846		
24-Jun-20	0	1	1	1	41	0	0	0	0	19	1	58	0	1	0	0	0	1	53	100%	314	608	1,970	861		
25-Jun-20	1	1	2	2	43	0	1	0	1	20	3	61	1	1	0	1	0	3	56	100%	329	637	2,066	891		
26-Jun-20	0	4	4	4	47	3	6	3	12	32	16	77	0	4	3	6	3	16	72	100%	360	697	2,258	950		
27-Jun-20	4	6	10	10	57	4	6	1	11	43	21	98	4	6	4	4	1	19	91	90%	437	845	2,739	1,431		
28-Jun-20	1	8	9	9	66	2	4	1	7	50	16	114	1	8	2	4	1	16	107	100%	505	978	3,171	1,564		
29-Jun-20	4	48	52	52	118	19	9	8	36	86	88	202	4	47	13	9	8	81	188	92%	904	1,749	5,670	2,335		
30-Jun-20	5	11	16	16	134	3	5	3	11	97	27	229	5	11	3	5	3	27	215	100%	1,026	1,986	6,439	2,572		
01-Jul-20	3	20	23	23	157	2	2	0	4	101	27	256	3	18	2	2	0	25	240	93%	1,202	2,327	7,544	2,913		
02-Jul-20	5	15	20	20	177	3	6	1	10	111	30	286	5	15	3	6	1	30	270	100%	1,356	2,624	8,505	3,066		
03-Jul-20	1	3	4	4	181	1	1	0	2	113	6	292	1	3	1	1	0	6	276	100%	1,386	2,683	8,697	3,097		
04-Jul-20	0	0	0	0	181	0	0	0	0	113	0	292	0	0	0	0	0	0	276	0%	1,386	2,683	8,697	3,097		
05-Jul-20	0	0	0	0	181	0	0	0	0	113	0	292	0	0	0	0	0	0	276	0%	1,386	2,683	8,697	3,097		
06-Jul-20	1	3	4	4	185	0	1	1	2	115	6	298	1	3	0	1	1	6	282	100%	1,417	2,742	8,889	3,128		
07-Jul-20	14	50	64	64	249	4	6	2	12	127	76	374	13	47	4	5	2	71	353	93%	1,907	3,691	11,964	4,076		
08-Jul-20	30	76	106	106	355	34	72	12	118	245	224	598	25	76	32	63	12	208	561	93%	2,719	5,263	17,058	5,648		
09-Jul-20	32	77	109	109	464	57	183	89	329	574	438	1036	27	73	55	171	85	411	972	94%	3,554	6,878	22,295	7,264		
10-Jul-20	7	95	102	102	566	75	156	137	368	942	470	1506	6	70	70	145	109	400	1372	85%	4,335	8,391	27,196	8,776		
11-Jul-20	7	39	46	46	612	51	60	43	154	1096	200	1706	7	37	44	55	36	179	1551	90%	4,687	9,072	29,407	9,458		
12-Jul-20	4	12	16	16	628	12	31	21	64	1160	80	1786	3	10	10	28	20	71	1622	89%	4,810	9,310	30,175	9,695		
13-Jul-20	7	18	25	25	653	45	46	38	129	1289	154	1940	7	18	38	38	35	136	1758	88%	5,001	9,680	31,377	10,065		
14-Jul-20	11	16	27	27	680	51	48	58	157	1446	184	2124	9	16	49	47	53	174	1932	95%	5,208	10,080	32,674	10,466		
15-Jul-20	0	13	13	13	693	11	11	30	52	1498	65	2189	0	12	11	10	26	59	1991	91%	5,308	10,273	33,299	10,658		

