

**2024 Summer Mark-Selective Recreational Chinook Fisheries
In Marine Areas 5, 6, 7, 9, 10, 11, 12 and 13**

Post-season Report

DRAFT

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INTRODUCTION

In the marine environments of the Strait of Juan de Fuca and Puget Sound, abundant runs of hatchery Chinook salmon (*Oncorhynchus tshawytscha*) have been mixed with depressed stocks of natural-origin Chinook salmon for many years. Providing recreational anglers with opportunities to harvest abundant hatchery stocks while simultaneously protecting weaker, natural-origin stocks has proven to be a significant conservation and management challenge. The combination of large-scale hatchery marking (i.e., adipose fin clipping) programs and mark-selective harvest regulations makes it possible for anglers to pursue and harvest hatchery Chinook salmon while minimally impacting natural-origin salmon populations. In such “mark-selective fisheries” (MSFs), recreational anglers are allowed to retain adipose-fin clipped (“marked”) hatchery fish and are required to release unharmed any unclipped (“unmarked”, predominantly natural-origin) salmon that are encountered¹.

Since the Washington Department of Fish and Wildlife (WDFW) implemented the first mark-selective Chinook salmon fisheries in Marine Areas 5 and 6 (Strait of Juan de Fuca) in 2003 based on state-tribal agreements (Thiesfeld and Hagen-Breaux 2005a, 2005b, & 2006; WDFW 2008a), mark-selective Chinook salmon fishing regulations have been implemented in multiple Marine Areas in Puget Sound during both the summer and winter seasons.

During the 2024 summer season, May through September, WDFW implemented mark-selective Chinook salmon fisheries in Marine Areas 5, 6, 7, 9, 10, 11, 12 and 13. The Chinook MSF seasons in each area were scheduled as follows, though note that in some Areas management criteria were met prior to the end date and closed early:

- Marine Area 5 from July 1 through August 15, 2024
- Marine Area 6 from July 1 through August 15, 2024
- Marine Area 7 from July 18 through July 31, 2024 (3-day openers)
- Marine Area 9 from July 18 through July 31, 2024 (3-day openers)
- Marine Area 10 from July 18 through August 31, 2024
- Marine Area 11 from June 1 through September 30, 2024 (3 to 4-day openers)
- Marine Area 12 from July 1 through September 30, 2024
- Marine Area 13 from May 1 through September 30, 2024

¹ The regulations specific to winter mark-selective fisheries in Puget Sound Marine Catch Areas allowed for the retention of up to two legal-sized (>22 inches [56 cm]) marked Chinook salmon per day and required the immediate release of all unmarked or sublegal Chinook salmon. Additionally, anglers were: i) required to use single-point, barbless hooks while fishing for salmon, ii) held to a combined (all salmon species) two-fish daily limit, and iii) held to a handling rule that prevented them from bringing unmarked and/or sublegal Chinook aboard their vessels.

RESULTS

1) Marine Area 5 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a Chinook MSF in Marine Area 5, originally scheduled for July 1 through August 15, 2024. The fishery closed early on July 31 when the Legal-size Encounters met pre-season FRAM predicted values. WDFW's Puget Sound Sampling Unit (PSSU) implemented an intensive monitoring program, a Full Murthy design, in Marine Area 5 throughout the season to collect the data needed to estimate key parameters characterizing the fishery and its impacts on unmarked salmon. Sampling activities included dockside creel sampling, on-the-water effort surveys, test-fishing, and efforts to collect voluntary salmon trip reports (STRs) from the angling public. **Table 1.1** summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). The fishery control for this area was based on the preseason Fishery Regulation Assessment Model (FRAM) prediction of 6,539 total legal-sized Chinook salmon encounters (**Table 1.4**). In this section we present results from our monitoring activities during the Area 5 summer Chinook MSF.

Table 1.1 Sampling/estimation details on target parameters associated with the overall Marine Area 5 summer mark-selective fishery monitoring program.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Creel Sampling	Fishing effort (boat & angler trips); kept and released fish ¹	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release	One week	Creel estimates were produced for one-week estimation periods and stratified into “weekday” (Mon.-Thurs.) and “weekend” (Fri.-Sun.) day-type strata within weeks. For the weekday stratum we sampled $n=2$ days out of $N=4$ available weekdays per one-week period. For the weekend stratum we sampled $n=3$ days out of $N=3$ available weekend days per week.
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data were not used for estimation of Chinook encounters for this fishery (Table 1.9). (See Conrad & McHugh 2008).
On-the-water Surveys	Proportion of total angler effort that uses sample-frame sites (i.e., site “size measures”) versus out-of-frame sites.	Total on-water boat and angler counts at assumed peak effort time interval (instantaneous count); spatial distribution of recreational fishing boats in the area.	Boats and anglers	Month	A total of 6 (3 weekday and 3 weekend) boat surveys were conducted during the Area 5 summer Chinook MSF.
Test Fishing	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook	Chinook length, age, and DNA-based ² stock composition; species composition of non-Chinook encounters	Fish encounter	Season	Test fishing collected data when the fishery was open to Chinook retention. These data were used for estimating encounters and mortalities during this fishery. LM = 16%; LU = 17%; SM = 54%; SU = 13% (Table 1.11).
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Encounter data for non-Chinook salmon species (e.g., Coho salmon) that the angler may record on the STR form	Fish encounter	Season	No STRs were returned during this fishery. Test fishing data were used for estimates of encounters and mortalities for this fishery.
Overall Fishery Impacts Estimation	Total Chinook salmon encounters and mortalities by size/mark-status group	Ratios of encounters and mortalities per kept Chinook salmon	N/A	Season	Estimated on a monthly time step but considered at the season-total level.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	The temporal resolution of DIT impacts is constrained by the total number of tags recovered.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.

² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 1.2 Estimates of total fishing effort and total salmon catch (harvest and releases) during the summer Chinook MSF in Marine Area 5. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Month	Stat Week	Start Date	End Date	Est. Effort		Est. Retained Chinook		Est. Released Chinook		Total Est. Chinook Encounters
				Boats	Anglers	AD	UM	AD	UM	
July	27	1-Jul	7-Jul	1,314	3,179	1,006	2	3,840	2,090	6,938
	28	8-Jul	14-Jul	1,016	2,347	463	6	1,769	958	3,196
	29	15-Jul	21-Jul	1,018	2,339	587	0	2,239	1,220	4,046
	30	22-Jul	28-Jul	1,041	2,424	585	0	2,233	1,217	4,035
	31	29-Jul	31-Jul	261	504	215	0	821	447	1,484
Season Total:				4,650	10,793	2,857	8	10,901	5,933	19,698
Variance:				59,271	351,798	30,757	14	6,838,870	1,581,923	17,945,487
SE:				243	593	175	4	2,615	1,258	4,236
CV (%):				5	5	6	47	24	21	22
95% CI:				4,172 - 5,127	9,630 - 11,955	2,513 - 3,200	1 - 16	5,775 - 16,026	3,467 - 8,398	11,395 - 28,001

Table 1.3 Number of total length samples collected from retained Chinook salmon collected during dockside angler interviews in the summer Chinook MSF in Marine Area 5.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	598	30	628
Unmarked	3	0	3
Total	601	30	631

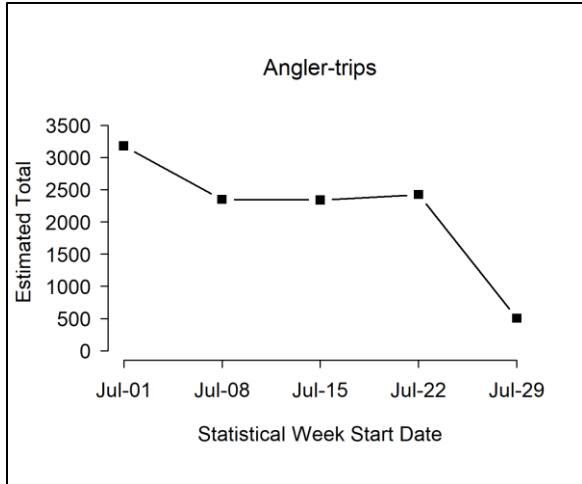


Figure 1.1 Temporal patterns in fishing effort during the summer Chinook MSF in Marine Area 5.

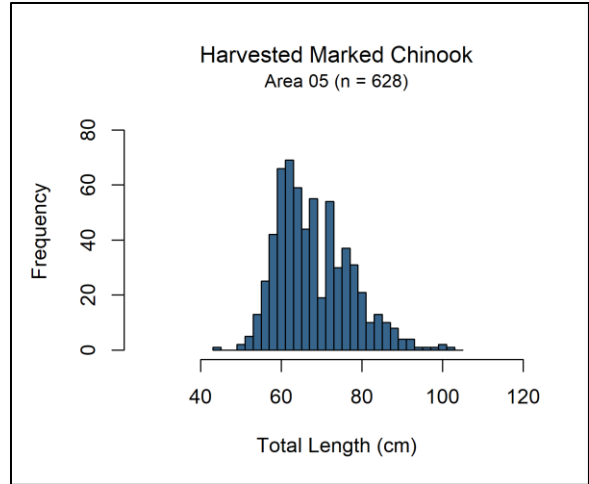


Figure 1.3 Length-frequency distribution of retained marked Chinook sampled in dockside angler interviews during the summer Chinook MSF in Marine Area 5. Note: displayed values are observations where lengths are taken.

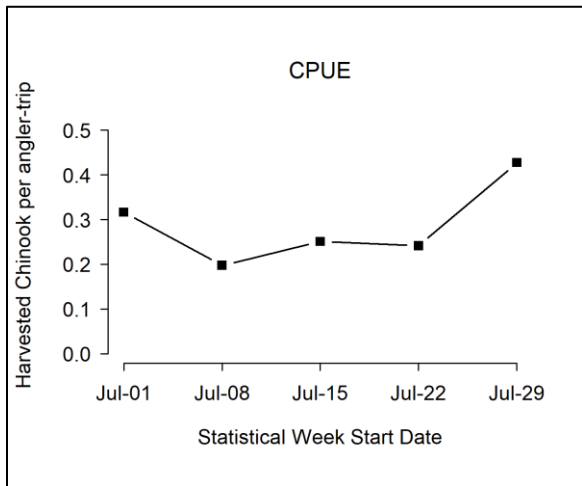


Figure 1.2 Temporal patterns in CPUE (landed Chinook per angler trip) during the summer Chinook MSF in Marine Area 5.

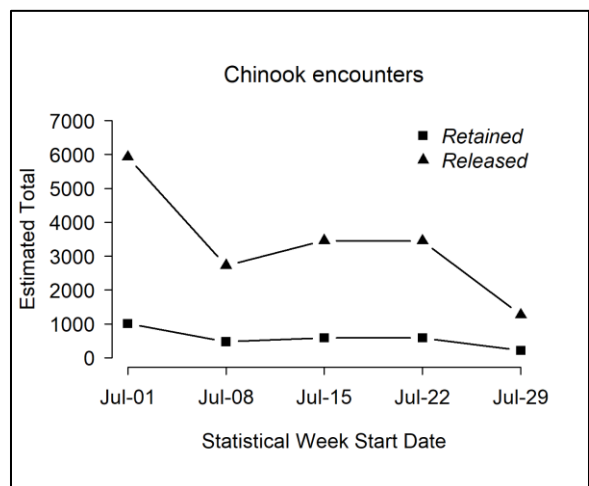


Figure 1.4 Temporal patterns in Chinook salmon encounters (retained and released) during the summer Chinook MSF in Marine Area 5.

Table 1.4 Comparison of modeled and estimated total Chinook salmon encounters for the summer Chinook MSF in Marine Area 5. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Data Source	Group	Total Encounters	Legal	Sublegal	Landed Only
FRAM Encounters	UM	8,198	2,538	5,660	25
	AD	12,668	4,001	8,667	3,481
	Total	20,866	6,539	14,327	3,506
	% Marked	61	61	60	99
Estimated (Creel) Encounters	UM	5,941	3,283	2,658	8
	AD	13,758	3,127	10,631	2,857
	Total	19,698	6,410	13,289	2,865
	% Marked	70	49	80	100

Table 1.5 Summary of season-wide fishery impact estimates for the summer Chinook MSF in Marine Area 5. Release mortality rate = 0.15 for legal fish and 0.20 for sublegal fish. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Size/mark group	Encounters	Retained	Released	Release Mortality	Total Mortality	Var	SE	95% CI	CV (%)
Legal AD	3,127	2,720	406	61	2,781	48,188	220	2,351 - 3,211	8
Legal UM	3,283	8	3,275	491	499	20,483	143	219 - 780	29
Sublegal AD	10,631	136	10,494	2,099	2,235	239,176	489	1,277 - 3,194	22
Sublegal UM	2,658	0	2,658	532	532	26,889	164	210 - 853	31
Total	19,698	2,865	16,833	3,183	6,047	334,735	579	4,913 - 7,181	10

Table 1.6 Comparison of modeled and estimated total Chinook salmon mortalities for the summer Chinook MSF in Marine Area 5. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Mortality Category	FRAM Chinook Mortalities			Estimated Chinook Mortalities		
	UM	AD	Total	UM	AD	Total
Total (Landed + Released)	1,536	5,466	7,002	1,031	5,017	6,047
Released Legal	379	252	631	491	61	552
Released Sublegal	1,132	1,733	2,865	532	2,099	2,630
Landed Only	25	3,481	3,506	8	2,857	2,865

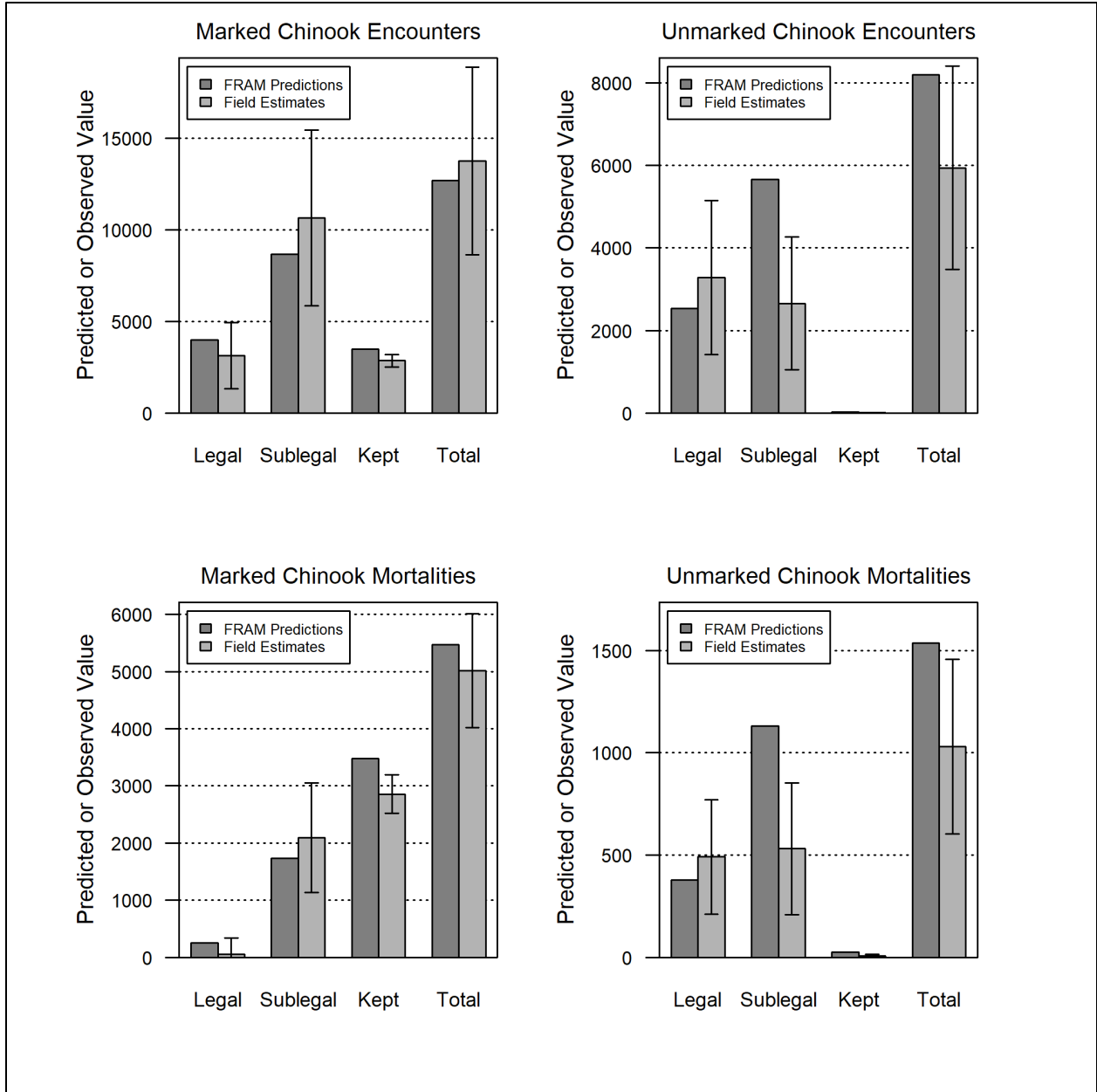


Figure 1.5 Comparison of modeled and estimated total Chinook salmon encounters and mortalities for the summer Chinook MSF in Marine Area 5. Error bars represent approximately 95% confidence intervals for field estimates.

Table 1.7 Summary of the total number of anglers intercepted during on-the-water surveys conducted for the summer Chinook MSF in Marine Area 5. Sites in bold represent those included in the dockside sample frame.

Site Name	Weekday Anglers	Season Total (unadjusted) Size Measure	Weekend Anglers	Season Total (unadjusted) Size Measure
Coho Resort	10	0.0400	43	0.0671
Curley's Resort	12	0.0480	24	0.0374
Mason's East Docks	69	0.2760	180	0.2808
Mason's Ramp & Docks	68	0.2720	167	0.2605
Mason's West Docks	4	0.0160	21	0.0328
Van Riper's North	22	0.0880	54	0.0842
Van Riper's South	65	0.2600	115	0.1794
Anacortes Marina	0	0.0000	2	0.0031
Mason's South Dock	0	0.0000	8	0.0125
Private	0	0.0000	27	0.0421
Total	250	1.0000	641	1.0000

Table 1.8 Monthly sample rates (Total retained Chinook sampled¹ / Estimated retained Chinook) for the summer Chinook MSF in Marine Area 5. AD = marked (adipose-clipped), UM = unmarked.

Time period			Estimated Retained Chinook			Number of Chinook sampled			Sample Rate
Month	Stat Weeks	Dates	AD	UM	Total	AD	UM	Total	
July	27 - 31	1 Jul - 30 Jul	2,857	8	2,865	619	3	622	21.70%
Season Total			2,857	8	2,865	619	3	622	21.70%

¹ Number of retained Chinook salmon sampled includes all retained Chinook salmon inspected for CWTs, from all sites sampled during the summer Chinook MSF in Marine Area 5 (creel estimates and fish sampled as part of baseline sampling).

Table 1.9 Dockside encounters (retained and released) by size-mark category during the summer Chinook salmon MSF in Marine Area 5. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Dockside Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	629	405	266	259
Bias-corrected size/mark composition	35.91%	25.98%	17.06%	21.05%
Variance	0.00035	0.00037	0.00019	0.00029

Table 1.10 Fishery-total estimates of retained and released salmon (other than Chinook) for the summer Chinook MSF in Marine Area 5. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Start Date	End Date	Retained Salmon				Released Salmon					
			Coho AD	Coho UM	Coho UNK	Unknown	Coho AD	Coho UM	Coho UNK	Chum	Sockeye	Unknown
27	1-Jul	7-Jul	312	11	8	32	117	328	145	0	0	35
28	8-Jul	14-Jul	48	0	0	7	58	90	8	0	4	167
29	15-Jul	21-Jul	73	0	0	7	35	64	23	14	0	115
30	22-Jul	28-Jul	55	0	0	21	33	83	49	0	0	176
31	29-Jul	31-Jul	23	0	0	0	0	17	11	0	0	18
Season Total:			511	11	8	67	242	581	236	14	4	511
Variance:			1,007	10	7	365	2,228	2,059	2,455	124	13	8,336
Standard Error:			32	3	3	19	47	45	50	11	4	91
CV (%):			6	29	32	29	20	8	21	81	85	18
95% CI:			449 - 573	5 - 17	3 - 14	29 - 104	149 - 334	493 - 670	139 - 333	0 - 36	0 - 11	332 - 690

Table 1.11 Composition of test fishery Chinook salmon encounters and associated mark-rate and size/mark-status proportion estimates for the summer Chinook salmon MSF in Marine Area 5. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Fishing Effort		Legal		Sublegal		Total
	Days	Hours Fished	AD	UM	AD	UM	
27	1	7.07	1	0	0	0	1
28	6	37.14	7	6	27	7	47
29	2	14.45	2	2	4	2	10
30	6	40.77	6	8	16	1	31
31	7	48.5	4	5	21	7	37
Total	22	147.93	20	21	68	17	126
Size/mark-status composition:			0.16	0.17	0.54	0.13	
Variance:			(0.0011)	(0.0011)	(0.0020)	(0.0009)	
Legal size mark rate:			0.49				
Overall mark rate:			0.70				

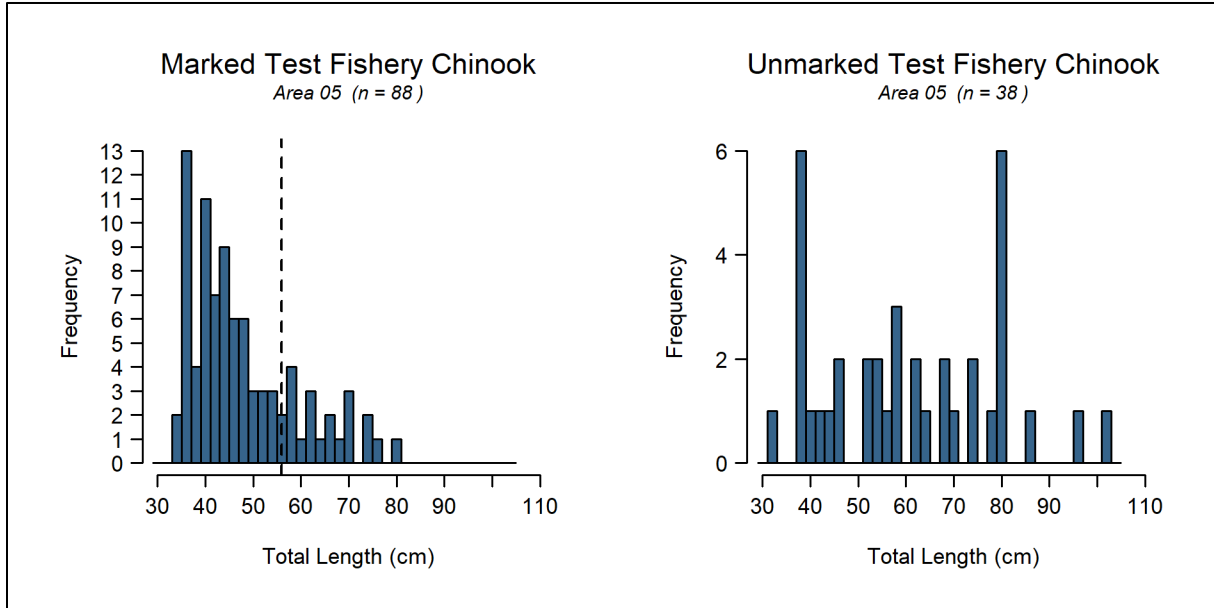


Figure 1.6 Length-frequency distributions of marked (*left panel*) and unmarked (*right panel*) Chinook salmon encountered by test fishers during the summer Chinook salmon MSF in Marine Area 5. The vertical dashed line in the left panel corresponds to the legal-size limit (22 in or 56 cm).

Table 1.12 Summary of double-index tagged (DIT) Chinook salmon kept by anglers and estimated total mortality of unmarked DIT Chinook salmon due to hook-and-release impacts resulting from the summer Chinook MSF in Marine Area 5. AD = marked (adipose-clipped), UM = unmarked.

Hatchery	Brood Year	DITs Obs	Est.AD	var(Est.AD)	UM DIT Enc	Est.UM	var(Est.UM)	SE(Est.UM)
Clear Creek Hatchery	2021	1	4.5	16.07	4.6	0.5	0.165	0.41
George Adams Hatchery	2020	2	9.1	32.15	9.2	0.9	0.329	0.81
Grovers Cr Hatchery	2019	1	4.5	16.07	4.6	0.5	0.168	0.41
Grovers Cr Hatchery	2020	1	4.5	16.07	4.2	0.4	0.137	0.37
Grovers Cr Hatchery	2021	2	9.1	32.15	9.1	0.9	0.321	0.80
Priest Rapids Hatchery	2020	1	4.5	16.07	4.5	0.4	0.156	0.40
Priest Rapids Hatchery	2021	1	4.5	16.07	4.5	0.5	0.161	0.40
Samish Hatchery	2020	1	4.5	16.07	4.6	0.5	0.164	0.41
Samish Hatchery	2021	1	4.5	16.07	8.8	0.9	0.605	0.78
Soos Creek Hatchery	2020	3	13.6	48.22	13.8	1.4	0.498	1.22
Soos Creek Hatchery	2021	1	4.5	16.07	4.9	0.5	0.187	0.43
Spring Cr Nfh	2020	1	4.5	16.07	4.6	0.5	0.162	0.40
Spring Cr Nfh	2021	3	13.6	48.22	10.6	1.1	0.305	0.94
Wallace R Hatchery	2020	2	9.1	32.15	9.2	0.9	0.332	0.81
Wallace R Hatchery	2021	2	9.1	32.15	9.2	0.9	0.332	0.81
Total		23	104.4	369.68	106.5	10.6	4.022	9.4

Table 1.13 Summary of coded-wire tags recovered from Chinook salmon harvested during the 2024 summer Chinook MSF in Marine Area 5. The field “Number DITs” corresponds to the number of tags that belonged to double-index tag groups. Note: Not all tags have been processed before the writing of this report.

]	Release Region	Release Site	Rearing Location	CWTs Recovered	No. DITs
BC	Fraser River & Thompson River (22.8%)	R-Chilliwack R	H-Chilliwack River H	18 (14.2%)	0
		R-Harrison R	H-Chehalis River H	10 (7.9%)	0
		R-Nicola R	H-Spius Creek H	1 (0.8%)	0
	Georgia Strait (2.4%)	R-Capilano R	H-Capilano River H	3 (2.4%)	0
Washington	Northern Washington (4.7%)	Friday Cr 03.0017	Samish Hatchery	2 (1.6%)	2
		Skookum Cr 01.0273	Skookum Cr Hatchery	1 (0.8%)	0
		East Sound Bay (San)	Glenwood Springs	2 (1.6%)	0
		Kendall Cr 01.0406	Kendall Cr Hatchery	1 (0.8%)	0
	Strait of Juan De Fuca (4.7%)	Elwha R 18.0272	Elwha Hatchery	5 (3.9%)	0
		Hoko R 19.0148	Hoko Falls Hatchery	1 (0.8%)	0
	Hood Canal (5.5%)	Purdy Cr 16.0005	George Adams Hatchery	2 (1.6%)	2
		Finch Cr 16.0222	Hoodsport Hatchery	5 (3.9%)	0
	Northern Puget Sound (7.1%)	Stillaguamish R -Sf	Brenner Hatchery	1 (0.8%)	0
		Tulalip Cr 07.0001	Bernie Gobin Hatch	2 (1.6%)	0
		Whitehorse Springs	Whitehorse Pond	1 (0.8%)	0
		Wallace R 07.0940	Wallace R Hatchery	5 (3.9%)	4
	Skagit River (3.9%)	Co Line Slu 03.1853A	Marblemount Hatchery	3 (2.4%)	0
		Cascade R 03.1411	Marblemount Hatchery	2 (1.6%)	0
	Mid Puget Sound (15%)	Issaquah Cr 08.0178	Issaquah Hatchery	2 (1.6%)	0
		Grovers Cr Hatchery	Grovers Cr Hatchery	4 (3.1%)	4
		Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	2 (1.6%)	0
		Big Soos Cr 09.0072	Soos Creek Hatchery	5 (3.9%)	4
		Clarks Crk Hatchery	Clarks Crk Hatchery	1 (0.8%)	0
		Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	3 (2.4%)	0
	Southern Puget Sound (11.8%)	Voight Cr 10.0414	Voights Cr Hatchery	2 (1.6%)	0
		Clear Cr 11.0013C	Clear Creek Hatchery	1 (0.8%)	1
		Deschutes R 13.0028	Tumwater Falls Hatchery	5 (3.9%)	0
		Minter Cr 15.0048	Minter Cr Hatchery	6 (4.7%)	0
Kalama Cr 11.0017		Kalama Cr Hatchery	1 (0.8%)	0	
Columbia River	Columbia River General Region (0.8%)	Columbia R - General	Wells Hatchery	1 (0.8%)	0
	Upper Columbia R (above McNary Dam; excludes Snake River) (3.9%)	Chelan R 47.0052	Chelan Falls Hatchery	1 (0.8%)	0
		Similkameen R 490325	Similkameen Hatchery	1 (0.8%)	0
		Col R at Priest Rapids	Priest Rapids Hatchery	2 (1.6%)	2
		Methow R 48.0007	Na	1 (0.8%)	0
Spring Cr 29.0159	Spring Cr Nfh	Spring Cr Nfh	4 (3.1%)	4	

	Central Columbia River (Bonneville Dam to McNary Dam) (3.9%)	Umatilla R	Bonneville Hatchery	1 (0.8%)	0
	Lower Columbia River (mouth to Bonneville Dam) (5.5%)	Tanner Cr (Bnville)	Bonneville Hatchery	1 (0.8%)	0
		Big Cr (Lwr Col R)	Big Cr Hatchery	2 (1.6%)	0
		Willamette R M Fk-1	Dexter Ponds (Willam	1 (0.8%)	0
		Washougal R 28.0159	Washougal Hatchery	1 (0.8%)	0
		Santiam R & N Fk-1	Minto Ponds (N Santiam R)	1 (0.8%)	0
		Youngs R & Bay	Cedc Net Pens	1 (0.8%)	0
	Snake River (6.3%)	Big Canyon Accl Pond	Lyons Ferry Hatchery	1 (0.8%)	0
		Snake R at Pittsburg L	Lyons Ferry Hatchery	1 (0.8%)	0
		Snake R-1 (Hells Can	Irrigon Hatchery	2 (1.6%)	0
		Lyons Ferry Rel.Site	Lyons Ferry Hatchery	3 (2.4%)	0
		Captain Johns Pd	Lyons Ferry Hatchery	1 (0.8%)	0
Oregon	Southern Oregon Coast (0.8%)	Elk R	Elk R Hatchery	1 (0.8%)	0
California	Central California Coast (0.8%)	Mare Island Net Pen	Feather R Hatchery	1 (0.8%)	0
Total				127	23

Table 1.14 Season-total estimates of Chinook salmon encounters by size/mark-status and total estimates of angler effort, summarized for all seasons to date of the Marine Area 5 summer Chinook MSF. Values may not add up exactly due to rounding error.

