

SALMON TECHNICAL TEAM REPORT 1:
UPDATE OF ESTIMATED IMPACTS OF MARCH 2022 ALTERNATIVES FOR
OCEAN SALMON FISHERY MANAGEMENT MEASURES

PFMC
04/08/22

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery Alternatives - STT analyzed^{af} (Page 1 of 5)

Key Stock/Criteria	PROJECTED			2022	Spawner Objective or Other Comparative Standard as Noted ^{bf}
	Alt I	Alt II	Alt III	Criteria	
CHINOOK	CHINOOK			CHINOOK	
<u>SRKW PREY ABUNDANCE:</u>					
North of Falcon	1,372.9	1,372.9	1,372.9	≥ 966.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Oregon Coast	1,080.7	1,080.7	1,080.6	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
California Coast	515.9	515.9	515.8	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
Southwest WCVI	715.6	715.6	715.6	NA	Oct 1 starting abundance of age 3+ Chinook off Southwest Vancouver Island
Salish Sea	706.7	706.7	706.7	NA	Oct 1 starting abundance of age 3+ Chinook in the Salish Sea
<u>PUGET SOUND:</u>					
Elwha Summer/Fall	6.0%	5.8%	5.5%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	5.8%	5.6%	5.3%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	17.5%	16.2%	14.5%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers and NMFS regarding conservation standard for 2022.
Skokomish Summer/Fall	55.2%	54.3%	53.2%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	14.5%	13.7%	12.9%	≤ 10.9%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	1.28	1.21	1.14	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	18.7%	18.6%	18.3%	≤ 15.0%	Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers and NMFS regarding rates higher than 15% SUS for 2022, should projected escapement exceed low abundance thresholds.
	--	--	--	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	22.2%	22.0%	21.8%	≤ 36.0%	Total exploitation rate (NMFS ESA consultation standard).
	--	--	--	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Stillaguamish Summer/Fall	14.1%	13.9%	13.7%	≤ 9.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.98	0.96	0.95	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snomish Summer/Fall	8.0%	7.8%	7.3%	≤ 8.3%	Southern U.S. exploitation rate limit under critical abundance forecast for 2022 (NMFS ESA consultation standard).
	0.81	0.79	0.74	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.701	0.709	0.719	≥ 0.500	Natural spawning escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	3.750	3.816	3.889	≥ 2.744	Natural spawning escapement in the Green River (NMFS ESA consultation standard).
White River Spring	17.1%	16.8%	16.5%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	2.395	2.419	2.446	TBD	Natural spawning escapement in the Puyallup River. Discussions are ongoing between WA state and tribal co-managers and NMFS regarding conservation standard for 2022.
Nisqually River Summer/Fall	50.0%	49.2%	48.1%	≤ 47.0%	Total exploitation rate, (NMFS ESA consultation standard). Up to an additional 2% ER may be added to facilitate inriver selective gear studies after meeting base criteria during final preseason modeling.
Puget Sound Spring	2.5%	2.0%	1.6%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	6.7%	5.6%	4.4%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery management measures - STT Analyzed.^{a/} (Page 2 of 5)

Key Stock/Criteria	PROJECTED			2022	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III	Criteria	
CHINOOK	CHINOOK			CHINOOK	
<u>WASHINGTON COAST:</u>					
Hoko Fall	0.731	0.734	0.735	0.85 FMP MSY spawning escapement objective.	
	2.6%	2.2%	2.0%	≤ 10.0% Calendar year exploitation rate ISBM obligation. Compliance assessed postseason by the PSC.	
Quillayute Fall	>3.0	>3.0	>3.0	3.0 FMP MSY spawning escapement objective.	
	--	--	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Hoh Fall	>1.2	>1.2	>1.2	1.2 FMP MSY spawning escapement objective.	
	--	--	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Queets Fall	>2.5	>2.5	>2.5	2.5 FMP MSY spawning escapement objective.	
	--	--	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Grays Harbor Fall	>13.3	>13.3	>13.3	13.3 FMP MSY spawning escapement objective.	
	--	--	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
<u>COLUMBIA RIVER:</u>					
Columbia Upriver Brights	227.0	229.2	230.4	74.0 Minimum ocean escapement to attain 40.0 adults over McNary Dam, with normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.	
Mid-Columbia Brights	77.7	78.5	78.9	14.9 Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.	
Columbia Lower River Hatchery Tules	72.2	73.3	73.8	25.0 Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.	
Columbia Lower River Natural Tules (threatened)	40.6%	39.1%	38.3%	≤ 38.0% Total adult equivalent fishery exploitation rate (2022 NMFS ESA guidance).	
Columbia Lower River Wild ^{a/} (threatened)	10.8	10.9	10.9	6.9 Minimum ocean escapement to attain MSY spawner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).	
Spring Creek Hatchery Tules	89.1	91.7	92.7	8.2 Minimum ocean escapement to attain 6.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.	
Upper Columbia River Summer	55.4	56.5	57.4	29.0 Aggregate escapement to mouth of Columbia River.	
Snake River Fall (threatened) SRFI	60.5%	54.1%	51.3%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).	

