

Mcclellan, Barbara A (DFW)

From: Willapa Bay (DFW)
Sent: Thursday, September 26, 2019 2:54 PM
To: Andy Mitby; Bob Lake ; Francis Estalilla; Greg McMillan; Jack Hollingsworth; Jim Sayce; Lance Gray ; Mara Zimmerman ; Marlisa Dugan; Norm Reinhardt; Ross Barkhurst ; Steve Boerner; Tim Hamilton; Aaron Miller; Al Ramsaur ; Allan Hollingsworth; Amy Fenlon ; Andrew Olson; Angel Lund; Angie Butrick ; Anthony Koehn; Art Holman; Bill Buchkowski; Bill Lushenko; Bill Mabe ; Bill Osborn ; Bill Ward ; Bob Haefs; Bob Lucas; Bob Muhlhauser ; Bob Smith; Brian Davern ; Brian Kraemer; Bruce Ogren ; Bruce Urquhart; Bud Wild ; C Biener ; Carl Kellogg; Cary Hofmann; Casey Bradley ; Charles McKown; Chris Holm; Chris Phillips; Chris White ; Dale Beasley ; Dan Dettmann ; Dan Quaschnik ; Dave Hamilton ; Dave Nettnin ; David Hadsell ; David Hollingsworth; David Patrick; Dean Antich; Dean Takko; Dennis Harman; Dennis Parks; Diana Bone ; Don Porter; Dottie Dunthorn ; Duane Inglin; Duane Rogers ; Dwayne Everson; Earl Davis; Ed Tharp; Eric Mitby; Frank Blake ; G. Blevins; Gail Petersen; Gary Mawhorter; George Leach ; Greg Klueh ; Greg Larson; Gunther Boettcher; Hope Rieden ; Jack Berryman; James Caron ; Jason Lake ; Jeff Clemons; Jeff McKean; Jeff Skriletz; Jerry Charlton; Jerry Lowe ; Jim Babcock; Jim Paul; Joe Durham; Joe Koski; Joe Muller; Joe Superfisky; Joe Weber ; John Baugher; John Campbell ; John Rabey; John Stanislav; John Stigall; John Tieder ; Josh Bradley; Kelli Erickson; Ken Wirkkala; Kirby Denger ; Kirk Johnston ; Kristi Nelson; Lane Chilman; Larry Brown; Leah Thomas; LeeRoy Wisner; Leslie Pederson; Lisa Olsen; Loren Gee; Lori Craig Ashley; Lucas Stigall; Lyle Cabe; Mark Coleman; Mark Eastham; Mark Lund ; Mark Miller ; Melanie Rabaglia; Michael Bos ; Mike Ainsworth ; Mike Backman ; Mike Morris ; Mike Nordin ; Mike Riggs; Mike Runyon ; Mike Shirley ; Mike Stephens; Mike Wallace; Miranda Wecker; Nicholas Kato ; Nick Larson; Nick Nikkila; Pat Edwards ; Patric Gaffney; Paul Beese; Ray Brown; Ray Gilbertson; Rebecca Chaffee; Rich Runyon; Richard Chaney; Richard Lapinski; Rick Durkin; Rick Lovitt ; Rob Nowowiejski; Robert Coty ; Robert Groves; Robert Rao; Roger Shaw ; Roland Culver; Ron Meek; Ron Rinear ; Ron Schweitzer; Ross Kary ; Russ Perkins; Ryan Moore; Sam Arvan; Sam Arvan ; Shawn Murray; Shawn Murray; Shelley Willet; Steve Aust; Steve Aust; Steve Fransen ; Steve Gacke; Steve Gray ; Ted Schuman; Tim Williams; Todd Bennington; Tom Gibbs WBGN; Tom Guntle ; Tom Moonan; Tom Moonan; Tom Peterson; Walt Weber; Wayne Banta ; Wes Bradley ; William Thomas WBGN; Woody Pierson Jr.; Woody Pierson Sr.
Cc: Herring, Chad J (DFW); Jennings, Lyle F (DFW); Zimmer, Ryan C (DFW); Losee, James P (DFW); Phillips, Larry C (DFW); John, Ryan W (DFW); Allan, Robert C (DFW)
Subject: 2019 Willapa Bay weekly update for stat weeks 38 and part of week 39
Attachments: 2019 WB Recreational Marine Area Catch Estimate thru week 38 09.26.19.pdf; 2019 WB Commercial Fishery Data thru 09.26.19.pdf; Naselle Hatchery CHK Rack Returns 09.26.19.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Everyone,
Below is the weekly update for Willapa Bay.

