

**Mcclellan, Barbara A (DFW)**

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**From:** Willapa Bay (DFW)  
**Sent:** Wednesday, September 11, 2019 2:10 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 Philips; 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 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); Peterson, Damon M (DFW); Jennings, Lyle F (DFW); Zimmer, Ryan C (DFW); Losee, James P (DFW); Allan, Robert C (DFW); John, Ryan W (DFW); Phillips, Larry C (DFW)  
**Subject:** 2019 Willapa Bay weekly update for stat weeks 36 and part of week 37  
**Attachments:** 2019 WB Recreational Marine Area Catch Estimate thru week 36 09.10.19.pdf; 2019 WB Commercial Fishery Data thru 09.10.19.pdf; Naselle Hatchery CHK Rack Returns 09.10.19.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 stayed consistent with the week before (week 35). We had more effort than expected given it was after Labor Day. There was a high tide in the morning, which is the ideal tide for Willapa Bay. That morning high tide made for a better fishing experience. Chinook catch was only down slightly from the previous week (week 35) but we are seeing more coho than expected and quite a few of the coho had a coded wire tag. The number of unmarked Chinook that were encountered was similar to the previous week.  
*See attached file: 2019 WB Recreational Marine Area Catch Estimate through week 36 09.10.19.pdf.*

The boat survey work we have been conducting is showing that 92.2% 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 a slight increase from last week when the rate was at 91.6%. That means a few more anglers are utilizing other launch locations to exit the fishery.

### Willapa Bay Commercial Fishery and Monitoring

The commercial fishery has three days of fishing this week at the south end of the bay in area 2N using tangle net gear. Effort has been low as anticipated in our model and because of weather issues. There were only three boats that landed catch on Monday (9/9) and today, there are only two boats fishing. Coho catch was much lower than predicted for week 36 and 37 combined. Hatchery Chinook landed were on track for last week compared to the preseason prediction but for this week, there has not been many landed. Currently, we are below the prediction for unmarked Chinook encounters. There is another day of fishing scheduled for this Friday (9/13) in area 2N using tangle net gear. Starting next week on Monday (9/16), all areas (2N, 2M, 2T, and 2U) will be open to fishing using standard gillnet gear.

*See attached filed: 2019 WB Commercial Fishery Data thru 09.10.19.pdf*

### Hatchery Rack Returns:

On Sunday and Monday of this week, we had an influx of Chinook into both Nemah and Naselle hatcheries. Due to that influx, hatchery staff had to open the temporary weirs at both locations to allow fish to move into the adult pond.

The summaries we have been sending out in previous weekly updates were actual individual fish counts into the temporary weir at Naselle Hatchery. The summary that is included here through week 37 includes those individual counts. However moving forward and due to the influx we had earlier in the week, we will no longer be able to individually count each fish. Starting next week, the summary included with this weekly update will be a visual estimate of the number of fish at Naselle Hatchery.

Naselle Hatchery: Attached is the update for the Naselle Hatchery. As I said above, we had lots of fish move into the hatchery earlier in the week. To-date, we have had 651 hatchery and 49 natural Chinook recruit to the hatchery. This count was prior to the surge of fish on Sunday and Monday. All natural fish were passed upstream. We are currently in week 37 so any data provided in the spreadsheet for week 37 is incomplete.

*See attached file: Naselle Hatchery CHK Rack Returns 09.10.19.pdf*

Nemah hatchery: As I said above, we have had an influx of Chinook pass through the temporary weir. Prior to yesterday (9/10/19), there were only about 95 hatchery Chinook at the hatchery rack. Since yesterday, about 500 hatchery Chinook have now entered the hatchery rack. Again, this is a visual estimate since we no longer have the ability to count individual fish as they enter. To-date, there have been eight wild, unmarked Chinook enter the hatchery rack and those fish have been passed upstream above the weir.

### Spawning Ground Surveys

We started stream surveys below the weir in Nemah and Naselle rivers at the beginning of August. We have seen Chinook staging in the rivers but we have not found any redds to-date. We are currently doing a survey today in both systems and with the influx of fish over the last few days, there will be lots of fish in the river.

### Advisory Group:

We held an advisory group meeting last night (9/10/19) here at the Regional office in Montesano. All of the documents have been posted to our website except for the audio. The audio has been sent to the IT staff in Olympia but it does take a day or two before they can get it posted. The link to the advisory group page is listed below if you are interested in any of those documents.

