

2022 Willapa Bay Terminal Area Management Model (TAMM)

Updated: 4/5/2022

PFMC #: Coho2221\_NOF1\_032822\_FINAL.xlsx

PFMC Model: Middle Ocean Coho Option # 2221

**DRAFT: Model D**

Fishery Description

<b>Marine Area Rec:</b>	Chinook and Coho MSF Aug 1, 2 adult daily limit, Release UM Chinook and UM Coho
<b>Freshwater Rec:</b>	2 Adult daily limit except 3 fish bag in North Nemah River, Release UM CHK and UM Coho
<b>Commerical:</b>	Tangle nets only, No fishing prior to Sept. 21, Area 2R closed, Release UM CHK

**Rate Data**

Commercial Chinook Drop out	0.03	Sport hook & line drop off	0.05
Commercial Coho Drop out	0.02	Marine Hooking Mortality	0.14
Small mesh gear mortality	0.56	Freshwater Hooking Mortality	0.10
Tangle net mortality	0.31		

	Chinook				Coho				Chum				Total				
	Total Hatchery	Willapa North	Nemah Palix	Naselle Bear	Total Natural	Willapa North	Nemah Palix	Naselle Bear	Total Natural	Willapa North	Nemah Palix	Naselle Bear					
	<b>Pre-Season Runsize</b>	30,071	5,256	13,046	11,769	3,071	2,178	227	666	55,493	17,719	0		37,774	32,077	21,292	5,121
<b>Escapement Goal</b>	6,304	294	2,342	3,668	4,353	2,172	328	1,853	2,500	1,000	0	1,500	13,600	9,679	1,294	2,628	35,400
<b>Harvestable</b>	23,767	4,962	10,704	8,101	-1,282	6	-101	-1,187	52,993	16,719	0	36,274	18,477	11,613	3,828	3,036	12,406
		0.175	0.434	0.391		0.709	0.074	0.217		0.319	0.000	0.681		0.664	0.160	0.177	

Stat Week	2022 Dates	Days Fished					MSF - Chinook					5 yr HR with drop out					Hatchery Chinook					Natural Chinook					Hatchery Coho				Natural Coho				CHUM MSF	Chum Catch					Total Chum				
		T	U	N	R	M	T	U	N	R	M	T	U	N	R	M	Total Hatchery	Total WB Origin	Willapa North	Nemah Palix	Naselle Bear	Total Natural	Total WB Origin	Willapa North	Nemah Palix	Naselle Bear	Total Hatchery	Willapa North	Nemah Palix	Naselle Bear	Total Natural	Willapa North	Nemah Palix	Naselle Bear		T	U	N	R	M					
		32	July 31 - Aug 6	0.0	0.0	0.0	0.0	0.0	1.00	1.00	1.00	1.00	1.00	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	1.00	0
<b>Commercial Catch Totals</b>		18	23	16	0	9						12	35	2	0	9	352	352	146	97	109	66	58	47	3	8	8,637	2,730	0	5,907	6,916	4,864	704	1,347	4,942	1,471	914	0	1,939	9,267					
<b>Commercial Harvest Rate</b>																	0.012	0.028	0.007	0.009		0.019	0.022	0.012	0.012	0.156	0.154	0.156	0.216	0.228	0.138	0.238							0.194						

**Management Objectives for 2022**

CHINOOK	Willapa R. Natural Chinook Impact Rate		Naselle R. Natural Chinook Impact Rate	
	Expected	Cap	Expected	Cap
	6.3%	20%	4.8%	20%
COHO Expected Natural Escapement	Expected	Goal		
	24,853	13,600		
CHUM Expected Total Escapement	Expected	Goal	Willapa Bay Chum Expected Impact Rate	
	38,442	35,400	19.6%	