Willapa Bay Recreational Marine Creel Fishery and Monitoring

Last week's recreational fishery effort dropped way off compared with the week before (week 37). That was to be expected given the date. There seems to have been a few boats still heading out even though the commercial fishery is now fishing. Chinook and coho catch has also dropped off from the previous week (week 37). That is probably due to the reduced effort. The number of unmarked Chinook that were encountered was significantly lower relative to the previous week.

See attached file: 2019 WB Recreational Marine Area Catch Estimate through week 38 09.26.19.pdf.

The boat survey work we have been conducting is showing that 92.6% of the boats fishing this year in the marine area are exiting the fishery either in Tokeland or South Bend. These are locations where we have staff dockside monitoring four days a week. This is exactly the same rate as last week.

Willapa Bay Commercial Fishery and Monitoring

Four areas in the commercial fishery opened September 16 using gillnet gear. Effort has been low as anticipated in our model. Coho catch has been much lower than predicted to-date. Hatchery Chinook landed was considerably lower for the week compared to the preseason prediction. Currently to-date, we are below the prediction for unmarked Chinook encounters and coho.

See attached file: 2019 WB Commercial Fishery Data thru 09.26.19.pdf

Hatchery Rack Returns:

Naselle Hatchery: Attached is the update for the Naselle Hatchery. To-date, we have had 1,182 hatchery and 61 natural Chinook recruit to the hatchery. All natural fish were passed upstream. We spawned some Chinook this week at Naselle but had a high proportion of Chinook that were not ready to be spawned at this point. Those fish will be kept in the pond for another week and we will attempt to spawn again next week. We also have a high proportion of coho that have volunteered into the hatchery. We are currently in week 39 so any data provided in the spreadsheet for week 39 is incomplete.

See attached file: Naselle Hatchery CHK Rack Returns 09.26.19.pdf

Nemah Hatchery: We still have Chinook volunteering into the pond at the hatchery. Since we had high numbers of Chinook unable to be spawned at the Naselle Hatchery, the decision was made not to spawn Chinook at the Nemah Hatchery this week. Additional handling of fish that have eggs that are not ripe would result in unnecessary mortalities.

Spawning Ground Surveys

We started walking all of our Chinook indexes this week (week 39) and most of the Chum indexes as well. We started to see Chinook spawning last week (week 38) in the Willapa, Nemah, and Naselle rivers. We have seen an elevated number of prespawn Chinook mortalities in the Nemah River than in the Naselle River this year. We have also seen a significant number of total mortalities to-date in the Nemah compared to the Naselle this year. We have had better river/water conditions (rain, flow, and temperature) this season so far but ICH (a parasite that naturally occurs in freshwater systems) has been found on a larger proportion of the mortalities found in the Nemah indexes. We have also seen a larger proportion of coho staging below the Naselle weir than Chinook during our surveys this week.

Advisory Group:

We have tentatively planned two advisory meetings; one in October and one in November. The purpose of these meetings is to review the draft comprehensive review document. These meetings are open to the public. We have yet to determine a suitable location. We would like to hold these meetings at the Raymond Elks Lodge in Raymond but I have yet to be able to confirm dates. If we cannot hold these meetings in Raymond, we will likely have these meetings at the Regional office in Montesano. Once I determine what is available and set the dates, I will include that information in the update next week. The dates and location will also be posted to the advisory group page. The link to the advisory group page is listed.

As always, in-season data is preliminary and subject to change.

If you have any questions regarding any of the information provided, please reply to this email or send an email to WillapaBay@dfw.wa.gov.