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery management measures - STT Analyzed.^{a/} (Page 3 of 5)

Key Stock/Criteria	PROJECTED			2022	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III	Criteria	
	CHINOOK	CHINOOK			CHINOOK
<u>OREGON COAST:</u>					
Nehalem Fall	--	--	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Siletz Fall	--	--	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Siuslaw Fall	--	--	--	≤ 0.85 ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.	
South Umpqua	--	--	--	≤ 0.85 ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.	
Coquille	--	--	--	≤ 0.85 ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.	
<u>CALIFORNIA:</u>					
Klamath River Fall	38.180	38.180	38.180	≥ 38.180 2022 minimum natural area adult escapement (FMP control rule).	
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0% Equals 9.4, 9.4, and 9.2 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.	
Exploitation (spawner reduction) rate	25.0%	25.0%	25.0%	≤ 25.0% FMP control rule.	
Adult river mouth return	66.8	66.9	67.0	NA Total adults in thousands.	
Age-4 ocean harvest rate	10.0%	10.0%	9.9%	≤ 10.0% NMFS guidance.	
KMZ sport fishery share	6.1%	7.1%	5.9%		
River recreational fishery share	22.8%	25.1%	27.6%	NA Equals 2.2, 2.4, and 2.5 (thousand) adult fish for recreational inriver fisheries.	
Sacramento River Winter (endangered)	14.9%	12.5%	14.0%	≤ 20.0% Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the following season restrictions apply: <u>Recreational</u> - Pt. Arena to Pigeon Pt. between the first Saturday in April and the second Sunday in November; Pigeon Pt. to the U.S./Mexico border between the first Saturday in April and the first Sunday in October. Minimum size limit ≥ 20 inches total length. <u>Commercial</u> - Pt. Arena to the U.S./Mexico border between May 1 and September 30, except Pt. Reyes to Pt. San Pedro between October 1 and 15 (Monday-Friday). Minimum size limit ≥ 26 inches total length (NMFS 2022 ESA Guidance).	
Sacramento River Fall	199.9	202.6	197.8	≥ 180.000 2022 minimum hatchery and natural area adult escapement (Council Guidance).	
Sacramento Index Exploitation Rate	49.6%	48.9%	50.1%	≤ 69.2% FMP control rule.	
Ocean commercial impacts	92.5	93.2	100.3	Includes fall (Sept-Dec) 2021 impacts (5.7 thousand SRFC).	
Ocean recreational impacts	71.6	67.7	66.2	Includes fall (Sept-Dec) 2021 impacts (3.3 thousand SRFC).	
River recreational impacts	32.5	33.0	32.2		

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery management measures - STT Analyzed.^{a/} (Page 4 of 5)

