

***UPDATE OF ESTIMATED IMPACTS OF
MARCH 2019 ALTERNATIVES FOR
OCEAN SALMON FISHERY MANAGEMENT MEASURES***

April 11, 2019

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2019 ocean fishery Alternatives -STT Analyzed.^{a/} (Page 1 of 2)

Key Stock/Criteria	PROJECTED			2019 Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
CHINOOK		CHINOOK			CHINOOK
Columbia Upriver Brights	160.7	163.4	165.0	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	65.6	66.7	67.4	14.9	Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.
Columbia Low er River Hatchery Tules	53.8	55.1	56.1	25.0	Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, with average conversion and no low er river mainstem or tributary harvest.
Columbia Low er River Natural Tules ^{c/} (threatened)	38.3%	35.8%	34.0%	≤ 38.0%	Total adult equivalent fishery exploitation rate (2019 NMFS ESA guidance).
Columbia Low er River Wild ^{d/} (threatened)	14.0	14.2	14.3	6.9	Minimum ocean escapement to attain MSY spaw ner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	46.1	48.2	49.6	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	35.3	36.3	36.9	29.0	Aggregate escapement to mouth of Columbia River (2019 NMFS guidance).
Snake River Fall (threatened) SRFI	67.1%	59.7%	53.7%	≤ 70.0%	Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Klamath River Fall	40.7	40.7	--	≥ 40.7	2019 minimum natural area adult escapement (FMP control rule).
	--	--	45.0	≥ 45.0	2019 minimum natural area adult escapement (Council guidance).
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0%	Equals 32.4, 32.5, and 30.0 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spaw ner reduction) rate	53.7%	53.7%	48.8%	≤ 53.7%	FMP control rule.
Adult river mouth return	98.2	98.1	98.5	NA	Total adults in thousands.
Age-4 ocean harvest rate	15.9%	16.0%	15.3%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	6.9%	6.9%	7.0%	NA	Includes 0.0 (thousand) adult fish impacted in the KMZ sport fishery during fall (Sept.-Dec.) 2018.
River recreational fishery share	24.4%	23.9%	17.4%	NA	Equals 7.9, 7.8, and 5.2 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	15.7%	15.6%	13.5%	≤ 15.7%	Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the follow ing season restrictions apply: <u>Recreational</u> - Pt. Arena to Pigeon Pt. betw een the first Saturday in April and the second Sunday in November; Pigeon Pt. to the U.S./Mexico border betw een 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 betw een May 1 and September 30, except Pt. Reyes to Pt. San Pedro betw een October 1 and 15 (Monday-Friday). Minimum size limit ≥ 26 inches total length (NMFS 2019 ESA Guidance).
Sacramento River Fall	152.3	163.9	--	≥ 151.0	Alternatives I & II: 2019 minimum hatchery and natural area adult escapement (Council guidance).
	--	--	180.1	≥ 180.0	Alternative III: 2019 minimum hatchery and natural area adult escapement (Council guidance).
Sacramento Index Exploitation Rate	59.9%	56.8%	52.6%	≤ 67.9%	FMP control rule.
Ocean commercial impacts	149.6	136.1	121.0		Includes fall (Sept-Dec) 2018 impacts (6.2 thousand SRFC).
Ocean recreational impacts	50.9	50.7	46.8		Includes fall 2018 impacts (7.7 thousand SRFC).
River recreational impacts	26.9	28.9	31.8	NA	Equals 11.8%, 13.4%, and 15.9% of the total allow able harvest.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2019 ocean fishery management measures - STT Analyzed.^{a/} (Page 2 of 2)

Key Stock/Criteria	PROJECTED			2019 Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
COHO	COHO			COHO	
Interior Fraser (Thompson River)	11.0%(6.3%)	10.1%(5.4%)	7.7%(3.0%)	≤ 10.0%	2019 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	33.8%(5.7%)	33.2%(4.9%)	31.4%(2.7%)	≤ 35.0%	2019 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	32.5%(4.1%)	31.9%(3.4%)	30.5%(1.9%)	≤ 50.0%	2019 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	33.7%(4.1%)	33.1%(3.4%)	31.6%(1.9%)	≤ 40.0%	2019 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	48.8%(6.3%)	48.2%(5.4%)	46.8%(2.9%)	≤ 45.0%	2019 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	9.6%(5.0%)	8.9%(4.3%)	7.0%(2.4%)	≤ 20.0%	2019 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	13.6	13.7	14.1	6.3	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Hoh	5.6	5.8	6.2	2.0	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Queets Wild	8.9	9.1	9.7	5.8	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Grays Harbor	65.3	66.1	68.1	24.4	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Willapa Bay Natural	55.5	56.3	58.5	17.2	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Low er Columbia River Natural (threatened)	18.5%	16.6%	12.6%	≤ 23.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2019 NMFS ESA guidance).
Upper Columbia ^{e/}	64%	66%	71%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	337.2	351.0	372.0	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	204.9	217.4	250.6	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	14.6%	13.0%	10.4%	≤ 15.0%	Marine and freshw ater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	5.8%	5.8%	6.2%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Projections in the table assume a combination of 2015 and 2017 post season fishing effort scalars for coho in Canadian fisheries. Model results for Chinook in this table include updates to northern fishery quotas based on 2019 abundance indices and total allow able catch limits determined by the Pacific Salmon Commission. Assumptions for these fisheries will be changed prior to the April meeting

b/ Ocean escapement is the number of salmon escaping ocean fisheries and entering freshw ater with the follow ing 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 spaw ner 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 exploitation rates 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. Exploitation rates for LCN and OCN coho represent marine and freshw ater impacts. Values reported for Klamath River fall Chinook are natural area adult spaw ners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spaw ners.

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 betw een 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.