Northwest **Power** and **Conservation** Council

Quantitative Objectives Report

Report: **Chinook**

2015 The Northwest Power and Conservation Council

Document: **Washington Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan - Washington Management Plan in Lower Columbia River Recovery Plan for Salmon and Steelhead**

Author: Lower Columbia Fish Recovery Board

Document Year: **2010**

Link: http://media.wix.com/ugd/810197_ed97ad06e02445f5927163b568dccd3c.pdf

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance Target	Contribution	Viability Objective	Productivity Improvement Target(%)
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Lower Cowlitz	Fall	Threatened	3000	Contributing	Moderate+	50
				Salmon	Fall	Threatened	NA	Stabilizing	Very Low	NA
				Coweeman	Fall	Threatened	900	Primary	High+	80
				Upper Cowlitz	Fall	Threatened	NA	Stabilizing	Very Low	NA
				Lewis	Fall	Threatened	1500	Primary	High+	280
				Washougal	Fall	Threatened	1200	Primary	High+	190
				Kalama	Fall	Threatened	500	Contributing (1)	Moderate	110
				Toutle	Fall	Threatened	4000	Primary (2)	High+	265
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Late Fall	North Fork Lewis River	Late Fall	Threatened	7300	Primary	Very High	0
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	Cispus	Spring	Threatened	1800	Primary	High+	>500
				Tilton	Spring	Threatened	NA	Stabilizing	Very Low	0

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	North Fork Lewis River	Spring	Threatened	1500	Primary	High	>500
				Kalama	Spring	Threatened	300	Contributing (1)	Low+	>500
				Upper Cowlitz	Spring	Threatened	1800	Primary	High+	>500
				Toutle	Spring	Threatened	1100	Contributing	Moderate	>500
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Grays/Chinoo	Fall	Threatened	1000	Contributing (1)	Moderate+	500
				Mill/Abernathy /Germany	Fall	Threatened	900	Primary (2)	High	155
				Elochoman/Skamokawa	Fall	Threatened	1500	Primary	High	150
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	White Salmon	Fall	Threatened	500	Contributing	Moderate	>500
				Lower Gorge	Fall	Threatened	1200	Contributing	Moderate	>500
				Upper Gorge	Fall	Threatened	1200	Contributing (2)	Moderate	>500
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Spring	White Salmon	Spring	Threatened	500	Contributing	Low+	>500

FOOTNOTES:
(1) Reduction relative to Interim Plan□
(2) Increase relative to Interim Plan□

NOTES:
Designated as a historical core population by the Technical Recovery Ream: Lower Cowlitz, Toutle, Lewis NF (spring and late-fall), Upper Cowlitz, Cispus, Elochoman/Skamokawa, White Salmon (spring and fall) and Upper Gorge□

Designated as a historical legacy population by the Technical recovery Team: Lewis, Coweeman, Lewis NF (late-fall), Upper Cowlitz, and Cispus

Document: **Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead**

Author: ODFW

Document Year: **2010**

Link: http://www.dfw.state.or.us/fish/CRP/docs/lower-columbia/OR_LCR_Plan%20-%20Aug_6_2010_Final.pdf

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance	Overall Risk Class	A&P Gap	Contribution to Delisting
							Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade	Sandy	Fall		1487	Very Low	1343	NA
				Sandy	Late Fall		3858	Very Low+	2064	NA
				Clackamas	Spring		8377	Very Low+	7006	NA
				Clackamas	Fall		4359	Very Low+	3801	NA
				Sandy	Spring		7871	Very Low	7157	NA
							Non-Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Sandy	Fall	Threatened	1031	Moderate	887	Contributing
				Clackamas	Fall	Threatened	1551	Moderate	993	Contributing
							Non-Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Late Fall	Sandy	Late-Fall	Threatened	3858	Very Low	2064	Primary
							Non-Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	Clackamas	Spring	Threatened	8377	(Very Low)	7006	NA