Key Stock/Criteria	PROJECTED			2022	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	COHO	COHO	COHO	Criteria	
Interior Fraser (Thompson River)	10.7%(6.1%)	9.8%(5.2%)	8.9%(4.2%)	≤ 10.0%	2022 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	45.5%(5.7%)	44.9%(4.8%)	44.4%(4.0%)	≤ 60.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	39.3%(4.1%)	38.9%(3.4%)	38.5%(2.9%)	≤ 50.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	37.3%(4.1%)	36.8%(3.4%)	36.4%(2.9%)	≤ 40.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	45.3%(6.1%)	44.6%(5.2%)	43.9%(4.2%)	≤ 45.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	12.2%(5.0%)	11.4%(4.2%)	10.6%(3.5%)	≤ 20.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	11.6	11.7	11.8	6.3	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
	17.6%	16.9%	16.0%	≤ 50%	PST total exploitation rate constraint for 2022. ^{d/f/}
Hoh	3.8	3.9	4.0	2.0	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
	31.6%	30.0%	27.9%	≤ 57%	PST total exploitation rate constraint for 2022. ^{d/f/}
Queets Wild	15.1	15.4	15.7	5.8	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
	24.4%	23.0%	21.2%	≤ 65%	FMP total exploitation rate constraint (MFMT). ^{d/f/}
Grays Harbor	118.1	119.2	120.6	35.4	FMP MSP natural area adult spawner estimate. Value depicted is ocean escapement.
	28.9%	28.3%	27.4%	≤ 65%	FMP total exploitation rate constraint (MFMT). ^{d/f/}
Willapa Bay	43.3	43.7	44.6	17.2	FMP MSY natural area adult spawner estimate. Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	17.4%	16.5%	15.0%	≤23.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2022 NMFS ESA guidance). Value depicted is marine ER before Buoy 10.
Upper Columbia ^{c/}	64.1%	65.1%	67.3%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	393.5	391.5	401.1	77.2	Minimum ocean escapement to attain hatchery egg-take goal of 21.7 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	240.6	250.5	265.3	9.7	Minimum ocean escapement to attain hatchery egg-take goal of 6.4 late adult coho, with average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural	14.4%	13.8%	14.9%	≤ 15.0%	Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)				≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).
Trinity Natural	13.5%	13.4%	12.9%	≤ 16.0%	total exploitation rate ceiling
Klamath Natural	8.7%	8.6%	8.1%	≤ 15.0%	total exploitation rate ceiling
Rogue Natural	7.8%	7.7%	7.2%	≤ 15.0%	total exploitation rate ceiling
Other Natural	2.9%	2.8%	2.4%	≤ 15.0%	total exploitation rate ceiling

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery Alternatives - STT analyzed^{a/} (Page 2 of 2)

a/ Coho projections in the table assume post-season 2018 and 2020 fishery scalars for Canadian fisheries. Model results for Chinook in this table used 2022 allowable catches for SEAK, 2021 preseason effort scalars for NBC and WCVI AABM fisheries, recent 2-yr average catches for BC ISBM fisheries, and 2021 preseason catches for Puget Sound fisheries. Assumptions for these fisheries will be changed prior to the April meeting as new information becomes available.

b/ Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area ERs for Puget Sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Values reported for Klamath River fall Chinook are natural area adult spawners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spawners.

c/ Includes projected impacts of inriver fisheries that have not yet been shaped.

d/ Annual management objectives may be different than FMP goals, and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. It is anticipated that fishery management will be adjusted by state and tribal comanagers during the preseason planning process to comply with stock management objectives.

e/ Includes minor contributions from East Fork Lewis River and Sandy River.

f/ Management criteria depicted represent the lower of the FMP and PST Southern Coho Management Plan ER constraints in a given year (see Table III-5 in most recent Preseason Report I). PST ER constraints represent an approximation of the maximum ER associated with achieving the escapement goal. Per the provisions of the PST Southern Coho Management Plan, Parties may request increases to management unit specific ER caps, so long as it occurs prior to March 31 in a given year.

TABLE 7. TABLE 7. Expected coastwide exploitation rates by fishery for 2022 ocean fisheries management Alternatives for lower Columbia Natural (LCN) coho, Oregon coastal natural (OCN) coho, Lower Columbia River (LCR) tule Chinook, and Southern Oregon Northern California Coastal (SONCC) coho salmon by natural-origin subcomponent - STT Analyzed (Page 1 of 2).