Season Dates	Effort (Angler-trips)	Retained Chinook				Released Chinook				Total Encounters
		LM	LU	SM	SU	LM	LU	SM	SU	
Jul 5 - Aug 3, 2003	19,398	2,251	53	225	0	336	3,435	1,656	5,174	13,131
Jul 1 - Aug 10, 2004	25,174	2,706	0	194	0	404	4,017	1,167	2,462	10,950
Jul 1 - Aug 10, 2005	30,115	1,520	23	100	26	227	1,418	1,210	1,459	5,984
Jul 1 - Aug 14, 18-21, 2006	23,177	3,105	10	196	7	464	3,125	1,010	2,212	10,129
Jul 1 - Aug 9, 2007	18,830	2,969	23	280	94	444	2,509	1,371	1,118	8,808
Jul 1 - Aug 10, 2008	13,004	2,773	0	45	0	414	1,869	65	330	5,496
Jul 1 - Aug 6, 2009	23,662	4,843	78	1,115	362	724	6,210	9,823	14,309	37,463
Jul 1 - Aug 15, 2010	16,806	5,461	14	242	0	816	4,961	3,163	4,140	18,796
Jul 1 - Aug 15, 2011	24,848	4,259	70	276	22	636	9,275	1,593	5,319	21,450
Jul 1 - Aug 15, 2012	21,074	5,437	9	242	9	812	4,617	3,105	4,765	18,996
Jul 1 - Aug 15, 2013	25,725	7,473	77	933	81	1,117	7,188	8,173	8,702	33,743
Jul 1 - Aug 15, 2014	23,310	4,684	41	401	8	700	3,005	3,707	7,359	19,905
Jul 1 - Aug 15, 2015	21,313	4,434	35	316	17	663	7,562	14,302	8,445	35,774
Jul 1 - Aug 15, 2016	14,684	3,113	2	230	0	465	1,248	14,903	6,122	26,083
Jul 1 - Aug 15, 2017	17,144	2,202	2	107	4	329	1,601	8,542	4,341	17,129
Jul 1 - Aug 15, 2018	13,967	3,630	0	208	0	542	2,562	9,437	4,264	20,645
Jul 1 - Aug 15, 2019	16,768	4,401	7	157	1	658	3,124	4,299	3,251	15,897
Jul 1 - Jul 30, 2020	15,490	3,449	31	169	0	515	3,350	4,567	3,686	15,767
Jul 1, - Jul 18, 2021	10,157	3,414	45	458	30	510	2,219	2,696	2,952	12,324
Jul 1 - Aug 15, 2022	13,084	3,647	9	289	0	545	3,921	26,174	6,026	40,611
Jul 1 - Aug 15, 2023	13,971	3,377	38	113	13	504	3,027	10,918	2,643	20,633
Jul 1 - Jul 31, 2024	10,793	2,720	8	136	0	406	3,275	10,494	2,658	19,698

2) Marine Area 6 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a Chinook MSF in the sub-area of Marine Area 6 west of Ediz Hook from July 1 through August 15, 2024. WDFW's Puget Sound Sampling Unit (PSSU) implemented an intensive monitoring program, using a Full Murthy aerial design, in this sub area of Marine Area 6 throughout the season to collect the data needed to estimate key parameters characterizing the fishery and its impacts on unmarked salmon. Sampling activities included intensive dockside creel sampling, aerial surveys, test fishing and collection of voluntary salmon trip reports (STRs) from the angling public when possible. The fishery control for this Area was based on the preseason prediction of total legal-sized Chinook salmon encountered. **Table 2.1** summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). The fishery control for this area was based on the preseason Fishery Regulation Assessment Model (FRAM) prediction of 11,173 total legal-sized Chinook salmon encounters (**Table 2.4**). In this section we present results from our monitoring activities during the Marine Area 6 summer Chinook MSF.

Table 2.1 Sampling/estimation details on target parameters associated with the overall Marine Area 6 summer mark-selective fishery monitoring program1.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Creel Sampling	Fishing effort (boat & angler trips); kept and released fish	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release	One week.	Creel estimates were produced for two-week estimation periods and stratified into “weekday” (Mon.-Thurs.) and “weekend” (Fri.-Sun.) day-type strata within weeks. For the weekday stratum we sampled $n=2$ days out of $N=4$ available weekdays per one-week period. For the weekend stratum we sampled $n=3$ days out of $N=3$ available weekend days per week.
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data were not used for estimation of Chinook encounters for this fishery (Table 2.8).
Aerial Surveys	Fraction of Marine Area 6 effort (boats) captured in the four-site sample frame via creel surveys (Sample Fraction, f_{ij}).	Total boat counts at assumed peak effort time interval (instantaneous count); spatial distribution of fishing boats in the area.	Boats	Season	The sample fraction was calculated for individual aerial survey dates (see Table 2.11). A total of 9 aerial surveys (4 weekday and 5 weekend) were conducted during the 46-day fishery. The season-wide sample fraction was calculated as the average sample fraction over the 9 individual surveys.
Test Fishing	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook	Chinook length, age, and DNA-based ² stock composition; species composition of non-Chinook encounters	Fish encounter	Season	Test fishing collected data when the fishery was open to Chinook retention. These data were used for estimating encounters and mortalities during this fishery. LM = 49%; LU = 16%; SM = 31%; SU = 4% (Table 2.12). Test fishing CV = 0.11.
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook	Encounter data for non-Chinook species (e.g., Coho) that the angler may record on the STR form	Fish encounter	Season	15 STRs were received during this fishery (Table 2.9). Because TF data met sample size requirements of $CV < 0.20$, STRs were not needed to produce encounter and mortality estimates.
Overall Fishery Impacts Estimation	Total Chinook encounters and mortalities, by size/mark-status group	Ratios of encounters and mortalities per kept Chinook	N/A	Season	Estimated on a monthly time step but considered at the season-total level.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	The temporal resolution of DIT impacts is constrained by the total number of tags recovered.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 2.2 Estimates of total fishing effort and total salmon catch (harvest and releases) during the summer Chinook MSF in Marine Area 6. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Month	Stat Week	Start Date	End Date	Est. Effort		Est. Retained Chinook		Est. Released Chinook		Total Est. Chinook Encounters
				Boats	Anglers	AD	UM	AD	UM	
July	27	1-Jul	7-Jul	1,128	2,580	1,449	5	1,225	653	3,333
	28	8-Jul	14-Jul	986	2,090	825	5	698	370	1,898
	29	15-Jul	21-Jul	880	1,803	1,022	3	865	461	2,352
	30	22-Jul	28-Jul	751	1,529	857	2	725	388	1,972
	31	29-Jul	4-Aug	904	1,807	964	3	815	435	2,218
August	32	5-Aug	11-Aug	791	1,623	750	0	635	341	1,726
	33	12-Aug	15-Aug	424	828	380	0	322	173	875
Season Total:				5,865	12,261	6,248	19	5,285	2,823	14,375
Variance:				125,839	499,262	122,035	13	2,307,783	495,332	3,194,707
SE:				355	707	349	4	1,519	704	1,787
CV (%):				6	6	6	19	29	25	12
95% CI:				5,170 - 6,560	10,876 - 13,646	5,563 - 6,933	12 - 26	2,308 - 8,263	1,443 - 4,202	10,871 - 17,878

Table 2.3 Number of total length samples collected from retained Chinook salmon collected during dockside angler interviews in the summer Chinook MSF in Marine Area 6.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	2,261	52	2,313
Unmarked	9	0	9
Total	2,270	52	2,322

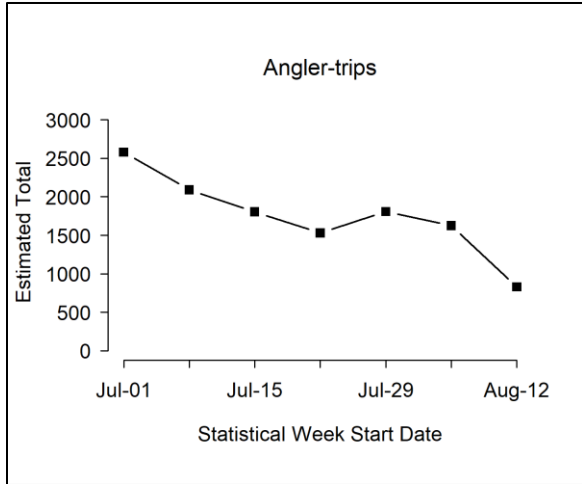


Figure 2.1 Temporal patterns in fishing effort during the summer Chinook MSF in Marine Area 6.

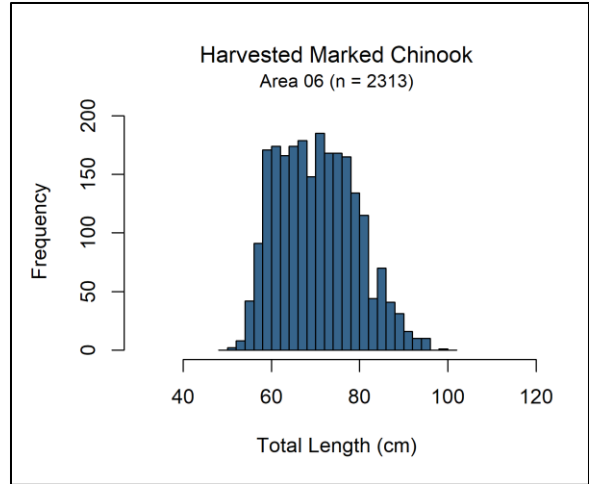


Figure 2.3 Length-frequency distribution of retained marked Chinook sampled in dockside angler interviews during the summer Chinook MSF in Marine Area 6. Note: displayed values are observations where lengths are taken.

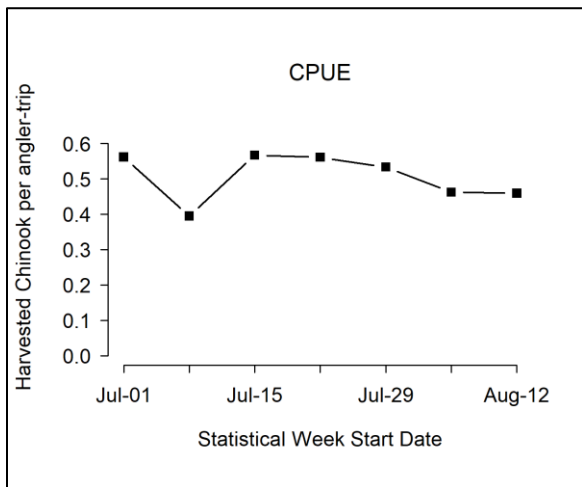


Figure 2.2 Temporal patterns in CPUE (landed Chinook per angler trip) during the summer Chinook MSF in Marine Area 6.

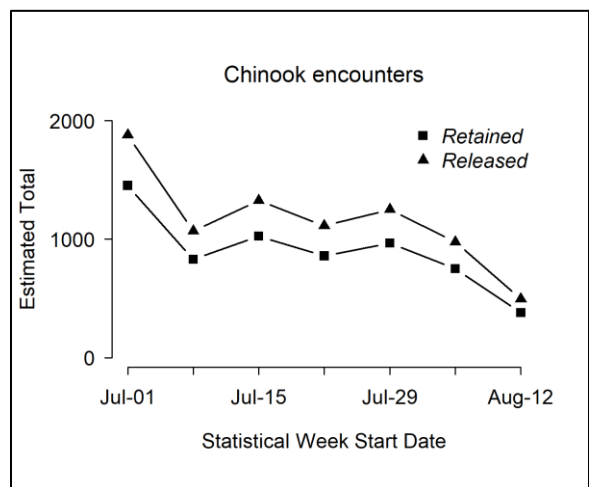


Figure 2.4 Comparison of modeled and estimated total Chinook salmon encounters for the summer Chinook MSF in Marine Area 6. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Table 2.4 Comparison of modeled and estimated total Chinook salmon encounters for the summer Chinook MSF in Marine Area 6. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Data Source	Group	Total Encounters	Legal	Sublegal	Landed Only
FRAM Encounters	UM	5,477	2,863	2,614	29
	AD	15,571	8,310	7,261	7,229
	Total	21,048	11,173	9,875	7,258
	% Marked	74	74	74	100
Estimated (Creel) Encounters	UM	2,842	2,340	501	19
	AD	11,533	7,020	4,513	6,248
	Total	14,375	9,360	5,014	6,267
	% Marked	80	75	90	100

Table 2.5 Summary of season-wide fishery impact estimates for the summer Chinook MSF in Marine Area 6. Release mortality rate = 0.15 for legal fish and 0.20 for sublegal fish. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Size/mark group	Encounters	Retained	Released	Release Mortality	Total Mortality	Var	SE	95% CI	CV (%)
Legal AD	7,020	6,108	913	137	6,244	150,211	388	5,485 - 7,004	6
Legal UM	2,340	19	2,321	348	367	9,257	96	179 - 556	26
Sublegal AD	4,513	140	4,373	875	1,015	33,665	183	655 - 1,375	18
Sublegal UM	501	0	501	100	100	3,379	58	0 - 214	58
Total	14,375	6,267	8,108	1,460	7,727	196,512	443	6,858 - 8,596	6

Table 2.6 Comparison of modeled and estimated total Chinook salmon mortalities for the summer Chinook MSF in Marine Area 6. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Mortality Category	FRAM Chinook Mortalities			Estimated Chinook Mortalities		
	UM	AD	Total	UM	AD	Total
Total (Landed + Released)	978	9,205	10,183	467	7,259	7,727
Released Legal	426	524	950	348	137	485
Released Sublegal	523	1,452	1,975	100	875	975
Landed Only	29	7,229	7,258	19	6,248	6,267

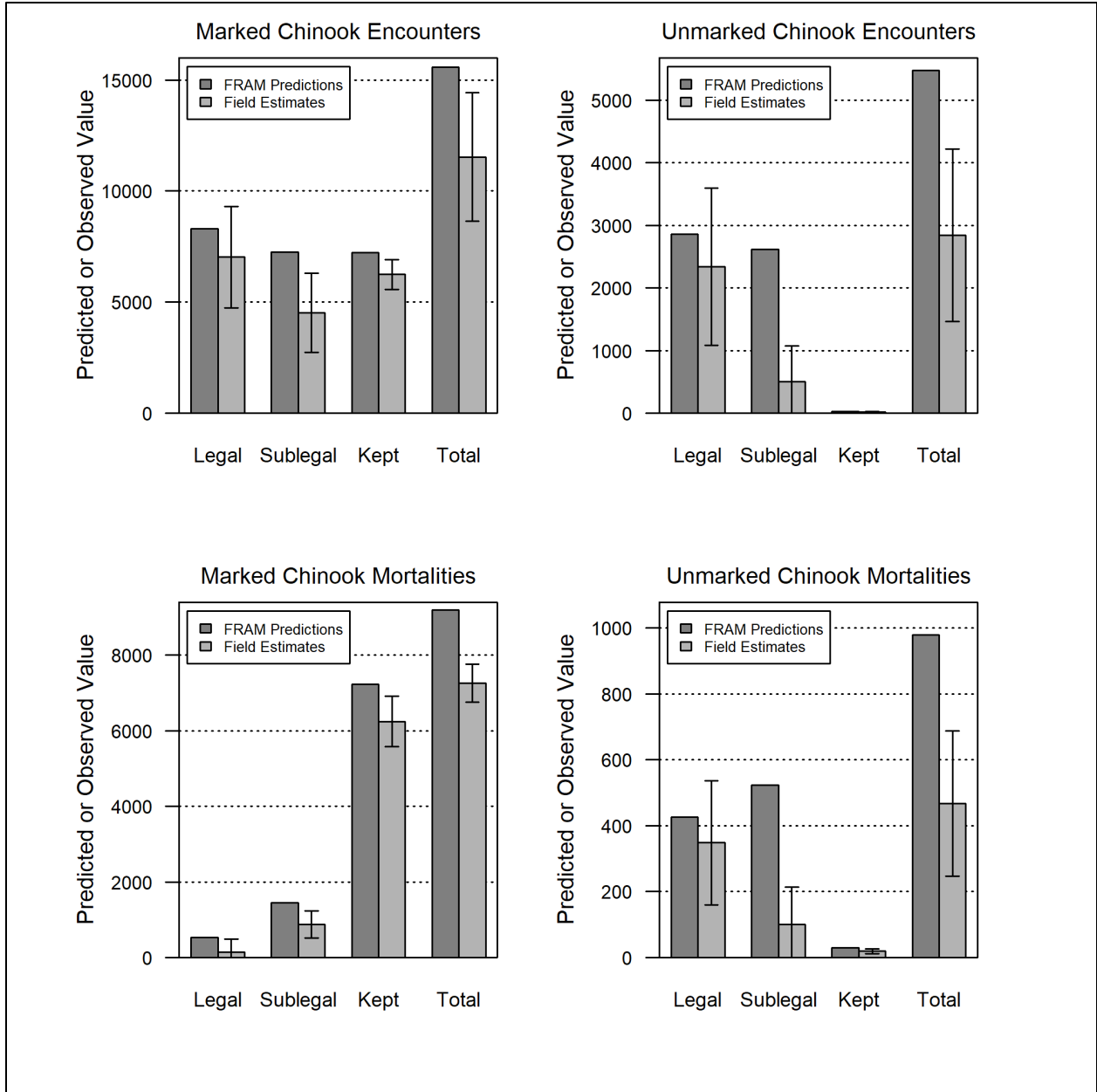


Figure 2.5 Comparison of modeled and estimated total Chinook salmon encounters and mortalities for the summer Chinook MSF in Marine Area 6. Error bars represent approximately 95% confidence intervals for field estimates.

Table 2.7 Monthly sample rates (Total retained Chinook sampled¹ / Estimated retained Chinook) for the summer Chinook MSF in Marine Area 6. AD = marked (adipose-clipped), UM = unmarked.

Time period			Estimated Retained Chinook			Number of Chinook sampled			Sample Rate
Month	Stat Weeks	Dates	AD	UM	Total	AD	UM	Total	
July	27 - 30	01 Jul - 28 Jul	4,153	16	4,169	1,654	8	1,662	39.90%
August	31 - 33	29 Jul - 15 Aug	2,095	3	2,098	816	1	817	38.90%
Season Total			6,248	19	6,267	2,470	9	2,479	39.60%

¹ Number of retained Chinook salmon sampled includes all retained Chinook salmon inspected for CWTs, from all sites sampled during the summer Chinook MSF in Marine Area 6 (creel estimates and fish sampled as part of baseline sampling).

Table 2.8 Dockside encounters (retained and released) by size-mark category during the summer Chinook salmon MSF in Marine Area 6. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Dockside Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	2,309	754	739	207
Bias-corrected size/mark composition	51.26%	18.81%	18.43%	11.50%
Variance	0.000125	0.000064	0.000092	0.000025

Table 2.9 Total Chinook salmon encountered (retained and released) by private-boat anglers logging their trips on STRs during the 2024 summer Chinook salmon MSF in Marine Area 6, with estimates of legal-size and overall (legal and sublegal) mark rates. AD = marked (adipose-clipped), UM = unmarked. Variances associated with size/mark-status proportions and mark rates are provided in parentheses.

Data Source	Effort and Sample Size	Legal		Sublegal		Totals	Mark Rate	
		AD	UM	AD	UM		Overall	Legal
Private STR	15 1-trip STRs	18	11	23	12	64	0.64	0.62
Size/mark-status composition:		0.28	0.17	0.36	0.19			
Variance:		(0.0032)	(0.0023)	(0.0037)	(0.0024)			

Table 2.10 Fishery-total estimates of retained and released salmon (other than Chinook) for the summer Chinook MSF in Marine Area 6. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Start Date	End Date	Retained Salmon			Released Salmon				
			Coho AD	Coho UM	Coho UK	Coho AD	Coho UM	Coho UK	Pink	Unknown
27	1-Jul	7-Jul	18	0	7	3	38	11	0	50
28	8-Jul	14-Jul	60	0	0	17	43	14	3	26
29	15-Jul	21-Jul	19	2	0	5	12	3	3	144
30	22-Jul	28-Jul	5	0	0	8	13	7	0	34
31	29-Jul	4-Aug	2	0	0	12	9	0	0	71
32	5-Aug	11-Aug	19	0	0	0	19	5	0	24
33	12-Aug	15-Aug	77	3	0	7	30	13	0	17
Season Total:			200	5	7	53	164	53	7	365
Variance:			924	6	0	51	376	54	12	2,061
Standard Error:			30	2	1	7	19	7	4	45
CV (%):			15	48	10	13	12	14	51	12
95% CI:			140 - 259	0 - 10	5 - 8	39 - 67	126 - 202	39 - 68	0 - 14	276 - 454

Table 2.11 Summary of aerial survey and dockside data used to estimate the fraction of effort captured in the three-site sample frame during the summer Chinook salmon MSF in Marine Area 6. See Methods Report (WDFW 2012a) for computational details and notation.

Survey Date	Stratum	Aerial Survey Details			Dockside Sampling Details			Sample Fraction, f_{ij}
		Start Time	End Time	Total Boats, m_{ij}	Sampled Boats	Active Boats, X_{ij}	Total Boats, S_{yjk}	
1-Jul	WE	10:15	10:45	62	71	26	169	0.419
8-Jul	WE	12:07	12:30	133	122	73	222	0.549
15-Jul	WE	10:15	10:33	215	170	118	310	0.549
20-Jul	WD	10:46	11:06	29	45	24	54	0.828
22-Jul	WE	12:22	12:43	95	93	67	132	0.705
23-Jul	WE	12:03	12:24	113	87	63	156	0.558
27-Jul	WD	10:02	10:25	106	85	58	155	0.547
1-Aug	WD	11:39	12:02	61	86	37	142	0.607
Season Totals:				814	767	467	1,341	
Mean:				90	85	52	149	0.60
St Dev:				63	45	34	89	0.12
CV (%):				69.63%	53.11%	66.29%	59.67%	20.60%

Table 2.12 Composition of test fishery Chinook salmon encounters and associated mark-rate and size/mark-status proportion estimates for the summer Chinook salmon MSF in Marine Area 6. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Fishing Effort		Legal		Sublegal		Total
	Days	Hours Fished	AD	UM	AD	UM	
28	6	46.58	14	2	9	0	25
30	4	29.72	6	0	5	0	11
31	9	69.35	12	3	3	0	18
32	1	5.58	0	4	2	1	7
33	5	35.80	6	2	6	1	15
34	4	31.96	4	3	2	1	10
Total	29	219.00	42	14	27	3	86
Size/mark-status composition:			0.49	0.16	0.31	0.03	
Variance:			(0.0029)	(0.0016)	(0.0025)	(0.0004)	
Legal size mark rate:			0.75				
Overall mark rate:			0.80				

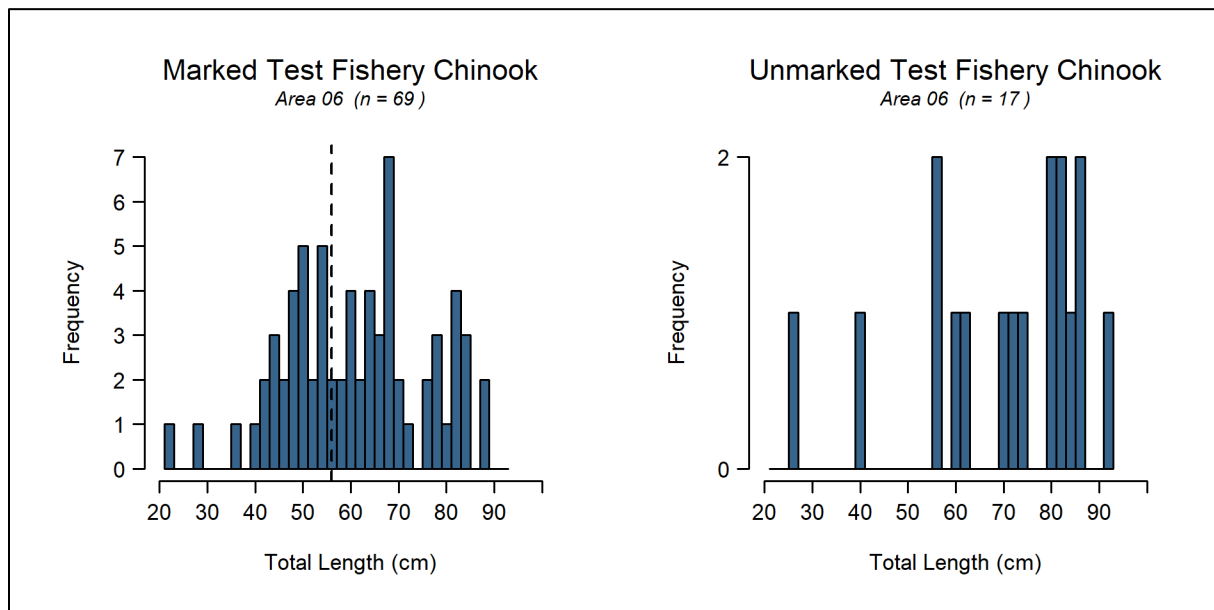


Figure 2.6 Length-frequency distributions of marked (*left panel*) and unmarked (*right panel*) Chinook salmon encountered by test fishers during the summer Chinook salmon MSF in Marine Area 6. The vertical dashed line in the left panel corresponds to the legal-size limit (22 in or 56 cm).

Table 2.13 Season-total estimates of Chinook salmon encounters by size/mark-status and total estimates of angler effort, summarized for all seasons to date of the Marine Area 6 summer Chinook MSF. Values may not add up exactly due to rounding error.

Area	Season Dates	Effort (Angler-trips)	Retained Chinook				Released Chinook				Total Encounters
			LM	LU	SM	SU	LM	LU	SM	SU	
6	Jul 1 - Aug 3, 2021	8,863	4,968	11	90	28	742	1,920	3,888	1278	12,926
6	Jul 1 - Jul 30, 2022	9,066	4,654	2	136	0	695	8,915	26,018	8,024	48,444
6	Jul 1 - Aug 15, 2023	11,636	5,255	15	154	4.3	785	3,571	6,642	3,393	19,821
6	Jul 1 - Aug 15, 2024	12,261	6,108	19	140	0	913	2,321	4,373	501	14,375

3) Marine Area 7 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a summer Chinook MSF in Marine Area 7 as a series of short openers on July 18-20, July 26, August 4, and August 13, 2024. WDFW’s Puget Sound Sampling Unit (PSSU) implemented an intensive monitoring program, using a Full Murthy aerial design in Marine Area 7 throughout the season to collect the data needed to estimate key parameters characterizing the fishery and its impacts on unmarked salmon. Sampling activities included intensive dockside creel sampling, aerial surveys, test fishing and collection of voluntary salmon trip reports (STRs) from the angling public when possible. The fisheries controls used for this fishery were total predicted catch quota (2,181), total unmarked encounters (3,845) and total sublegal encounters (2,141) (**Table 3.5**). **Table 3.2** summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). In this section we present results from our monitoring activities during the Marine Area 7 summer Chinook MSF.

Table 3.1 Fishery dates and fishery retention status of salmon in the 2024 summer Chinook salmon MSF in Marine Area 7.

Start Date	End Date	Fishery Status	Days
18-Jul	20-Jul	Open	3
21-Jul	25-Jul	Closed	5
26-Jul	26-Jul	Open	1
27-Jul	3-Aug	Closed	8
4-Aug	4-Aug	Open	1
5-Aug	12-Aug	Closed	8
13-Aug	13-Aug	Open	1
Total days open			6

Table 3.2 Sampling/estimation details on target parameters associated with the overall Marine Area 7 Chinook MSF monitoring program.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Creel Sampling	Fishing effort (boat & angler trips); kept and released fish	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release	One week.	Within days, estimates were produced by day-type strata (weekday/weekend). Each week we sampled every Friday, Saturday, and Sunday, and we randomly selected $n=2$ out of $N=4$ weekdays (Monday-Thursday) for sampling.
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data were not used for estimation of Chinook encounters for this fishery (Table 3.9).
Aerial Surveys	Fraction of Marine Area 7 effort (boats) captured in the four-site sample frame via creel surveys (Sample Fraction, f_{ij}).	Total boat counts at assumed peak effort time interval (instantaneous count); spatial distribution of fishing boats in the area.	Boats	Season	The sample fraction was calculated for individual aerial survey dates (see Table 3.11 , $n=3$ surveys conducted out of $N=6$ days available in the season). Season-wide sample fraction was calculated as the average sample fraction over the 3 individual aerial surveys.
Test Fishing	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook	Chinook length, age, and DNA-based ² stock composition; species composition of non-Chinook encounters	Fish encounter	Season	Test fishing data collected when the fishery was open to Chinook retention (Table 3.12) were used for the estimate of encounters and mortalities during this fishery. LM = 50%; LU = 26%; SM = 19%; SU = 5%. Test fishing CV = 0.17.
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook	Encounter data for non-Chinook species (e.g., Coho) that the angler may record on the STR form	Fish encounter	Season	Two STRs were returned during this fishery. Because TF data met sample size requirements of $CV < 0.20$, STRs were not needed to produce encounter and mortality estimates (Table 3.10).
Overall Fishery Impacts Estimation	Total Chinook encounters and mortalities, by size/mark-status group	Ratios of encounters and mortalities per kept Chinook	N/A	Season	Estimated on a monthly time step but considered at the season-total level.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	The temporal resolution of DIT impacts is constrained by the total number of tags recovered.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 3.3 Estimates of total fishing effort and total salmon catch (harvest and releases) during the summer Chinook MSF in Marine Area 7. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Month	Stat Week	Start Date	End Date	Est. Effort		Est. Retained Chinook		Est. Released Chinook		Total Est. Chinook Encounters
				Boats	Anglers	AD	UM	AD	UM	
July	29	18-Jul	20-Jul	1,726	4,285	1,353	7	757	943	3,059
	30	26-Jul	26-Jul	582	1,361	378	3	211	262	855
	31	1-Aug	4-Aug	921	2,253	257	0	144	180	581
Aug	32	5-Aug	11-Aug	572	1,363	7	0	4	5	16
	33	12-Aug	13-Aug	330	754	183	0	102	128	413
Season Total:				4,130	10,016	2,178	10	1,218	1,518	4,923
Variance:				61,182	368,220	19,495	1	337,323	136,731	525,519
SE:				247	607	140	1	581	370	725
CV (%):				6	6	6	9	48	24	15
95% CI:				3,645 - 4,615	8,827 - 11,205	1,904 - 2,451	8 - 12	79 - 2,356	793 - 2,243	3,503 - 6,344

Table 3.4 Number of total length samples collected from retained Chinook salmon collected during dockside angler interviews in the summer Chinook MSF in Marine Area 7.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	656	11	667
Unmarked	3	0	3
Total	659	11	670

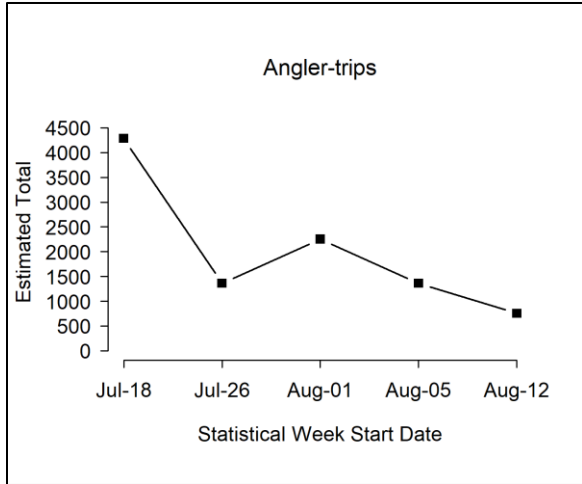


Figure 3.1 Temporal patterns in fishing effort during the summer Chinook MSF in Marine Area 7.

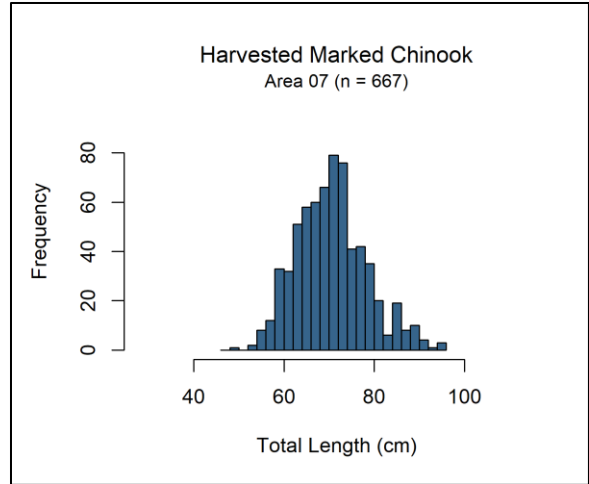


Figure 3.3 Length-frequency distribution of retained marked Chinook sampled in dockside angler interviews during the summer Chinook MSF in Marine Area 7. Note: displayed values are observations where lengths are taken.

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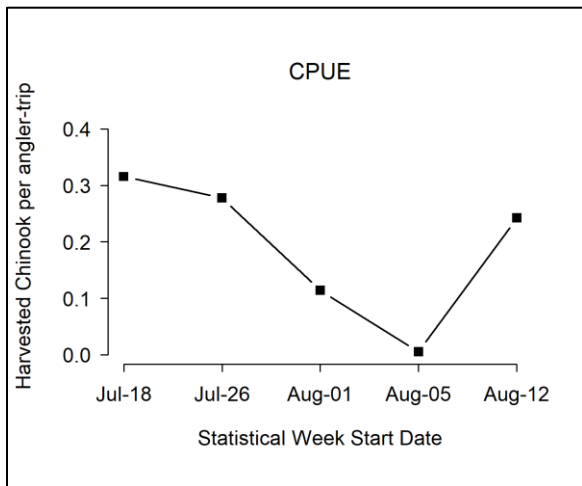


Figure 3.2 Temporal patterns in CPUE (landed Chinook per angler trip) during the summer Chinook MSF in Marine Area 7.