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](mailto: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>

**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	154	258
33	8/11 - 8/17	0.1490	25	47	10	30	0.1343	198	474	131	389
34	8/18 - 8/24	0.2299	39	86	14	44	0.2176	321	794	200	589
35	8/25 - 8/31	0.2829	48	134	17	61	0.2487	367	1,161	113	702
36	9/1 - 9/7	0.1013	17	152	11	72	0.1167	172	1,333	98	801
37	9/8 - 9/14	0.0826	14	166		72	0.0664	98	1,431		801
38	9/15 - 9/21	0.0194	3	169		72	0.0251	37	1,468		801
39	9/22 - 9/28	0.0073	1	170		72	0.0015	2	1,470		801
40	9/29 - 9/30	0.0037	1			72	0.0014	2	1,472		801
41		0.0000	0			72	0.0007	1	1,473		801
			170		72			1,474		801	

2019 Willapa Bay Marine Area Recreational Catch Estimate

PRELIMINARY/DRAFT

updated 9/10/2019

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

August and September

Stat Week	Dates	Strata	Strata Description	Actual Data				Expanded # Total Boats	Sample Rate	Actual Data			Chinook Retained			Chinook Released				Marked Coho			Unmarked Coho			Total Coho						
				# Boats Sampled	# Boats Not Sampled	# Total Boats	# 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 CPUE	Expanded # Coho UM Kept	Total Coho CPUE (AD+UM)	Total Expanded # Coho Kept (AD + UM)	
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	0.000	0	0.018	1	
31	8/2 - 08/4	2	Fri - Sun	46	2	48	78	59%	99	2.15	168	11	0.111	19	12	0	0.000	0	5	0.051	8	1	1	4	0.040	7	0	0.000	0	0.040	7	
32	8/5 - 8/8	1	Mon - Thur	97	3	100	217	45%	199	2.05	445	44	0.221	98	62	0	0.000	0	14	0.070	31	4	3	4	0.020	9	1	0.005	2	0.025	11	
32	8/9 - 8/11	2	Fri - Sun	128	26	154	251	51%	281	2.20	550	74	0.263	145	92	1	0.004	1	13	0.046	25	4	2	14	0.050	27	4	0.014	8	0.064	35	
33	8/12 - 8/15	1	Mon - Thur	100	2	102	221	45%	213	2.13	472	21	0.099	46	29	1	0.005	1	9	0.042	20	3	2	9	0.042	20	3	0.014	7	0.056	27	
33	8/16 - 8/18	2	Fri - Sun	240	23	263	428	56%	551	2.30	983	90	0.163	161	102	0	0.000	0	43	0.078	77	11	7	19	0.034	34	3	0.005	5	0.040	39	
34	8/19 - 8/22	1	Mon - Thur	177	12	189	410	43%	381	2.15	883	51	0.134	118	75	0	0.000	0	21	0.055	49	7	4	15	0.039	35	6	0.016	14	0.055	49	
34	8/23 - 8/25	2	Fri - Sun	294	49	343	558	53%	697	2.37	1,324	104	0.149	198	125	0	0.000	0	55	0.079	104	15	9	42	0.060	80	19	0.027	36	0.088	116	
35	8/26 - 8/29	1	Mon - Thur	171	2	173	375	46%	358	2.09	786	66	0.184	145	92	2	0.006	3	48	0.134	105	15	9	21	0.059	46	5	0.014	11	0.073	57	
35	8/30 - 9/01	2	Fri - Sun	115	8	123	200	57%	293	2.55	510	19	0.065	33	21	1	0.003	2	22	0.075	38	5	3	29	0.099	50	24	0.082	42	0.181	92	
36	9/2-9/5	1	Mon - Thur	100	8	108	234	43%	216	2.16	506	16	0.074	38	24	0	0.000	0	16	0.074	38	5	3	51	0.236	120	15	0.069	35	0.306	155	
36	9/6-9/8	2	Fri - Sun	168	14	182	395	43%	372	2.21	875	50	0.134	118	75	0	0.000	0	35	0.094	82	12	7	80	0.215	188	37	0.099	87	0.315	275	
37																																
37																																
38																																
38																																
39																																
39																																
				1,662	150	1,812	3,398	49%	3,715	2.24	7,564	551	0.148	1,124	712	5	0.001	7	281	0.076	579	81	51	289	0.078	617	117	0.031	247	0.109	864	

### Naselle Hatchery Chinook Rack Returns

Preliminary/DRAFT \*

9/10/2019

Year	2015						2016						2017						2018						2019 *					
	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%	78	651		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%						
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%						
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							
<b>Total</b>	<b>4,844</b>			<b>876</b>			<b>2,018</b>			<b>501</b>			<b>3,281</b>			<b>799</b>			<b>2,927</b>			<b>489</b>			<b>651</b>			<b>49</b>		

yellow = incomplete week

# WB COMMERCIAL FISHERY

MSF

## 2019 Willapa Bay Chinook Landed Catch

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				217	N/A	217		Closed				428	N/A	428		645	0	645
37	Sept. 9 - 15	Closed				Closed				20	N/A	20		Closed				0	N/A	0		20	0	20
38	Sept. 16 - 22		N/A	0			N/A	0			N/A	0	Closed					N/A	0		0	0	0	0
39	Sept. 23 - 29		N/A	0			N/A	0			N/A	0	Closed					N/A	0		0	0	0	0
40	Sept. 30 - Oct. 6		N/A	0			N/A	0			N/A	0	Closed					N/A	0		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	0
45	Nov. 4 - 10		N/A	0			N/A	0			N/A	0	Closed					N/A	0		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	0
47	Nov. 18 - 24		N/A	0			N/A	0			N/A	0			0	0		N/A	0		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	0
<b>Total Landed</b>		<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>237</b>		<b>0</b>	<b>237</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>428</b>		<b>0</b>	<b>428</b>	<b>665</b>	<b>0</b>	<b>665</b>