Hatchery Chinook				Natural Chinook				Hatchery Coho				Natural Coho				Chum
Rec Marine Catch	710	441	65	204	53	49	0	3	891	447	444	59	45	10	4	7
Harvest Rate	0.024	0.084	0.00	0.017	0.017	0.023	0.001	0.005	0.016	0.025	0.012	0.002	0.002	0.002	0.001	0.000
Rec Freshwater Catch	4,275	597	2,515	1,163	73	41	11	21	3,146	766	2,380	250	208	1	41	90
Harvest Rate	0.142	0.114	0.193	0.099	0.024	0.019	0.050	0.031	0.057	0.043	0.063	0.008	0.010	0.000	0.007	0.002
Total Recreational Catch	4,985	1,038	2,580	1,367	126	90	12	24	4,037	1,213	0	308	252	11	45	97
Harvest Rate	0.166	0.198	0.198	0.116	0.041	0.042	0.051	0.036	0.073	0.068	0.075	0.010	0.012	0.002	0.008	0.002
Expected Escapement	24,734	4,072	10,369	10,294	2,887	2,040	213	634	42,819			24,853	Goal	13,600	Goal	35,400
Total Harvest Rates	0.177	0.225	0.205	0.125	0.060	0.063	0.064	0.048	0.228			0.225				19.6%

# 2022 WILLAPA BAY FISHERY SUMMARY

**Model D**

**DRAFT**

CHINOOK									
Total Hatchery		Willapa North	Nemah Palix	Naselle Bear	Total Natural	Willapa North	Nemah Palix	Naselle Bear	
2022 Pre-Season Runsize	30,071	5,256	13,046	11,769	3,071	2,178	227	666	

  

HATCHERY					NATURAL				
Total Hatchery	WB Origin	Willapa North	Nemah Palix	Naselle Bear	Total Natural	WB Origin	Willapa North	Nemah Palix	Naselle Bear
Commercial Catch	352	352	146	97	109	0	0	0	0
Commercial Impacts						66	58	47	3
Commercial Harvest Rate (HR)	0.012	0.028	0.007	0.009		0.019	0.022	0.012	0.012
Recreational Marine Catch	710	441	65	204	53	49	0	3	
Marine HR	0.024	0.084	0.005	0.017	0.017	0.023	0.001	0.005	
Recreational Freshwater Catch	4,275	597	2,515	1,163	73	41	11	21	
FW HR	0.142	0.114	0.193	0.099	0.024	0.019	0.050	0.031	
Expected Escapement	24,734	4,072	10,369	10,294	2,887	2,040	213	634	
Total Exploitation Rate	0.177	0.225	0.205	0.125	0.060	0.063	0.064	0.048	

Chinook Hatchery Escapement Goal = 6,173      Chinook Natural Escapement Goal = 4,353

COHO									
Total Hatchery		Willapa North	Nemah Palix	Naselle Bear	Total Natural	Willapa North	Nemah Palix	Naselle Bear	
2022 Pre-Season Runsize	55,493	17,719	0	37,774	32,077	21,292	5,121	5,664	

Post Ocean Fisheries

HATCHERY					NATURAL				
Total Hatchery	Willapa North	Nemah Palix	Naselle Bear		Total Natural	Willapa North	Nemah Palix	Naselle Bear	
Commercial Catch	8,637	2,730	0	5,907	6,916	4,864	704	1,347	
Commercial Harvest Rate (HR)	0.156	0.154	0.000	0.156	0.216	0.228	0.138	0.238	
Recreational Marine Catch	891	447	0	444	59	45	10	4	
Marine HR	0.016	0.025	0.000	0.012	0.002	0.002	0.002	0.001	
Recreational Freshwater Catch	3,146	766	0	2,380	250	208	1	41	
FW HR	0.057	0.043	0.000	0.063	0.010	0.010	0.000	0.007	
Expected Escapement	42,819				24,853				
Total Exploitation Rate	22.8%				22.5%				

Coho Hatchery Escapement Goal 2,500      Coho Natural Escapement Goal = 13,600

TOTAL CHUM	
2022 Pre-Season Runsize	47,806
Commercial Catch	9,267
Commercial Harvest Rate (HR)	0.194
Recreational Marine Catch	7
Marine HR	0.000
Recreational Freshwater Catch	90
FW HR	0.002
Expected Escapement	38,442
Total Exploitation Rate	19.6%