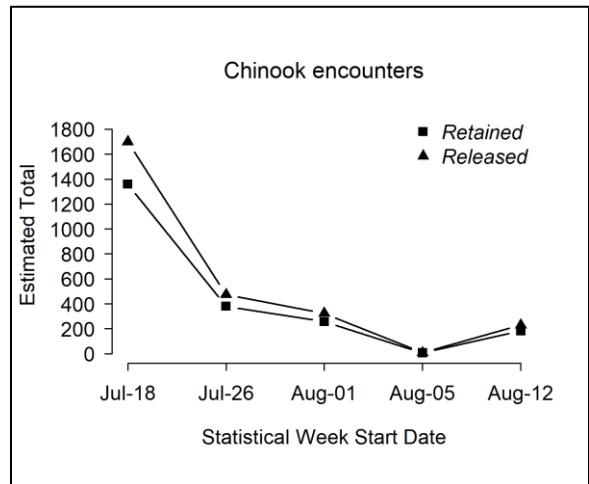


Figure 3.4 Temporal patterns in Chinook salmon encounters (retained and released) during the summer Chinook MSF in Marine Area 7.

Table 3.5 Comparison of modeled and estimated total Chinook salmon encounters for the summer Chinook MSF in Marine Area 7. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Data Source	Group	Total Encounters	Legal	Sublegal	Landed Only
FRAM Encounters	UM	3,845	2,976	869	30
	AD	3,745	2,473	1,272	2,151
	Total	7,590	5,449	2,141	2,181
	% Marked	49	45	59	98.6
Estimated (Creel) Encounters	UM	1,528	1,273	255	10
	AD	3,395	2,462	934	2,178
	Total	4,923	3,735	1,188	2,187
	% Marked	69	66	79	100

Table 3.6 Summary of season-wide fishery impact estimates for the summer Chinook MSF in Marine Area 7. Release mortality rate = 0.15 for legal fish and 0.20 for sublegal fish. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Size/mark group	Encounters	Retained	Released	Release Mortality	Total Mortality	Var	SE	95% CI	CV (%)
Legal AD	2,462	2,142	320	48	2,190	24,695	157	1,882 - 2,498	7%
Legal UM	1,273	10	1,263	190	199	2,586	51	100 - 299	26%
Sublegal AD	934	36	898	180	215	3,439	59	101 - 330	27%
Sublegal UM	255	0	255	51	51	872	30	0 - 109	58%
Total	4,923	2,187	2,736	468	2,655	31,593	178	2,307 - 3,004	7%

Table 3.7 Comparison of modeled and estimated total Chinook salmon mortalities for the summer Chinook MSF in Marine Area 7. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Mortality Category	FRAM Chinook Mortalities			Estimated Chinook Mortalities		
	UM	AD	Total	UM	AD	Total
Total (Landed + Released)	647	2,561	3,208	250	2,405	2,655
Released Legal	443	156	599	190	48	238
Released Sublegal	174	254	428	51	180	230
Landed Only	30	2,151	2,181	10	2,178	2,187

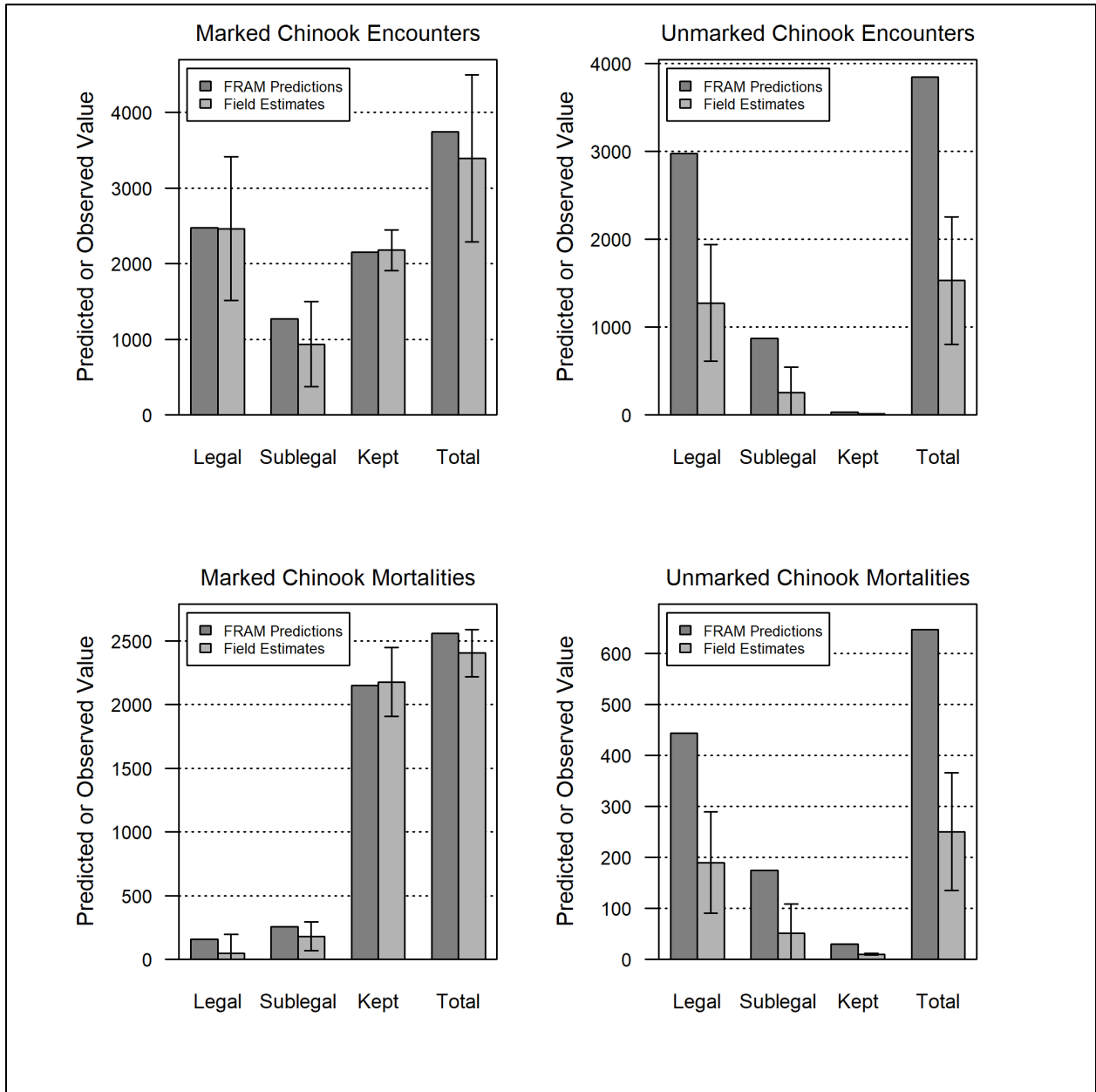


Figure 3.5 Comparison of modeled and estimated total Chinook salmon encounters and mortalities for the summer Chinook MSF in Marine Area 7. Error bars represent approximately 95% confidence intervals for field estimates.

Table 3.8 Monthly sample rates (Total retained Chinook sampled¹ / Estimated retained Chinook) for the summer Chinook MSF in Marine Area 7. AD = marked (adipose-clipped), UM = unmarked.

Time period			Estimated Retained Chinook			Number of Chinook sampled			Sample Rate
Month	Stat Weeks	Dates	AD	UM	Total	AD	UM	Total	
7	29 - 30	18 Jul - 26 Jul	1,731	10	1,741	414	3	417	24.00%
8	31 - 33	1 Aug - 13 Aug	447	0	447	80	0	80	17.90%
Season Total			2,178	10	2,187	494	3	497	22.70%

¹ Number of retained Chinook salmon sampled includes all retained Chinook salmon inspected for CWTs, from all sites sampled during the summer Chinook MSF in Marine Area 7 (creel estimates and fish sampled as part of baseline sampling).

Table 3.9 Dockside encounters (retained and released) by size-mark category during the summer Chinook salmon MSF in Marine Area 7. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Dockside Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	711	281	121	91
Bias-corrected size/mark composition	52.56%	23.34%	10.05%	14.05%
Variance	0.00038	0.00031	0.00015	0.00011

Table 3.10 Total Chinook salmon encountered (retained and released) by private-boat anglers logging their trips on STRs during the 2024 summer Chinook salmon MSF in Marine Area 7, with estimates of legal-size and overall (legal and sublegal) mark rates. AD = marked (adipose-clipped), UM = unmarked. Variances associated with size/mark-status proportions and mark rates are provided in parentheses.

Data Source	Effort and Sample Size	Legal		Sublegal		Totals	Mark Rate	
		AD	UM	AD	UM		Overall	Legal
Private STR	2 1-trip STRs	4	0	0	0	4	1	1
Size/mark-status composition:		1.00	0.00	0.00	0.00			
Variance:		(0.0000)	(0.0000)	(0.0000)	(0.0000)			

Table 3.10 Fishery-total estimates of retained and released salmon (other than Chinook) for the summer Chinook MSF in Marine Area 7. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Start Date	End Date	Retained Salmon					Released Salmon						
			Coho AD	Coho UM	Coho UK	Pink	Unknown	Coho AD	Coho UM	Coho UK	Chum	Pink	Sockeye	Unknown
29	18-Jul	20-Jul	470	0	0	0	3	23	488	36	16	3	3	152
30	26-Jul	26-Jul	89	0	0	0	0	23	201	3	0	0	0	16
31	1-Aug	4-Aug	158	8	3	0	3	7	169	7	0	0	0	91
32	5-Aug	11-Aug	295	7	31	12	0	0	724	0	0	0	0	120
33	12-Aug	13-Aug	98	0	0	0	0	23	121	0	0	0	0	20
Season Total:			1,109	15	34	12	7	75	1,702	46	16	3	3	399
Variance:			6,631	20	63	28	0	32	29,078	22	6	0	0	2,648
Standard Error:			81	4	8	5	1	6	171	5	2	0	0	51
CV (%):			7	30	23	43	11	8	10	10	15	15	15	13
95% CI:			950 - 1,269	6 - 23	19 - 50	2 - 23	5 - 8	64 - 87	1,368 - 2,036	37 - 55	11 - 21	2 - 4	2 - 4	298 - 500

Table 3.11 Summary of aerial survey and dockside data used to estimate the fraction of effort captured in the three-site sample frame during the summer Chinook salmon MSF in Marine Area 7. See Methods Report (WDFW 2012a) for computational details and notation.

Survey Date	Stratum	Aerial Survey Details			Dockside Sampling Details			Sample Fraction, f_{ij}
		Start Time	End Time	Total Boats, m_{ij}	Sampled Boats	Active Boats, X_{ij}	Total Boats, S_{yijk}	
18-Jul	WD	12:39	13:35	369	224	121	683	0.328
20-Jul	WE	9:06	9:59	722	280	177	1142	0.245
4-Aug	WE	12:46	13:39	476	243	169	684	0.355
Season Totals:				1,567	747	467	2,510	
Mean:				522	249	156	837	0.309
St Dev:				181	28	30	265	0.057
CV(%):				34.65%	11.44%	19.46%	31.64%	18.50%

Table 3.12 Composition of test fishery Chinook salmon encounters and associated mark-rate and size/mark-status proportion estimates for the summer Chinook salmon MSF in Marine Area 7. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Fishing Effort		Legal		Sublegal		Total
	Days	Hrs Fished	AD	UM	AD	UM	
30	6	56.83	15	10	4	1	30
31	2	18.42	7	2	2	1	12
32	2	17.82	2	1	3	1	7
34	2	18.13	5	2	2	0	9
Total	12	111.19	29	15	11	3	58
Size/mark-status composition:			0.50	0.26	0.19	0.05	
Variance:			(0.0044)	(0.0034)	(0.0027)	(0.0009)	
Legal size mark rate:			0.66				
Overall mark rate:			0.69				

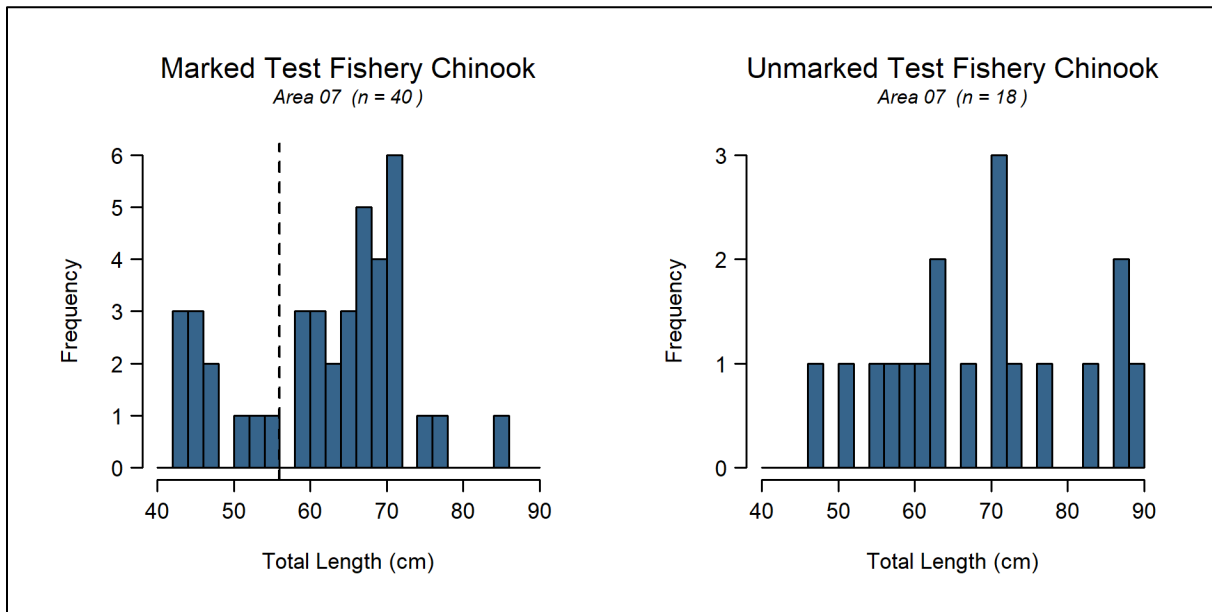


Figure 3.6 Length-frequency distributions of marked (*left panel*) and unmarked (*right panel*) Chinook salmon encountered by test fishers during the summer Chinook salmon MSF in Marine Area 7. The vertical dashed line in the left panel corresponds to the legal-size limit (22 in or 56 cm).

Table 3.13 Summary of double-index tagged (DIT) Chinook salmon kept by anglers and estimated total mortality of unmarked DIT Chinook salmon due to hook-and-release impacts resulting from the summer Chinook MSF in Marine Area 7. AD = marked (adipose-clipped), UM = unmarked.

Hatchery	Brood Year	DITs Obs	Est.AD	var(Est.AD)	UM DIT Enc	Est.UM	var(Est.UM)	SE(Est.UM)
George Adams Hatchery	2021	1	3.3	7.39	3.3	0.3	0.075	0.27
Grovers Cr Hatchery	2021	2	6.5	14.79	6.5	0.7	0.148	0.54
Marblemount Hatchery	2021	1	3.3	7.39	3.3	0.3	0.076	0.28
Samish Hatchery	2020	1	3.3	7.39	3.3	0.3	0.076	0.27
Samish Hatchery	2021	9	29.4	66.55	57	5.7	2.503	4.75
Soos Creek Hatchery	2020	1	3.3	7.39	3.3	0.3	0.076	0.28
Soos Creek Hatchery	2021	1	3.3	7.39	3.5	0.4	0.086	0.29
Wallace R Hatchery	2021	1	3.3	7.39	3.3	0.3	0.076	0.28
Total		17	55.5	125.7	83.6	8.4	3.117	6.96

Table 3.14 Summary of coded-wire tags recovered from Chinook salmon harvested during the 2024 summer Chinook MSF in Marine Area 7. The field “Number DITs” corresponds to the number of tags that belonged to double-index tag groups. Note: Not all tags have been processed before the writing of this report.

Release Domain	Release Region	Release Site	Rearing Location	CWTs Recovered	No. DITs
BC	Fraser River & Thompson River (4.9%)	R-Chilliwack R	H-Chilliwack River H	1 (2.4%)	0
		R-Nicola R	H-Spius Creek H	1 (2.4%)	0
	Georgia Strait (4.9%)	R-Cowichan R	H-Cowichan River H	1 (2.4%)	0
		R-Big Qualicum R	H-Big Qualicum River H	1 (2.4%)	0
WA	Northern Washington (29.3%)	East Sound Bay (San)	Glenwood Springs	1 (2.4%)	0
		Friday Cr 03.0017	Samish Hatchery	10 (24.4%)	10
		Skookum Cr 01.0273	Skookum Cr Hatchery	1 (2.4%)	0
	Hood Canal (2.4%)	Purdy Cr 16.0005	George Adams Hatchery	1 (2.4%)	1
	Northern Puget Sound (4.9%)	Wallace R 07.0940	Wallace R Hatchery	2 (4.9%)	1
	Skagit River (7.3%)	Cascade R 03.1411	Marblemount Hatchery	3 (7.3%)	1
	Mid Puget Sound (29.3%)	Big Soos Cr 09.0072	Soos Creek Hatchery	2 (4.9%)	2
		Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	2 (4.9%)	0
		Clarks Crk Hatchery	Clarks Crk Hatchery	1 (2.4%)	0
		Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	2 (4.9%)	0
		Grovers Cr Hatchery	Grovers Cr Hatchery	2 (4.9%)	2
		Issaquah Cr 08.0178	Issaquah Hatchery	2 (4.9%)	0
		Voight Cr 10.0414	Voights Cr Hatchery	1 (2.4%)	0
	Southern Puget Sound (17.1%)	Deschutes R 13.0028	Tumwater Falls Hatchery	1 (2.4%)	0
		Clear Cr 11.0013C	Clear Creek Hatchery	3 (7.3%)	0
Minter Cr 15.0048		Minter Cr Hatchery	1 (2.4%)	0	
Chambers Cr 12.0007		Garrison Hatchery	1 (2.4%)	0	
Kalama Cr 11.0017		Kalama Cr Hatchery	1 (2.4%)	0	
Total				41	17

Table 3.15 Season-total estimates of Chinook salmon encounters by size/mark-status and total estimates of angler effort, summarized for all seasons to date of the Marine Area 7 summer Chinook MSF. Values may not add up exactly due to rounding error.

Area	Season Dates	Effort (Angler-trips)	Retained Chinook				Released Chinook				Total Encounters
			LM	LU	SM	SU	LM	LU	SM	SU	
7	Jul 1 - Jul 31, 2016	9,553	1,292	0	42	0	193	1,485	1,443	637	5,092
7	Jul 1 - Jul 31, 2017	17,535	3,608	22	7	0	539	2,941	4,140	2,370	13,627
7	Jul 1 - Jul 31, 2018	10,577	2,220	4	71	0	332	1,028	817	359	4,832
7	Jul 1 - Jul 31, 2019	11,738	2,947	10	68	0	440	1,370	559	376	5,771
7	Jul 1 - Jul 31, Aug 22- Aug 31, 2020	20,773	1,532	7	17	0	229	1,053	1,425	681	4,945
7	Jul 1 - Jul 7, 2021	6,716	2,504	0	0	0	374	759	387	593	4,618
7	Jul 14 - Jul 30, 2022	6,436	1,758	3	6	0	263	1,120	443	224	3,816
7	Jul 13 - Jul 29, 2024	6,504	2,054	10	17	0	307	2,351	2,049	590	7,379
7	Jul 18 - Aug 13, 2024	10,016	2,142	10	36	0	320	1,263	898	255	4,923

4) Marine Area 9 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a summer Chinook MSF in Marine Area 9 as a series of short openers on July 18-20, and August 4, 2024. WDFW’s Puget Sound Sampling Unit (PSSU) implemented an intensive monitoring program, a Full Murthy design, in Area 9 throughout the season to collect the data needed to estimate key parameters characterizing the fishery and its impacts on unmarked salmon. Sampling activities included intensive dockside creel sampling, on-the-water effort surveys, test fishing and collection of voluntary salmon trip reports (STRs) from the angling public when possible. The fisheries controls used for this fishery were total predicted catch quota of 3,900 (**Table 4.5**). **Table 4.2** summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). In this section we present results from our monitoring activities during the Marine Area 9 summer Chinook MSF.

Table 4.1 Fishery dates and fishery retention status of salmon in the 2024 summer Chinook salmon MSF in Marine Area 9.

Start Date	End Date	Fishery Status	Days
18-Jul	20-Jul	Open	3
21-Jul	3-Aug	Closed	14
4-Aug	4-Aug	Open	1
Total days open			4

Table 4.2 Sampling/estimation details on target parameters associated with the overall Marine Area 9 summer mark-selective fishery monitoring program.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Creel Sampling	Fishing effort (boat & angler trips); kept and released fish	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release	One week	Within days, estimates were produced by day-type strata (weekday/weekend). Each week we sampled every Friday, Saturday and Sunday, and we randomly selected $n=2$ out of $N=4$ weekdays (Monday-Thursday) for sampling.
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data were not used for estimation of Chinook encounters for this fishery (Table 4.10).
On-the-water Surveys	Proportion of total angler effort that uses sample-frame sites (i.e., site “size measures”) versus out-of-frame sites.	Total on-water boat and angler counts at assumed peak effort time interval (instantaneous count); spatial distribution of recreational fishing boats in the area.	Boats and anglers	Month	A total of 2 boat surveys (2 weekend surveys) were conducted during this fishery.
Test Fishing	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook	Chinook salmon length, age, and DNA-based ² stock composition; species composition of non-Chinook salmon encounters	Fish encounter	Season	Test fishing data collected when the fishery was open to Chinook retention (Table 4.12) were used for estimate of encounters and mortalities during this fishery. LM = 38%; LU% = 20%; SM% = 27%; SU% = 15%.
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook	Encounter data for non-Chinook salmon species (e.g., Coho) that the angler may record on the STR form	Fish encounter	Season	No STRs were returned during this fishery. Test fishing data were used for estimates of encounters and mortalities for this fishery.
Overall Fishery Impacts Estimation	Total Chinook encounters and mortalities, by size/mark-status group	Ratios of encounters and mortalities per kept Chinook	N/A	Season	Estimated on a monthly time step but considered at the season-total level.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	The temporal resolution of DIT impacts is constrained by the total number of tags recovered.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.

² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 4.3 Estimates of total fishing effort and total salmon catch (harvest and releases) during the summer Chinook MSF in Marine Area 9. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Month	Stat Week	Start Date	End Date	Est. Effort		Est. Retained Chinook		Est. Released Chinook		Total Est. Chinook Encounters
				Boats	Anglers	AD	UM	AD	UM	
July	29	18-Jul	20-Jul	2,985	7,269	2,980	21	2,696	2,975	8,671
	31	1-Aug	4-Aug	1,369	3,132	723	0	654	727	2,103
Season Total:				4,354	10,401	3,703	21	3,349	3,701	10,774
Variance:				17,391	128,933	148,451	42	2,078,913	876,159	4,740,548
SE:				132	359	385	6	1,442	936	2,177
CV (%):				3	3	10	31	43	25	20
95% CI:				4,095 - 4,612	9,698 - 11,105	2,948 - 4,458	8 - 33	523 - 6,176	1,867 - 5,536	6,507 - 15,042

Table 4.4 Number of total length samples collected from retained Chinook salmon collected during dockside angler interviews in the summer Chinook MSF in Marine Area 9.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	1,215	42	1,257
Unmarked	6	1	7
Total	1,221	43	1,264

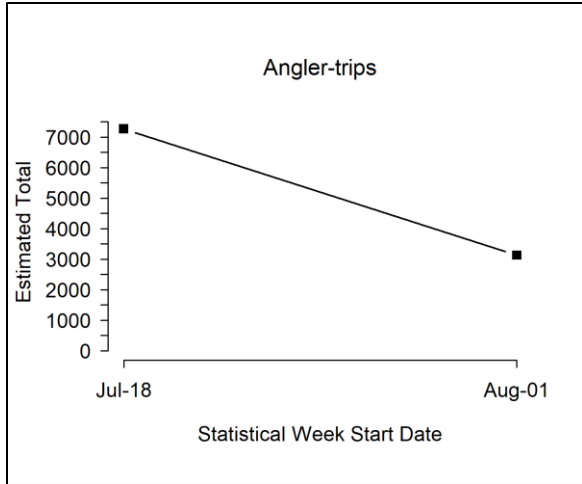


Figure 4.1 Temporal patterns in fishing effort during the summer Chinook MSF in Marine Area 9.

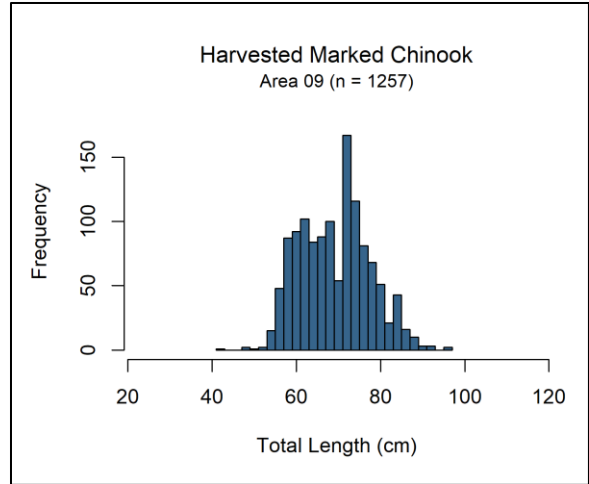


Figure 4.3 Length-frequency distribution of retained marked Chinook sampled in dockside angler interviews during the summer Chinook MSF in Marine Area 9. Note: displayed values are observations where lengths are taken.

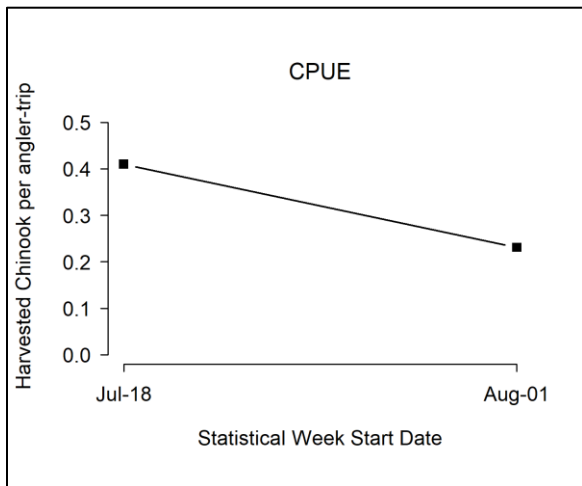


Figure 4.2 Temporal patterns in CPUE (landed Chinook per angler trip) during the summer Chinook MSF in Marine Area 9.

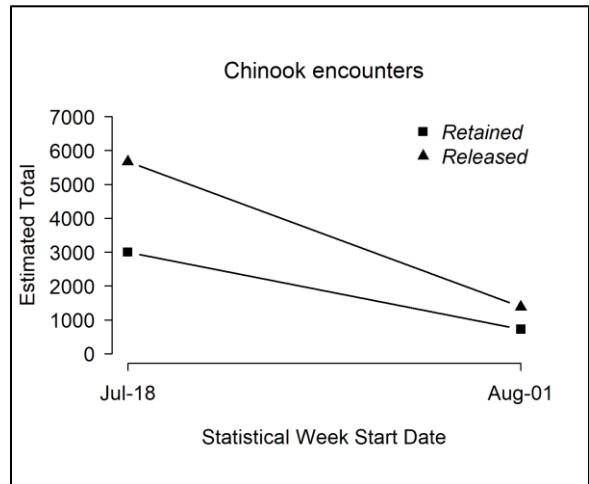


Figure 4.4 Temporal patterns in Chinook salmon encounters (retained and released) during the summer Chinook MSF in Marine Area 9.

Table 4.5 Comparison of modeled and estimated total Chinook salmon encounters for the summer Chinook MSF in Marine Area 9. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Data Source	Group	Total Encounters	Legal	Sublegal	Landed Only
FRAM Encounters	UM	2,731	1,090	1,641	11
	AD	10,176	4,470	5,706	3,889
	Total	12,907	5,560	7,347	3,900
	% Marked	79	80	78	100
Estimated (Creel) Encounters	UM	3,722	2,155	1,567	21
	AD	7,052	4,114	2,938	3,703
	Total	10,774	6,269	4,506	3,723
	% Marked	65	66	65	99

Table 4.6 Summary of season-wide fishery impact estimates for the summer Chinook MSF in Marine Area 9. Release mortality rate = 0.15 for legal fish and 0.20 for sublegal fish. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Size/mark group	Encounters	Retained	Released	Release Mortality	Total Mortality	Var	SE	95% CI	CV (%)
Legal AD	4,114	3,579	535	80	3,659	168,674	411	2,854 - 4,464	11
Legal UM	2,155	18	2,137	321	338	11,729	108	126 - 551	32
Sublegal AD	2,938	124	2,815	563	687	30,998	176	342 - 1,032	26
Sublegal UM	1,567	3	1,564	313	316	14,273	119	82 - 550	38
Total	10,774	3,723	7,051	1,277	5,000	225,673	475	4,069 - 5,931	10

Table 4.7 Comparison of modeled and estimated total Chinook salmon mortalities for the summer Chinook MSF in Marine Area 9. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Mortality Category	FRAM Chinook Mortalities			Estimated Chinook Mortalities		
	UM	AD	Total	UM	AD	Total
Total (Landed + Released)	501	5,312	5,813	654	4,346	5,000
Released Legal	162	282	444	321	80	401
Released Sublegal	328	1,141	1,469	313	563	876
Landed Only	11	3,889	3,900	21	3,703	3,723

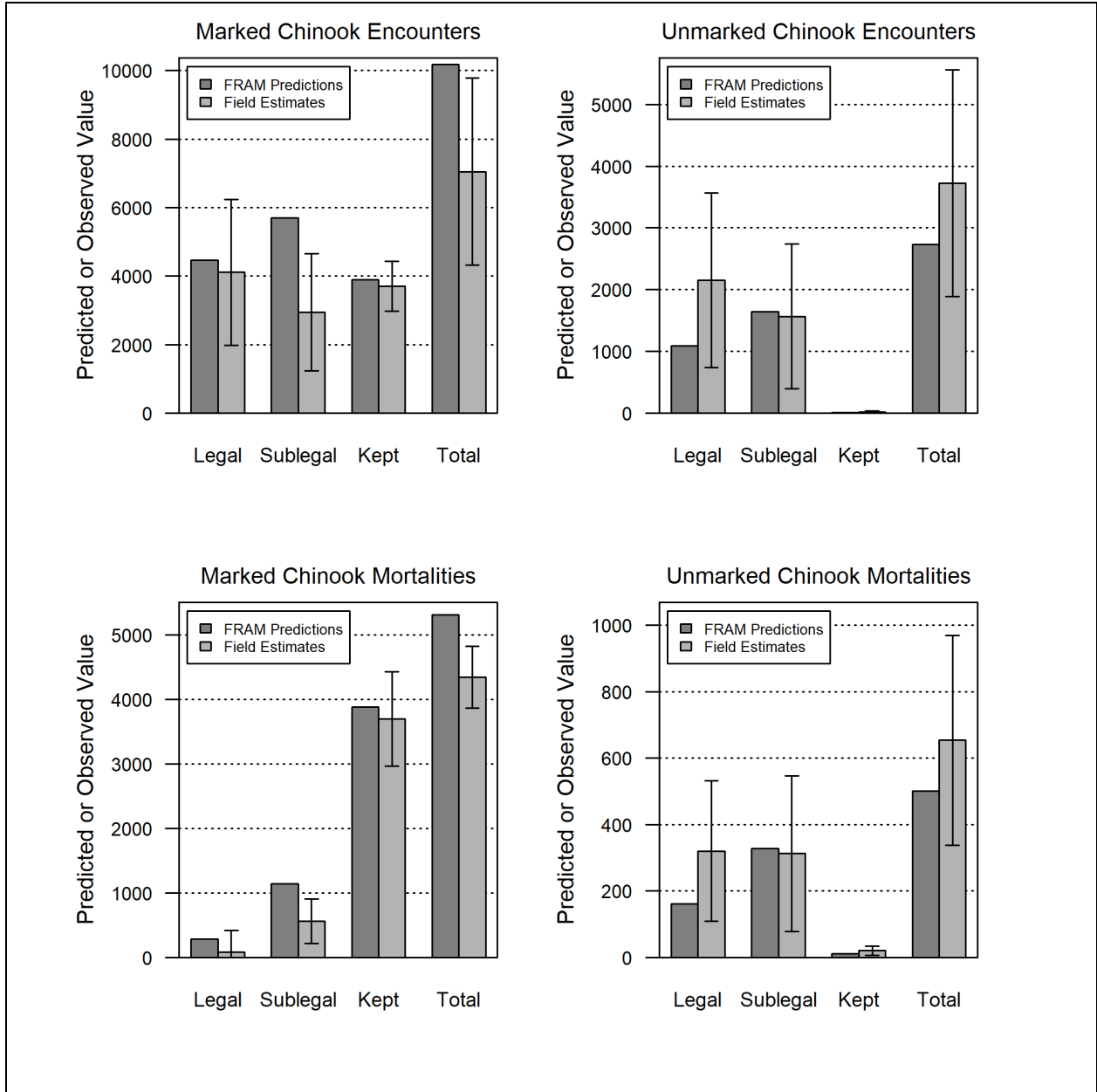


Figure 4.5 Comparison of modeled and estimated total Chinook salmon encounters and mortalities for the summer Chinook MSF in Marine Area 9. Error bars represent approximately 95% confidence intervals for field estimates.