**2019 WB Total Chinook Fishery Impacts**

Actual Catch + impacts

MSF

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	11	221			28	436	39	657	37	489
37	0	0	0	0	1	21			0	0	1	21	49	626
38	0	0	0	0	0	0			0	0	0	0	228	1,164
39	0	0	0	0	0	0			0	0	0	0	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	0	0	2	6
46	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	2
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>242</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>436</b>	<b>41</b>	<b>678</b>	<b>519</b>	<b>2,976</b>



2019 WB Total Chinook NOR Fishery Impacts Summary

MSF

Actual Catch + impacts

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	11	8	16	0	0	0	28	26		13	36	34	34
37	0	0	0	0	0	0	1	1	36	0	0	0	0	0	0	37	1	35	36	66
38	0	0	41	0	0	95	0	0	14	0	0	0	0	0	44	38	0	35	194	260
39	0	0	31	0	0	18	0	0	5	0	0	0	0	0	38	39	0	35	92	352
40	0	0	11	0	0	32	0	0	1	0	0	0	0	0	8	40	0	35	53	405
41	0	0	13	0	0	6	0	0	0	0	0	0	0	0	4	41	0	35	24	429
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	0	35	0	429
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0	35	0	429
44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	0	35	0	429
45	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	45	0	35	2	431
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0	35	0	431
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	35	0	431
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	0	35	0	431
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>97</b>	<b>0</b>	<b>0</b>	<b>152</b>	<b>12</b>	<b>9</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>26</b>	<b>107</b>	<b>Totals</b>	<b>35</b>	<b>35</b>	<b>431</b>	<b>431</b>

Tangle Net

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Willapa Bay Coho Commercial Accounting

Stat Week	2T				2U				2N				2R				2M				WB Actual			WB Predicted		
	Landed Catch	UnMarked %	Estimated NOR	Estimated HOR	Landed Catch	UnMarked %	Estimated NOR	Estimated HOR	Landed Catch	UnMarked %	Estimated NOR	Estimated HOR	Landed Catch	UnMarked %	Estimated NOR	Estimated HOR	Landed Catch	UnMarked %	Estimated NOR	Estimated HOR	NOR	HOR	Total	NOR	HOR	Total
36	Closed				Closed				50	0.241	12	38	Closed				109	0.174	19	90	31	128	159	30	379	409
37	Closed				Closed				11	0.241	3	8	Closed				Closed				3	8	11	139	670	809
38			0	0			0	0			0	0	Closed						0	0	0	0	0	1,892	5,523	7,415
39			0	0			0	0			0	0	Closed						0	0	0	0	0	681	4,496	5,177
40			0	0			0	0			0	0	Closed						0	0	0	0	0	2,094	5,600	7,694
41			0	0			0	0	Closed				Closed				Closed				0	0	0	3,120	1,500	4,620
42	Closed																				0	0	0	0	0	0
43	Closed																				0	0	0	0	0	0
44			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	1,267	506	1,773	
46			0	0			0	0			0	0			0	0			0	0	0	0	122	84	206	
47			0	0			0	0			0	0			0	0			0	0	0	0	452	212	664	
48																				0	0	0	72	25	97	
<b>Total</b>	0		0	0	0		0	0	61		15	46	0		0	0	109		19	90	34	136	170	9,869	18,995	28,864

**2019 Estimated WB Commercial Chum Mortalities**

yellow = Chum release required

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	645	159		0	36	0	0	3	3
37	0	20	11		0	37	0	0	2	5
38		0	0		0	38	0	0	23	28
39		0	0		0	39	0	0	98	126
40		0	0		0	40	0	0	395	521
41		0	0		0	41	0	0	2,099	2,620
42	Closed					42	0	0	0	2,620
43	Closed					43	0	0	0	2,620
44		0	0		0	44	0	0	0	2,620
45		0	0		0	45	0	0	1,291	3,911
46		0	0		0	46	0	0	613	4,524
47		0	0		0	47	0	0	175	4,699
48		0	0		0	48	0	0	95	4,794
<b>Totals</b>		<b>665</b>	<b>170</b>		<b>0</b>	<b>Totals</b>	<b>0</b>		<b>4,794</b>	