**In-season Chinook Escapement Estimates to Gitwinksihlkw - 2020 Nass River Fishwheels [Best Estimates are Bolded]**

Date <sup>2</sup>	Gitwinksihlkw catch					Grease Harbour catch					All Wheels		Tags Applied						Cumulative Escapement using (FW1 & FW2):					In-season Estimate <sup>8</sup>	Daily Esc.		
	Test Fishery catch					Upstream fishwheels					Catch <sup>1</sup>		All Wheels						Daily %		Hist. catch index est. 94-19						
	FW1	FW2	Total	Adj	Cum.	FW3	FW5	FW6	Total	Cum.	Total	Cum.	FW1	FW2	FW3	FW5	FW6	Total	Cum.	tagged	High q <sup>3</sup>	Mean <sup>4</sup>	Low q <sup>5</sup>			WL <sup>6</sup>	MR <sup>7</sup>
																					13.06%	6.75%	2.08%	6.63%	8.63%		
16-Jul-20	0	4	4	4	<b>697</b>	0	4	6	<b>10</b>	<b>1508</b>	14	<b>2203</b>	0	4	0	3	6	13	<b>2004</b>	93%	5,338	10,332	33,491	10,689	<b>8,080</b>	<b>8,080</b>	<b>44</b>
17-Jul-20	0	0	0	0	<b>697</b>	0	2	2	<b>4</b>	<b>1512</b>	4	<b>2207</b>	0	0	0	2	2	4	<b>2008</b>	100%	5,338	10,332	33,491	10,689	<b>8,080</b>	<b>8,080</b>	<b>0</b>
18-Jul-20	0	2	2	2	<b>699</b>	1	1	2	<b>4</b>	<b>1516</b>	6	<b>2213</b>	0	2	1	1	2	6	<b>2014</b>	100%	5,354	10,362	33,587	10,704	<b>8,103</b>	<b>8,103</b>	<b>23</b>
19-Jul-20	0	5	5	5	<b>704</b>	5	2	3	<b>10</b>	<b>1526</b>	15	<b>2228</b>	0	5	5	2	3	15	<b>2029</b>	100%	5,392	10,436	33,827	10,743	<b>8,160</b>	<b>8,160</b>	<b>57</b>
20-Jul-20	1	5	6	6	<b>710</b>	19	10	4	<b>33</b>	<b>1559</b>	39	<b>2267</b>	1	5	17	8	3	34	<b>2063</b>	87%	5,438	10,525	34,116	10,788	<b>8,229</b>	<b>8,229</b>	<b>69</b>
21-Jul-20	0	5	5	5	<b>715</b>	5	7	2	<b>14</b>	<b>1573</b>	19	<b>2286</b>	0	5	3	7	2	17	<b>2080</b>	89%	5,476	10,599	34,356	10,827	<b>8,286</b>	<b>8,286</b>	<b>57</b>
22-Jul-20	2	3	5	5	<b>720</b>	6	4	0	<b>10</b>	<b>1583</b>	15	<b>2301</b>	2	3	6	2	0	13	<b>2093</b>	87%	5,514	10,673	34,596	10,865	<b>8,343</b>	<b>8,343</b>	<b>57</b>
23-Jul-20	2	6	8	8	<b>728</b>	36	38	27	<b>101</b>	<b>1684</b>	109	<b>2410</b>	2	5	35	37	27	106	<b>2199</b>	97%	5,576	10,792	34,981	10,984	<b>8,435</b>	<b>8,435</b>	<b>91</b>
<b>Totals</b>	<b>150</b>	<b>576</b>	<b>726</b>	<b>728</b>		<b>455</b>	<b>727</b>	<b>502</b>	<b>1684</b>		<b>2410</b>		<b>134</b>	<b>534</b>	<b>415</b>	<b>668</b>	<b>448</b>	<b>2199</b>	<b>91%</b>	5,576	10,792	34,981	10,984	<b>8,435</b>		<b>8,435</b>	

<sup>1</sup> The GW fishwheels started on 31 May (FW1 and FW2). Three GH fishwheels started on 6 June (FW3, FW5, and FW6).

<sup>2</sup> Shaded dates indicate periods of non-operation (portion or whole day) of fishwheels due to high water levels or other factors. When fish passage is anticipated, adjustment to catch is estimated.

<sup>3</sup> Low catch-index expansion estimates ("High q") based on high catchability/ideal water levels at FW1 and FW2 that were derived from 2001 expansion factor (7.66 or 13.06%).