Table 4.8 Summary of the total number of anglers intercepted during on-the-water surveys conducted for the summer Chinook MSF in Marine Area 9. Sites in bold represent those included in the dockside sample frame.

Site Name	Weekday Anglers	Season Total (unadjusted) Size Measure	Weekend Anglers	Season Total (unadjusted) Size Measure
Bayside Marina/Drystack	2	0.0087	5	0.0124
Cap Sante Moorage & Sling	3	0.0131	0	0.0000
Driftwood Key Marina	3	0.0131	12	0.0299
Edmonds Dry Storage	10	0.0437	9	0.0224
Edmonds Marina	15	0.0655	30	0.0746
Everett Marina	16	0.0699	18	0.0448
Everett Ramp	47	0.2052	64	0.1592
Fort Casey Public Ramp and Shore	31	0.1354	45	0.1119
Fort Flagler Ramps-Marrowstone Is	9	0.0393	10	0.0249
Hadlock Public Ramp	1	0.0044	8	0.0199
John Wayne Marina Docks	2	0.0087	0	0.0000
Kingston Marina	5	0.0218	1	0.0025
Kingston Public Ramp	3	0.0131	2	0.0050
Manchester Public Ramp	4	0.0175	0	0.0000
Mukilteo Lighthouse Park	9	0.0393	17	0.0423
Mystery Bay Dock/Moorage	4	0.0175	0	0.0000
Onamac (Private)	2	0.0087	0	0.0000
Point Hudson Marina	4	0.0175	2	0.0050
Port Ludlow Marina/Beach Launch	6	0.0262	4	0.0100
Port Townsend Boat Haven	2	0.0087	11	0.0274
Port Townsend Boat Haven Ramp	16	0.0699	59	0.1468
Private	6	0.0262	7	0.0174
Salmon Club Ramp	4	0.0175	2	0.0050
Salsbury County Park Ramp	2	0.0087	18	0.0448
Shilshole Marina	5	0.0218	5	0.0124
Shilshole Public Ramp	8	0.0349	20	0.0498
Skyline Marina/Sling	7	0.0306	4	0.0100
Washington Park Launch Ramp	3	0.0131	5	0.0124
Anacortes Marina	0	0.0000	3	0.0075
Cornet Bay Public Ramp	0	0.0000	6	0.0149
Dagmar's Landing, Forklift Launch	0	0.0000	1	0.0025
Edmonds Boat Basin	0	0.0000	15	0.0373
Eglon Public Ramp	0	0.0000	4	0.0100
Fort Worden Ramp	0	0.0000	2	0.0050
John Wayne Marina	0	0.0000	2	0.0050
Lagoon Point Ramp and Beach	0	0.0000	5	0.0124
Port Hadlock Marina	0	0.0000	2	0.0050
Poulsbo Ramp/Marina	0	0.0000	4	0.0100
Total Anglers	229	1	402	1

Table 4.9 Monthly sample rates (Total retained Chinook sampled¹ / Estimated retained Chinook) for the summer Chinook MSF in Marine Area 9. AD = marked (adipose-clipped), UM = unmarked.

Time period			Estimated Retained Chinook			Number of Chinook sampled			Sample Rate
Month	Stat Weeks	Dates	AD	UM	Total	AD	UM	Total	
July	29	18 Jul - 20 Jul	2,980	21	3,001	753	5	758	25.30%
August	31	4-Aug	723	0	723	3	0	3	0.40%
Season Total			3,703	21	3,723	756	5	761	20.40%

¹ Number of retained Chinook salmon sampled includes all retained Chinook salmon inspected for CWTs, from all sites sampled during the summer Chinook MSF in Marine Area 9 (creel estimates and fish sampled as part of baseline sampling).

Table 4.10 Dockside encounters (retained and released) by size-mark category during the summer Chinook salmon MSF in Marine Area 9. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Dockside Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	1,308	262	391	166
Bias-corrected size/mark composition	54.73%	12.32%	18.38%	14.57%
Variance	0.00024	0.00009	0.00017	0.00008

Table 4.11 Fishery-total estimates of retained and released salmon (other than Chinook) for the summer Chinook MSF in Marine Area 9. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Week	Start Date	End Date	Retained Salmon				Released Salmon			
			Coho AD	Coho UM	Coho UK	Unknown	Coho AD	Coho UM	Coho UK	Unknown
29	18-Jul	20-Jul	765	31	5	8	68	457	237	467
31	1-Aug	4-Aug	744	29	0	20	109	472	135	30
Season Total:			1,509	60	5	28	177	929	372	496
Variance:			87,649	191	3	55	1,512	26,514	8,148	26,240
Standard Error:			296	14	2	7	39	163	90	162
CV (%):			20	23	38	26	22	18	24	33
95% CI:			929 - 2,089	33 - 87	1 - 9	14 - 43	100 - 253	610 - 1,248	195 - 549	179 - 814

Table 4.12 Composition of test fishery Chinook salmon encounters and associated mark-rate and size/mark-status proportion estimates for the summer Chinook salmon MSF in Marine Area 9. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Fishing Effort		Legal		Sublegal		Total
	Days	Hrs Fished	AD	UM	AD	UM	
30	5	39.08	18	9	12	5	44
32	2	12.78	3	2	3	3	11
Total	7	51.86	21	11	15	8	55
Size/mark-status composition:			0.38	0.20	0.27	0.15	
Variance:			(0.0044)	(0.0030)	(0.0037)	(0.0023)	
Legal size mark rate:			0.66				
Overall mark rate:			0.65				

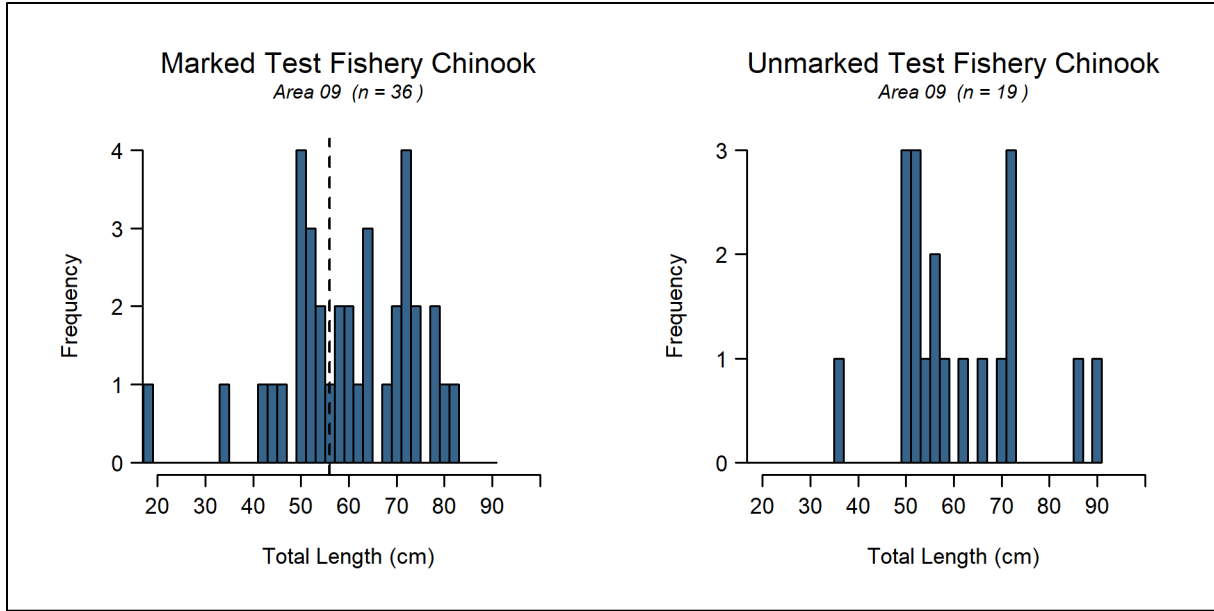


Figure 4.6 Length-frequency distributions of marked (*left panel*) and unmarked (*right panel*) Chinook salmon encountered by test fishers during the summer Chinook salmon MSF in Marine Area 9. The vertical dashed line in the left panel corresponds to the legal-size limit (22 in or 56 cm).

Table 4.13 Summary of double-index tagged (DIT) Chinook salmon kept by anglers and estimated total mortality of unmarked DIT Chinook salmon due to hook-and-release impacts resulting from the summer Chinook MSF in Marine Area 9. AD = marked (adipose-clipped), UM = unmarked.

Hatchery	Brood Year	DITs Obs	Est.AD	var(Est.AD)	UM DIT Enc	Est.UM	var(Est.UM)	SE(Est.UM)
Bernie Gobin Hatch	2021	2	5.9	11.46	5.9	0.6	0.116	0.48
Clear Creek Hatchery	2021	3	8.8	17.20	9.0	0.9	0.177	0.73
George Adams Hatchery	2020	3	8.8	17.20	8.9	0.9	0.176	0.73
George Adams Hatchery	2021	6	17.7	34.39	17.8	1.8	0.350	1.45
Grovers Cr Hatchery	2020	4	11.8	22.93	10.9	1.1	0.196	0.88
Grovers Cr Hatchery	2021	12	35.3	68.78	35.3	3.5	0.687	2.87
Marblemount Hatchery	2021	1	2.9	5.73	3.0	0.3	0.059	0.24
Samish Hatchery	2021	4	11.8	22.93	22.9	2.3	0.862	1.86
Soos Creek Hatchery	2020	1	2.9	5.73	3.0	0.3	0.059	0.24
Soos Creek Hatchery	2021	3	8.8	17.20	9.5	1.0	0.200	0.77
Wallace R Hatchery	2021	1	2.9	5.73	3.0	0.3	0.059	0.24
Total		40	117.6	229.28	129.2	13	2.941	10.49

Table 4.14 Summary of coded-wire tags recovered from Chinook salmon harvested during the 2024 summer Chinook MSF in Marine Area 9. The field “Number DITs” corresponds to the number of tags that belonged to double-index tag groups. Note: Not all tags have been processed before the writing of this report.

Release Domain	Release Region	Release Site	Rearing Location	CWTs Recovered	No. DITs
BC	Fraser River & Thompson River (8.9%)	R-Chilliwack R	H-Chilliwack River H	14 (8.3%)	0
		R-Harrison R	H-Chehalis River H	1 (0.6%)	0
	Georgia Strait (1.8%)	R-Cowichan R	H-Cowichan River H	1 (0.6%)	0
		R-Sandy Cv	H-Sandy Cove Seapen	2 (1.2%)	0
WA	Northern Washington (3%)	Skookum Cr 01.0273	Skookum Cr Hatchery	1 (0.6%)	0
		Friday Cr 03.0017	Samish Hatchery	4 (2.4%)	4
	Hood Canal (10.7%)	Finch Cr 16.0222	Hoodsport Hatchery	9 (5.3%)	0
		Purdy Cr 16.0005	George Adams Hatchery	9 (5.3%)	9
	Northern Puget Sound (6.5%)	Skykomish R 07.0012	Reiter Ponds	3 (1.8%)	0
		Tulalip Cr 07.0001	Bernie Gobin Hatch	4 (2.4%)	2
		Wallace R 07.0940	Wallace R Hatchery	4 (2.4%)	1
	Skagit River (1.2%)	Cascade R 03.1411	Marblemount Hatchery	2 (1.2%)	1
	Mid Puget Sound (42%)	Big Soos Cr 09.0072	Soos Creek Hatchery	4 (2.4%)	4
		Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	11 (6.5%)	0
		Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	15 (8.9%)	0
		Grovers Cr Hatchery	Grovers Cr Hatchery	16 (9.5%)	16
		Clarks Crk Hatchery	Clarks Crk Hatchery	10 (5.9%)	0
		Issaquah Cr 08.0178	Issaquah Hatchery	3 (1.8%)	0
		Point Defiance Net Pens	Clarks Crk Hatchery	5 (3%)	0
		Icy Cr 09.0125	Icy Cr Hatchery	1 (0.6%)	0
		Voight Cr 10.0414	Voights Cr Hatchery	6 (3.6%)	0
	Southern Puget Sound (26%)	Deschutes R 13.0028	Tumwater Falls Hatchery	7 (4.1%)	0
		Minter Cr 15.0048	Minter Cr Hatchery	18 (10.7%)	0
		Chambers Cr 12.0007	Garrison Hatchery	12 (7.1%)	0
Clear Cr 11.0013C		Clear Creek Hatchery	7 (4.1%)	3	
Total				169	40

Table 4.15 Season-total estimates of Chinook salmon encounters by size/mark-status and total estimates of angler effort, summarized for all seasons to date of the Marine Area 9 summer Chinook MSF. Values may not add up exactly due to rounding error.

Season Dates	Effort (Angler-trips)	Retained Chinook				Released Chinook				Total Encounters
		LM	LU	SM	SU	LM	LU	SM	SU	
Jul 16 - Jul 31, 2007	18,160	5,094	13	146	20	711	1,111	1,286	317	8,697
Jul 16 - Aug 15, 2008	20,399	4,035	3	10	0	597	1,608	3,212	3,826	13,290
Jul 16 - Aug 31, 2009	42,219	3,090	20	139	0	462	1,272	8,256	2,905	16,143
Jul 16 - Aug 31, 2010	31,200	5,282	33	10	6	740	2,125	750	249	9,194
Jul 16 - Aug 31, 2011	37,862	2,285	19	78	6	339	1,142	2,150	1,070	7,090
Jul 16 - Aug 19, 2012	24,886	6,972	12	101	2	1,039	2,351	5,168	4,721	20,366
Jul 16 - Aug 4, 2013	20,501	4,667	18	39	0	697	1,174	1,750	397	8,742
Jul 16 - Aug 15, 2014	23,113	2,865	6	4	0	428	668	745	299	5,015
Jul 16 - Jul 26, 2015	14,118	2,277	13	35	7	340	1,502	1,481	131	5,786
Jul 16 - Aug 15, 2016	14,911	2,861	9	112	0	427	912	4,886	2104	11,311
Jul 16 - Jul 30, 2017	18,548	5,264	0	191	3	787	1261	9,388	2266	19,160
Jul 16 - Jul 29, 2018	17,356	5,935	1	93	1	887	1084	3,628	464	12,094
Jul 25 - Aug 9, 2019	17,147	3,434	5	11	0	513	579	573	146	5,263
Jul 16 - Aug 15, 2020	45,376	3,684	0	102	0	551	1,289	10,392	2,946	18,964
Jul 16 - Aug 5, 2021	24,266	5,119	6	150	13	765	1,675	14,981	5,872	28,580
Jul 14 - Aug 4, 2022	16,315	4,637	3	57	0	693	3,389	8,181	1,454	18,413
Jul 13 - Jul 28, 2023	14,520	4,446	13	105	0	664	1,152	4,557	1,076	12,013
Jul 18, - Aug 04, 2024	10,401	3,579	18	124	3	535	2,137	2,815	1,564	10,774

5) Marine Area 10 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a summer Chinook MSF in Marine Area 10 as a series of short openers on July 18-20, July 25-27, August 4, and August 11-12, 2024. WDFW’s Puget Sound Sampling Unit (PSSU) implemented an intensive monitoring program, a Full Murthy design, in Marine Area 10 throughout the season to collect the data needed to estimate key parameters characterizing the fishery and its impacts on unmarked salmon. Sampling activities included intensive dockside creel sampling, on-the-water effort surveys, test fishing and collection of voluntary salmon trip reports (STRs) from the angling public whenever possible. The fishery control was the preseason modeled expected catch (3,166) and total sublegal encounters (6,477). **Table 5.2** summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). In this section we present results from our monitoring activities during the Marine Area 10 summer Chinook MSF.

Table 5.1 Fishery dates and fishery retention status of salmon in the 2024 summer Chinook salmon MSF in Marine Area 10.

Start Date	End Date	Fishery Status	Days
18-Jul	20-Jul	Open	3
21-Jul	24-Jul	Closed	4
25-Jul	27-Jul	Open	3
28-Jul	3-Aug	Closed	7
4-Aug	4-Aug	Open	1
5-Aug	10-Aug	Closed	6
11-Aug	12-Aug	Open	2
Total days open			9

Table 5.2 Sampling/estimation details on target parameters associated with the overall Marine Area 10 summer mark-selective fishery monitoring program.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Creel Sampling	Fishing effort (boat & angler trips); kept and released fish	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release.	One week	Within days, estimates were produced by day-type strata (weekday/weekend). Each week we sampled every Friday, Saturday, and Sunday, and we randomly selected $n=2$ out of $N=4$ weekdays (Monday-Thursday) for sampling.
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data were not used for estimation of Chinook encounters for this fishery (Table 5.10).
On-the-water Surveys	Proportion of total angler effort that uses sample-frame sites (i.e., site “size measures”) versus out-of-frame sites.	Total on-water boat and angler counts at assumed peak effort time interval (instantaneous count); spatial distribution of recreational fishing boats in the area.	Boats and anglers	Month	A total of 4 boat surveys (2 weekday and 2 weekend) were conducted during the fishery.
Test Fishing	Size (legal/sublegal) and mark-status composition (marked, unmarked) of encountered Chinook salmon	Chinook salmon length, age, and DNA-based ² stock composition; species composition of non-Chinook salmon encounters	Fish encounter	Season	Test fishery data were only used to estimate the size/mark-status proportions (LM = 38%, LU = 13%, SM = 31%, SU = 19%; Table 5.13) needed to produce encounter and mortality estimates (CV = 0.13).
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status composition (marked, unmarked) of encountered Chinook salmon	Encounter data for non-Chinook salmon species (e.g., Coho salmon) that the angler may record on the STR form	Fish encounter	Season	2 STRs were returned during this fishery (Table 5.11). Because TF data met sample size requirements of $CV < 0.20$, STRs were not needed to produce encounter and mortality estimates.
Overall Fishery Impacts Estimation	Total Chinook salmon encounters and mortalities by size/mark-status group	Ratios of encounters and mortalities per kept Chinook salmon	N/A	Season	Estimated on a monthly time step but considered at the season-total level.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	The temporal resolution of DIT impacts is constrained by the total number of tags recovered.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 5.3 Estimates of total fishing effort and total salmon catch (harvest and releases) during the summer Chinook MSF in Marine Area 10. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Month	Stat Week	Start Date	End Date	Estimated Effort		Est. Retained Chinook		Est. Released Chinook		Total Est. Chinook Encounters
				Boats	Anglers	AD	UM	AD	UM	
Jul	29	18-Jul	21-Jul	2,064	4,584	941	3	965	883	2,792
	30	22-Jul	28-Jul	2,586	5,671	1,106	3	1,133	1,037	3,279
	31	29-Jul	4-Aug	844	1,947	331	9	339	303	982
Aug	32	5-Aug	11-Aug	1,426	3,123	670	5	686	625	1,986
	33	12-Aug	12-Aug	718	1,376	390	0	400	367	1,157
Season Total				7,637	16,701	3,438	20	3,524	3,215	10,197
Variance:				60,636	439,237	27,665	27	923,704	363,787	1,928,893
Standard Error:				246	663	166	5	961	603	1,389
CV (%):				3	4	5	25	27	19	14
95% CI:				7,155 - 8,120	15,402 - 18,000	3,112 - 3,764	10 - 31	1,640 - 5,408	2,033 - 4,397	7,475 - 12,919

Table 5.4 Number of total length samples collected from retained Chinook salmon collected during dockside angler interviews in the summer Chinook MSF in Marine Area 10.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	1,141	38	1,179
Unmarked	4	1	5
Total	1,145	39	1,184

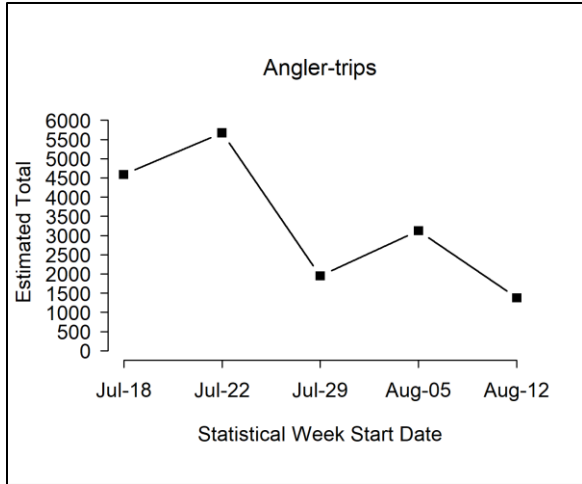


Figure 5.1 Temporal patterns in fishing effort during the summer Chinook MSF in Marine Area 10.

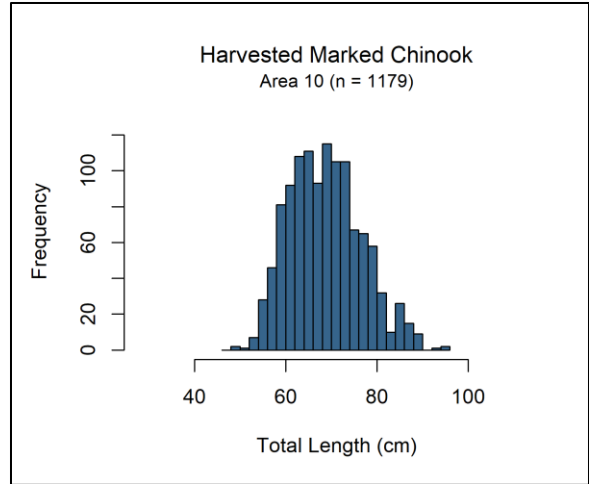


Figure 5.3 Length-frequency distribution of retained marked Chinook sampled in dockside angler interviews during the summer Chinook MSF in Marine Area 10. Note: displayed values are observations where lengths are taken.

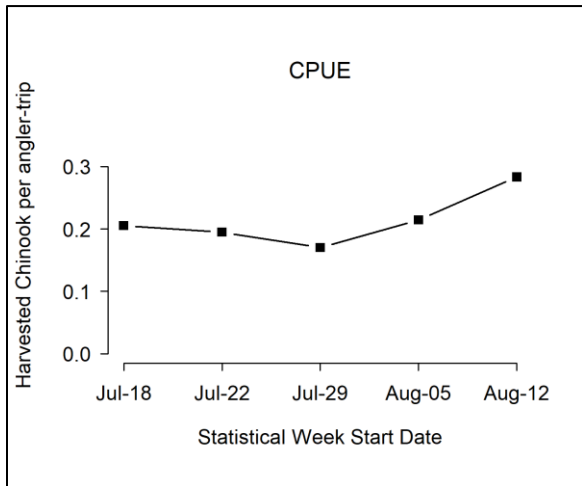


Figure 5.2 Temporal patterns in CPUE (landed Chinook per angler trip) during the summer Chinook MSF in Marine Area 10.

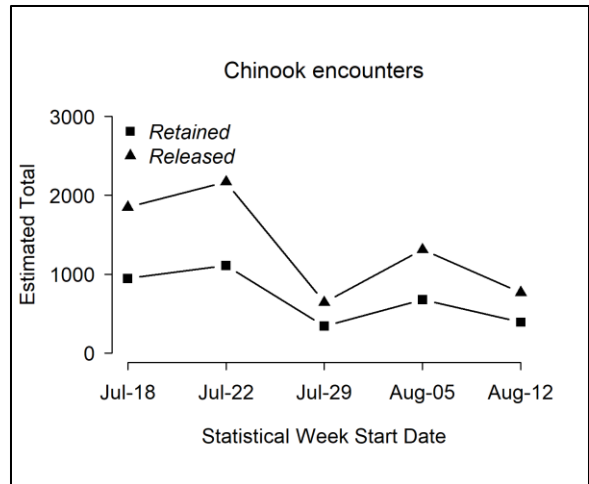


Figure 5.4 Temporal patterns in Chinook salmon encounters (retained and released) during the summer Chinook MSF in Marine Area 10.

Table 5.5 Comparison of modeled and estimated total Chinook salmon encounters for the summer Chinook MSF in Marine Area 10. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Data Source	Group	Total Encounters	Legal	Sublegal	Landed Only
FRAM Encounters	UM	2,614	904	1,710	18
	AD	8,385	3,618	4,767	3,148
	Total	10,999	4,522	6,477	3,166
	% Marked	76	80	74	99
Estimated (Creel) Encounters	UM	3,236	1,275	1,961	20
	AD	6,961	3,824	3,138	3,438
	Total	10,197	5,099	5,099	3,458
	% Marked	68	75	62	99

Table 5.6 Summary of season-wide fishery impact estimates for the summer Chinook MSF in Marine Area 10. Release mortality rate = 0.15 for legal fish and 0.20 for sublegal fish. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Size/mark group	Encounters	Retained	Released	Release Mortality	Total Mortality	Var	SE	95% CI	CV (%)
Legal AD	3,824	3,327	497	75	3,401	38,140	195	3,019 - 3,784	6
Legal UM	1,275	16	1,258	189	205	3,150	56	95 - 315	27
Sublegal AD	3,138	111	3,027	605	716	16,101	127	467 - 965	18
Sublegal UM	1,961	4	1,957	391	395	9,027	95	209 - 582	24
Total	10,197	3,458	6,739	1,260	4,718	66,418	258	4,213 - 5,223	5

Table 5.7 Comparison of modeled and estimated total Chinook salmon mortalities for the summer Chinook MSF in Marine Area 10. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Mortality Category	FRAM Chinook Mortalities			Estimated Chinook Mortalities		
	UM	AD	Total	UM	AD	Total
Total (Landed + Released)	494	4,329	4,823	601	4,118	4,718
Released Legal	134	228	362	189	75	263
Released Sublegal	342	953	1,295	391	605	997
Landed Only	18	3,148	3,166	20	3,438	3,458

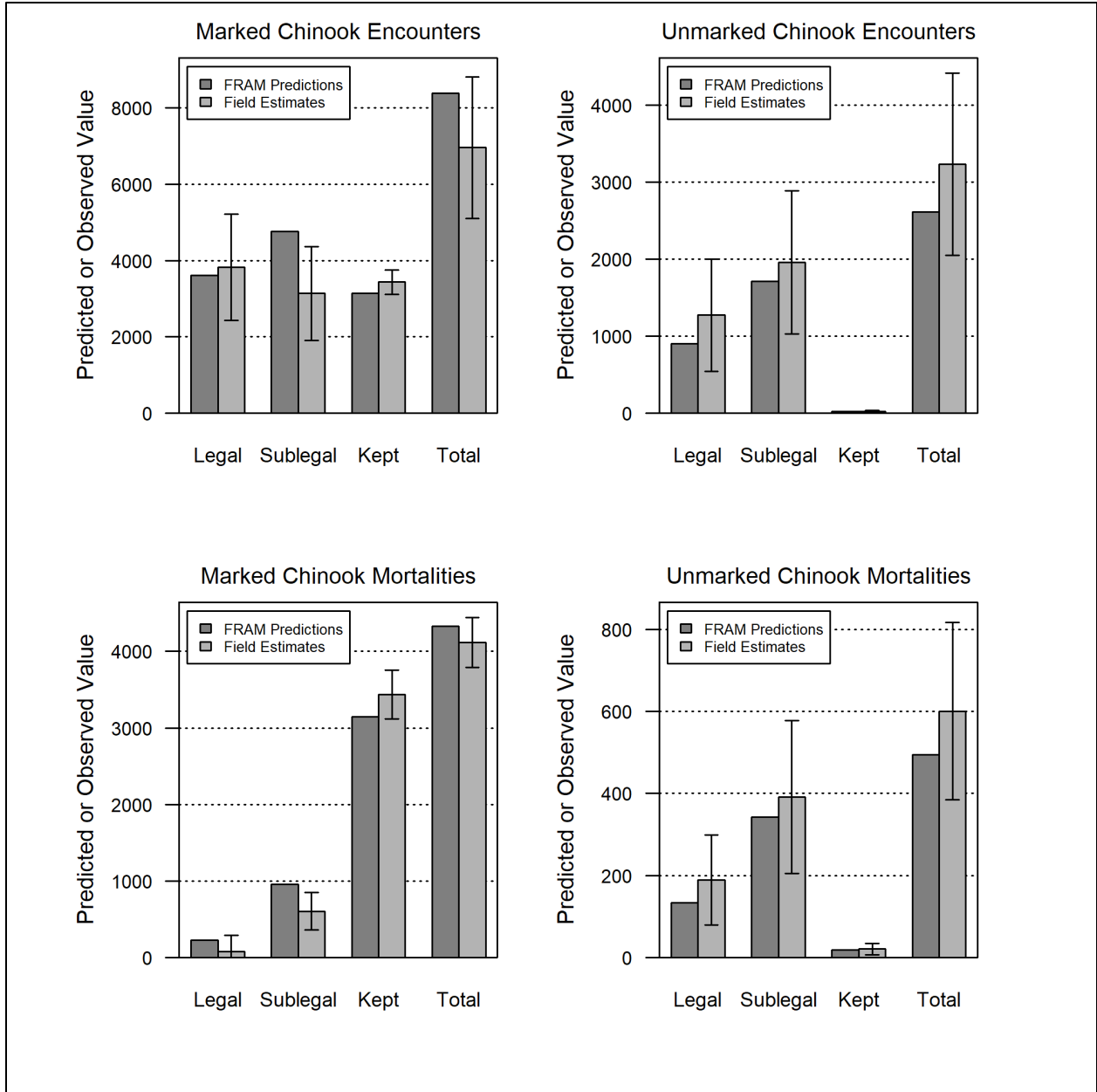


Figure 5.5 Comparison of modeled and estimated total Chinook salmon encounters and mortalities for the summer Chinook MSF in Marine Area 10. Error bars represent approximately 95% confidence intervals for field estimates.

Table 5.8 Summary of the total number of anglers intercepted during on-the-water surveys conducted for the summer Chinook MSF in Marine Area 10. Sites in bold represent those included in the dockside sample frame.

Site Name	Weekday Anglers	Season Total (unadjusted) Size Measure	Weekend Anglers	Season Total (unadjusted) Size Measure
Armeni Public Ramp	9	0.0361	24	0.0441
Bayside Marina/Drystack	3	0.0120	4	0.0074
Brownsville Dock/Ramp	6	0.0241	8	0.0147
Brownsville Marina	1	0.0040	26	0.0478
Des Moines Marina (Moorage)	2	0.0080	2	0.0037
Driftwood Key Marina	6	0.0241	4	0.0074
Eagle Harbor Waterfront Park	6	0.0241	11	0.0202
Edmonds Boat Basin (Public Sling)	17	0.0683	18	0.0331
Edmonds Dry Storage (Boat Loft (Priv. fork lift))	13	0.0522	5	0.0092
Edmonds Marina	28	0.1124	76	0.1397
Elliott Bay Marina	4	0.0161	11	0.0202
Everett Marina	13	0.0522	16	0.0294
Everett Ramp (formerly Norton Street Ramp (2010))	22	0.0884	30	0.0551
Kingston Marina	6	0.0241	14	0.0257
Kingston Public Ramp	25	0.1004	38	0.0699
Mats Mats Bay Ramp	2	0.0080	0	0.0000
Mukilteo Lighthouse Park (State Park Public Ramp)	4	0.0161	6	0.0110
Port Madison Marina	2	0.0080	0	0.0000
Port Orchard Public Ramp	2	0.0080	17	0.0313
Port Townsend Boat Haven (Docks)	4	0.0161	5	0.0092
Possession Waterfront Beach Park	3	0.0120	14	0.0257
Private	4	0.0161	19	0.0349
Shilshole Marina	38	0.1526	73	0.1342
Shilshole Public Ramp	29	0.1165	73	0.1342
Bainbridge Is/Agate Pass, Bch launch	0	0.0000	3	0.0055
Blakely Island	0	0.0000	2	0.0037
Boston Harbor Ramp/Marina	0	0.0000	1	0.0018
Breakwater Marina (Warters)	0	0.0000	2	0.0037
Browns Point Ramp	0	0.0000	8	0.0147
Dagmar's Landing, Forklift Launch	0	0.0000	5	0.0092
Gig Harbor Marina	0	0.0000	2	0.0037
Manchester Public Ramp	0	0.0000	9	0.0165
Olalla Public Ramp	0	0.0000	2	0.0037
Port Orchard Marina	0	0.0000	6	0.0110
Poulsbo Ramp/Marina	0	0.0000	4	0.0074
Redondo Ramp	0	0.0000	1	0.0018
Unknown	0	0.0000	3	0.0055
Waterfront Park (Seattle)	0	0.0000	2	0.0037
Total Anglers	249	1	544	1

Table 5.9 Monthly sample rates (Total retained Chinook sampled¹ / Estimated retained Chinook) for the summer Chinook MSF in Marine Area 10. AD = marked (adipose-clipped), UM = unmarked.