Thank you,
Barbara McClellan
Willapa Bay Fisheries Biologist
WDFW Region 6 Montesano

WDFW online links:

Willapa Bay Marine Area 2.1 Recreational Creel Monitoring: <https://wdfw.wa.gov/fishing/reports/creel/willapa-bay>

Willapa Bay Advisory Group: <https://wdfw.wa.gov/about/advisory/wbsag>

Willapa Bay & Grays Harbor (non-treaty) commercial salmon fisheries (regulations & landed catch)
<https://wdfw.wa.gov/fishing/commercial/gillnet#information>

2019 Willapa Bay Marine Area Recreational Catch Estimate

PRELIMINARY/DRAFT

updated 9/26/2019

CHK = Chinook
AD = Adipose clipped (hatchery origin)
UM = Unmarked

CPUE = Catch per unit effort
Effort = An individual angler trip

July (Ocean 2 Rules)

Stat Week	Expanded Data				Expanded Data				Expanded Data			
	# Boats	# Anglers	Estimated Total Chinook Kept	Total Chinook CPUE	Estimated Total UM Chinook Kept	Willapa Origin Chinook UM Impacts	Estimated Total AD Chinook Kept	Willapa Origin Chinook AD Impacts	Estimated Total Coho Kept	Estimated Total AD Coho Kept	Estimated Total UM Coho Kept	Total Coho CPUE
25 & 26	31	70	4	0.057	0	0	4	1	0	0	0	0.000
27	62	169	24	0.142	4	1	20	6	5	5	0	0.030
28	77	176	45	0.256	3	1	42	12	16	16	0	0.091
29	40	93	15	0.161	3	1	12	4	14	14	0	0.151
30	196	443	222	0.501	28	8	194	57	43	43	0	0.097
31	81	153	32	0.209	6	2	26	8	2	2	0	0.013
Season Total	487	1,104	342	0.310	44	13	298	88	80	80	0	0.072

August and September				Actual Data			Actual Data			Chinook Retained				Chinook Released				Marked Coho		Unmarked Coho									
Stat Week	Dates	Strata	Strata Description	# Boats Sampled	# Boats Not Sampled	# Total Boats	Expanded # Total Boats	Sample Rate	# Anglers Sampled	# Anglers per boat	Expanded # Total Anglers	# CHK AD Kept	CHK AD CPUE	Expanded # CHK AD Kept	# WB Origin CHK AD Impacts	# CHK UM Kept	CHK UM CPUE	Expanded # CHK UM Kept	# CHK UM Released	CHK UM CPUE	Estimated Expanded CHK UM Encounters	Estimated Total CHK UM Impacts	# WB Origin CHK UM Impacts	# Coho AD Kept	Coho AD CPUE	Expanded # Coho AD Kept	# Coho UM Kept	Coho UM CP	
31	08/01/19	1	Thur	26	1	27	29	89%	55	2.12	62	5	0.091	6	4	0	0.000	0	0	0.000	0	0	0	1	0.018	1	0	0.0	
31	8/2 - 08/4	2	Fri - Sun	46	2	48	78	59%	99	2.15	167	11	0.111	19	12	0	0.000	0	5	0.051	8	1	1	4	0.040	7	0	0.0	
32	8/5 - 8/8	1	Mon - Thur	97	3	100	216	45%	199	2.05	443	44	0.221	98	62	0	0.000	0	15	0.075	33	5	3	4	0.020	9	1	0.0	
32	8/9 - 8/11	2	Fri - Sun	128	26	154	249	51%	281	2.20	547	74	0.263	144	91	1	0.004	1	13	0.046	25	4	2	14	0.050	27	4	0.0	
33	8/12 - 8/15	1	Mon - Thur	100	2	102	220	45%	213	2.13	469	21	0.099	46	29	1	0.005	1	9	0.042	20	3	2	9	0.042	20	3	0.0	
33	8/16 - 8/18	2	Fri - Sun	240	23	263	426	56%	551	2.30	978	90	0.163	160	101	0	0.000	0	47	0.085	83	12	7	19	0.034	34	3	0.0	
34	8/19 - 8/22	1	Mon - Thur	177	12	189	408	43%	381	2.15	878	51	0.134	118	75	0	0.000	0	21	0.055	48	7	4	15	0.039	35	6	0.0	
34	8/23 - 8/25	2	Fri - Sun	294	49	343	555	53%	697	2.37	1,317	104	0.149	196	125	0	0.000	0	62	0.089	117	16	10	42	0.060	79	19	0.0	
35	8/26 - 8/29	1	Mon - Thur	171	2	173	373	46%	358	2.09	782	66	0.184	144	91	2	0.006	3	51	0.142	111	16	10	21	0.059	46	5	0.0	
35	8/30 - 9/01	2	Fri - Sun	115	8	123	199	58%	293	2.55	507	19	0.065	33	21	1	0.003	2	24	0.082	42	6	4	29	0.099	50	24	0.0	
36	9/2-9/5	1	Mon - Thur	100	8	108	233	43%	216	2.16	504	16	0.074	37	24	0	0.000	0	21	0.097	49	7	4	51	0.236	119	15	0.0	
36	9/6-9/8	2	Fri - Sun	168	14	182	393	43%	372	2.21	870	50	0.134	117	74	0	0.000	0	39	0.105	91	13	8	80	0.215	187	37	0.0	
37	09/6-9/12	1	Mon - Thur	98	2	100	216	45%	197	2.01	434	17	0.086	37	24	0	0.000	0	11	0.056	24	3	2	49	0.249	108	40	0.0	
37	9/13-9/15	2	Fri - Sun	127	2	129	209	61%	280	2.20	460	17	0.061	28	18	0	0.000	0	21	0.075	35	5	3	59	0.211	97	26	0.0	
38	9/16-9/19	1	Mon - Thur	6	7	13	28	21%	11	1.83	51	0	0.000	0	0	0	0.000	0	0	0.000	0	0	0	0	0.000	0	2	0.1	
38	9/20-9/22	2	Fri - Sun	25	6	31	67	37%	53	2.12	142	2	0.038	5	3	0	0.000	0	4	0.075	11	1	1	17	0.321	46	6	0.1	
39																													
39																													
				1,918	167	2,085	3,900	49%	4,256	2.22	8,611	587	0.138	1,188	753	5	0.001	7	343	0.081	698	98	62	414	0.097	864	191	0.0	