<sup>4</sup> Average catch-index expansion estimates based on mean catchability at FW1 and FW2 from 1994 to 2019 expansion factors (14.82 or 6.75%).

<sup>5</sup> High catch-index estimates ("Low q") based on low catchability/water levels at FW1 and FW2 that were derived from expansion factors from 2010 (q: 60.90 or 1.6%).

<sup>6</sup> Cumulative GW adj. catch is expanded by historical catch index factors based on daily water levels (WL) mark-recapture rates to estimate cumulative escapement to GW.

<sup>7</sup> Cumulative GW adj. catch is expanded by historical catch index factors based on in-season sockeye mark-recapture rates (SO MR) to estimate cumulative escapement to GW.

<sup>8</sup> In-season estimate is using an in-season sockeye catch rate method to estimate the cumulative Chinook run size passage in 2020.

**In-season Coho Escapement Estimates to Gitwinksihlkw - 2020 Nass River Fishwheels [Best Estimates are Bolded]**

10:10 AM 2020-07-24

Date <sup>2</sup>	Gitwinksihlkw Test Fishery Catch <sup>1</sup>					Fishwheel Tags (GW only)					Grease Harbour (FW3-6 incl. recaps & IS fisher)				All Wheels		Est. cumulative escapement at GW									
	FW1	FW2	Total	Adj.		FW1	FW2	Total	Cum. tagged	Prop. tagged	FW Catch	Cum. catch	Raw GW recaps	Cum. GW recaps	Adj. GW recaps	Total	Cum.	Catch-index Est. Range (historical)				MR method				
				catch	Cum													High q (12) <sup>3</sup>	Mean (94-19) <sup>4</sup>	Low q (11) <sup>5</sup>	Daily Water Level <sup>6</sup>	SO MR	CO MR <sup>7</sup>	Best Est.	Daily Esc.	
																		7.80%	4.74%	2.59%	4.71%	6.83%				
14-Jul-20	1	0	1	1	1	1	0	1	1	100%	0	0	0	0	1	1		13	21	39	39	13			13	13
15-Jul-20	0	0	0	0	1	0	0	0	1	0%	0	0	0	0	0	1		13	21	39	39	13			13	0
16-Jul-20	0	0	0	0	1	0	0	0	1	0%	0	0	0	0	1			13	21	39	39	13			13	0
17-Jul-20	0	0	0	0	1	0	0	0	1	0%	0	0	0	0	1			13	21	39	39	13			13	0
18-Jul-20	0	0	0	0	1	0	0	0	1	0%	0	0	0	0	1			13	21	39	39	13			13	0
19-Jul-20	1	1	2	2	3	1	1	2	3	100%	0	0	0	0	2	3		38	63	116	64	41			41	28
20-Jul-20	0	0	0	0	3	0	0	0	3	0%	0	0	0	0	0	3		38	63	116	64	41			41	0
21-Jul-20	0	0	0	0	3	0	0	0	3	0%	1	1	0	0	1	4		38	63	116	64	41			41	0
22-Jul-20	0	3	3	3	6	0	3	3	6	100%	0	1	0	0	3	7		77	127	232	128	86			86	45
23-Jul-20	0	2	2	2	8	0	2	2	8	100%	4	5	0	0	6	13		103	169	309	170	117			117	31
<b>Total</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>6</b>	<b>8</b>	<b>100%</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>13</b>												<b>117</b>

<sup>1</sup> The GW fishwheels started on 31 May (FW1 and FW2). The GH fishwheels started on 6 June (FW3, FW5, and FW6).

Shutdown dates were: xx August (FW4), xx Sep (FW6), xx Sep (FW3 and FW5), and xx Sep (FW1 and FW2).

<sup>2</sup> Shaded dates indicate periods of non-operation (portion or whole day) of fishwheels due to high water levels or other factors. When fish passage is anticipated, adjustment to catch is estimated.

<sup>3</sup> Low catch-index estimates ("High q") based on high catchability/ideal water levels at FW1 and FW2 that were derived from 2012 expansion factor (12.82 or 7.80%).