Time period			Estimated Retained Chinook			Number of Chinook sampled			Sample Rate
Month	Stat Weeks	Dates	AD	UM	Total	AD	UM	Total	
July	29 - 30	18 Jul - 28 Jul	2,047	6	2,053	673	2	675	32.90%
August	31 - 33	29 Jul - 12 Aug	1,391	14	1,405	349	3	352	25.10%
Season Total			3,438	20	3,458	1,022	5	1,027	29.70%

¹ Number of retained Chinook salmon sampled includes all retained Chinook salmon inspected for CWTs, from all sites sampled during the summer Chinook MSF in Marine Area 10 (creel estimates and fish sampled as part of baseline sampling).

Table 5.10 Dockside encounters (retained and released) by size-mark category during the summer Chinook salmon MSF in Marine Area 10. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Dockside Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	1,223	279	548	172
Bias-corrected size/mark composition	48.99%	12.56%	24.66%	13.80%
Variance	0.00015	0.00007	0.00013	0.00005

Table 5.11 Total Chinook salmon encountered (retained and released) by private-boat anglers logging their trips on STRs during the 2024 summer Chinook salmon MSF in Marine Area 10, with estimates of legal-size and overall (legal and sublegal) mark rates. AD = marked (adipose-clipped), UM = unmarked. Variances associated with size/mark-status proportions and mark rates are provided in parentheses.

Data Source	Effort and Sample Size	Legal		Sublegal		Totals	Mark Rate	
		AD	UM	AD	UM		Overall	Legal
Private STR	2 1-trip STRs	8	8	0	0	16	0.5	0.5
Size/mark-status composition:		0.50	0.50	0.00	0.00			
Variance:		(0.0167)	(0.0167)	(0.0000)	(0.0000)			

Table 5.12 Fishery-total estimates of retained and released salmon (other than Chinook) for the summer Chinook MSF in Marine Area 10. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Week	Start Date	End Date	Retained Salmon						Released Salmon				
			Coho AD	Coho UM	Coho UK	Pink	Sockeye	Unknown	Coho AD	Coho UM	Coho UK	Chum	Unknown
29	18-Jul	21-Jul	495	332	0	0	0	25	72	72	272	0	120
30	22-Jul	28-Jul	758	511	4	4	0	19	94	114	272	0	125
31	29-Jul	4-Aug	411	252	0	0	0	21	24	21	61	0	36
32	5-Aug	11-Aug	345	291	0	3	3	0	112	42	83	13	107
33	12-Aug	12-Aug	104	57	0	3	0	0	44	3	57	0	37
Season Total:			2,112	1,443	4	10	3	65	345	252	746	13	424
Variance:			16,889	4,184	4	7	2	375	1,869	929	3,521	33	3,563
Standard Error:			130	65	2	3	1	19	43	30	59	6	60
CV (%):			6	4	47	26	41	30	13	12	8	44	14
95% CI:			1,858 - 2,367	1,317 - 1,570	0 - 8	5 - 16	1 - 6	27 - 103	261 - 430	192 - 312	630 - 862	2 - 24	307 - 541

Table 5.13 Composition of test fishery Chinook salmon encounters and associated mark-rate and size/mark-status proportion estimates for the summer Chinook salmon MSF in Marine Area 10. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Fishing Effort		Legal		Sublegal		Total
	Days	Hrs Fished	AD	UM	AD	UM	
30	4	27.46	7	3	9	4	23
31	9	64.78	22	5	18	16	61
33	2	14.72	2	1	2	0	5
34	2	15.95	8	4	3	0	15
Total	17	122.91	39	13	32	20	104
Size/mark-status composition:			0.38	0.13	0.31	0.19	
Variance:			(0.0023)	(0.0011)	(0.0021)	(0.0015)	
Legal size mark rate:			0.75				
Overall mark rate:			0.68				

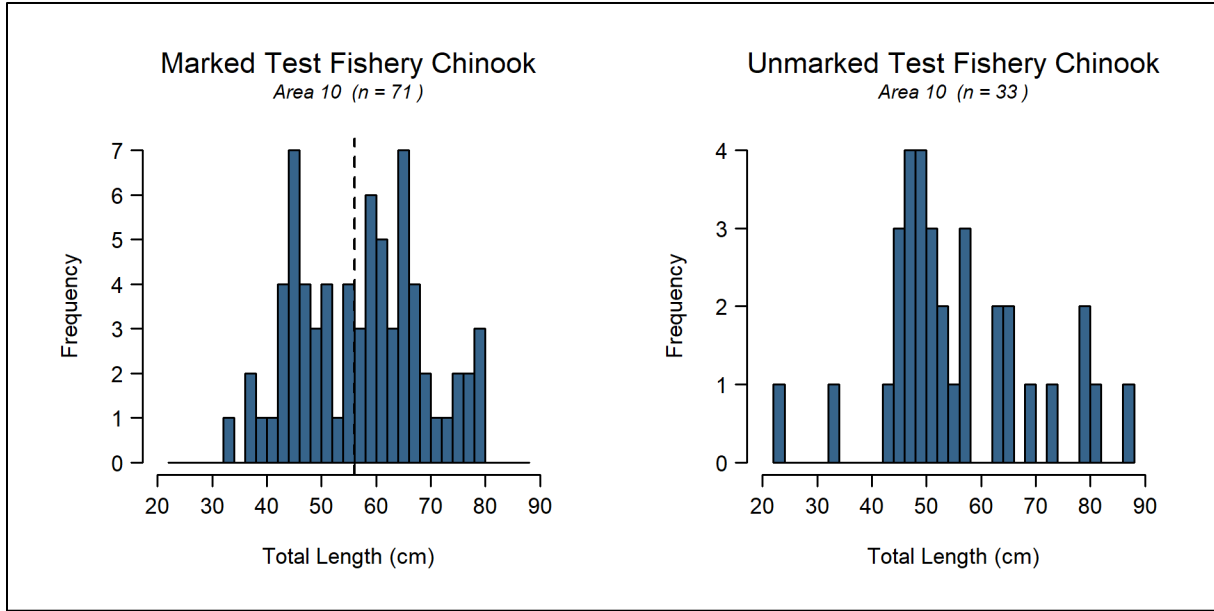


Figure 5.6 Length-frequency distributions of marked (*left panel*) and unmarked (*right panel*) Chinook salmon encountered by test fishers during the summer Chinook salmon MSF in Marine Area 10. The vertical dashed line in the left panel corresponds to the legal-size limit (22 in or 56 cm).

Table 5.14 Summary of double-index tagged (DIT) Chinook salmon kept by anglers and estimated total mortality of unmarked DIT Chinook salmon due to hook-and-release impacts resulting from the summer Chinook MSF in Marine Area 10. AD = marked (adipose-clipped), UM = unmarked.

Hatchery	Brood Year	DITs Obs	Est.AD	var(Est.AD)	UM DIT Enc	Est.UM	var(Est.UM)	SE(Est.UM)
Bernie Gobin Hatch	2021	4	8.8	16.83	11.7	3.8	5.779	3.08
Clear Creek Hatchery	2020	1	2.9	5.61	3.1	0.3	0.062	0.25
Clear Creek Hatchery	2021	5	11.7	22.44	14.8	4.1	5.840	3.33
George Adams Hatchery	2021	2	5.8	11.22	5.9	0.6	0.114	0.48
Grovers Cr Hatchery	2019	3	8.8	16.83	9.0	0.9	0.176	0.73
Grovers Cr Hatchery	2020	7	20.4	39.27	18.9	1.9	0.335	1.53
Grovers Cr Hatchery	2021	20	58.4	112.19	58.4	5.8	1.120	4.73
Marblemount Hatchery	2021	3	8.8	16.83	9.0	0.9	0.178	0.73
Soos Creek Hatchery	2020	4	8.8	16.83	11.8	3.8	5.783	3.09
Soos Creek Hatchery	2021	5	11.7	22.44	15.5	4.2	5.870	3.39
Wallace R Hatchery	2021	1	2.9	5.61	3.0	0.3	0.058	0.24
Total		55	149.0	286.08	161.0	26.6	25.316	21.58

Table 5.15 Summary of coded-wire tags recovered from Chinook salmon harvested during the 2024 summer Chinook MSF in Marine Area 10. The field “Number DITs” corresponds to the number of tags that belonged to double-index tag groups. Note: Not all tags have been processed before the writing of this report.

Release Domain	Release Region	Release Site	Rearing Location	CWTs Recovered	No. DITs
BC	Thompson River (6.1%)	R-Chilliwack R	H-Chilliwack River H	9 (4%)	0
		R-Harrison R	H-Chehalis River H	5 (2.2%)	0
	Georgia Strait (2.2%)	R-Sandy Cv	H-Sandy Cove Seapen	5 (2.2%)	0
WA	Strait Of Juan De Fuca (0.4%)	Elwha R 18.0272	Elwha Hatchery	1 (0.4%)	0
	Hood Canal (3.1%)	Purdy Cr 16.0005	George Adams Hatchery	2 (0.9%)	2
		Finch Cr 16.0222	Hoodsport Hatchery	5 (2.2%)	0
	Northern Puget Sound (4.9%)	Tulalip Cr 07.0001	Bernie Gobin Hatch	6 (2.7%)	4
		Wallace R 07.0940	Wallace R Hatchery	5 (2.2%)	1
	Skagit River (2.2%)	Cascade R 03.1411	Marblemount Hatchery	4 (1.8%)	3
		Co Line Slu 03.1853A	Marblemount Hatchery	1 (0.4%)	0
	Mid Puget Sound (53.8%)	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	15 (6.7%)	0
		Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	9 (4%)	0
		Big Soos Cr 09.0072	Soos Creek Hatchery	34 (15.2%)	9
		Issaquah Cr 08.0178	Issaquah Hatchery	12 (5.4%)	0
		Point Defiance Net Pens	Clarks Crk Hatchery	10 (4.5%)	0
		Clarks Crk Hatchery	Clarks Crk Hatchery	1 (0.4%)	0
		Icy Cr 09.0125	Icy Cr Hatchery	3 (1.3%)	0
		Wilkeson Cr 10.0432	Clarks Crk Hatchery	1 (0.4%)	0
		Grovers Cr Hatchery	Grovers Cr Hatchery	30 (13.5%)	30
		Voight Cr 10.0414	Voights Cr Hatchery	5 (2.2%)	0
	Southern Puget Sound (26.9%)	Chambers Cr 12.0007	Garrison Hatchery	13 (5.8%)	0
		McAllister Springs Hatch	Kalama Cr Hatchery	1 (0.4%)	0
		Clear Cr 11.0013C	Clear Creek Hatchery	8 (3.6%)	6
		Narrows Marina Pens	Narrows Marina Pens	2 (0.9%)	0
		Deschutes R 13.0028	Tumwater Falls Hatchery	13 (5.8%)	0
		Minter Cr 15.0048	Minter Cr Hatchery	22 (9.9%)	0
	Kalama Cr 11.0017	Kalama Cr Hatchery	1 (0.4%)	0	
Total				223	55

Table 5.16 Season-total estimates of Chinook salmon encounters by size/mark-status and total estimates of angler effort, summarized for all seasons to date of the Marine Area 10 summer Chinook MSF. Values may not add up exactly due to rounding error.

Season Dates	Effort (Angler-trips)	Retained Chinook				Released Chinook				Total Encounters
		LM	LU	SM	SU	LM	LU	SM	SU	
Jul 16 - Jul 28, 2007	8,374	1,469	30	70	8	209	497	3,101	723	6,107
Jul 16 - Aug 15, 2008	13,808	1,027	3	4	0	128	510	189	385	2,246
Jul 16 - Aug 31, 2009	23,179	1,505	22	116	0	220	82	2,488	1,017	5,450
Jul 16 - Aug 31, 2010	21,636	2,950	33	37	9	432	1,026	1,024	1,665	7,178
Jul 16 - Aug 31, 2011	27,753	2,548	14	94	14	372	1,872	964	694	6,573
Jul 16 - Aug 19, 2012	17,823	2,976	17	88	17	443	377	6,343	1,950	12,212
Jul 16 - Aug 18, 2013	27,317	3,434	6	77	17	512	298	2,149	1,603	8,097
Jul 16 - Aug 7, 2014	11,892	1,063	4	0	4	159	322	1,629	322	3,503
Jul 16 - Aug 15, 2016	9,314	1,032	0	53	0	154	274	1,087	593	3,192
Jul 16 - Aug 15, 2017	13,466	2,072	0	153	0	310	741	4,134	1112	8,522
Jul 16 - Aug 16, 2018	19,622	4,695	21	155	14	702	1010	3,733	1097	11,428
Jul 25 - Aug 16, 2019	16,115	3,202	3	64	14	478	1032	396	331	5,521
Jul 16- Aug 31, 2020	28,880	1,375	6	135	28	205	1123	4079	2079	9,029
Jul 16- Aug 21, 2021	22,900	3,268	25	199	57	488	1094	9791	3220	18,143
Jul 14 - Aug 31, 2022	30,594	4,100	12	140	8	613	1,046	2,938	2,589	11,446
Jul 13 - Aug 20, 2023	24,447	3,153	21	228	14	471	1,462	6,581	2,512	14,442
Jul 18, - Aug 12, 2024	16,701	3,327	16	111	4	497	1,258	3,027	1,957	10,197

6) Marine Area 11 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a spring Chinook MSF in Marine Area 11, as a series of short openers on June 5-8, June 12-15, and reopened 7 days/week on June 20-30, 2024 due to low catch rates. WDFW also implemented a summer Chinook MSF in Marine Area 11 as a series of short openers on July 18-20, July 25-27, and reopened 7 days/week due to low catch rates on August 1 – September 30, 2024. WDFW’s Puget Sound Sampling Unit (PSSU) implemented an intensive monitoring program, a Full Murthy design, in Marine Area 11 throughout the season to collect the data needed to estimate key parameters characterizing the fishery and its impacts on unmarked salmon. Sampling activities included dockside creel sampling and collection of voluntary salmon trip reports (STRs) from the angling public. The fishery controls for the entire summer of Marine Area 11 were total catch (4,802), sublegal encounters (8,515), and unmarked encounters (2,938). **Table 6.2** summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). In this section, we present results from our monitoring activities during the Marine Area 11 summer Chinook MSF.

Table 6.1 Fishery dates and fishery retention status of salmon in the 2024 summer Chinook salmon MSF in Marine Area 11.

Start Date	End Date	Fishery Status	Days
5-Jun	8-Jun	Open	4
9-Jun	11-Jun	Closed	3
12-Jun	15-Jun	Open	4
16-Jun	19-Jun	Closed	4
20-Jun	30-Jun	Open	11
1-Jul	17-Jul	Closed	17
18-Jul	20-Jul	Open	3
21-Jul	24-Jul	Closed	4
25-Jul	27-Jul	Open	3
28-Jul	30-Jul	Closed	3
1-Aug	30-Sep	Open	61
Total days open			86

Table 6.2 Sampling/estimation details on target parameters associated with the overall Marine Area 11 summer mark-selective fishery monitoring program.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Creel Sampling	Fishing effort (boat & angler trips); kept and released fish	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release	One week	Within days, estimates were produced by day-type strata (weekday/weekend). Each week we sampled every Friday, Saturday, and Sunday, and we randomly selected n=2 out of N=4 weekdays (Monday-Thursday) for sampling.
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data were not used for estimation of Chinook encounters for this fishery (Table 6.10).
On-the-water Surveys	Proportion of total angler effort that uses sample-frame sites (i.e., site “size measures”) versus out-of-frame sites.	Total on-water boat and angler counts at assumed peak effort time interval (instantaneous count); spatial distribution of recreational fishing boats in the area.	Boats and anglers	Month	A total of 22 boat surveys (11 weekday and 11 weekend) were conducted during the two-month fishery.
Test Fishing	Size (legal/sublegal) and mark-status composition (marked, unmarked) of encountered Chinook salmon	Chinook salmon length, age, and DNA-based ² stock composition; species composition of non-Chinook salmon encounters	Fish encounter	Season	Test fishery data were only used to estimate the size/mark-status proportions (LM = 41%; LU% = 8%; SM% = 31%; SU% = 19% Table 6.13) needed to produce encounter and mortality estimates (CV = 0.15).
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Encounter data for non-Chinook salmon species (e.g., Coho salmon) that the angler may record on the STR form	Fish encounter	Season	49 STRs were returned during this fishery (Table 6.11). Because TF data met sample size requirements of CV < 0.20, STRs were not needed to produce encounter and mortality estimates.
Overall Fishery Impacts Estimation	Total Chinook salmon encounters and mortalities by size/mark-status group	Ratios of encounters and mortalities per kept Chinook salmon	N/A	Season	Estimated on a monthly time step but considered at the season-total level.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	The temporal resolution of DIT impacts is constrained by the total number of tags recovered. Only one tag has been processed for this fishery at the time this report was written.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.

² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 6.3 Estimates of total fishing effort and total salmon catch (harvest and releases) during the summer Chinook MSF in Marine Area 11. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Month	Stat Week	Start Date	End Date	Est. Effort		Est. Retained Chinook		Est. Released Chinook		Est. Total Chinook Encounters
				Boats	Anglers	AD	UM	AD	UM	
June	23	5-Jun	8-Jun	904	1,820	227	0	225	172	625
	24	12-Jun	15-Jun	657	1,207	190	2	188	142	521
	25	19-Jun	23-Jun	735	1,458	121	6	120	86	333
	26	24-Jun	30-Jun	980	1,748	175	0	173	132	480
July	29	18-Jul	20-Jul	1,231	2,202	321	5	318	237	881
	30	25-Jul	27-Jul	833	1,513	203	0	201	154	558
Aug	31	1-Aug	4-Aug	1,333	2,519	386	0	382	292	1,060
	32	5-Aug	11-Aug	1,565	2,934	429	0	425	324	1,178
	33	12-Aug	18-Aug	1,432	2,613	420	0	416	318	1,154
	34	19-Aug	25-Aug	1,430	2,586	219	2	217	163	601
	35	26-Aug	1-Sep	2,385	4,640	175	0	173	132	481
Sept	36	2-Sep	8-Sep	1,689	3,344	60	0	59	45	165
	37	9-Sep	15-Sep	1,919	3,688	26	2	26	17	71
	38	16-Sep	22-Sep	1,712	3,198	13	0	13	10	35
	39	23-Sep	29-Sep	1,249	2,313	25	2	25	17	69
	40	30-Sep	30-Sep	131	212	5	0	5	4	15
Total:				20,183	37,995	2,995	20	2,966	2,244	8,225
Variance:				113,359	388,536	6,765	5	541,406	184,286	942,566
SE:				337	623	82	2	736	429	971
CV (%):				2	2	3	11	25	19	12
95% CI:				19,523 - 20,843	36,773 - 39,217	2,833 - 3,156	15 - 24	1,524 - 4,409	1,403 - 3,086	6,322 - 10,128

Table 6.4 Number of total length samples collected from retained Chinook salmon collected during dockside angler interviews in the summer Chinook MSF in Marine Area 11.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	1,239	17	1,256
Unmarked	6	3	9
Total	1,245	20	1,265

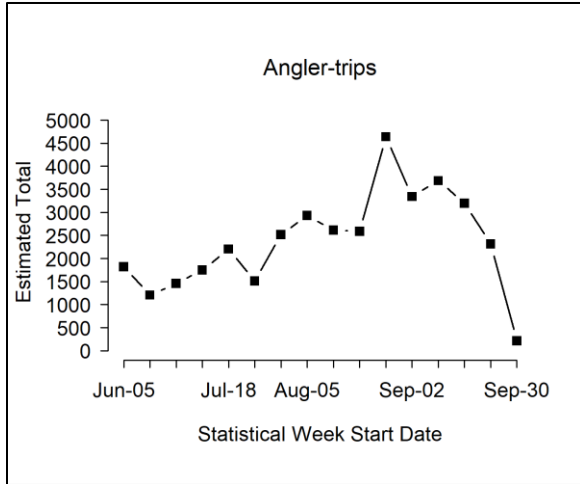


Figure 6.1 Temporal patterns in fishing effort during the summer Chinook MSF in Marine Area 11.

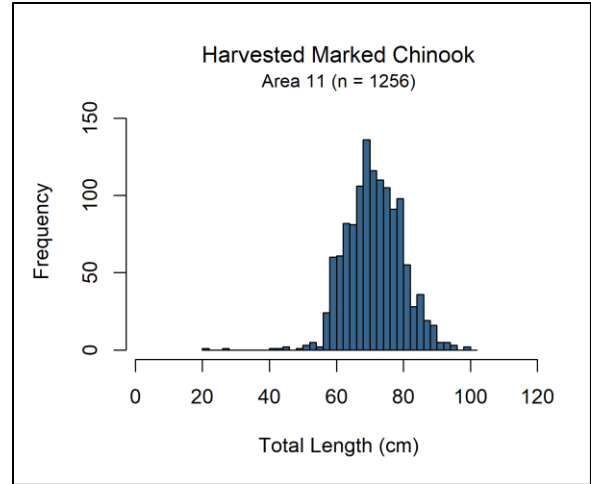


Figure 6.3 Length-frequency distribution of retained marked Chinook sampled in dockside angler interviews during the summer Chinook MSF in Marine Area 11. Note: displayed values are observations where lengths are taken.

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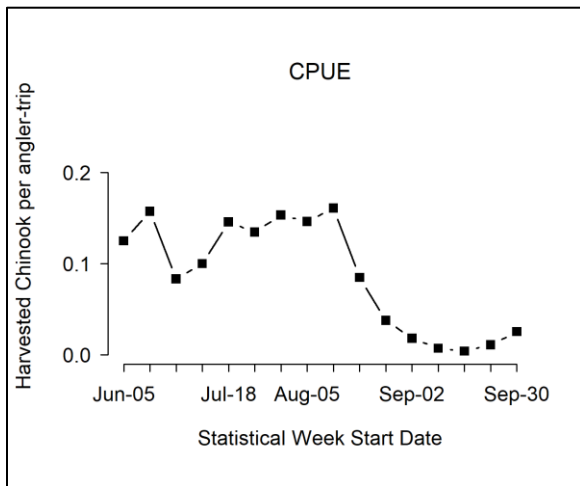


Figure 6.2 Temporal patterns in CPUE (landed Chinook per angler trip) during the summer Chinook MSF in Marine Area 11.

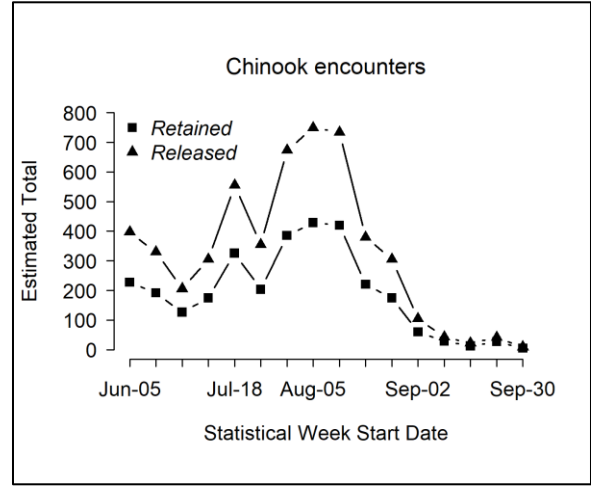


Figure 6.4 Temporal patterns in Chinook salmon encounters (retained and released) during the summer Chinook MSF in Marine Area 11.

Table 6.5 Comparison of modeled and estimated total Chinook salmon encounters for the summer Chinook MSF in Marine Area 11. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Data Source	Group	Total Encounters	Legal	Sublegal	Landed Only
FRAM Encounters	UM	2,938	1,250	1,688	25
	AD	12,319	5,491	6,828	4,777
	Total	15,257	6,741	8,516	4,802
	% Marked	81	81	80	99
Estimated (Creel) Encounters	UM	2,264	679	1,585	20
	AD	5,961	3,395	2,565	2,995
	Total	8,225	4,075	4,150	3,014
	% Marked	72	83	62	99

Table 6.6 Summary of season-wide fishery impact estimates for the summer Chinook MSF in Marine Area 11. Release mortality rate = 0.15 for legal fish and 0.20 for sublegal fish. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Size/mark group	Encounters	Retained	Released	Release Mortality	Total Mortality	Var	SE	95% CI	CV (%)
Legal AD	3,395	2,954	441	66	3,020	13,812	118	2,790 - 3,251	4
Legal UM	679	13	666	100	113	1,210	35	45 - 181	31
Sublegal AD	2,565	41	2,525	505	546	9,071	95	359 - 732	17
Sublegal UM	1,585	7	1,578	316	322	5,253	72	180 - 464	23
Total	8,225	3,014	5,211	987	4,001	29,347	171	3,665 - 4,337	4

Table 6.7 Comparison of modeled and estimated total Chinook salmon mortalities for the summer Chinook MSF in Marine Area 11. Values may not add up perfectly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Mortality Category	FRAM Chinook Mortalities			Estimated Chinook Mortalities		
	UM	AD	Total	UM	AD	Total
Total (Landed + Released)	548	6,489	7,037	435	3,566	4,001
Released Legal	185	346	531	100	66	166
Released Sublegal	338	1,366	1,704	316	505	821
Landed Only	25	4,777	4,802	20	2,995	3,014

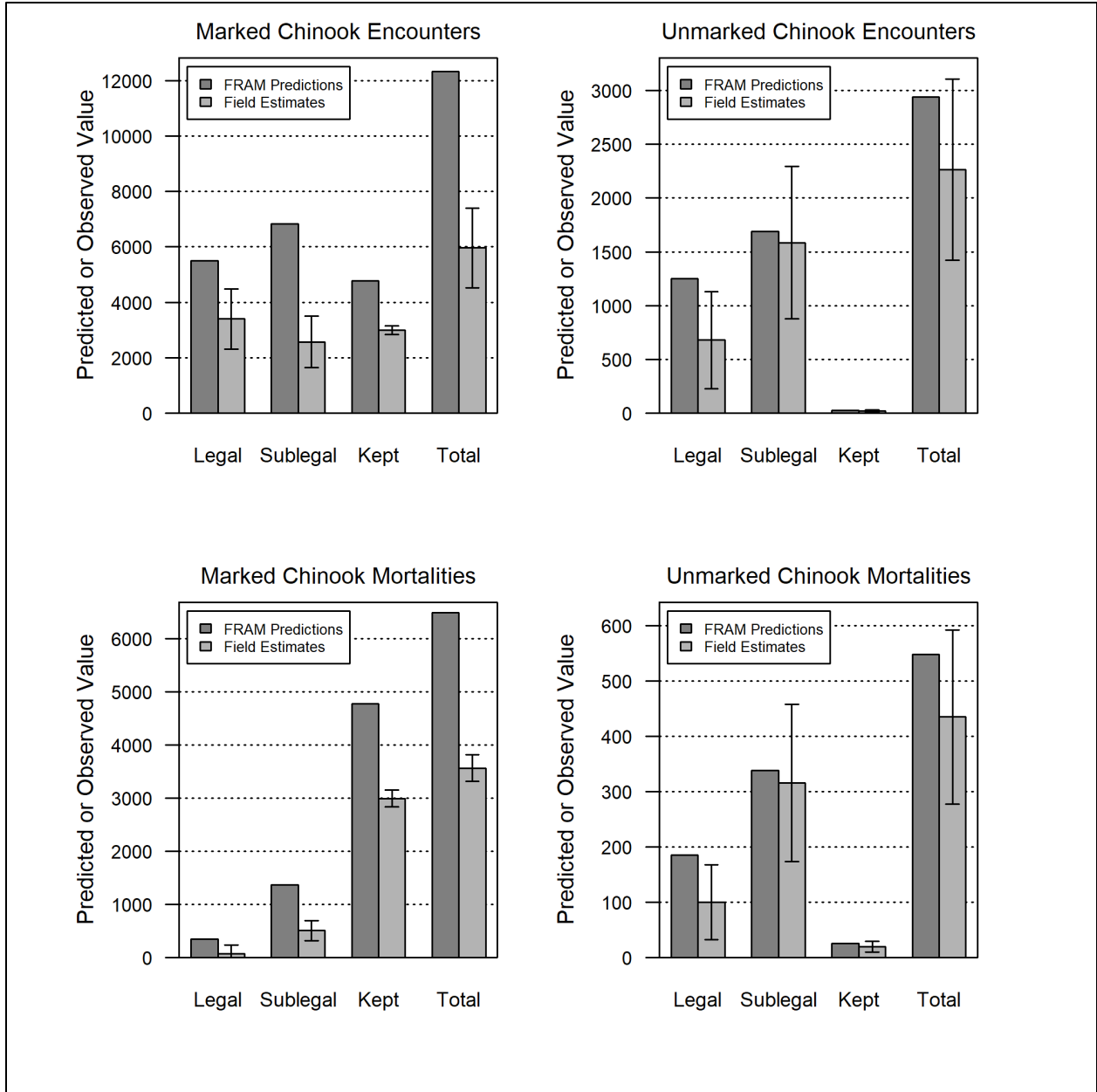


Figure 6.5 Comparison of modeled and estimated total Chinook salmon encounters and mortalities for the summer Chinook MSF in Marine Area 11. Error bars represent approximate 95% confidence intervals for field estimates.

Table 6.8 Summary of the total number of anglers intercepted during on-the-water surveys conducted for the summer Chinook MSF in Marine Area 11. Sites in bold represent those included in the dockside sample frame.