Escapement Goal = 35,400

Total Commercial Days Scheduled						
2022 Dates	Stat Week	2T	2U	2N	2R	2M
July 31 - Aug 6	32	0	0	0	0	0
Aug 7 - 13	33	0	0	0	0	0
Aug 14 - 20	34	0	0	0	0	0
Aug 21 - 27	35	0	0	0	0	0
Aug 28 - Sept 3	36	0	0	0	0	0
Sept 4 - 10	37	0	0	0	0	0
Sept 11 - 17	38	0	0	0	0	0
Sept 18 - 24	39	3	3	3	0	3
Sept 25 - Oct 1	40	3	3	3	0	1
Oct 2 - 8	41	2	3	2	0	1
Oct 9 - 15	42	2	2	3	0	1
Oct 16 - 22	43	2	3	2	0	1
Oct 23 - 29	44	0	0	0	0	0
Oct 30 - Nov 5	45	2	3	1	0	0
Nov 6 - 12	46	2	3	1	0	1
Nov 13 - 19	47	2	3	1	0	1
Nov 20 - 26	48	0	0	0	0	0
Nov 27 - 30	49	0	0	0	0	0
<b>Total</b>		<b>18</b>	<b>23</b>	<b>16</b>	<b>0</b>	<b>9</b>

12 hr openings, CHK MSF & Chum Retention allowed. Tangle net only.

Closed

Recreational Regulations									
Area	Section	Season	Daily Limit	Adult daily Limit	2-Pole	2-Pole Upper Extent	Natural CHK Retention	Natural Coho Retention	
Marine Area 2.1	Control Zone Open	June TBD - July 31	Same as Marine Area 2 when open for salmon						
		Aug. 1 - Jan. 31	6	2	Yes	-	0	0	
Willapa River	mouth upstream to Hwy 6 Bridge below Trap Crk	Aug. 1 - Jan. 31	6	2	Yes	2nd Bridge on Camp One Rd.	0	0	
	Hwy 6 upstream to Fork Creek	Aug. 16 - Jan. 31	6	2	Yes		0	0	
	Mouth of Fork Creek to Hwy 6 Br (near Lebam)	Oct. 1 - Jan. 31	6	2	No		0	0	
SF Willapa River	mouth to bridge on Pehl Rd	Aug. 1 - Sept 30	6	2	No	-	0	0	
Fork Creek	Fork Crk Hatchery rack upstream 500' at the fishing boundary sign	Oct. 1 - Jan. 31	6	2	No	-	0	0	
North River	mouth upstream to Fall River	Aug. 1 - Jan 31	6	2	No	-	0	0	
Smith Creek	mouth to Hwy 101 Bridge	Aug. 1 - Dec 31	6	2	No	-	0	0	
North Nemah River	Hwy 101 Br. to Nemah Valley Rd. Br.	Aug. 1 - <del>Sept 30</del> Jan 31	6	3	2	No	-	0	
	Nemah Valley Rd. Br. Upstream to Hancock Property Line approx. 1.66 M	Closed to salmon fishing							
	Hancock Property Line upstream to temporary weir	Aug. 1 - Sept 15, Seniors Only*	6	3	2	No	-	0	
	temporary weir upstream to Nemah Hat. Dam	Closed to ALL fishing							
	Nemah Hatchery dam upstream to N700 Rd	Oct. 1 - Jan 31	6	3	2	No	-	0	
Middle Nemah River	mouth to bridge on Middle Nemah A-line Rd	Sept. 1 - <del>Sept 30</del> Jan 31	6	2	No	-	0	0	
South Nemah River	mouth to confluence with Middle Nemah R.	Sept. 1 - <del>Sept 30</del> Jan 31	6	2	No	-	0	0	
Palix River	Hwy 101 to mouth of Middle Fork	Sept 1 - Jan 31	6	2	No	-	0	0	
Niawiakum River	Hwy 101 Br. To the S. Bend/Palix Rd Br	Sept 1 - Nov 30	6	2	No	-	0	0	
Naselle River	mouth (Hwy 101) upstream to South Fork Naselle River	Aug. 1 - Jan. 31	6	2	Yes	South Fork	0	0	
	from South Fork Naselle River upstream to Hwy 4	Aug. 1 - Jan 31	6	2	No	-	0	0	
	Hwy 4 to 300' below hatchery attraction channel	Aug. 1 Oct. 16- Jan. 31	6	2	No	-	0	0	
	Attraction channel upstream to Crown Mainline Bridge	Oct 16 - Jan. 31	6	2	No	-	0	0	
Bear River	Mouth upstream to Lime Quarry Rd	Sept 1 - Jan 31	6	2	No	-	0	0	

\* Seniors defined as 70 years old and over      Blue = changes from last year's fishery represented in this model run