SALMON TECHNICAL TEAM REPORT 1: UPDATE OF ESTIMATED IMPACTS OF MARCH 2021 ALTERNATIVES FOR OCEAN SALMON FISHERY MANAGEMENT MEASURES

PFMC
04/08/21

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (QTA) - STT analyzed.[a/] (Page 1 of 4)

Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted [b/]
CHINOOK		**CHINOOK**			**CHINOOK**
SRKW PREY ABUNDANCE:					
North of Falcon	1364.9	1364.9	1364.8	≥ 966.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Oregon Coast	1139.9	1140.0	1139.8	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
California Coast	464.3	464.5	464.2	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
Southwest WCVI	738.2	738.2	738.2	NA	Oct 1 starting abundance of age 3+ Chinook off Southwest Vancouver Island
Salish Sea	605.1	605.1	605.1	NA	Oct 1 starting abundance of age 3+ Chinook in the Salish Sea
PUGET SOUND:					
Elwha Summer/Fall	5.4%	5.1%	4.4%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	5.2%	4.9%	4.2%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	12.6%	11.4%	6.7%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers regarding a conservation standard for 2021 that is in accordance with NMFS guidance.
Skokomish Summer/Fall	49.5%	48.7%	45.8%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	**11.9%**	**11.2%**	9.2%	≤ 10.5%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	1.01	0.95	0.78	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	**25.1%**	**24.9%**	**24.2%**	≤ 17.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.98	0.97	0.94	≤ 0.95	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	**12.6%**	**12.4%**	**11.8%**	≤ 10.3%	Southern U.S. 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	21.5%	21.3%	20.6%	≤ 22.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
	0.86	0.84	0.79	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	7.3%	7.0%	5.6%	≤ 8.0%	Southern U.S. exploitation rate limit under critical abundance forecast for 2021 (NMFS ESA consultation standard).
	0.72	0.68	0.55	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.546	0.551	0.572	≥ 0.500	Natural-origin escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	1.664	1.687	1.779	≥ 1.200	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
White River Spring	16.9%	16.6%	15.6%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	0.929	0.937	0.967	≥ 0.750	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
Nisqually River Summer/Fall	**49.7%**	**48.9%**	46.1%	≤ 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	1.8%	1.3%	0.0%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	4.7%	3.7%	0.2%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (QTA) - STT analyzed.[a/] (Page 2 of 4)

Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted [b/]
CHINOOK		**CHINOOK**			**CHINOOK**
WASHINGTON COAST:					
Hoko Fall	1.055	1.057	1.067	0.85	FMP MSY spawning escapement objective.
	2.0%	1.6%	0.4%	≤ 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.
COLUMBIA RIVER:					
Columbia Upriver Brights	349.3	352.1	362.0	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	85.0	85.7	88.1	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	73.8	74.8	78.8	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)	**38.1%**	36.6%	30.4%	≤ 38.0%	Total adult equivalent fishery exploitation rate (2021 NMFS ESA guidance).
Columbia Lower River Wild[e/] (threatened)	20.4	20.8	21.6	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	47.2	47.9	51.8	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	78.6	79.1	80.7	29.0	Aggregate escapement to mouth of Columbia River.
Snake River Fall (threatened) SRFI	50.1%	45.2%	24.9%	≤ 70.0%	Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (QTA) - STT analyzed.[a/] (Page 3 of 4)

Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted[b/]
CHINOOK		**CHINOOK**			**CHINOOK**
OREGON COAST:					
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 not applicable, escapement goal 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.
CALIFORNIA:					
Klamath River Fall	31.6	31.6	31.6	≥ 31.574	2021 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0%	Equals 8.2, 8.2, and 8.1 (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	62.1	62.1	62.1	NA	Total adults in thousands.
Age-4 ocean harvest rate	10.4%	10.3%	10.6%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	7.7%	7.9%	6.6%		
River recreational fishery share	15.1%	15.0%	15.0%	NA	Equals 1.2, 1.2, and 1.2 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	11.7%	14.2%	12.6%	≤ 20.0%	Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the following season restrictions apply: Recreational- 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. Commercial- 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 2021 ESA Guidance).
Sacramento River Fall	131.0	132.2	128.0	≥ 122.0	2021 minimum hatchery and natural area adult escapement (FMP control rule).
Sacramento Index Exploitation Rate	51.6%	51.2%	52.7%	≤ 55.0%	FMP control rule.
Ocean commercial impacts	76.4	76.1	79.8		Includes fall (Sept-Dec) 2020 impacts (9.1 thousand SRFC).
Ocean recreational impacts	42.2	41.0	42.3		Includes fall (Sept-Dec) 2020 impacts (5.2 thousand SRFC).
River recreational impacts	21.3	21.5	20.8		