Site Name	Weekday Anglers	Season Total (unadj.) Size Measure	Weekend Anglers	Season Total (unadj.) Size Measure
Alki Point	1	0.0006	0	0.0000
Armeni Public Ramp	12	0.0076	17	0.0078
Bellingham Marine Park Dock	2	0.0013	3	0.0014
Breakwater Marina (Warters)	37	0.0236	53	0.0244
Browns Point Ramp	8	0.0051	13	0.0060
Browns Point Shore	1	0.0006	0	0.0000
Brownsville Marina	13	0.0083	3	0.0014
Chambers Bay Beach	1	0.0006	2	0.0009
Commencement Bay Marina Services (Foss Hrb Mrna)	54	0.0344	63	0.0290
Dash Point Shore	16	0.0102	29	0.0133
Day Island Marina	15	0.0095	10	0.0046
Des Moines Marina (Moorage)	106	0.0675	139	0.0639
Des Moines Marina (Slings & Moorage)	10	0.0064	4	0.0018
Dockton Ramp, Vashon Is	6	0.0038	15	0.0069
Elliott Bay Marina	13	0.0083	13	0.0060
Foss Tug Dock	1	0.0006	9	0.0041
Gig Harbor Marina	82	0.0522	49	0.0225
Gig Harbor Ramp	86	0.0547	84	0.0386
Home Public Ramp	1	0.0006	3	0.0014
Horsehead Bay Ramp	2	0.0013	2	0.0009
Manchester Public Ramp	35	0.0223	21	0.0097
Narrows Marina (Boathouse And Rental) (Private)	68	0.0433	94	0.0432
Narrows Ramp	10	0.0064	5	0.0023
Olalla Public Ramp	4	0.0025	2	0.0009
Point Defiance Beach	2	0.0013	6	0.0028
Point Defiance Boathouse	173	0.1101	199	0.0915
Point Defiance Public Ramp	497	0.3164	893	0.4104
Port Orchard Marina	2	0.0013	7	0.0032
Port Orchard Public Ramp	2	0.0013	8	0.0037
Private	74	0.0471	91	0.0418
Quartermaster Marina (Vashon Is)	12	0.0076	19	0.0087
Redondo Ramp	132	0.0840	209	0.0960
Shilshole Marina	26	0.0165	5	0.0023
Steilacoom Marina	1	0.0006	2	0.0009
Steilacoom Public Ramp	2	0.0013	0	0.0000
Tacoma Yacht Club	5	0.0032	0	0.0000
Tyee Marina/Ramp	49	0.0312	53	0.0244
Unknown	2	0.0013	3	0.0014
Wollochet Bay Public Ramp	2	0.0013	1	0.0005
Zittels Dock	2	0.0013	1	0.0005

Zittels Marina	4	0.0025	3	0.0014
Adelaide Beach Road	0	0.0000	2	0.0009
Bainbridge Is/Agate Pass, Bch Launch	0	0.0000	1	0.0005
Blake Island	0	0.0000	2	0.0009
Bremerton Yacht Club	0	0.0000	2	0.0009
Des Moines Yacht Club	0	0.0000	2	0.0009
Eagle Harbor Waterfront Park	0	0.0000	2	0.0009
Edmonds Dry Storage (Boat Loft (Priv. Fork Lift))	0	0.0000	2	0.0009
Edmonds Marina	0	0.0000	4	0.0018
Fox Island Public Ramp	0	0.0000	2	0.0009
Gardiner Ramp	0	0.0000	1	0.0005
Hylebos Boat Haven	0	0.0000	4	0.0018
Jarrell Cove Marina	0	0.0000	2	0.0009
New Marysville Public Ramp	0	0.0000	2	0.0009
Ole & Charlie's Marinas	0	0.0000	3	0.0014
Pleasant Harbor Marina	0	0.0000	2	0.0009
Point Roberts Marina	0	0.0000	2	0.0009
Shilshole Public Ramp	0	0.0000	1	0.0005
Solo Point (Tatsolo Pt-Ft Lewis) Rm	0	0.0000	4	0.0018
Three Tree Point Launch (Pt Pully)	0	0.0000	3	0.0014
Total Anglers	1571	1	2176	1

Table 6.9 Monthly sample rates (Total retained Chinook sampled¹ / Estimated retained Chinook) for the summer Chinook MSF in Marine Area 11. AD = marked (adipose-clipped), UM = unmarked.

Time period			Estimated Retained Chinook			Number of Chinook sampled			Sample Rate
Month	Stat Weeks	Dates	AD	UM	Total	AD	UM	Total	
June	23 - 26	5 Jun - 30 Jun	713	8	721	304	3	307	42.60%
July	29 - 30	18 Jul - 27 Jul	524	5	529	178	2	180	34.00%
Aug	31 - 35	1 Aug - 1 Sep	1,629	2	1,631	688	2	690	42.30%
Sept	36 - 40	2 Sep - 30 Sep	129	5	134	37	2	39	29.20%
Season Total			2,995	20	3,014	1,207	9	1,216	40.30%

¹ Number of retained Chinook salmon sampled includes all retained Chinook salmon inspected for CWTs, from all sites sampled during the summer Chinook MSF in Marine Area 11 (creel estimates and fish sampled as part of baseline sampling).

Table 6.10 Dockside encounters (retained and released) by size-mark category during the summer Chinook salmon MSF in Marine Area 11. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Dockside Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	1268	218	282	76
Bias-corrected size/mark composition	61.20%	11.82%	15.29%	11.69%
Variance	0.00024	0.00010	0.00014	0.00003

Table 6.11 Total Chinook salmon encountered (retained and released) by private-boat anglers logging their trips on STRs during the 2024 summer Chinook salmon MSF in Marine Area 11, with estimates of legal-size and overall (legal and sublegal) mark rates. AD = marked (adipose-clipped), UM = unmarked. Variances associated with size/mark-status proportions and mark rates are provided in parentheses.

Data Source	Effort and Sample Size	Legal		Sublegal		Totals	Mark Rate	
		AD	UM	AD	UM		Overall	Legal
Private STR	49 1-trip STRs	47	11	13	1	72	0.83	0.81
Size/mark-status composition:		0.65	0.15	0.18	0.01			
Variance:		(0.0032)	(0.0018)	(0.0021)	(0.0002)			

Table 6.12 Fishery-total estimates of retained and released salmon (other than Chinook) for the summer Chinook MSF in Marine Area 11. Values may not add up exactly due to rounding error. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Start Date	End Date	Retained Salmon			Released Salmon					
			Coho AD	Coho UM	Coho UK	Coho AD	Coho UM	Coho UK	Chum	Cutthroat	Unknown
23	5-Jun	8-Jun	6	2	0	2	4	6	0	19	36
24	12-Jun	15-Jun	10	4	0	2	0	2	0	0	54
25	19-Jun	23-Jun	10	6	0	0	0	10	0	0	30
26	24-Jun	30-Jun	4	6	0	0	4	6	0	0	108
29	18-Jul	20-Jul	70	38	2	9	5	18	0	0	37
30	25-Jul	27-Jul	77	31	2	3	7	41	0	13	47
31	1-Aug	4-Aug	57	37	0	12	0	21	2	0	46
32	5-Aug	11-Aug	72	23	2	29	15	99	0	4	50
33	12-Aug	18-Aug	54	28	0	5	10	66	0	0	107
34	19-Aug	25-Aug	184	47	0	7	2	45	0	0	80
35	26-Aug	1-Sep	2,383	512	38	106	45	217	0	10	349
36	2-Sep	8-Sep	2,008	397	19	31	24	81	0	26	160
37	9-Sep	15-Sep	1,669	410	2	89	84	127	0	0	338
38	16-Sep	22-Sep	1,877	518	3	61	14	178	5	38	193
39	23-Sep	29-Sep	390	304	0	84	15	72	0	35	340
40	30-Sep	30-Sep	40	26	0	17	0	5	0	5	5
Season Total:			8,909	2,387	69	459	229	994	7	150	1,980
Variance:			84,056	14,794	464	1,132	416	17,710	17	1,023	15,158
Standard Error:			290	122	22	34	20	133	4	32	123
CV (%):			3	5	31	7	9	13	55	21	6
95% CI:			8,341 - 9,477	2,149 - 2,626	27 - 111	393 - 525	189 - 269	733 - 1,255	0 - 15	87 - 213	1,739 - 2,222

Table 6.13 Composition of test fishery Chinook salmon encounters and associated mark-rate and size/mark-status proportion estimates for the summer Chinook salmon MSF in Marine Area 11. AD = marked (adipose-clipped), UM = unmarked.

Stat Week	Fishing Effort		Legal		Sublegal		Total
	Days	Hours Fished	AD	UM	AD	UM	
24	5	43.81	14	3	1	0	18
26	6	37.60	1	0	0	0	1
27	6	33.44	2	0	4	2	8
30	7	41.66	6	3	0	2	11
31	8	38.51	3	0	2	0	5
32	1	7.14	0	1	0	1	2
33	11	52.05	7	2	4	3	16
34	11	55.93	8	0	4	3	15
35	9	55.43	4	0	8	2	14
36	4	16.50	0	0	2	2	4
37	4	11.08	0	0	0	0	0
38	4	17.59	0	0	2	3	5
39	4	16.00	0	0	2	1	3
40	4	22.05	0	0	5	1	6
41	1	7.62	0	0	0	1	1
Total	85	456.41	45	9	34	21	109
Size/mark-status composition:			0.41	0.08	0.31	0.19	
Variance:			(0.0022)	(0.0007)	(0.0020)	(0.0014)	
Legal size mark rate:			0.83				
Overall mark rate:			0.72				

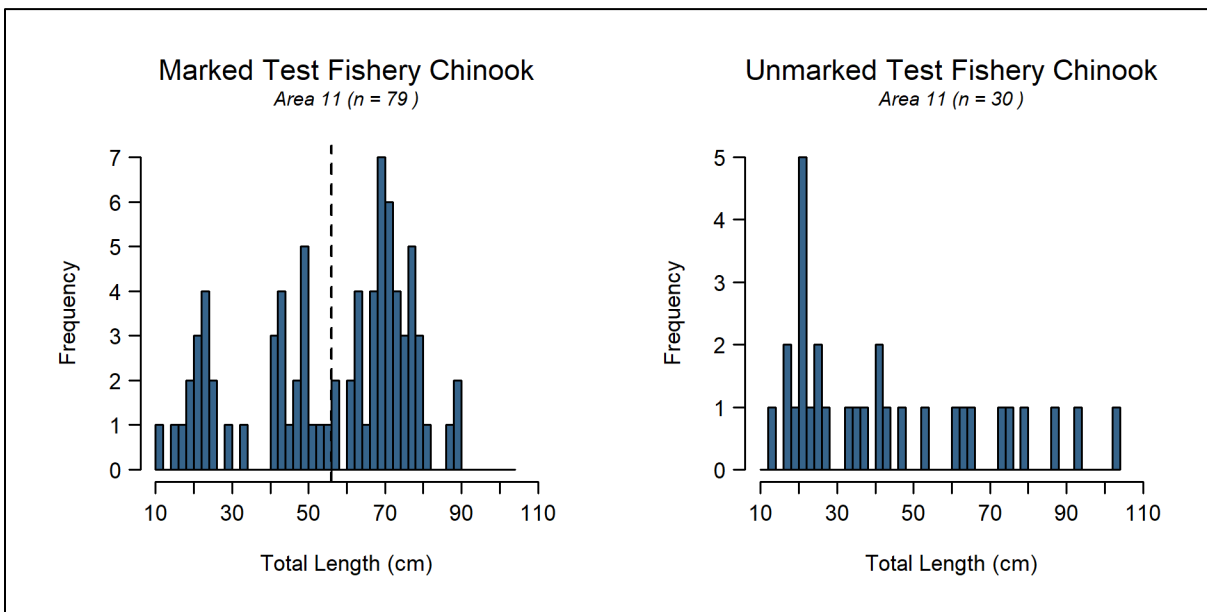


Figure 6.6 Length-frequency distributions of marked (*left panel*) and unmarked (*right panel*) Chinook salmon encountered by test fishers during the summer Chinook salmon MSF in Marine Area 11. The vertical dashed line in the left panel corresponds to the legal-size limit (22 in or 56 cm).

Table 6.14 Summary of double-index tagged (DIT) Chinook salmon kept by anglers and estimated total mortality of unmarked DIT Chinook salmon due to hook-and-release impacts resulting from the summer Chinook MSF in Marine Area 11. AD = marked (adipose-clipped), UM = unmarked.

Hatchery	Brood Year	DITs Obs	Est.AD	var(Est.AD)	UM DIT Enc	Est.UM	var(Est.UM)	SE(Est.UM)
George Adams Hatchery	2021	1	2.4	3.29	2.4	0.2	0.034	0.18
Grovers Cr Hatchery	2021	2	4.8	6.59	4.8	0.5	0.066	0.36
Total		3	7.1	9.88	7.2	0.7	0.099	0.55

Table 6.15 Summary of coded-wire tags recovered from Chinook salmon harvested during the 2024 summer Chinook MSF in Marine Area 11. The field “Number DITs” corresponds to the number of tags that belonged to double-index tag groups. Note: Not all tags have been processed before the writing of this report.

Release Domain	Release Region	Release Site	Rearing Location	CWTs Recovered	No. DITs	
BC	Fraser River & Thompson River (4.8%)	R-Chilliwack R	H-Chilliwack River H	1 (4.8%)	0	
WA	Hood Canal (4.8%)	Purdy Cr 16.0005	George Adams Hatchery	1 (4.8%)	1	
	Mid Puget Sound (38.1%)	Northern Puget Sound (4.8%)	Tulalip Cr 07.0001	Bernie Gobin Hatch	1 (4.8%)	0
		Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	5 (23.8%)	0	
		Grovers Cr Hatchery	Grovers Cr Hatchery	2 (9.5%)	2	
	Southern Puget Sound (42.9%)	Issaquah Cr 08.0178	Issaquah Hatchery	1 (4.8%)	0	
		Deschutes R 13.0028	Tumwater Falls Hatchery	2 (9.5%)	0	
		Minter Cr 15.0048	Minter Cr Hatchery	2 (9.5%)	0	
		Chambers Cr 12.0007	Garrison Hatchery	3 (14.3%)	0	
		Clear Cr 11.0013C	Clear Creek Hatchery	1 (4.8%)	0	
McAllister Springs Hatch	Kalama Cr Hatchery	1 (4.8%)	0			
NA	Na (4.8%)	Point Defiance Net Pens	Clarks Crk Hatchery	1 (4.8%)	0	
Total				21	3	

Table 6.16 Season-total estimates of Chinook salmon encounters by size/mark-status and total estimates of angler effort, summarized for all seasons to date of the Area 11 summer Chinook MSF. Values may not add up exactly due to rounding error.

Season Dates	Effort (Angler-trips)	Retained Chinook				Released Chinook				Total Encounters
		LM	LU	SM	SU	LM	LU	SM	SU	
Jun 1 - Sept 30, 2007	78,958	10,192	74	354	21	1,511	3,015	8,033	2,357	25,558
Jun 1 - Sept 30, 2008	65,728	7,277	18	100	5	1,087	1,999	1,969	248	12,703
Jun 1 - Sept 30, 2009	80,157	3,149	20	117	17	470	1,269	3,820	3,302	12,164
Jun 1 - Sept 30, 2010	54,594	3,883	64	27	0	580	1,105	900	405	6,965
Jun 1 - Sept 30, 2011	69,919	2,559	9	77	12	382	2,120	1,932	1,579	8,670
Jun 1 - Sept 30, 2012	56,065	4,894	57	72	14	731	2,665	2,649	1,157	12,240
Jun 1 - Sept 30, 2013	64,509	3,056	35	55	0	457	1,289	1,214	669	6,774
Jun 1 - Sept 30, 2014	39,426	2,912	20	11	0	435	1,585	2,142	861	7,966
Jun 1 - Sept 30, 2015	40,858	1,447	10	41	3	216	748	2,491	1599	6,556
Jun 24 - Aug 19, 2016	13,766	1,437	4	40	0	215	443	1,359	298	3,794
Jun 1 - Sep 30, 2017	35,899	3,276	20	265	36	489	1056	2,962	1685	9,789
Jun 1 - Aug 25, 2018	32,041	5,476	26	164	7	818	2222	7,929	2690	19,333
Jul 1 - Aug 25, 2019	22,935	2,574	12	32	0	385	1174	1,266	520	5,963
Jul 1 - Sep 30, 2020	40,866	2,002	25	100	0	299	677	1,851	234	5,189
Jun 16 - Aug 24, 2021	29,977	3,165	12	104	9	473	1136	2,576	948	8,424
Jun 1 - Aug 13, 2022	12,697	3,329	11	53	3	497	1,264	1,516	1,076	7,750
Jun 1 - Jul 14, 2023	11,567	1,755	11	40	2	262	1,558	2,985	1,006	7,619
Jun 5 - Sep 30, 2024	37,995	2,954	13	41	7	441	666	2,525	1,578	8,225

7) Marine Area 12 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a summer Chinook MSF in the sub-area of Marine Area 12 south of Ayock from July 1 through September 30, 2024. WDFW's Puget Sound Sampling Unit (PSSU) implemented a "Baseline Sampling" program (see WDFW 2012a for details) consisting of dockside angler interviews with catch sampling along with efforts to distribute and collect voluntary salmon trip reports (STRs) from the angling public.

Unlike the other survey designs, Baseline Sampling does not provide a means for generating in-season or immediate post-season estimates of fishery total catch and effort. These estimates will be available approximately one year after the closure of the fishery through the WDFW Catch Record Card (CRC) program. CRC and STR data will be used to estimate total Chinook salmon encounters and mortalities by size and mark-status using the methods provided in Conrad, R., T. Garber, and G. Rose (2020). Draft memo to the co-managers "Assessment of Two Methods for Estimating the Composition of Chinook Encounters Early in the Fishing Season." While these descriptors of MSF impacts are not presented in this document, they will be available at a future time.

Table 7.1 summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). In this section we present results from our monitoring activities during the Marine Area 12 summer Chinook MSF, including relative catch and effort patterns over the course of the season based on the assumption that baseline-sampling observations of these parameters are good indicators of associated fishery-wide trends.

Table 7.1 Sampling/estimation details on target parameters associated with the overall Marine Area 12 summer mark-selective fishery monitoring program.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Angler Interviews (Baseline Sampling)	Observed (in-sample) fishing effort (boat & angler trips); kept and released fish.	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release	Week	Observed catch per angler trip and species composition data obtained from baseline sampling will ultimately be combined with Catch Record Card (CRC) data to produce fishery-total estimates at a later time (approximately one year following the fishery).
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data will not be used for estimation of Chinook encounters for this fishery (Table 7.6).
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status composition (marked, unmarked) of encountered Chinook	Encounter data for non-Chinook species (e.g., Coho) that the angler may record on the STR form	Fish encounter	Season	29 STRs were turned in during the fishery (Table 7.7). With adequate sample size, STR data will be used to estimate encounters and mortalities at a later date.
Overall Fishery Impacts Estimation	Total Chinook encounters and mortalities, by size/mark-status group	Ratios of encounters and mortalities per kept Chinook	N/A	Season	Will be estimated at a later date using the CRC-based retained Chinook estimate, when it becomes available.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	Will be estimated at a later date using the CRC-based retained Chinook estimate, when it becomes available. The temporal resolution of DIT impacts is constrained by the total number of tags recovered. No CWTs have been processed for this area at the time this report was written.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.

² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 7.2 Observations of fishing effort, salmon harvest, and reported salmon releases, by week, for the summer Chinook MSF in Marine Area 12. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total estimates. AD = marked (adipose-clipped), UM = unmarked, UK = unknown mark status.

Stat Week	Start	End	Effort		Retained Fish			Released Fish		
			Boats	Anglers	Chin AD	Chin UM	Chin UK	Chin AD	Chin UM	Chin UK
27	2-Jul	7-Jul	4	8	2	0	0	0	0	0
28	8-Jul	14-Jul	45	116	31	0	0	2	6	7
29	15-Jul	21-Jul	60	117	22	0	3	4	3	12
30	25-Jul	28-Jul	118	270	136	0	4	4	10	6
31	29-Jul	4-Aug	113	207	56	0	1	6	6	6
32	5-Aug	11-Aug	115	254	79	0	12	15	9	9
33	12-Aug	18-Aug	88	202	18	0	0	9	4	2
34	19-Aug	25-Aug	76	137	39	0	0	3	10	2
35	26-Aug	31-Aug	59	96	3	0	0	6	10	2
36	4-Sep	8-Sep	20	34	7	0	0	6	0	0
37	10-Sep	15-Sep	65	85	16	0	0	0	0	0
38	16-Sep	22-Sep	31	46	0	0	0	0	1	0
39	27-Sep	29-Sep	18	22	0	0	0	0	0	0
40	30-Sep	30-Sep	7	10	0	0	0	0	0	0
Season Total			819	1,604	409	0	20	55	59	46

Table 7.3 Observations of fishing effort, harvest and reported releases of salmon other than Chinook, by week, for the summer Chinook salmon MSF in Marine Area 12. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total estimates. AD = marked (adipose-clipped), UM = unmarked, UK = unknown mark-status, UD = undetermined mark-status.

Stat Week	Start	End	Effort		Retained Fish				Released Fish				
			Boats	Anglers	Coho AD	Coho UM	Coho UK	Chum	Coho AD	Coho UM	Coho UK	Chum	Sockeye
27	2-Jul	7-Jul	4	8	2	0	0	0	0	0	1	0	0
28	8-Jul	14-Jul	45	116	1	0	0	0	0	0	1	0	0
29	15-Jul	21-Jul	60	117	0	0	0	0	0	0	0	0	0
30	25-Jul	28-Jul	118	270	0	0	0	0	0	0	0	0	1
31	29-Jul	4-Aug	113	207	1	0	0	0	0	0	0	0	0
32	5-Aug	11-Aug	115	254	2	0	0	0	1	0	0	0	0
33	12-Aug	18-Aug	88	202	0	1	0	0	0	0	1	0	0
34	19-Aug	25-Aug	76	137	37	10	0	0	1	0	3	4	0
35	26-Aug	31-Aug	59	96	74	19	0	0	0	0	4	15	0
36	4-Sep	8-Sep	20	34	16	4	0	0	0	0	0	3	0
37	10-Sep	15-Sep	65	85	15	10	0	0	0	0	0	31	0
38	16-Sep	22-Sep	31	46	19	29	0	1	0	0	0	11	0
39	27-Sep	29-Sep	18	22	5	24	0	0	0	0	0	0	0
40	30-Sep	30-Sep	7	10	0	26	0	0	0	0	0	0	0
Season Total			819	1,604	172	123	0	1	2	0	10	64	1

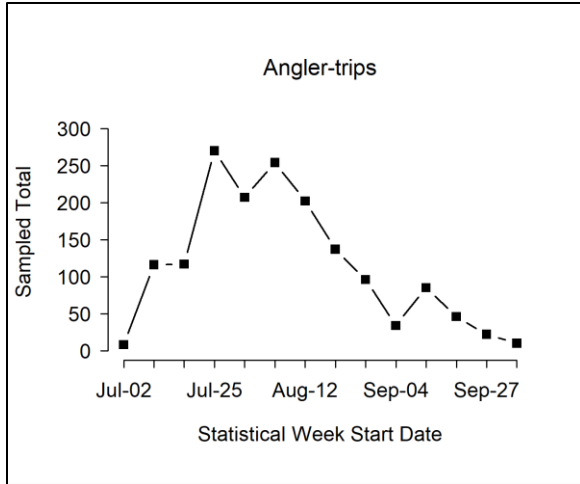


Figure 7.1 Temporal patterns in fishing effort during the 2024 summer Chinook salmon MSF in Marine Area 12. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total.

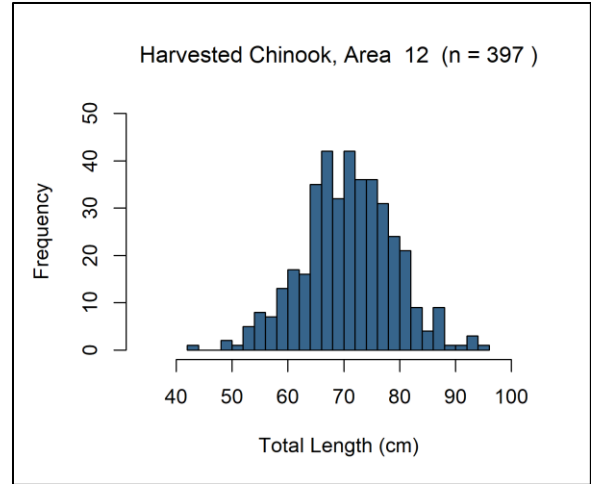


Figure 7.3 Length-frequency distributions of retained marked Chinook salmon sampled in dockside angler interviews during the 2024 summer Chinook salmon MSF in Marine Area 12.

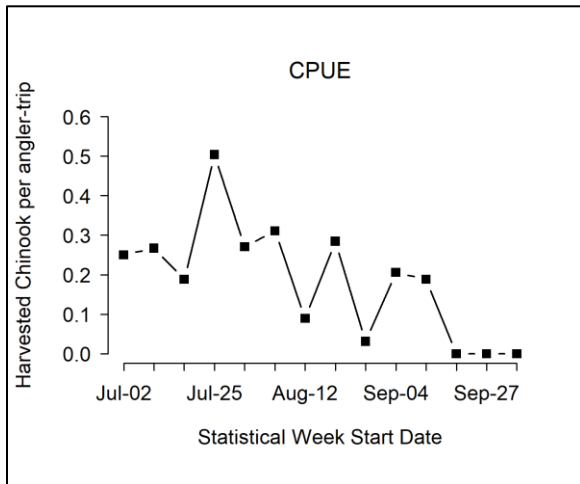


Figure 7.2 Temporal patterns in CPUE (number of Chinook salmon landed per angler trip) during the 2024 summer Chinook salmon MSF in Marine Area 12. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total estimates.

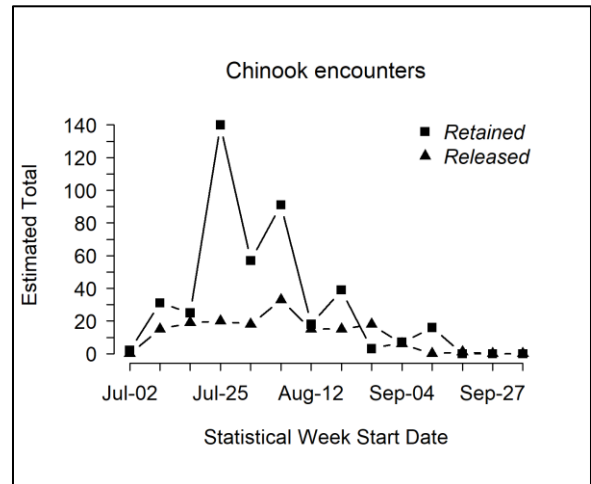


Figure 7.4 Temporal patterns in Chinook salmon encounters (number retained and released) during the 2024 summer Chinook salmon MSF in Marine Area 12

Table 7.4 List of sites sampled with the number of sampling events (site-days) during the 2024 summer Chinook salmon MSF in Marine Area 12.

Location Name	Number of Site Days Sampled Per Month			Total Site-Days	% of Total
	July	August	September		
Lingerlonger Ramp	1	0	0	1	0.33%
Saltwater Park Ramp (Hood Canal Rmp Tacoma Light)	23	28	6	57	18.57%
Skokomish Tide Flats	11	12	14	37	12.05%
Twanoh State Park	3	19	8	30	9.77%
Union Ramp	21	24	12	57	18.57%
Belfair Park	0	1	8	9	2.93%
Hoodsport Shore	0	11	19	30	9.77%
Menard's Landing (Near Tahuya)	0	1	3	4	1.30%
Pleasant Harbor Boat Ramp (WDFW)	0	1	0	1	0.33%
Quilcene Bay Ramp	0	9	21	30	9.77%
Quilcene Tide Flats	0	11	19	30	9.77%
Summertide Resort	0	1	10	11	3.58%
Tahuya Ramp	0	1	7	8	2.61%
Misery Point Ramp	0	0	2	2	0.65%
Grand Total	59	119	129	307	100.00%

Table 7.5 Summary of total lengths from retained Chinook salmon collected during dockside angler interviews in the 2024 summer Chinook salmon MSF in Marine Area 12.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	394	3	397
Unmarked	0	0	0
Total	394	3	397

Table 7.6 Dockside encounters (retained and released) by size-mark category during the 2024 summer Chinook salmon MSF in Marine Area 12. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Dockside Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	395	34	56	24
Bias-corrected size/mark composition	69.07%	6.68%	11.00%	13.25%
Variance	0.00089	0.00015	0.00040	0.00035

Table 7.7 Total Chinook salmon encountered (retained and released) by private-boat anglers logging their trips on STRs during the 2024 summer Chinook salmon MSF in Marine Area 12, with estimates of legal-size and overall (legal and sublegal) mark rates. AD = marked (adipose-clipped), UM = unmarked. Variances associated with size/mark-status proportions and mark rates are provided in parentheses.

Data Source	Effort and Sample Size	Legal		Sublegal		Totals	Mark Rate	
		AD	UM	AD	UM		Overall	Legal
Private STR	29 1-trip STRs	50	4	8	3	65	0.89	0.93
Size/mark-status composition:		0.77	0.06	0.12	0.05			
Variance:		(0.0028)	(0.0009)	(0.0017)	(0.0007)			

8) Marine Area 13 Summer Mark-Selective Chinook Fishery

The Washington Department of Fish and Wildlife (WDFW) implemented a summer Chinook MSF in Marine Area 13 from May 1 through September 30, 2024. WDFW’s Puget Sound Sampling Unit (PSSU) implemented a “Baseline Sampling” program (see WDFW 2012a for details) consisting of dockside angler interviews with catch sampling along with efforts to distribute and collect voluntary salmon trip reports (STRs) from the angling public whenever possible.

Unlike the other survey designs, Baseline Sampling does not provide a means for generating in-season or immediate post-season estimates of fishery total catch and effort. These estimates will be available approximately one year after the closure of the fishery through the WDFW Catch Record Card (CRC) program. CRC and STR data will be used to estimate total Chinook salmon encounters and mortalities by size and mark-status using the methods provided in Conrad, R., T. Garber, and G. Rose (2020). While these descriptors of MSF impacts are not presented in this document, they will be available at a future time.

Table 8.1 summarizes the parameters estimated and the sampling activities associated with each parameter. Specific procedures used for collecting these data and estimating critical data parameters are presented in detail in our separate Methods Report (WDFW 2012a). In this section we present results from our monitoring activities during the Marine Area 13 summer Chinook MSF, including relative catch and effort patterns over the course of the season based on the assumption that baseline-sampling observations of these parameters are good indicators of associated fishery-wide trends.

Table 8.1 Sampling/estimation details on target parameters associated with the overall Marine Area 13 mark-selective fishery monitoring program.

Activity	Focal Parameter(s)	Secondary Parameter(s)	Sample Unit(s)	Finest Estimation Time Step	Comments
Dockside Angler Interviews (Baseline Sampling)	Observed (in-sample) fishing effort (boat & angler trips); kept and released fish.	Catch rates (CPUE); length, age, and CWT composition of harvest ¹ ; collection of angler fishing methods.	Angler trip; kept fish; reported fish release	Week	Observed catch per angler trip and species composition data obtained from baseline sampling will ultimately be combined with Catch Record Card (CRC) data to produce fishery-total estimates at a later time (approximately one year following the fishery).
		Size (legal/sublegal) and mark-status (marked/unmarked) composition of encountered Chinook salmon	Boat trip	Season	Dockside encounter data will not be used for estimation of Chinook encounters for this fishery (Table 8.6).
Voluntary Salmon Trip Reports (STRs)	Size (legal/sublegal) and mark-status composition (marked, unmarked) of encountered Chinook salmon	Encounter data for non-Chinook salmon species (e.g., Coho salmon) that the angler may record on the STR form	Fish encounter	Season	41 STRs were turned in during the fishery (Table 8.7). With adequate sample size, STR data will be used to estimate encounters and mortalities at a later date.
Overall Fishery Impacts Estimation	Total Chinook salmon encounters and mortalities by size/mark-status group	Ratios of encounters and mortalities per kept Chinook salmon	N/A	Season	Will be estimated at a later date using the CRC-based retained Chinook salmon estimate, when it becomes available.
Coded-wire tag (CWT) Impacts Estimation	Marked/unmarked double-index tag (DIT) encounters and mortalities	N/A	N/A	Season	Will be estimated at a later date using the CRC-based retained Chinook salmon estimate when it becomes available. The temporal resolution of DIT impacts is constrained by the total number of tags recovered. No CWTs have been processed for this area at the time this report was written.

¹ The length and CWT composition of landed catch was assessed on a season-wide basis for impact estimation.

² Though samples were collected, DNA-based estimates of stock composition are not yet available for this fishery.

Table 8.2 Observations of fishing effort, salmon harvest, and reported salmon releases, by week, for the summer Chinook MSF in Marine Area 13. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total estimates. AD = marked (adipose-clipped), UM = unmarked, UK = unknown mark status.

Stat Week	Start	End	Effort		Retained Fish			Released Fish		
			Boats	Anglers	Chin AD	Chin UM	Chin UK	Chin AD	Chin UM	Chin UK
18	1-May	4-May	52	95	15	0	0	2	5	0
19	8-May	11-May	42	74	6	0	0	0	0	0
20	17-May	18-May	8	18	0	0	0	0	0	0
21	22-May	25-May	19	37	1	0	0	0	0	4
22	30-May	1-Jun	22	38	4	0	0	0	0	0
23	5-Jun	8-Jun	30	57	22	0	0	2	4	0
24	12-Jun	15-Jun	17	30	1	0	0	0	0	0
25	20-Jun	23-Jun	9	20	3	0	0	0	0	0
26	29-Jun	30-Jun	16	30	0	0	0	0	1	0
27	2-Jul	7-Jul	71	125	4	0	0	1	6	5
28	8-Jul	14-Jul	86	144	9	0	0	3	6	2
29	15-Jul	21-Jul	35	69	2	0	0	3	0	0
30	23-Jul	28-Jul	37	66	6	0	0	0	1	4
31	29-Jul	4-Aug	62	104	10	0	0	1	1	0
32	5-Aug	11-Aug	73	135	18	0	0	3	0	1
33	13-Aug	18-Aug	121	225	39	0	0	3	3	1
34	19-Aug	25-Aug	92	180	16	0	1	6	0	3
35	26-Aug	1-Sep	71	125	11	0	1	0	5	4
36	4-Sep	8-Sep	56	101	4	0	0	2	1	6
37	11-Sep	15-Sep	98	230	0	0	0	1	1	1
38	18-Sep	22-Sep	101	219	1	0	0	0	0	0
39	23-Sep	29-Sep	45	86	0	0	0	2	0	0
Season Total			1,163	2,208	172	0	2	29	34	31

Table 8.3 Observations of fishing effort, harvest and reported releases of salmon other than Chinook, by week, for the summer Chinook salmon MSF in Marine Area 13. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total estimates. AD = marked (adipose-clipped), UM = unmarked, UK = unknown mark-status, UD = undetermined mark-status.