<sup>4</sup> Average catch-index estimates based on mean catchability at FW1 and FW2 from 1994 to 2019 expansion factors (21.11 or 4.74%).

<sup>5</sup> High catch-index estimates ("Low q") based on low catchability/water levels at FW1 and FW2 that were derived from expansion factors from 2018 (q: 38.60 or 2.59%).

<sup>6</sup> Daily water level method estimate is based on cumulative GW adj. catch expanded by historical catch index factors based on daily water levels to estimate cumulative escapement to GW.

<sup>7</sup> In-season estimate is using daily expansion factors based on daily water levels until 12 or more coho recaps are captured at the GH fishwheels then estimates are based on mark recapture.

Catches of Steelhead - 2020 Nass River Fishwheels

In-season Run Size Estimates for Summer Run (SR) Steelhead

Date <sup>2</sup>	Gitwinksihlkw Catch (SR=summer run) <sup>1</sup>			Grease Harbour Catch (SR=summer run) <sup>1</sup>						All Wheels catch (SR=summer run; All=includes catch before 1 July)			Adipose fin marked (SR)			Cum. escapement estimates using (FW1 & FW2):			Best Estimate					
	FW1	FW2	Total	SR		FW3	FW4	FW5	FW6	Total	SR		All Cum	Total	Cum marked	Daily % tagged	Historical catch-index est.			Daily Water Level <sup>6</sup>	In-season SK/CO MR est <sup>7,8</sup>	Cum.	Daily	
				Cum	All Cum						High q (04) <sup>3</sup>	Mean 94- 19 <sup>4</sup>					Low q (97) <sup>5</sup>	5.91%	2.71%					1.21%
1-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
2-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
3-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
4-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
5-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
6-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
7-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
8-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
9-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
10-Jul-20	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0%	0	0	0	0	0	0	0	0	0
11-Jul-20	0	1	1	1	0	0	0	0	0	0	0	3	1	1	100%	20	44	98	44	12	12	12	12	12
12-Jul-20	0	0	0	1	0	0	0	0	0	0	0	3	0	1	0%	20	44	98	44	12	12	12	12	0
13-Jul-20	0	0	0	1	0	0	0	1	1	1	1	4	1	2	100%	20	44	98	44	12	12	12	12	0
14-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
15-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
16-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
17-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
18-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
19-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
20-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
21-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
22-Jul-20	0	0	0	1	0	0	0	0	0	0	1	4	0	2	0%	20	44	98	44	12	12	12	12	0
23-Jul-20	1	1	2	3	0	0	0	0	0	0	1	6	2	4	100%	60	131	295	131	43	43	43	43	31
Total	1	2	3	0	0	0	1	1	1	4	6	4	4	100%										43

<sup>1</sup> The GW fishwheels started on 31 May (FW1 and FW2). The GH fishwheels started on 6 June (FW3, FW5, and FW6).

<sup>2</sup> Shaded dates indicate periods of non-operation (portion or whole day) of fishwheels due to high water levels or other factors. When fish passage is anticipated, adjustment to catch is estimated.

<sup>3</sup> Low catch-index expansion estimates ("High q") based on high catchability/ideal water levels at FW1 and FW2 that were derived from the 2004 steelhead expansion factor (16.92 or 5.91%).

<sup>4</sup> Average catch-index estimates based on mean catchability at FW1 and FW2 from 1994 to 2019 steelhead expansion factors (36.86 or 2.71%).

<sup>5</sup> High catch-index expansion estimates ("Low q") based on low catchability/water levels at FW1 and FW2 that were derived from the 1995 steelhead expansion factor (82.87 or 1.21%).

<sup>6</sup> Daily water level method estimate is based on cumulative GW adj. catch expanded by historical catch index factors based on daily water levels to estimate cumulative escapement to GW.

<sup>7</sup> In-season estimate is using daily expansion factors based on daily water levels until 12 or more Coho recaps are captured at the GH fishwheels then estimates are based on mark recapture.

<sup>8</sup> All estimates are multiplied by 1.19 which is the mean difference between fishwheel index and summer-run steelhead mark-recapture estimates.