Willapa Bay Origin PreSeason Recreational Data

Preliminary/Draft

Willapa Bay Natural-Origin Fall Chinook							Willapa Bay Hatchery-Origin Fall Chinook				
Stat Wk	Date	Harvest Rate Proportions	Preseason Prediction		In-season Estimate		Harvest Rate Proportions	Preseason Prediction		In-season Estimate	
			NOR	Cumulative Total	WB Origin	Cumulative Total		HOR	Cumulative Total	WB Origin	Cumulative Total
25-26	6/22 - 6/29	0.0043	1	1	0	0	0.0046	1	1	1	1
27	6/30/2007	0.0043	1	2	1	1.2	0.0046	7	8	6	7
28	7/8 - 7/14	0.0022	0	2	1	2	0.0070	10	18	12	20
29	7/15 - 7/21	0.0119	2	4	1	3	0.0102	15	33	4	23
30	7/22 - 7/28	0.0043	1	5	8	11	0.0297	44	77	57	81
31	7/29 - 8/3	0.0142	2	7	3	14	0.0287	42	119	23	104
32	8/4 - 8/10	0.0857	15	22	6	20	0.1062	157	276	153	257
33	8/11 - 8/17	0.1490	25	47	11	31	0.1343	198	474	131	388
34	8/18 - 8/24	0.2299	39	86	15	45	0.2176	321	794	199	587
35	8/25 - 8/31	0.2829	48	134	18	64	0.2487	367	1,161	112	699
36	9/1 - 9/7	0.1013	17	152	12	76	0.1167	172	1,333	98	797
37	9/8 - 9/14	0.0826	14	166	5	81	0.0664	98	1,431	41	838
38	9/15 - 9/21	0.0194	3	169	1	82	0.0251	37	1,468	3	842
39	9/22 - 9/28	0.0073	1	170		82	0.0015	2	1,470		842
40	9/29 - 9/30	0.0037	1			82	0.0014	2	1,472		842
41		0.0000	0			82	0.0007	1	1,473		842
			170		82			1,474		842	