Stat Week	Start	End	Effort		Retained Fish			Released Fish		
			Boats	Anglers	Coho AD	Coho UM	Coho UK	Coho AD	Coho UM	Coho UK
18	1-May	4-May	52	95	0	0	0	0	0	0
19	8-May	11-May	42	74	0	0	0	0	0	1
20	17-May	18-May	8	18	0	0	0	0	0	0
21	22-May	25-May	19	37	0	0	0	0	0	0
22	30-May	1-Jun	22	38	0	0	0	0	0	0
23	5-Jun	8-Jun	30	57	0	0	0	0	0	0
24	12-Jun	15-Jun	17	30	0	0	0	0	0	1
25	20-Jun	23-Jun	9	20	0	0	0	0	0	0
26	29-Jun	30-Jun	16	30	0	0	0	0	0	0
27	2-Jul	7-Jul	71	125	0	1	0	0	0	0
28	8-Jul	14-Jul	86	144	0	1	0	0	1	0
29	15-Jul	21-Jul	35	69	0	0	0	0	0	0
30	23-Jul	28-Jul	37	66	2	0	0	0	0	0
31	29-Jul	4-Aug	62	104	0	0	0	0	0	0
32	5-Aug	11-Aug	73	135	0	0	0	0	0	0
33	13-Aug	18-Aug	121	225	1	0	0	1	0	0
34	19-Aug	25-Aug	92	180	6	0	0	0	0	1
35	26-Aug	1-Sep	71	125	15	0	0	1	0	13
36	4-Sep	8-Sep	56	101	38	0	0	4	1	0
37	11-Sep	15-Sep	98	230	218	2	2	25	10	4
38	18-Sep	22-Sep	101	219	71	0	0	5	6	1
39	23-Sep	29-Sep	45	86	20	0	0	9	1	8
Season Total			1,163	2,208	371	4	2	45	19	29

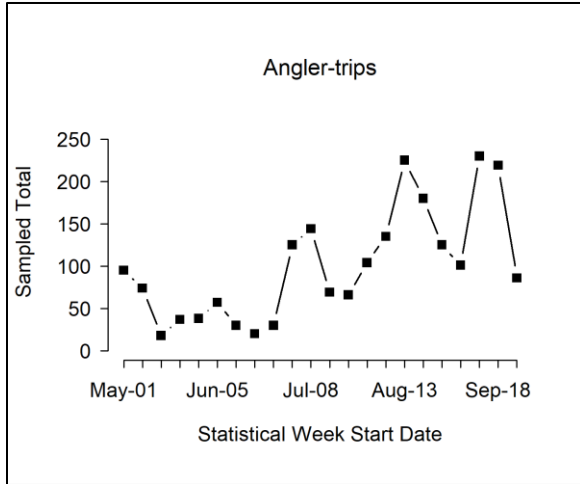


Figure 8.1 Temporal patterns in fishing effort during the 2024 summer Chinook salmon MSF in Marine Area 13. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total.

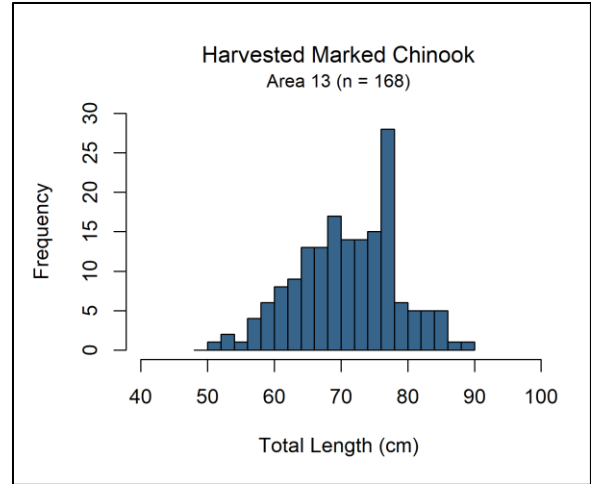


Figure 8.3 Length-frequency distributions of retained marked Chinook salmon sampled in dockside angler interviews during the 2024 summer Chinook salmon MSF in Marine Area 13.

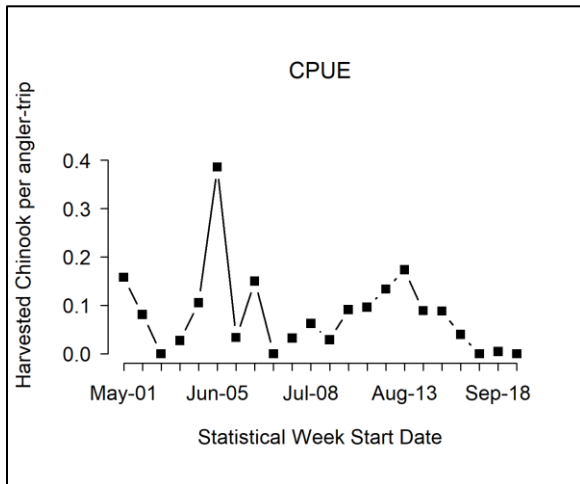


Figure 8.2 Temporal patterns in CPUE (number of Chinook salmon landed per angler trip) during the 2024 summer Chinook salmon MSF in Marine Area 13. Note: displayed values are sample observations (summed across sampled sites) and not fishery-total estimates.

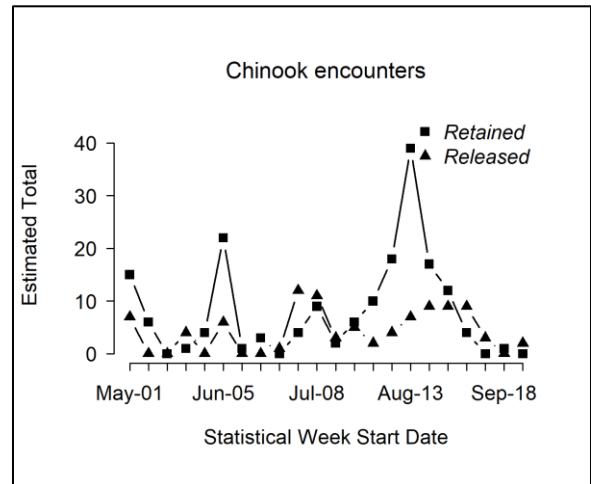


Figure 8.4 Temporal patterns in Chinook salmon encounters (number retained and released) during the 2024 summer Chinook salmon MSF in Marine Area 13.

Table 8.4 List of sites sampled with the number of sampling events (site-days) during the 2024 summer Chinook salmon MSF in Marine Area 13.

Location Name	Number of Site Days Sampled Per Month					Total Site-Days	% of Total
	May	June	July	August	September		
Arcadia Ramp	1	0	1	0	4	6	1.99%
Hartstine Is. Ramp (Aka Latimer's Landing)	1	0	7	8	15	31	10.30%
Luhr Beach Ramp	3	3	22	26	13	67	22.26%
Zittels Marina	3	6	22	27	10	68	22.59%
Allyn Public Ramp	0	0	2	1	5	8	2.66%
Boston Harbor Ramp/Marina	0	0	11	22	10	43	14.29%
East Bay Marina/Ramp (Oly. Isle)	0	0	14	30	14	58	19.27%
Fox Island Public Ramp	0	0	1	1	0	2	0.66%
Grapeview Public Ramp	0	0	2	1	1	4	1.33%
Horsehead Bay Ramp	0	0	1	0	0	1	0.33%
Joemma Beach Ramp	0	0	1	0	0	1	0.33%
Solo Point (Tatsolo Pt-Ft Lewis) Rm	0	0	1	0	0	1	0.33%
Steilacoom Public Ramp	0	0	3	1	0	4	1.33%
Vaughn Public Ramp	0	0	1	0	0	1	0.33%
Wollochet Bay Public Ramp	0	0	1	0	0	1	0.33%
Concrete Dock	0	0	0	1	0	1	0.33%
Priest Point Park	0	0	0	1	3	4	1.33%
Grand Total	8	9	90	119	75	301	100.00%

Table 8.5 Summary of total lengths from retained Chinook salmon collected during dockside angler interviews in the 2024 summer Chinook salmon MSF in Marine Area 13.

Mark Type	Number Sampled		
	Legal-size	Sublegal-size	Total
Marked	167	1	168
Unmarked	0	0	0
Total	167	1	168

Table 8.6 Docksides encounters (retained and released) by size-mark category during the 2024 summer Chinook salmon MSF in Marine Area 13. Retained fish were sampled for mark-status and length, released fish by size-mark status were reported by the angler.

Docksides Encounters				
Metric	Legal		Sublegal	
	LM	LU	SM	SU
Encounters	171	26	26	8
Bias-corrected size/mark composition	65.88%	11.26%	11.26%	11.61%
Variance	0.00124	0.00063	0.00054	0.00050

Table 8.7 Total Chinook salmon encountered (retained and released) by private-boat anglers logging their trips on STRs during the 2024 summer Chinook salmon MSF in Marine Area 13, with estimates of legal-size and overall (legal and sublegal) mark rates. AD = marked (adipose-clipped), UM = unmarked. Variances associated with size/mark-status proportions and mark rates are provided in parentheses.

Data Source	Effort and Sample Size	Legal		Sublegal		Totals	Mark Rate	
		AD	UM	AD	UM		Overall	Legal
Private STR	41 1-trip STRs	39	13	8	1	61	0.77	0.75
Size/mark-status composition:		0.64	0.21	0.13	0.02			
Variance:		(0.0038)	(0.0028)	(0.0019)	(0.0003)			

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APPENDICES

1) SITE WEIGHTS

Appendix 1 Size measures by sample date, for sites sampled during dockside creel surveys for the summer Chinook MSF in Marine Area 5.

Sample Date	Week	Location #1	Site Size	Location #2	Site Size
7/1/2024	27	Mason's East Docks	0.335	Van Riper's North Docks	0.1579
7/5/2024	27	Mason's Ramp & Docks	0.3182	Mason's East Docks	0.2584
7/6/2024	27	Mason's Ramp & Docks	0.3182	Curleys/Straitside Docks	0.0635
7/7/2024	27	Mason's East Docks	0.2584	Van Riper's South Docks	0.1489
7/8/2024	28	Mason's Ramp & Docks	0.1996	Van Riper's North Docks	0.1579
7/10/2024	28	Mason's West Docks	0.0957	Mason's East Docks	0.335
7/12/2024	28	Mason's West Docks	0.058	Van Riper's South Docks	0.1489
7/12/2024	28	Mason's Ramp & Docks	0.3182	Van Riper's North Docks	0.153
7/14/2024	28	Curleys/Straitside Docks	0.0635	Van Riper's South Docks	0.1489
7/16/2024	29	Mason's Ramp & Docks	0.1996	Van Riper's South Docks	0.1507
7/18/2024	29	Mason's East Docks	0.335	Van Riper's South Docks	0.1507
7/19/2024	29	Mason's East Docks	0.2584	Van Riper's North Docks	0.153
7/20/2024	29	Mason's East Docks	0.2584	Van Riper's South Docks	0.1489
7/21/2024	29	Mason's Ramp & Docks	0.3182	Van Riper's North Docks	0.153
7/22/2024	30	Mason's East Docks	0.335	Van Riper's South Docks	0.1507
7/25/2024	30	Van Riper's North Docks	0.1556	Van Riper's South Docks	0.1616
7/26/2024	30	Mason's Ramp & Docks	0.3182	Van Riper's North Docks	0.153
7/27/2024	30	Mason's East Docks	0.2584	Van Riper's North Docks	0.153
7/28/2024	30	Mason's East Docks	0.335	Van Riper's South Docks	0.1507
7/31/2024	31	Mason's East Docks	0.3349	Van Riper's North Docks	0.1556

Appendix 2 Size measures by sample date, for sites sampled during dockside creel surveys for the summer Chinook MSF in Marine Area 9.

Sample Date	Week	Location #1	Site Size	Location #2	Site Size
7/18/2024	29	Everett Ramp	0.39	Port Townsend Boat Haven Ramp	0.2006
7/19/2024	29	Everett Ramp	0.458	Fort Casey/Keystone Ramp	0.1599
7/20/2024	29	Everett Ramp	0.561	Port Townsend Boat Haven Ramp	0.1691
8/4/2024	31	Everett Ramp	0.4638	Fort Casey/Keystone Ramp	0.1312

Appendix 3 Size measures by sample date, for sites sampled during dockside creel surveys for the summer Chinook MSF in Marine Area 10.

Sample Date	Week	Location #1	Site Size	Location #2	Site Size
7/18/2024	29	Shilshole Ramp	0.5387	Armeni Ramp	0.1208
7/19/2024	45	Shilshole Ramp	11.4624	Armeni Ramp	11.2287
7/20/2024	46	Shilshole Ramp	12.4624	Armeni Ramp	12.2287
7/25/2024	49	Shilshole Ramp	15.4624	Armeni Ramp	15.2287
7/26/2024	50	Shilshole Ramp	16.4624	Armeni Ramp	16.2287
7/27/2024	51	Shilshole Ramp	17.4624	Armeni Ramp	17.2287
8/4/2024	57	Shilshole Ramp	23.4624	Armeni Ramp	23.2287
8/11/2024	62	Shilshole Ramp	28.4624	Armeni Ramp	28.2287
8/12/2024	63	Shilshole Ramp	29.4624	Armeni Ramp	29.2287

Appendix 4 Size measures by sample date, for sites sampled during dockside creel surveys for the summer Chinook MSF in Marine Area 11.

Sample Date	Week	Location #1	Site Size	Location #2	Site Size
6/5/2024	23	Point Defiance Public Ramp	0.5071	Point Defiance Boathouse	0.2864
6/6/2024	23	Point Defiance Public Ramp	0.5071	Point Defiance Boathouse	0.2864
6/7/2024	23	Point Defiance Public Ramp	0.6679	Point Defiance Boathouse	0.1738
6/8/2024	23	Point Defiance Public Ramp	0.6679	Point Defiance Boathouse	0.1738
6/12/2024	24	Point Defiance Public Ramp	0.5071	Gig Harbor Ramp	0.1695
6/13/2024	24	Point Defiance Public Ramp	0.5071	Point Defiance Boathouse	0.2864
6/14/2024	24	Point Defiance Public Ramp	0.6679	Gig Harbor Ramp	0.1257
6/15/2024	24	Point Defiance Public Ramp	0.6679	Point Defiance Boathouse	0.1738
6/20/2024	25	Point Defiance Public Ramp	0.5071	Point Defiance Boathouse	0.2864
6/21/2024	25	Point Defiance Public Ramp	0.6679	Point Defiance Boathouse	0.1738
6/22/2024	25	Point Defiance Public Ramp	0.6679	Gig Harbor Ramp	0.1257
6/23/2024	25	Point Defiance Public Ramp	0.6679	Gig Harbor Ramp	0.1043
6/24/2024	26	Point Defiance Public Ramp	0.6086	Gig Harbor Ramp	0.0924
6/26/2024	26	Point Defiance Public Ramp	0.6086	Point Defiance Boathouse	0.2790
6/28/2024	26	Point Defiance Public Ramp	0.6361	Point Defiance Boathouse	0.2538
6/29/2024	26	Point Defiance Public Ramp	0.6361	Point Defiance Boathouse	0.2538
6/30/2024	26	Point Defiance Public Ramp	0.6361	Point Defiance Boathouse	0.2538
7/18/2024	29	Point Defiance Public Ramp	0.5325	Point Defiance Boathouse	0.2791
7/19/2024	29	Point Defiance Public Ramp	0.6361	Point Defiance Boathouse	0.2538
7/20/2024	29	Point Defiance Public Ramp	0.6361	Point Defiance Boathouse	0.2538
7/25/2024	30	Point Defiance Public Ramp	0.5325	Point Defiance Boathouse	0.2791
7/26/2024	30	Point Defiance Public Ramp	0.6361	Point Defiance Boathouse	0.2334
7/27/2024	30	Point Defiance Public Ramp	0.6361	Gig Harbor Ramp	0.0935
8/1/2024	31	Point Defiance Public Ramp	0.5325	Point Defiance Boathouse	0.2791
8/2/2024	31	Point Defiance Public Ramp	0.6090	Point Defiance Boathouse	0.2243

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8/3/2024	31	Point Defiance Public Ramp	0.6090	Point Defiance Boathouse	0.2243
8/4/2024	31	Point Defiance Public Ramp	0.6090	Point Defiance Boathouse	0.2243
8/6/2024	32	Point Defiance Public Ramp	0.5325	Gig Harbor Ramp	0.1456
8/7/2024	32	Point Defiance Public Ramp	0.5325	Gig Harbor Ramp	0.1456
8/9/2024	32	Point Defiance Public Ramp	0.6090	Point Defiance Boathouse	0.2243
8/10/2024	32	Point Defiance Public Ramp	0.6090	Point Defiance Boathouse	0.2243
8/11/2024	32	Point Defiance Public Ramp	0.6090	Point Defiance Boathouse	0.2243
8/13/2024	33	Point Defiance Public Ramp	0.5669	Gig Harbor Ramp	0.1456
8/15/2024	33	Point Defiance Public Ramp	0.5669	Point Defiance Boathouse	0.2187
8/16/2024	33	Point Defiance Public Ramp	0.6258	Point Defiance Boathouse	0.2530
8/17/2024	33	Point Defiance Public Ramp	0.6258	Point Defiance Boathouse	0.2530
8/18/2024	33	Point Defiance Public Ramp	0.6258	Point Defiance Boathouse	0.2530
8/19/2024	34	Point Defiance Public Ramp	0.6058	Gig Harbor Ramp	0.1381
8/22/2024	34	Point Defiance Public Ramp	0.6058	Point Defiance Boathouse	0.2299
8/23/2024	34	Point Defiance Public Ramp	0.6513	Point Defiance Boathouse	0.2242
8/24/2024	34	Point Defiance Public Ramp	0.6513	Point Defiance Boathouse	0.2242
8/25/2024	34	Point Defiance Public Ramp	0.6513	Point Defiance Boathouse	0.2242
8/28/2024	35	Point Defiance Public Ramp	0.6058	Point Defiance Boathouse	0.2299
8/29/2024	35	Point Defiance Public Ramp	0.6058	Gig Harbor Ramp	0.1381
8/30/2024	35	Point Defiance Public Ramp	0.6513	Point Defiance Boathouse	0.2242
8/31/2024	35	Point Defiance Public Ramp	0.6513	Point Defiance Boathouse	0.2242
9/1/2024	35	Point Defiance Public Ramp	0.5633	Point Defiance Boathouse	0.3318
9/5/2024	36	Point Defiance Public Ramp	0.5633	Point Defiance Boathouse	0.3318
9/6/2024	36	Point Defiance Public Ramp	0.6719	Gig Harbor Ramp Point Defiance Boathouse	0.1114
9/7/2024	36	Point Defiance Public Ramp	0.6719	Gig Harbor Ramp Point Defiance Boathouse	0.1255
9/8/2024	36	Point Defiance Public Ramp	0.6719	Point Defiance Boathouse	0.1803
9/10/2024	37	Point Defiance Public Ramp	0.5633	Point Defiance Boathouse	0.3318
9/12/2024	37	Point Defiance Public Ramp	0.5633	Gig Harbor Ramp	0.0978
9/13/2024	37	Point Defiance Public Ramp	0.6719	Gig Harbor Ramp	0.1255
9/14/2024	37	Point Defiance Public Ramp	0.6719	Point Defiance Boathouse	0.1803
9/15/2024	37	Point Defiance Public Ramp	0.6719	Gig Harbor Ramp	0.1255
9/17/2024	38	Point Defiance Public Ramp	0.5633	Point Defiance Boathouse	0.3318
9/18/2024	38	Point Defiance Public Ramp	0.5633	Gig Harbor Ramp	0.0978
9/20/2024	38	Point Defiance Public Ramp	0.6719	Gig Harbor Ramp	0.1255
9/21/2024	38	Point Defiance Public Ramp	0.6719	Point Defiance Boathouse	0.1803
9/22/2024	38	Point Defiance Public Ramp	0.6719	Point Defiance Boathouse	0.1803
9/24/2024	39	Point Defiance Public Ramp	0.6398	Point Defiance Boathouse	0.2769
9/25/2024	39	Point Defiance Public Ramp	0.6398	Point Defiance Boathouse	0.2769
9/27/2024	39	Point Defiance Public Ramp	0.6676	Point Defiance Boathouse	0.1985
9/28/2024	39	Point Defiance Public Ramp	0.6676	Point Defiance Boathouse	0.1985
9/29/2024	39	Point Defiance Public Ramp	0.6676	Gig Harbor Ramp	0.1114
9/30/2024	40	Point Defiance Public Ramp	0.6398	Point Defiance Boathouse	0.2769

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9) CWT RECOVERIES

Appendix 5 Coded-wire tag (CWT) recoveries from the summer 2024 Chinook MSF in Marine Area 5. Note: Not all tags have been processed before the writing of this report.

Area	Recovery Date	Tag Code	Brood Year	Release Site	Rearing Hatchery	Release Agency	DIT codes	FL(cm)	Label	Recovery Mark
5	1-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	63	CWT00088019	AD
5	1-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	57	CWT00088591	AD
5	1-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	65	CWT00088592	AD
5	1-Jul-24	211493	2020	Co Line Slu 03.1853A	Marblemount Hatchery	WDFW	NA	86	CWT00088593	AD
5	1-Jul-24	91595	2020	Santiam R & N Fk-1	Minto Ponds (N Santiam R)	ODFW	NA	63	CWT00095504	AD
5	1-Jul-24	638411	2021	Columbia R - General	Wells Hatchery	DCPUD	NA	50	CWT00095505	AD
5	1-Jul-24	637922	2020	Purdy Cr 16.0005	George Adams Hatchery	WDFW	637923	62	CWT00096970	AD
5	1-Jul-24	638022	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	NA	56	CWT00096971	AD
5	1-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	58	CWT00096973	AD
5	1-Jul-24	637920	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	65	CWT00096974	AD
5	5-Jul-24	637857	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	74	CWT00088597	AD
5	5-Jul-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	59	CWT00088598	AD
5	5-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	67	CWT00089165	AD
5	5-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	69	CWT00089188	AD
5	5-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	65	CWT00090518	AD
5	5-Jul-24	92064	2021	Snake R-1 (Hells Can	Irrigon Hatchery	ODFW	NA	65	CWT00095506	AD
5	5-Jul-24	637895	2020	Friday Cr 03.0017	Samish Hatchery	WDFW	637896	66	CWT00095507	AD
5	5-Jul-24	200152	2019	Similkameen R 490325	Similkameen Hatchery	WDFW	NA	96	CWT00150256	AD
5	5-Jul-24	186818	2020	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	78	CWT00150257	AD
5	5-Jul-24	637877	2020	Col R at Priest Rapids	Priest Rapids Hatchery	WDFW	637882	73	CWT00150258	AD
5	5-Jul-24	637866	2020	Washougal R 28.0159	Washougal Hatchery	WDFW	NA	54	CWT00150259	AD
5	5-Jul-24	211528	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	NA	59	CWT00150260	AD
5	5-Jul-24	186822	2020	R-Harrison R	H-Chehalis River H	CDFO	NA	64	CWT00150369	AD

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5	5-Jul-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	64	CWT00150383	AD
5	5-Jul-24	211596	2021	Stillaguamish R -Sf	Brenner Hatchery	STIL	NA	54	CWT00150384	AD
5	5-Jul-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	60	CWT00150385	AD
5	5-Jul-24	186804	2020	R-Nicola R	H-Spius Creek H	CDFO	NA	63	CWT00150387	AD
5	5-Jul-24	638022	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	NA	49	CWT00150390	AD
5	6-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	72	CWT00150205	AD
5	6-Jul-24	91966	2021	Big Cr (Lwr Col R)	Big Cr Hatchery	ODFW	NA	57	CWT00150391	AD
5	6-Jul-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	65	CWT00150393	AD
5	6-Jul-24	637901	2020	Wallace R 07.0940	Wallace R Hatchery	WDFW	637823	60	CWT00150394	AD
5	6-Jul-24	186818	2020	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	76	CWT00150395	AD
5	6-Jul-24	637925	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	71	OSP49119	AD
5	7-Jul-24	211511	2021	Skookum Cr 01.0273	Skookum Cr Hatchery	LUMMI	NA	55	CWT00088600	AD
5	7-Jul-24	91971	2021	Tanner Cr (Bnville)	Bonneville Hatchery	ODFW	NA	78	CWT00089399	AD
5	7-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	69	CWT00090513	AD
5	7-Jul-24	638029	2020	Chelan R 47.0052	Chelan Falls Hatchery	WDFW	NA	64	CWT00095509	AD
5	7-Jul-24	186818	2020	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	72	CWT00150206	AD
5	7-Jul-24	638333	2021	East Sound Bay (San)	Glenwood Springs	COOP	NA	61	CWT00150208	AD
5	7-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	60	CWT00150209	AD
5	7-Jul-24	186885	2021	R-Capilano R	H-Capilano River H	CDFO	NA	55	CWT00150210	AD
5	8-Jul-24	186885	2021	R-Capilano R	H-Capilano River H	CDFO	NA	60	CWT00095510	AD
5	8-Jul-24	637890	2020	Kendall Cr 01.0406	Kendall Cr Hatchery	WDFW	NA	62	CWT00097346	AD
5	10-Jul-24	637944	2020	Lyons Ferry Rel.Site	Lyons Ferry Hatchery	WDFW	NA	59	CWT00090515	AD
5	10-Jul-24	186818	2020	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	71	CWT00150211	AD
5	10-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	58	CWT00150212	AD
5	10-Jul-24	637924	2020	Elwha R 18.0272	Elwha Hatchery	WDFW	NA	95	CWT00150396	AD
5	12-Jul-24	637751	2019	Elwha R 18.0272	Elwha Hatchery	WDFW	NA	87	CWT00150214	AD
5	12-Jul-24	186885	2021	R-Capilano R	H-Capilano River H	CDFO	NA	66	CWT00150372	AD
5	12-Jul-24	56480	2021	Spring Cr 29.0159	Spring Cr Nfh	USFWS	56481	48	CWT00150397	AD

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5	13-Jul-24	211333	2019	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211339; 637775; 637720	64	CWT00089170	AD
5	13-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	62	CWT00089171	AD
5	13-Jul-24	186822	2020	R-Harrison R	H-Chehalis River H	CDFO	NA	66	CWT00150352	AD
5	13-Jul-24	637901	2020	Wallace R 07.0940	Wallace R Hatchery	WDFW	637823	61	CWT00150373	AD
5	14-Jul-24	91579	2020	Snake R-1 (Hells Can	Irrigon Hatchery	ODFW	NA	68	CWT00092600	AD
5	14-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	58	CWT00150215	AD
5	14-Jul-24	637918	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	54	CWT00150241	AD
5	14-Jul-24	637856	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	79	CWT00150243	AD
5	16-Jul-24	637863	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	77	CWT00089172	AD
5	16-Jul-24	637889	2020	Methow R 48.0007	NA	DCPUD	NA	71	CWT00095512	AD
5	16-Jul-24	637787	2020	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	72	CWT00095513	AD
5	16-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	50	CWT00095514	AD
5	16-Jul-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	55	CWT00095515	AD
5	16-Jul-24	211584	2021	Whitehorse Springs	Whitehorse Pond	STIL	NA	60	CWT00097301	AD
5	16-Jul-24	637787	2020	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	74	CWT00097302	AD
5	16-Jul-24	637855	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	76	CWT00150244	AD
5	16-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	70	CWT00150245	AD
5	18-Jul-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	81	CWT00089173	AD
5	18-Jul-24	637944	2020	Lyons Ferry Rel.Site	Lyons Ferry Hatchery	WDFW	NA	52	CWT00089180	AD
5	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	60	CWT00090289	AD
5	18-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	60	CWT00095517	AD
5	18-Jul-24	92065	2021	Big Cr (Lwr Col R)	Big Cr Hatchery	ODFW	NA	55	CWT00150246	AD
5	18-Jul-24	211543	2021	Co Line Slu 03.1853A	Marblemount Hatchery	WDFW	NA	55	CWT00150247	AD
5	19-Jul-24	186818	2020	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	74	CWT00089179	AD
5	19-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	52	CWT00089195	AD
5	19-Jul-24	211441	2020	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	73	CWT00092770	AD

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5	19-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	58	CWT00150248	AD
5	20-Jul-24	637924	2020	Elwha R 18.0272	Elwha Hatchery	WDFW	NA	78	CWT00089178	AD
5	20-Jul-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	69	CWT00089182	AD
5	20-Jul-24	186822	2020	R-Harrison R	H-Chehalis River H	CDFO	NA	83	CWT00090290	AD
5	20-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	58	CWT00090291	AD
5	20-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	50	CWT00090292	AD
5	20-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	56	CWT00095518	AD
5	20-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	59	CWT00150249	AD
5	20-Jul-24	637849	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	56	CWT00150250	AD
5	20-Jul-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	64	CWT00153544	NA
5	21-Jul-24	220291	2020	Big Canyon Accl Pond	Lyons Ferry Hatchery	NPT	NA	74	91250	AD
5	21-Jul-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	59	CWT00089320	AD
5	21-Jul-24	211543	2021	Co Line Slu 03.1853A	Marblemount Hatchery	WDFW	NA	56	CWT00089382	AD
5	21-Jul-24	91664	2020	Umatilla R	Bonneville Hatchery	ODFW	NA	78	CWT00150251	AD
5	22-Jul-24	56279	2020	Spring Cr 29.0159	Spring Cr Nfh	USFWS	56164	77	CWT00088301	AD
5	22-Jul-24	220405	2021	Captain Johns Pd	Lyons Ferry Hatchery	NPT	NA	68	CWT00153501	AD
5	25-Jul-24	91667	2020	Willamette R M Fk-1	Dexter Ponds (Willam	ODFW	NA	68	CWT00088302	AD
5	25-Jul-24	211491	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211490; 637628; 637811	75	CWT00095519	AD
5	25-Jul-24	638327	2021	Elwha R 18.0272	Elwha Hatchery	WDFW	NA	67	CWT00097304	AD
5	26-Jul-24	211393	2019	Kalama Cr 11.0017	Kalama Cr Hatchery	NISQ	NA	59	CWT00092593	AD
5	26-Jul-24	638284	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	57	CWT00095520	AD
5	26-Jul-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	80	CWT00095521	AD
5	26-Jul-24	637856	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	69	CWT00097305	AD
5	26-Jul-24	211528	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	NA	64	CWT00150374	AD
5	26-Jul-24	637963	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	60	CWT00153543	AD
5	27-Jul-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	73	CWT00097306	AD

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5	27-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	69	CWT00097309	AD
5	27-Jul-24	638315	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	638314	59	CWT00097310	AD
5	27-Jul-24	91970	2021	Youngs R & Bay	Cedc Net Pens	CCF	NA	64	CWT00150252	AD
5	27-Jul-24	56448	2021	Spring Cr 29.0159	Spring Cr Nfh	USFWS	56449	69	CWT00150253	AD
5	27-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	57	CWT00150376	AD
5	28-Jul-24	637922	2020	Purdy Cr 16.0005	George Adams Hatchery	WDFW	637923	64	CWT00089318	AD
5	28-Jul-24	211318	2019	Hoko R 19.0148	Hoko Falls Hatchery	MAKAH	NA	84	CWT00095522	AD
5	28-Jul-24	91981	2021	Elk R	Elk R Hatchery	ODFW	NA	66	CWT00097311	AD
5	28-Jul-24	638272	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	65	CWT00150254	AD
5	28-Jul-24	56448	2021	Spring Cr 29.0159	Spring Cr Nfh	USFWS	56449	59	CWT00150255	AD
5	28-Jul-24	638284	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	58	CWT00150262	AD
5	28-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	55	CWT00150263	AD
5	28-Jul-24	61958	2021	Mare Island Net Pen	Feather R Hatchery	CDFW	NA	58	CWT00150378	AD
5	28-Jul-24	637924	2020	Elwha R 18.0272	Elwha Hatchery	WDFW	NA	91	CWT00150379	AD
5	28-Jul-24	637852	2020	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	63	CWT00153502	AD
5	28-Jul-24	638315	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	638314	59	CWT00153511	AD
5	28-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	64	CWT00153521	AD
5	31-Jul-24	637791	2020	East Sound Bay (San)	Glenwood Springs	COOP	NA	68	CWT00095523	AD
5	31-Jul-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	64	CWT00097312	AD
5	31-Jul-24	637944	2020	Lyons Ferry Rel.Site	Lyons Ferry Hatchery	WDFW	NA	76	CWT00097313	AD
5	31-Jul-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	77	CWT00097501	AD
5	31-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	60	CWT00150268	AD
5	31-Jul-24	638299	2021	Col R at Priest Rapids	Priest Rapids Hatchery	WDFW	638298	67	CWT00150269	AD
5	31-Jul-24	220293	2020	Snake R at Pittsburg L	Lyons Ferry Hatchery	NPT	NA	79	CWT00150270	AD

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Appendix 6 Coded-wire tag (CWT) recoveries from the Chinook MSF in Marine Area 6. Note: Not all tags have been processed before the writing of this report.