Fishery	Exploitation Rate (Percent)								
	LCN Coho			OCN Coho			LCR Tule Chinook		
	I	II	III	I	II	III	I	II	III
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	2.9%	3.0%
BRITISH COLUMBIA	0.1%	0.1%	0.1%	0.3%	0.3%	0.3%	12.7%	12.9%	13.0%
PUGET SOUND/STRAIT	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.4%	0.4%	0.4%
NORTH OF CAPE FALCON									
Treaty Indian Ocean Troll	2.5%	2.1%	1.7%	0.6%	0.5%	0.4%	2.6%	2.1%	1.6%
Recreational	5.3%	4.6%	3.9%	0.9%	0.8%	0.7%	3.7%	3.4%	3.0%
Non-Indian Troll	1.4%	1.2%	1.0%	0.3%	0.2%	0.2%	4.9%	4.5%	4.1%
SOUTH OF CAPE FALCON									
Recreational:							0.6%	0.5%	0.4%
Cape Falcon to Humbug Mt.	3.9%	3.7%	3.5%	8.4%	7.8%	7.3%	-	-	-
Humbug Mt. to OR/CA border (KMZ)	0.1%	0.0%	0.1%	0.2%	0.2%	0.2%	-	-	-
OR/CA border to Latitude 40°10' N. (KMZ)	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	-	-	-
Fort Bragg	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	-	-	-
Troll:							2.7%	1.9%	2.4%
Cape Falcon to Humbug Mt.	0.6%	0.8%	0.5%	0.6%	0.8%	0.5%	-	-	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-	-	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-	-	-
Fort Bragg	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	-	-	-
BUOY 10	1.6%	1.9%	2.2%	0.1%	0.1%	0.1%	10.1%	10.3%	10.5%
ESTUARY/FRESHWATER	1.8%	1.8%	1.8%	2.4%	2.4%	4.6%			
TOTAL^{af}	17.4%	16.5%	15.0%	14.4%	13.8%	14.9%	40.6%	39.1%	38.3%

TABLE 7. Expected coastwide exploitation rates by fishery for 2022 ocean fisheries management Alternatives for lower Columbia Natural (LCN) coho, Oregon coastal natural (OCN) coho, Lower Columbia River (LCR) tule Chinook, and Southern Oregon Northern California Coastal (SONCC) coho salmon by natural-origin subcomponent - STT Analyzed (Page 2 of 2).

Fishery	Exploitation Rate (Percent)											
	Trinity Natural			Klamath Natural			Rogue Natural			Other SONCC		
	I	II	III	I	II	III	I	II	III	I	II	III
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BRITISH COLUMBIA	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
PUGET SOUND/STRAIT	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NORTH OF CAPE FALCON												
Treaty Indian Ocean Troll	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Recreational	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Non-Indian Troll	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SOUTH OF CAPE FALCON												
Recreational:												
Cape Falcon to Humbug Mt.	0.6%	0.5%	0.5%	0.6%	0.5%	0.5%	0.6%	0.5%	0.5%	0.6%	0.5%	0.5%
Humbug Mt. to OR/CA border (KMZ)	0.4%	0.3%	0.4%	0.4%	0.3%	0.4%	0.4%	0.3%	0.4%	0.4%	0.3%	0.4%
OR/CA border to Latitude 40°10' N. (KMZ)	0.7%	0.7%	0.2%	0.7%	0.7%	0.2%	0.7%	0.7%	0.2%	0.7%	0.7%	0.2%
Fort Bragg	0.4%	0.6%	0.7%	0.4%	0.6%	0.7%	0.4%	0.6%	0.7%	0.4%	0.6%	0.7%
South of Pt. Arena	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Troll:												
Cape Falcon to Humbug Mt.	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Humbug Mt. to OR/CA border (KMZ)	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Fort Bragg	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%
South of Pt. Arena	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
BUOY 10	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ESTUARY/FRESHWATER	10.6%	10.6%	10.6%	5.8%	5.8%	5.8%	4.9%	4.9%	4.9%	0.0%	0.0%	0.0%
TOTAL^{a/}	13.5%	13.4%	12.9%	8.7%	8.6%	8.1%	7.8%	7.7%	7.2%	2.9%	2.8%	2.4%

a/ Estuary/freshwater catch is included in the total for LCN, OCN, SONCC, and LCR Tule Chinook populations. Bolded values identify exploitation rates that would exceed the total allowable exploitation rate.