Naselle Hatchery Chinook Rack Returns

Preliminary/DRAFT *

9/26/2019

Year	2015						2016						2017						2018						2019 *					
Origin	Hatchery			Natural			Hatchery			Natural			Hatchery			Natural			Hatchery			Natural			Hatchery			Natural		
Stat Week	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing	Daily Total	Cumulative	% Run Timing
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.0%	-	-	-	1	1		1	1	
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	6	0.2%	-	-	-	9	10		0	1	
33	-	-	-	-	-	-	-	-	-	-	-	-	13	13	0.4%	2	2	0.3%	11	17	0.6%	2	2	0.4%	23	33		3	4	
34	-	-	-	-	-	-	-	-	-	-	-	-	23	36	1.1%	5	7	0.9%	12	29	1.0%	3	5	1.0%	48	81		5	9	
35	-	-	-	-	-	-	-	-	-	-	-	-	26	62	1.9%	6	13	1.6%	44	73	2.5%	7	12	2.5%	145	226		7	16	
36	205	205	4.2%	24	24	2.7%	0	0	0.0%	1	1	0.2%	63	125	3.8%	11	24	3.0%	16	89	3.0%	5	17	3.5%	347	573		24	40	
37	30	235	4.9%	0	24	2.7%	199	199	9.9%	32	33	6.6%	133	258	7.9%	33	57	7.1%	784	873	29.8%	87	104	21.3%	373	946		9	49	
38	2,016	2,251	46.5%	155	179	20.4%	25	224	11.1%	9	42	8.4%	1,179	1,437	43.8%	148	205	25.7%	128	1,001	34.2%	7	111	22.7%	150	1,096		0	49	
39	1,449	3,700	76.4%	134	313	35.7%	801	1,025	50.8%	143	185	36.9%	128	1,565	47.7%	17	222	27.8%	123	1,124	38.4%	15	126	25.8%	86	1,182		12	61	
40	481	4,181	86.3%	269	582	66.4%	229	1,254	62.1%	68	253	50.5%	304	1,869	57.0%	117	339	42.4%	196	1,320	45.1%	65	191	39.1%						
41	281	4,462	92.1%	217	799	91.2%	665	1,919	95.1%	54	307	61.3%	1,103	2,972	90.6%	321	660	82.6%	560	1,880	64.2%	114	305	62.4%						
42	278	4,740	97.9%	67	866	98.9%	86	2,005	99.4%	182	489	97.6%	184	3,156	96.2%	113	773	96.7%	654	2,534	86.6%	85	390	79.8%						
43	25	4,765	98.4%	1	867	99.0%	0	2,005	99.4%	9	498	99.4%	88	3,244	98.9%	21	794	99.4%	219	2,753	94.1%	36	426	87.1%						
44	37	4,802	99.1%	6	873	99.7%	0	2,005	99.4%	3	501	100.0%	16	3,260	99.4%	2	796	99.6%	166	2,919	99.7%	58	484	99.0%						
45	20	4,822	99.5%	3	876	100.0%	2	2,007	99.5%	0	501	100.0%	6	3,266	99.5%	0	796	99.6%	7	2,926	100.0%	5	489	100.0%						
46	11	4,833	99.8%	0	876	100.0%	6	2,013	99.8%	0	501	100.0%	14	3,280	100.0%	2	798	99.9%	0	2,926	100.0%	0	489							
47	8	4,841	99.9%	0	876	100.0%	4	2,017	100.0%	0	501	100.0%	0	3,280	100.0%	1	799	100.0%	0	2,926	100.0%	0	489							
48	-	4,841	99.9%	-	876	100.0%	1	2,018	100.0%	0	501	100.0%	0	3,280	100.0%	0	799		0	2,926	100.0%	0	489							
49	-	4,841	99.9%	-	876	100.0%	-	-	-	-	-	-	0	3,280	100.0%	0	799		0	2,926	100.0%	0	489							
50	3	4,844	100.0%	0	876	100.0%	-	-	-	-	-	-	0	3,280	100.0%	0	799		0	2,926	100.0%	0	489							
51													1	3,281	100.0%	0	799		1	2,927	100.0%	0	489							
Total	4,844			876			2,018			501			3,281			799			2,927			489			1,182			61		