Appendix 7 Coded-wire tag (CWT) recoveries from the Chinook MSF in Marine Area 7. Note: Not all tags have been processed before the writing of this report.

Area	Recovery Date	Tag Code	Brood Year	Release Site	Rearing Hatchery	Release Agency	DIT Codes	FL(cm)	Label	Recovery Mark
7	18-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	70	CWT00040126	AD
7	18-Jul-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	85	CWT00041042	AD
7	18-Jul-24	637895	2020	Friday Cr 03.0017	Samish Hatchery	WDFW	637896	91	CWT00085748	AD
7	18-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	69	CWT00150001	AD
7	18-Jul-24	211590	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	70	CWT00150019	AD
7	18-Jul-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	71	CWT00150039	AD
7	18-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	66	CWT00150040	AD
7	18-Jul-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	53	CWT00150081	AD
7	19-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	70	CWT00040128	AD
7	19-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	64	CWT00040459	AD
7	19-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	60	CWT00040462	AD
7	19-Jul-24	637853	2020	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	70	CWT00041087	AD
7	19-Jul-24	186603	2021	R-Nicola R	H-Spius Creek H	CDFO	NA	50	CWT00041088	AD
7	19-Jul-24	186812	2021	R-Cowichan R	H-Cowichan River H	CDFO	NA	55	CWT00044771	AD
7	19-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	67	CWT00150064	AD
7	19-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	62	CWT00150079	AD
7	19-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	58	CWT00150080	AD
7	19-Jul-24	211586	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	68	CWT00150084	AD
7	20-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	59	CWT00040460	AD

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7	20-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	73	CWT00040461	AD
7	20-Jul-24	637963	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	62	CWT00040463	AD
7	20-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	55	CWT00041045	
7	20-Jul-24	211511	2021	Skookum Cr 01.0273	Skookum Cr Hatchery	LUMMI	NA	66	CWT00150065	
7	20-Jul-24	637849	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	69	CWT00150086	AD
7	20-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	68	CWT00150087	AD
7	26-Jul-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	60	CWT00040397	AD
7	26-Jul-24	637865	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	NA	59	CWT00040458	AD
7	26-Jul-24	211505	2020	Kalama Cr 11.0017	Kalama Cr Hatchery	NISQ	NA	76	CWT00043771	AD
7	26-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	69	CWT00044344	AD
7	26-Jul-24	638316	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	638311	67	CWT00150076	AD
7	26-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	71	CWT00150077	AD
7	4-Aug-24	638022	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	NA	63	CWT00041048	AD
7	4-Aug-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	60	CWT00044080	AD
7	4-Aug-24	211441	2020	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	67	CWT00150018	AD
7	4-Aug-24	211586	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	69	CWT00150090	AD
7	4-Aug-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	57	CWT00150091	AD
7	13-Aug-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	72	CWT00044770	AD
7	13-Aug-24	638315	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	638314	65	CWT00150036	AD
7	13-Aug-24	180015	2022	R-Big Qualicum R	H-Big Qualicum River H	CDFO	NA	56	CWT00150073	AD
7	13-Aug-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	79	CWT00150074	AD
7	13-Aug-24	637791	2020	East Sound Bay (San)	Glenwood Springs	COOP	NA	72	CWT00150095	AD

Appendix 8 Coded-wire tag (CWT) recoveries from the Chinook MSF in Marine Area 9. Note: Not all tags have been processed before the writing of this report.

Area	Recovery Date	Tag Code	Brood Year	Release Site	Rearing Hatchery	Release Agency	DIT Codes	FL(cm)	Label	Recovery Mark
9	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	71	CWT00039934	AD

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9	18-Jul-24	638324	2021	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	56	CWT00039935	AD
9	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	67	CWT00039936	AD
9	18-Jul-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	60	CWT00039937	AD
9	18-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	57	CWT00039938	AD
9	18-Jul-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	63	CWT00039941	AD
9	18-Jul-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	82	CWT00039942	AD
9	18-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	56	CWT00039943	AD
9	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	72	CWT00083301	AD
9	18-Jul-24	638324	2021	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	55	CWT00083302	AD
9	18-Jul-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	79	CWT00083303	AD
9	18-Jul-24	638284	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	54	CWT00083304	AD
9	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	67	CWT00083305	AD
9	18-Jul-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	71	CWT00083306	AD
9	18-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	65	CWT00084384	AD
9	18-Jul-24	637915	2020	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	65	CWT00084385	AD
9	18-Jul-24	638276	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	66	CWT00084400	AD
9	18-Jul-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	71	CWT00084402	AD
9	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	74	CWT00084408	AD
9	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	68	CWT00084409	AD
9	18-Jul-24	211586	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	56	CWT00084410	AD
9	18-Jul-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	57	CWT00084416	AD
9	18-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	58	CWT00084417	AD
9	18-Jul-24	211490	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211491; 637628; 637811	63	CWT00088254	AD

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9	18-Jul-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	73	CWT00088255	AD
9	18-Jul-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	70	CWT00088654	AD
9	18-Jul-24	211490	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211491; 637628; 637811	59	CWT00088656	AD
9	18-Jul-24	637852	2020	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	69	CWT00088658	AD
9	18-Jul-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	53	CWT00088918	AD
9	18-Jul-24	637616	2019	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	70	CWT00089383	AD
9	18-Jul-24	637766	2020	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	82	CWT00089388	AD
9	18-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	67	CWT00089390	AD
9	18-Jul-24	637921	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	70	CWT00089393	AD
9	18-Jul-24	637810	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	76	CWT00090895	AD
9	18-Jul-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	67	CWT00092597	AD
9	18-Jul-24	637871	2020	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	64	CWT00092598	AD
9	18-Jul-24	637922	2020	Purdy Cr 16.0005	George Adams Hatchery	WDFW	637923	74	CWT00092599	AD
9	18-Jul-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	66	CWT00094375	AD
9	18-Jul-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	59	CWT00094378	AD
9	18-Jul-24	211590	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	66	CWT00094381	AD
9	18-Jul-24	637964	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	57	CWT00094382	AD
9	18-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	53	CWT00094383	AD
9	18-Jul-24	637856	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	71	CWT00094556	AD
9	18-Jul-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	66	CWT00094557	AD
9	18-Jul-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	67	CWT00094558	AD
9	18-Jul-24	211491	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211490; 637628; 637811	66	CWT00094562	AD
9	18-Jul-24	211511	2021	Skookum Cr 01.0273	Skookum Cr Hatchery	LUMMI	NA	58	CWT00094785	AD
9	18-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	58	CWT00094786	

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9	18-Jul-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	56	CWT00095691	
9	18-Jul-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	52	CWT00095692	AD
9	18-Jul-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	73	CWT00095694	AD
9	18-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	49	CWT00095800	AD
9	18-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	57	CWT00151033	AD
9	19-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	78	CWT00039944	AD
9	19-Jul-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	78	CWT00039947	
9	19-Jul-24	638266	2021	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	59	CWT00039948	
9	19-Jul-24	637873	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	70	CWT00039949	AD
9	19-Jul-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	77	CWT00039950	AD
9	19-Jul-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	78	CWT00041043	AD
9	19-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	66	CWT00044043	AD
9	19-Jul-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	67	CWT00049401	AD
9	19-Jul-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	53	CWT00049402	AD
9	19-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	60	CWT00049403	AD
9	19-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	60	CWT00049404	AD
9	19-Jul-24	211528	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	NA	70	CWT00049406	AD
9	19-Jul-24	638276	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	64	CWT00049407	AD
9	19-Jul-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	57	CWT00049408	
9	19-Jul-24	638284	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	53	CWT00049440	
9	19-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	68	CWT00049441	AD
9	19-Jul-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	75	CWT00083144	AD
9	19-Jul-24	638277	2021	Skykomish R 07.0012	Reiter Ponds	WDFW	NA	52	CWT00083145	AD
9	19-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	58	CWT00083148	AD
9	19-Jul-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	60	CWT00083149	AD

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9	19-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	63	CWT00083311	AD
9	19-Jul-24	211459	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	211460	58	CWT00083313	AD
9	19-Jul-24	637852	2020	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	70	CWT00083434	AD
9	19-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	58	CWT00084405	AD
9	19-Jul-24	638267	2021	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	58	CWT00084406	AD
9	19-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	51	CWT00084407	AD
9	19-Jul-24	638324	2021	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	59	CWT00084414	AD
9	19-Jul-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	71	CWT00084419	AD
9	19-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	58	CWT00084420	AD
9	19-Jul-24	638272	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	70	CWT00084421	
9	19-Jul-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	64	CWT00084422	
9	19-Jul-24	637615	2019	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	77	CWT00084423	AD
9	19-Jul-24	211441	2020	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	75	CWT00084425	AD
9	19-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	59	CWT00085749	AD
9	19-Jul-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	69	CWT00088256	AD
9	19-Jul-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	68	CWT00088263	AD
9	19-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	52	CWT00090891	AD
9	19-Jul-24	638272	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	67	CWT00094385	AD
9	19-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	65	CWT00094386	AD
9	19-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	60	CWT00094388	AD
9	19-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	67	CWT00094559	AD
9	19-Jul-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	61	CWT00094560	AD
9	19-Jul-24	638315	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	638314	58	CWT00094561	AD
9	19-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	74	CWT00095695	AD
9	19-Jul-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	56	CWT00095696	AD
9	19-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	64	CWT00095697	AD
9	19-Jul-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	59	CWT00095698	AD
9	19-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	53	CWT00095699	AD

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9	19-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	76	CWT00095700	AD
9	19-Jul-24	638316	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	638311	63	CWT00095903	AD
9	19-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	52	CWT00150646	AD
9	19-Jul-24	638246	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	60	CWT00151020	AD
9	19-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	71	CWT00154433	AD
9	19-Jul-24	211490	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211491; 637628; 637811	79	CWT00154460	AD
9	20-Jul-24	637871	2020	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	NA	CWT00044042	NA
9	20-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	54	CWT00049409	AD
9	20-Jul-24	637873	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	68	CWT00049410	AD
9	20-Jul-24	211459	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	211460	54	CWT00049411	AD
9	20-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	59	CWT00049413	AD
9	20-Jul-24	638278	2021	Skykomish R 07.0012	Reiter Ponds	WDFW	NA	57	CWT00049416	AD
9	20-Jul-24	211586	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	56	CWT00049417	AD
9	20-Jul-24	637922	2020	Purdy Cr 16.0005	George Adams Hatchery	WDFW	637923	78	CWT00049445	AD
9	20-Jul-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	73	CWT00049457	AD
9	20-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	56	CWT00083151	AD
9	20-Jul-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	66	CWT00083430	AD
9	20-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	64	CWT00083431	AD
9	20-Jul-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	67	CWT00084412	AD
9	20-Jul-24	211441	2020	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	72	CWT00084413	AD
9	20-Jul-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	61	CWT00084427	AD
9	20-Jul-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	70	CWT00084428	AD
9	20-Jul-24	637849	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	79	CWT00089376	AD
9	20-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	63	CWT00089385	AD
9	20-Jul-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	72	CWT00089522	AD
9	20-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	71	CWT00090881	AD

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9	20-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	45	CWT00090882	AD
9	20-Jul-24	637920	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	63	CWT00092592	AD
9	20-Jul-24	637922	2020	Purdy Cr 16.0005	George Adams Hatchery	WDFW	637923	71	CWT00092767	AD
9	20-Jul-24	186884	2021	R-Sandy Cv	H-Sandy Cove Seapen	CDFO	NA	69	CWT00094389	AD
9	20-Jul-24	186805	2021	R-Cowichan R	H-Cowichan River H	CDFO	NA	67	CWT00094390	AD
9	20-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	56	CWT00094392	AD
9	20-Jul-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	70	CWT00094963	AD
9	20-Jul-24	186884	2021	R-Sandy Cv	H-Sandy Cove Seapen	CDFO	NA	73	CWT00094964	AD
9	20-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	56	CWT00094965	AD
9	20-Jul-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	82	CWT00150603	AD
9	20-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	65	CWT00150902	AD
9	20-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	72	CWT00150903	AD
9	20-Jul-24	211586	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	60	CWT00150904	AD
9	20-Jul-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	55	CWT00150907	AD
9	20-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	65	CWT00154457	AD
9	4-Aug-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	56	CWT00049452	AD
9	4-Aug-24	637863	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	74	CWT00049453	AD
9	4-Aug-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	50	CWT00049454	AD
9	4-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	71	CWT00049455	AD
9	4-Aug-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	70	CWT00083345	AD
9	4-Aug-24	638276	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	64	CWT00083346	AD
9	4-Aug-24	638284	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	60	CWT00084201	AD
9	4-Aug-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	62	CWT00084403	AD
9	4-Aug-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	65	CWT00084442	AD
9	4-Aug-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	59	CWT00084443	AD
9	4-Aug-24	186818	2020	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	70	CWT00084446	AD

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9	4-Aug-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	62	CWT00084447	AD
9	4-Aug-24	637920	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	NA	CWT00086825	AD
9	4-Aug-24	638246	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	69	CWT00086826	AD
9	4-Aug-24	638278	2021	Skykomish R 07.0012	Reiter Ponds	WDFW	NA	62	CWT00086827	AD
9	4-Aug-24	637425	2020	Icy Cr 09.0125	Icy Cr Hatchery	WDFW	NA	71	CWT00086828	AD
9	4-Aug-24	637921	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	74	CWT00088920	AD
9	4-Aug-24	211528	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	NA	71	CWT00094434	AD
9	4-Aug-24	637852	2020	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	68	CWT00094435	AD
9	4-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	61	CWT00094436	AD
9	4-Aug-24	637863	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	75	CWT00094438	AD
9	4-Aug-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	68	CWT00094439	AD
9	4-Aug-24	637865	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	NA	69	CWT00094929	AD
9	4-Aug-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	67	CWT00094930	AD
9	4-Aug-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	72	CWT00094931	AD
9	4-Aug-24	638308	2021	Friday Cr 03.0017	Samish Hatchery	WDFW	638026	64	CWT00153712	AD
9	4-Aug-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	84	CWT00153713	AD

Appendix 9 Coded-wire tag (CWT) recoveries from the Chinook MSF in Marine Area 10. Note: Not all tags have been processed before the writing of this report.

Area	Recovery Date	Tag Code	Brood Year	Release Site	Rearing Hatchery	Release Agency	DIT Codes	FL(cm)	Label	Recovery Mark
10	18-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	74	CWT00041390	AD
10	18-Jul-24	637915	2020	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	76	CWT00083142	AD
10	18-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	73	CWT00083143	AD
10	18-Jul-24	638353	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	53	CWT00088655	AD
10	18-Jul-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	53	CWT00088657	AD
10	18-Jul-24	637857	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	62	CWT00088660	AD
10	18-Jul-24	637921	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	75	CWT00088662	AD
10	18-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	57	CWT00088816	AD
10	18-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	55	CWT00090894	AD
10	18-Jul-24	211586	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	57	CWT00090896	AD
10	18-Jul-24	186884	2021	R-Sandy Cv	H-Sandy Cove Seapen	CDFO	NA	70	CWT00090897	AD
10	18-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	66	CWT00150648	AD
10	18-Jul-24	637921	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	69	CWT00150664	AD
10	18-Jul-24	180021	2022	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	54	CWT00150730	AD
10	18-Jul-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	58	CWT00150734	AD
10	18-Jul-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	52	CWT00151009	AD
10	18-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	70	CWT00151028	AD
10	18-Jul-24	211528	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	NA	54	CWT00151043	AD
10	19-Jul-24	637425	2020	Icy Cr 09.0125	Icy Cr Hatchery	WDFW	NA	80	CWT00090887	AD
10	19-Jul-24	186884	2021	R-Sandy Cv	H-Sandy Cove Seapen	CDFO	NA	68	CWT00090888	AD
10	19-Jul-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	56	CWT00090889	AD
10	19-Jul-24	638316	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	638311	71	CWT00090892	AD
10	19-Jul-24	638324	2021	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	60	CWT00090893	AD
10	19-Jul-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	67	CWT00150699	AD
10	19-Jul-24	638353	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	59	CWT00154432	AD
10	19-Jul-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	62	CWT00154434	AD

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10	19-Jul-24	211490	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211491; 637628; 637811	60	CWT00154463	AD
10	20-Jul-24	638353	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	NA	56	CWT00083150	AD
10	20-Jul-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	71	CWT00090880	AD
10	20-Jul-24	637686	2019	Narrows Marina Pens	Narrows Marina Pens	PUYA	NA	68	CWT00150645	AD
10	20-Jul-24	638276	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	67	CWT00150647	AD
10	20-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	52	CWT00150697	AD
10	20-Jul-24	638315	2021	Wallace R 07.0940	Wallace R Hatchery	WDFW	638314	52	CWT00150698	AD
10	20-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	58	CWT00150906	AD
10	20-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	54	CWT00151041	AD
10	20-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	69	CWT00154459	AD
10	20-Jul-24	211459	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	211460	55	CWT00154462	AD
10	21-Jul-24	638076	2022	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	67	CWT00150696	AD
10	25-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	57	CWT00049448	AD
10	25-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	66	CWT00049449	AD
10	25-Jul-24	637849	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	73	CWT00083152	AD
10	25-Jul-24	211587	2021	McAllister Springs Hatch	Kalama Cr Hatchery	NISQ	NA	66	CWT00083153	AD
10	25-Jul-24	638246	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	56	CWT00090873	AD
10	25-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	55	CWT00090874	AD
10	25-Jul-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	52	CWT00090875	AD
10	25-Jul-24	637869	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	638021	52	CWT00090876	AD
10	25-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	54	CWT00090877	AD
10	25-Jul-24	211459	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	211460	55	CWT00090878	AD
10	25-Jul-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	53	CWT00090879	AD

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10	25-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	55	CWT00094924	AD
10	25-Jul-24	637810	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	74	CWT00150644	AD
10	25-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	55	CWT00150695	AD
10	25-Jul-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	80	CWT00150908	AD
10	25-Jul-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	78	CWT00150909	AD
10	25-Jul-24	637865	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	NA	51	CWT00150910	AD
10	25-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	73	CWT00150911	AD
10	25-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	60	CWT00154435	AD
10	25-Jul-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	54	CWT00154436	AD
10	25-Jul-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	70	CWT00154437	AD
10	25-Jul-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	60	CWT00154456	AD
10	25-Jul-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	69	CWT00154458	AD
10	26-Jul-24	211333	2019	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211339; 637775; 637720	73	CWT00083427	AD
10	26-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	50	CWT00083428	AD
10	26-Jul-24	638324	2021	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	59	CWT00083429	AD
10	26-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	63	CWT00090869	AD
10	26-Jul-24	211543	2021	Co Line Slu 03.1853A	Marblemount Hatchery	WDFW	NA	59	CWT00090870	AD
10	26-Jul-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	66	CWT00090871	AD
10	26-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	57	CWT00090872	AD
10	26-Jul-24	186884	2021	R-Sandy Cv	H-Sandy Cove Seapen	CDFO	NA	64	CWT00094397	AD
10	26-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	75	CWT00094399	AD
10	26-Jul-24	211490	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ		69	CWT00094400	AD

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							211491; 637628; 637811			
10	26-Jul-24	638246	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	63	CWT00150643	AD
10	26-Jul-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	66	CWT00150690	AD
10	26-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	74	CWT00150726	AD
10	26-Jul-24	638284	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	60	CWT00154438	AD
10	26-Jul-24	638267	2021	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	60	CWT00154439	AD
10	26-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	61	CWT00154455	AD
10	27-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	66	CWT00049450	AD
10	27-Jul-24	638316	2021	Cascade R 03.1411	Marblemount Hatchery	WDFW	638311	66	CWT00049451	AD
10	27-Jul-24	638272	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	53	CWT00083154	AD
10	27-Jul-24	638276	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	69	CWT00083314	AD
10	27-Jul-24	186884	2021	R-Sandy Cv	H-Sandy Cove Seapen	CDFO	NA	58	CWT00083337	AD
10	27-Jul-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	57	CWT00083339	AD
10	27-Jul-24	211459	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	211460	54	CWT00083425	AD
10	27-Jul-24	211491	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211490; 637628; 637811	71	CWT00150604	AD
10	27-Jul-24	637921	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	NA	CWT00150605	AD
10	27-Jul-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	66	CWT00150684	AD
10	27-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	68	CWT00150687	AD
10	27-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	70	CWT00150689	AD
10	27-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	66	CWT00150711	AD
10	27-Jul-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	76	CWT00150713	AD
10	27-Jul-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	70	CWT00150912	AD

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10	27-Jul-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	75	CWT00154201	AD
10	27-Jul-24	637920	2020	Voight Cr 10.0414	Voights Cr Hatchery	WDFW	NA	75	CWT00154440	AD
10	27-Jul-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	66	CWT00154443	AD
10	27-Jul-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	62	CWT00154444	AD
10	27-Jul-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	78	CWT00154453	AD
10	27-Jul-24	211491	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211490; 637628; 637811	76	CWT00154454	AD
10	2-Aug-24	637425	2020	Icy Cr 09.0125	Icy Cr Hatchery	WDFW	NA	83	CWT00088919	AD
10	2-Aug-24	637925	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	55	CWT00088938	UM
10	2-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	63	CWT00088939	UM
10	2-Aug-24	637783	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	69	CWT00088940	UM
10	2-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	63	CWT00088942	AD
10	2-Aug-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	63	CWT00088943	AD
10	2-Aug-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	65	CWT00090866	AD
10	2-Aug-24	637871	2020	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	74	CWT00090867	AD
10	2-Aug-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	70	CWT00150606	AD
10	2-Aug-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	71	CWT00150607	AD
10	2-Aug-24	637687	2020	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	71	CWT00150640	AD
10	2-Aug-24	637925	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	67	CWT00150641	UM
10	2-Aug-24	638328	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	59	CWT00150678	UM
10	2-Aug-24	637783	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	62	CWT00150679	UM
10	2-Aug-24	638328	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	69	CWT00150680	UM
10	2-Aug-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	60	CWT00150681	AD
10	2-Aug-24	637960	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	58	CWT00150716	UM
10	3-Aug-24	211506	2020	Kalama Cr 11.0017	Kalama Cr Hatchery	NISQ	NA	63	CWT00088934	AD
10	3-Aug-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	60	CWT00088935	AD
10	3-Aug-24	637925	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	85	CWT00088936	UM

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10	3-Aug-24	637899	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637898	55	CWT00088937	UM
10	3-Aug-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	78	CWT00150608	AD
10	3-Aug-24	638312	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638317	71	CWT00150609	AD
10	3-Aug-24	638313	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	211537	68	CWT00150639	UM
10	3-Aug-24	638328	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	62	CWT00150669	UM
10	3-Aug-24	637783	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	72	CWT00150670	UM
10	3-Aug-24	638282	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	55	CWT00150671	AD
10	3-Aug-24	637960	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	65	CWT00150672	UM
10	3-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	73	CWT00150673	UM
10	3-Aug-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	63	CWT00150674	AD
10	3-Aug-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	65	CWT00150675	AD
10	3-Aug-24	637810	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	69	CWT00154449	AD
10	3-Aug-24	637428	2019	Icy Cr 09.0125	Icy Cr Hatchery	WDFW	NA	74	CWT00154451	AD
10	3-Aug-24	637960	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	62	CWT00154464	AD
10	3-Aug-24	637871	2020	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	71	CWT00154465	AD
10	3-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	68	CWT00154514	UM
10	3-Aug-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	56	CWT00154516	AD
10	4-Aug-24	638033	2022	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	51	CWT00084203	AD
10	4-Aug-24	638272	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	52	CWT00084388	AD
10	4-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	67	CWT00084389	AD
10	4-Aug-24	638272	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	52	CWT00084448	AD
10	4-Aug-24	638272	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	73	CWT00084449	AD
10	4-Aug-24	211489	2020	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	637780; 637781; 211488	60	CWT00088921	AD
10	4-Aug-24	637925	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	75	CWT00088922	UM
10	4-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	67	CWT00088923	UM
10	4-Aug-24	637960	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	67	CWT00088924	UM

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10	4-Aug-24	637871	2020	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	62	CWT00088925	UM
10	4-Aug-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	64	CWT00088927	AD
10	4-Aug-24	637810	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	66	CWT00088928	AD
10	4-Aug-24	637925	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	69	CWT00088930	UM
10	4-Aug-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	68	CWT00088931	AD
10	4-Aug-24	638317	2021	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	638312	60	CWT00088932	UM
10	4-Aug-24	637783	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	74	CWT00088933	UM
10	4-Aug-24	637813	2020	Elwha R 18.0272	Elwha Hatchery	WDFW	NA	75	CWT00150611	UM
10	4-Aug-24	211460	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	211459	55	CWT00150612	UM
10	4-Aug-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	69	CWT00150665	NA
10	4-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	60	CWT00150666	AD
10	4-Aug-24	637925	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	64	CWT00150667	UM
10	4-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	84	CWT00150717	UM
10	4-Aug-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	57	CWT00150718	AD
10	4-Aug-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	70	CWT00150747	AD
10	4-Aug-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	83	CWT00150748	AD
10	4-Aug-24	638281	2021	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	60	CWT00154466	AD
10	4-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	74	CWT00154468	AD
10	4-Aug-24	211528	2021	Tulalip Cr 07.0001	Bernie Gobin Hatch	TULA	NA	76	CWT00154499	AD
10	4-Aug-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	75	CWT00154707	AD
10	10-Aug-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	62	CWT00154497	AD
10	11-Aug-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	67	CWT00049456	AD
10	11-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	67	CWT00083349	AD
10	11-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	53	CWT00083439	AD
10	11-Aug-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	73	CWT00083440	AD
10	11-Aug-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	63	CWT00083441	AD
10	11-Aug-24	638283	2021	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	58	CWT00083571	AD

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10	11-Aug-24	637854	2020	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	63	CWT00084453	AD
10	11-Aug-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	65	CWT00084454	AD
10	11-Aug-24	211537	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	638313	NA	CWT00094445	AD
10	11-Aug-24	638243	2021	Point Defiance Net Pens	Clarks Crk Hatchery	PUYA	NA	53	CWT00094446	AD
10	11-Aug-24	211490	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211491; 637628; 637811	82	CWT00150614	AD
10	11-Aug-24	637807	2019	Narrows Marina Pens	Narrows Marina Pens	PUYA	NA	74	CWT00150615	AD
10	11-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	64	CWT00150632	AD
10	11-Aug-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	69	CWT00150633	AD
10	11-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	66	CWT00150634	AD
10	11-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	61	CWT00150635	AD
10	11-Aug-24	637872	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	61	CWT00150637	AD
10	11-Aug-24	638275	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	73	CWT00150750	AD
10	11-Aug-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	69	CWT00150913	AD
10	11-Aug-24	637852	2020	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	52	CWT00150916	AD
10	11-Aug-24	638326	2021	Purdy Cr 16.0005	George Adams Hatchery	WDFW	638325	63	CWT00150917	AD
10	11-Aug-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	53	CWT00150918	AD
10	11-Aug-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	77	CWT00150927	AD
10	11-Aug-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	61	CWT00150928	AD
10	11-Aug-24	211521	2021	Clarks Crk Hatchery	Clarks Crk Hatchery	PUYA	NA	62	CWT00150944	AD
10	11-Aug-24	186823	2021	R-Harrison R	H-Chehalis River H	CDFO	NA	74	CWT00154473	AD
10	11-Aug-24	211491	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211490; 637628; 637811	70	CWT00154474	AD
10	11-Aug-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	77	CWT00154476	AD

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10	11-Aug-24	187093	2021	R-Chilliwack R	H-Chilliwack River H	CDFO	NA	75	CWT00154477	AD
10	11-Aug-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	62	CWT00154490	AD
10	11-Aug-24	637871	2020	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	59	CWT00154491	AD
10	11-Aug-24	186884	2021	R-Sandy Cv	H-Sandy Cove Seapen	CDFO	NA	75	CWT00154492	AD
10	11-Aug-24	638279	2021	Wilkeson Cr 10.0432	Clarks Crk Hatchery	PUYA	NA	60	CWT00154494	AD
10	11-Aug-24	211333	2019	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211339; 637775; 637720	73	CWT00154495	AD
10	12-Aug-24	211490	2020	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211491; 637628; 637811	68	CWT00083155	AD
10	12-Aug-24	637419	2019	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	88	CWT00083352	AD
10	12-Aug-24	637885	2020	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	72	CWT00083443	AD
10	12-Aug-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	74	CWT00083444	AD
10	12-Aug-24	211333	2019	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	211339; 637775; 637720	73	CWT00083445	AD
10	12-Aug-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	75	CWT00083446	AD
10	12-Aug-24	638267	2021	Finch Cr 16.0222	Hoodsport Hatchery	WDFW	NA	65	CWT00088953	AD
10	12-Aug-24	637784	2019	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	NA	69	CWT00088954	AD
10	12-Aug-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	60	CWT00088955	AD
10	12-Aug-24	638273	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	67	CWT00088956	AD
10	12-Aug-24	211586	2021	Clear Cr 11.0013C	Clear Creek Hatchery	NISQ	NA	60	CWT00088959	AD
10	12-Aug-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	70	CWT00088960	AD
10	12-Aug-24	637873	2020	Gorst Cr Rear.Pond-1	Gorst Cr Rearing Pnd	SUQ	NA	75	CWT00088963	AD
10	12-Aug-24	637898	2020	Big Soos Cr 09.0072	Soos Creek Hatchery	WDFW	637899	85	CWT00088999	AD
10	12-Aug-24	638270	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	73	CWT00089000	AD
10	12-Aug-24	637871	2020	Gorst Cr Rear.Pond-2	Gorst Cr Rearing Pnd	SUQ	NA	79	CWT00094937	AD
10	12-Aug-24	638276	2021	Chambers Cr 12.0007	Garrison Hatchery	WDFW	NA	72	CWT00150752	AD

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10	12-Aug-24	637417	2020	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	82	CWT00154203	AD
10	12-Aug-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	73	CWT00154496	AD
10	12-Aug-24	638309	2021	Issaquah Cr 08.0178	Issaquah Hatchery	WDFW	NA	67	CWT00154719	AD
10	12-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	60	CWT00154720	AD
10	12-Aug-24	211538	2021	Grovers Cr Hatchery	Grovers Cr Hatchery	SUQ	638287; 638288	60	CWT00154721	AD
10	12-Aug-24	638323	2021	Deschutes R 13.0028	Tumwater Falls Hatchery	WDFW	NA	65	CWT00154773	AD
10	12-Aug-24	638274	2021	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	NA	58	CWT00154774	AD

Appendix 10 Coded-wire tag (CWT) recoveries from the Chinook MSF in Marine Area 11. Note: Not all tags have been processed before the writing of this report.

Area	Recovery Date	Tag Code	Brood Year	Release Site	Rearing Hatchery	Release Agency	FL(cm)	Label	Recovery Mark
11	12-Jun-23	637921	2020	Minter Cr 15.0048	Minter Cr Hatchery	WDFW	63	CWT00095802	AD