

***UPDATE OF ESTIMATED IMPACTS OF
MARCH 2018 ALTERNATIVES FOR
OCEAN SALMON FISHERY MANAGEMENT MEASURES***

April 6, 2018

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TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2018 ocean fishery Alternatives - April STT Adjusted.^{ai} (Page 1 of 2)

Key Stock/Criteria	PROJECTED			2018 Criteria
	Alt I	Alt II	Alt III	
CHINOOK	CHINOOK			CHINOOK
Columbia Upriver Brights	204.1	206.7	209.0	200.0 2018 ocean escapement (Council guidance). 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	40.9	41.4	41.9	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	63.0	64.0	65.0	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 ^{ci} (threatened)	40.5%	38.7%	36.8%	≤ 38.0% Total adult equivalent fishery exploitation rate (2018 NMFS ESA guidance).
Columbia Lower River Wild ^{ei} (threatened)	7.8	7.9	8.0	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	49.8	51.6	53.1	8.2 Minimum ocean escapement to attain 6.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) SRFI	51.7%	46.8%	41.4%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Klamath River Fall	40.7	43.6	47.1	40.7 2018 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	59.6%	50.0%	50.0% Equals 17.6, 17.6, and 12.1 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries. Under Alternative II: 2.9 (thousand) of the non-tribal share is being directed to escapement, thus resulting in a higher proportion of the catch being caught by the tribes (Council guidance).
Exploitation (spawner reduction) rate	31.9%	27.0%	21.2%	≤ 31.9% FMP control rule.
Adult river mouth return	93.5	94.3	94.2	NA Total adults in thousands.
Age-4 ocean harvest rate	8.4%	7.9%	9.0%	≤ 16.0% NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	10.7%	10.7%	11.7%	NA Includes 0.0 (thousand) adult fish impacted in the KMZ sport fishery during fall (Sept-Dec) 2017.
River recreational fishery share	32.8%	15.0%	15.0%	NA Equals 5.8, 1.8, and 1.8 (thousand) adult fish for recreational river fisheries.
Sacramento River Winter (endangered)	10.6%	6.2%	3.6%	≤ 14.4% 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 2018 ESA Guidance).
Sacramento River Fall	151.1	--	--	≥ 151.0 Alternative I: 2018 minimum hatchery and natural area adult escapement (Council guidance).
	--	164.9	--	≥ 165.0 Alternative II: 2018 minimum hatchery and natural area adult escapement (Council guidance).
	--	--	180.1	≥ 180.0 Alternative III: 2018 minimum hatchery and natural area adult escapement (Council guidance).
Sacramento Index Exploitation Rate	34.1%	28.1%	21.5%	≤ 46.8% FMP control rule.
Ocean commercial impacts	44.3	35.9	27.9	Includes fall (Sept-Dec) 2017 impacts (8.1 thousand SRFC).
Ocean recreational impacts	22.3	19.0	14.0	Includes fall 2017 impacts (3.2 thousand SRFC).
River recreational impacts	11.8	9.7	7.4	NA Equals 15.0%, 15.0%, and 15.0% of the total allowable harvest (Council guidance).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2018 ocean fishery management measures - April STT adjusted.^{a/} (Page 2 of 2)

Key Stock/Criteria	PROJECTED			2018	
	Alt I	Alt II	Alt III	Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
COHO	COHO			COHO	
Interior Fraser (Thompson River)	10.6%(5.1%)	8.6%(3.0%)	7.3%(1.7%)	≤ 10.0%	2018 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	34.2%(4.8%)	32.7%(2.9%)	31.8%(1.6%)	≤ 35.0%	2018 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	38.0%(3.3%)	36.9%(2.0%)	36.2%(1.1%)	≤ 35.0%	2018 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	36.1%(3.3%)	36.3%(2.0%)	35.5%(1.1%)	≤ 40.0%	2018 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	44.3%(5.0%)	45.2%(3.1%)	44.4%(1.7%)	≤ 65.0%	2018 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	9.0%(4.2%)	7.3%(2.4%)	6.7%(1.9%)	≤ 20.0%	2018 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	9.9	10.1	10.3	6.3	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Hoh	4.9	5.2	5.3	2.0	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Queets Wild	5.8	6.0	6.2	5.8	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Grays Harbor	39.3	40.1	40.6	35.4	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Willapa Bay Natural	18.6	19.0	19.5	17.2	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Low er Columbia River Natural (threatened)	11.2%	9.6%	6.0%	≤ 18.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2018 NMFS ESA guidance). Value depicted is marine ER before Buoy 10.
Upper Columbia ^{c/}	≥ 50%	≥ 50%	≥ 50%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	118.3	110.4	130.2	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	84.1	85.5	101.1	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	15.0%	12.9%	15.0%	≤ 15.0%	Marine and freshw ater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	13.0%	13.1%	12.9%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Model results for Chinook include updates to northern stock abundances and total allow able catch in 2018 AABM fisheries. Model results for coho include final 2018 Canadian abundances and updated proxy 2018 Canadian fisheries.

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 coho include marine impacts only. Exploitation rates for 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 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.