yellow = incomplete week

2019 Willapa Bay CHINOOK Landed Catch

MSF

Preliminary Draft

Commercial Fishery

Stat Week	Dates	Catch Areas																				Basin Total Landed	Basin Willapa Origin NOR Landed	Basin Willapa Origin HOR Landed
		2T				2U				2N				2R				2M						
		Total Landed	UM %	Landed NOR	Landed HOR	Total Landed	UM %	Landed NOR	Landed HOR	Total Landed	UM %	Landed NOR	Landed HOR	Total Landed	UM %	Landed NOR	Landed HOR	Total Landed	UM %	Landed NOR	Landed HOR			
36	Sept. 2 - 8	Closed				Closed				258	N/A	258		Closed				428	N/A	428		686	0	686
37	Sept. 9 - 15	Closed				Closed				78	N/A	78		Closed				0	N/A	0		78	0	78
38	Sept. 16 - 22	179	N/A	179	187	N/A	187	15	N/A	15		Closed				242	N/A	242		623	0	623		
39	Sept. 23 - 29	9	N/A	9	19	N/A	19	9	N/A	9		Closed				9	N/A	9		46	0	46		
40	Sept. 30 - Oct. 6		N/A	0		N/A	0		N/A	0		Closed					N/A	0		0	0	0		
41	Oct. 7 - 13		N/A	0		N/A	0	Closed				Closed				Closed				0	0	0		
42	Oct. 14 - 20	Closed				Closed				Closed				Closed				Closed				0	0	0
43	Oct. 21 - 27	Closed				Closed				Closed				Closed				Closed				0	0	0
44	Oct 28. - Nov. 3		N/A	0		N/A	0		N/A	0		Closed					N/A	0		0	0	0		
45	Nov. 4 - 10		N/A	0		N/A	0		N/A	0		Closed					N/A	0		0	0	0		
46	Nov. 11 - 17		N/A	0		N/A	0		N/A	0				0	0		N/A	0		0	0	0		
47	Nov. 18 - 24		N/A	0		N/A	0		N/A	0				0	0		N/A	0		0	0	0		
48	Nov. 25 - Dec. 1		N/A	0		N/A	0		N/A	0				0	0		N/A	0		0	0	0		
Total Landed		188		0	188	206		0	206	360		0	360	0		0	0	679		0	679	1,433	0	1,433

Stat Weeks	2T		2U		2N		2R		2M		Inseason NOR Impacts	Inseason HOR Impacts	Predicted Total NOR Impacts (Local + Non local)	Predicted Total HOR Impacts (Local + Non local)
	NOR Impacts	HOR Impacts	NOR Impacts	HOR Impacts	NOR Impacts	HOR Impacts	NOR Impacts	HOR Impacts	NOR Impacts	HOR Impacts				
36	0	0	0	0	13	263			28	436	41	698	37	489
37	0	0	0	0	6	81			0	0	6	81	49	626
38	33	189	22	193	2	15			21	252	77	650	228	1,164
39	1	10	2	21	2	11			2	11	7	53	112	393
40	0	0	0	0	0	0			0	0	0	0	61	202
41	0	0	0	0	0	0			0	0	0	0	30	94
42	0	0	0	0	0	0			0	0	0	0	0	0
43	0	0	0	0	0	0			0	0	0	0	0	0
44	0	0	0	0	0	0			0	0	0	0	0	0
45	0	0	0	0	0	0			0	0	0	0	2	6
46	0	0	0	0	0	0			0	0	0	0	0	0
47	0	0	0	0	0	0			0	0	0	0	0	2
48	0	0	0	0	0	0			0	0	0	0	0	0
Totals	34	199	24	214	22	370	0	0	51	699	131	1,482	519	2,976