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (QTA) - STT analyzed.[a/] (Page 4 of 4)

Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted [b/]
COHO	**COHO**				**COHO**
Interior Fraser (Thompson River)	5.1%(1.6%)	4.8%(1.2%)	3.7%(0.1%)	≤ 10.0%	2021 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	**38.3%(1.4%)**	**38.1%(1.1%)**	**37.3%(0.1%)**	≤ 35.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Stillaguamish	35.7%(1.0%)	35.6%(0.8%)	35.0%(0.1%)	≤ 50.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Snohomish	32.8%(1.0%)	32.7%(0.8%)	32.0%(0.1%)	≤ 40.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Hood Canal	42.8%(1.7%)	42.6%(1.4%)	41.8%(0.1%)	≤ 45.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Strait of Juan de Fuca	8.5%(1.4%)	8.3%(1.1%)	7.5%(0.4%)	≤ 20.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Quillayute Fall	7.3	7.3	7.4	6.3	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Hoh	2.6	2.6	2.7	2.0	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Queets Wild	**3.4**	**3.4**	**3.5**	5.8	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Grays Harbor	42.9	43.0	43.5	24.4	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Willapa Bay	32.3	32.2	33.4	17.2	FMP MSY natural area adult spawner estimate. Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	9.8%	10.1%	7.9%	≤30.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2021 NMFS ESA guidance).
Upper Columbia[c/]	81.6%	80.4%	84.2%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	805.6	793.2	820.9	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	454.3	442.8	498.8	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	11.1%	10.5%	9.6%	≤ 15.0%	Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	3.0%	2.9%	2.5%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Reflects 2021 fisheries and abundance estimates.

b/ ISBM obligation is assessed as a proportion of the 2009-2015 average calendar year exploitation rate. 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 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 and LCR Tule Chinook represent marine and freshwater impacts. Values reported for Klamath River fall Chinook and Willapa Bay coho 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.

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (Makah Tribe) - STT analyzed.[a/]
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Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted [b/]
CHINOOK		**CHINOOK**			**CHINOOK**
SRKW PREY ABUNDANCE:					
North of Falcon	1364.9	1364.9	1364.8	≥ 966.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Oregon Coast	1139.9	1140.0	1139.8	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
California Coast	464.3	464.5	464.2	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
Southwest WCVI	738.2	738.2	738.2	NA	Oct 1 starting abundance of age 3+ Chinook off Southwest Vancouver Island
Salish Sea	605.1	605.1	605.1	NA	Oct 1 starting abundance of age 3+ Chinook in the Salish Sea
PUGET SOUND:					
Elwha Summer/Fall	5.7%	5.3%	4.4%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	5.5%	5.1%	4.2%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	14.0%	12.4%	6.7%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers regarding a conservation standard for 2021 that is in accordance with NMFS guidance.
Skokomish Summer/Fall	**50.3%**	49.3%	45.8%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	**12.9%**	**11.9%**	9.2%	≤ 10.5%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	1.09	**1.01**	0.78	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	**25.3%**	**25.1%**	**24.2%**	≤ 17.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.98	0.97	0.94	≤ 0.95	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	**13.0%**	**12.6%**	**11.8%**	≤ 10.3%	Southern U.S. 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	21.7%	21.4%	20.6%	≤ 22.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
	0.88	0.86	0.79	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	7.7%	7.2%	5.6%	≤ 8.0%	Southern U.S. exploitation rate limit under critical abundance forecast for 2021 (NMFS ESA consultation standard).
	0.76	0.71	0.55	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.541	0.548	0.572	≥ 0.500	Natural-origin escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	1.638	1.669	1.779	≥ 1.200	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
White River Spring	17.3%	16.9%	15.6%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	0.921	0.931	0.967	≥ 0.750	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
Nisqually River Summer/Fall	**50.7%**	**49.6%**	46.1%	≤ 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	2.4%	1.7%	0.0%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	5.8%	4.5%	0.2%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (Makah Tribe) - STT analyzed.[a/]
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Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted[b/]
CHINOOK		**CHINOOK**			**CHINOOK**
WASHINGTON COAST:					
Hoko Fall	1.052	1.057	1.067	0.85	FMP MSY spawning escapement objective.
	2.2%	1.7%	0.4%	≤ 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.
COLUMBIA RIVER:					
Columbia Upriver Brights	347.6	351.0	362.0	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	84.6	85.4	88.1	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	73.3	74.5	78.8	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)	**38.7%**	37.0%	30.4%	≤ 38.0%	Total adult equivalent fishery exploitation rate (2021 NMFS ESA guidance).
Columbia Lower River Wild[e/] (threatened)	20.3	20.7	21.6	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	46.8	47.7	51.8	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	78.3	78.9	80.7	29.0	Aggregate escapement to mouth of Columbia River.
Snake River Fall (threatened) SRFI	53.2%	47.3%	24.9%	≤ 70.0%	Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (Makah Tribe) - STT analyzed.[a/]
(Page 3 of 4)

Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted[b/]
CHINOOK		**CHINOOK**			**CHINOOK**
OREGON COAST:					
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 not applicable, escapement goal 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.
CALIFORNIA:					
Klamath River Fall	31.6	31.6	31.6	≥ 31.574	2021 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0%	Equals 8.2, 8.2, and 8.1 (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	62.1	62.1	62.1	NA	Total adults in thousands.
Age-4 ocean harvest rate	10.4%	10.3%	10.6%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	7.7%	7.9%	6.6%		
River recreational fishery share	15.1%	15.0%	15.0%	NA	Equals 1.2, 1.2, and 1.2 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	11.7%	14.2%	12.6%	≤ 20.0%	Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the following season restrictions apply: Recreational- 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. Commercial- 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 2021 ESA Guidance).
Sacramento River Fall	131.0	132.2	128.0	≥ 122.0	2021 minimum hatchery and natural area adult escapement (FMP control rule).
Sacramento Index Exploitation Rate	51.6%	51.2%	52.7%	≤ 55.0%	FMP control rule.
Ocean commercial impacts	76.4	76.1	79.8		Includes fall (Sept-Dec) 2020 impacts (9.1 thousand SRFC).
Ocean recreational impacts	42.2	41.0	42.3		Includes fall (Sept-Dec) 2020 impacts (5.2 thousand SRFC).
River recreational impacts	21.3	21.5	20.8		

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (Makah Tribe) - STT analyzed.[a/] (Page 4 of 4)

Key Stock/Criteria	PROJECTED Alt I	Alt II	Alt III	2021 Criteria	Spawner Objective or Other Comparative Standard as Noted [b/]
COHO	**COHO**				**COHO**
Interior Fraser (Thompson River)	7.1%(3.6%)	6.3%(2.7%)	3.7%(0.1%)	≤ 10.0%	2021 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	**39.6%(3.2%)**	**39.1%(2.5%)**	**37.3%(0.1%)**	≤ 35.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Stillaguamish	36.6%(2.3%)	36.2%(1.8%)	35.0%(0.1%)	≤ 50.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Snohomish	33.7%(2.3%)	33.4%(1.8%)	32.0%(0.1%)	≤ 40.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Hood Canal	44.2%(3.7%)	43.6%(2.8%)	41.8%(0.1%)	≤ 45.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Strait of Juan de Fuca	10.0%(3.0%)	9.4%(2.3%)	7.5%(0.4%)	≤ 20.0%	2021 total exploitation rate ceiling; FMP matrix[d/]
Quillayute Fall	7.2	7.2	7.4	6.3	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Hoh	2.5	2.5	2.7	2.0	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Queets Wild	**3.3**	**3.3**	**3.5**	5.8	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Grays Harbor	42.3	42.5	43.5	24.4	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Willapa Bay	31.7	31.8	33.4	17.2	FMP MSY natural area adult spawner estimate. Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	11.0%	11.1%	7.9%	≤30.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2021 NMFS ESA guidance).
Upper Columbia[c/]	81.5%	80.3%	84.2%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	795.0	785.3	820.9	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	447.5	437.9	498.8	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	11.5%	10.7%	9.6%	≤ 15.0%	Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	3.0%	2.9%	2.5%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Reflects 2021 fisheries and abundance estimates.

b/ ISBM obligation is assessed as a proportion of the 2009-2015 average calendar year exploitation rate. 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 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 and LCR Tule Chinook represent marine and freshwater impacts. Values reported for Klamath River fall Chinook and Willapa Bay coho 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.