2019 WB Total CHINOOK Fishery Impacts Actual Catch + impacts MSF Preliminary Draft

2019 WB Total CHINOOK NOR Fishery Impacts Summary

MSF

Actual Catch + impacts

Preliminary Draft

Stat Weeks	2T			2U			2N			2R			2M			Stat Weeks	Inseason Estimated Natural-Origin Impacts		Preseason Predicted Natural-Origin Impacts	
	Total NOR Impacts	Local NOR Impacts	Predicted NOR Impacts	Total NOR Impacts	Local NOR Impacts	Predicted NOR Impacts	Total NOR Impacts	Local NOR Impacts	Predicted NOR Impacts	Total NOR Impacts	Local NOR Impacts	Predicted NOR Impacts	Total NOR Impacts	Local NOR Impacts	Predicted NOR Impacts		Weekly	Cumulative	Weekly	Cumulative
	36	0	0	0	0	0	0	13	9	16	0	0	0	28	26		13	36	36	36
37	0	0	0	0	0	0	6	4	36	0	0	0	0	0	0	37	4	40	36	66
38	33	21	41	22	20	95	2	1	14	0	0	0	21	19	44	38	62	101	194	260
39	1	1	31	2	2	18	2	1	5	0	0	0	2	2	38	39	6	107	92	352
40	0	0	11	0	0	32	0	0	1	0	0	0	0	0	8	40	0	107	53	405
41	0	0	13	0	0	6	0	0	0	0	0	0	0	0	4	41	0	107	24	429
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0	107	0	429
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0	107	0	429
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	0	107	0	429
45	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	45	0	107	2	431
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0	107	0	431
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	107	0	431
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	0	107	0	431
Totals	34	22	97	24	22	152	22	16	72	0	0	0	51	47	107	Totals	107	107	431	431

Tangle Net

13

26

Stat Week	2T				2U				2N				2R				2M				WB Actual				WB Predicted					
	Landed Catch	UnMarked Catch	Estimated Catch	% NOR	Landed Catch	UnMarked Catch	Estimated Catch	% NOR	Landed Catch	UnMarked Catch	Estimated Catch	% NOR	Landed Catch	UnMarked Catch	Estimated Catch	% NOR	Landed Catch	UnMarked Catch	Estimated Catch	% NOR	Landed Catch	UnMarked Catch	Estimated Catch	% NOR	Landed Catch	UnMarked Catch	Estimated Catch	% NOR		
36	Closed				Closed				Closed				Closed				Closed				Closed				Closed					
37	Closed				Closed				0.212				Closed				Closed				Closed				Closed					
38	1.635	0.299	489	1.446	1.156	0.113	131	1.025	89	0.189	17	72	Closed				1.412	0.224	317	1.095	954	3338	4292	1.892	5.523	7.415	Closed			
39	185	0.373	69	116	303	0.400	121	182	65	0.413	27	38	Closed				241	0.257	62	179	279	515	794	681	4.496	5.177	Closed			
40	0				0				0				Closed				Closed				Closed				Closed					
41	0				0				0				Closed				Closed				Closed				Closed					
42	Closed				Closed				Closed				Closed				Closed				Closed				Closed					
43	Closed				Closed				Closed				Closed				Closed				Closed				Closed					
44	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	
45	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	
46	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	
47	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	
48	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	
Total	1,820	558	1,262	1,459	252	1,207	344	86	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

2019 Estimated WB Commercial CHUM Mortalities

yellow = Chum release required

Preliminary Draft

Gillnet release mortality 0.59 includes drop off

Stat Week	Landed Chum	Chinook Landed	Coho Landed	Encounter Ratio	Chum Encounters	Stat Weeks	Inseason Estimated Chum Impacts		Preseason Predicted Chum Impacts	
							Weekly	Cumulative	Weekly	Cumulative
36	0	686	186		0	36	0	0	3	3
37	0	78	113		0	37	0	0	2	5
38	10	623	4,292		0	38	10	10	23	28
39	8	46	794		0	39	8	18	98	126
40		0	0		0	40	0	18	395	521
41		0	0		0	41	0	18	2,099	2,620
42	Closed					42	0	18	0	2,620
43	Closed					43	0	18	0	2,620
44		0	0		0	44	0	18	0	2,620
45		0	0		0	45	0	18	1,291	3,911
46		0	0		0	46	0	18	613	4,524
47		0	0		0	47	0	18	175	4,699
48		0	0		0	48	0	18	95	4,794
Totals	18	1,433	5,385		0	Totals	18		4,794	