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	Sandy	Spring	Threatened	1230	Low	516	Primary
							Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast	Big Creek	Fall		1479	Very Low	1263	NA
				Scappoose	Fall		2336	Very Low+	1920	NA
				Youngs Bay	Fall		1510	Very Low	1131	NA
				Clatskanie	Fall		1745	Very Low+	1739	NA
							Non-Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Clatskanie	Fall	Threatened	1277	Low	1271	Primary
				Big Creek	Fall	Threatened	577	High	361	Contributing
				Scappoose	Fall	Threatened	1222	Low	866	Primary
				Youngs Bay	Fall	Threatened	505	High	126	Stabalizing
							Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge	Lower Gorge	Fall		1471	Very Low	1397	NA
				Upper Gorge	Fall		1450	Very Low	1433	NA
				Hood	Fall		1516	Very Low	1483	NA
							Non-Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Hood	Fall	Threatened	1245	Low	1212	Primary
				Upper Gorge	Fall	Threatened	87	Very High (Moderate)	70	Support WA (Moderate)

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Lower Gorge	Fall	Threatened	387	High (Moderate)	313	Support WA (Moderate)
							Non-Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Spring	Hood	Spring	Threatened	1493	Very Low	1166	Primary
							Broad Sense			
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Hood	Hood	Spring		6536	Very Low+	6209	NA

NOTES:
The desired status (overall risk class) for populations which are not part of an ESA-listed ESU are indicated in parenthesis. The overall risk class for the Lower and Upper Gorge (Oregon portion of shared populations and the entire population (in parenthesis, determined by Washington).

Document: **Revised Viability Criteria for Salmon and Steelhead in the Willamette and Lower Columbia Basins**

Author: Willamette/Lower Columbia Technical Recovery Team, ODFW

Document Year: **2006**

Link: http://www.nwfsc.noaa.gov/trt/wlc/viability_report_revised.cfm

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Minimum Abundance Threshold (MAT)	Size Category
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Hood	Fall	Threatened	0-100(Category 0), 100-200(Category 1), 200-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Small

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Clackamas	Fall	Threatened	0-300(Category 0), 300-350(Category 1), 350-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Medium
				Sandy	Fall	Threatened	0-300(Category 0), 300-350(Category 1), 350-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Medium
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	Sandy	Spring	Threatened	0-300(Category 0), 300-350(Category 1), 350-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Medium
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Big Creek	Fall	Threatened	0-100(Category 0), 100-200(Category 1), 200-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Small

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Clatskanie	Fall	Threatened	0-100(Category 0), 100-200(Category 1), 200-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Small
				Youngs Bay	Fall	Threatened	0-100(Category 0), 100-200(Category 1), 200-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Small
				Scappoose	Fall	Threatened	0-100(Category 0), 100-200(Category 1), 200-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Small
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Upper Gorge Tributaries	Fall	Threatened	0-100(Category 0), 100-200(Category 1), 200-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Small

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Lower Gorge Tributaries	Fall	Threatened	0-100(Category 0), 100-200(Category 1), 200-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Small
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Spring	Hood	Spring	Threatened	0-300(Category 0), 300-350(Category 1), 350-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Medium
Willamette Lower Columbia	Upper Willamette River	Upper Willamette River Chinook	Cascade Spring	Clackamas	Spring	Threatened	0-550(Category 0), 550-600(Category 1), 600-700(Category 2), 700-1400(Category 3), >1400 (Category 4)	Large
Willamette Lower Columbia	Upper Willamette River	Upper Willamette River Chinook	Willamette	Molalla	Spring	Threatened	0-300(Category 0), 300-350(Category 1), 350-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Medium

Willamette Lower Columbia	Upper Willamette River	Upper Willamette River Chinook	Willamette	North Santiam	Spring	Threatened	0-300(Category 0), 300-350(Category 1), 350-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Medium
				Middle Fork Willamette	Spring	Threatened	0-550(Category 0), 550-600(Category 1), 600-700(Category 2), 700-1400(Category 3), >1400 (Category 4)	Large
				Calapooia	Spring	Threatened	0-300(Category 0), 300-350(Category 1), 350-500(Category 2), 500-1000(Category 3), >1000(Category 4)	Medium
				South Santiam	Spring	Threatened	0-550(Category 0), 550-600(Category 1), 600-700(Category 2), 700-1400(Category 3), >1400 (Category 4)	Large
				McKenzie	Spring	Threatened	0-550(Category 0), 550-600(Category 1), 600-700(Category 2), 700-1400(Category 3), >1400 (Category 4)	Large

Document: **ESA Recovery Plan for Lower Columbia River Coho Salmon, Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, and Lower Columbia River Steelhead**

Author: NMFS

Document Year: **2013**

Link: http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/willamette_lowercol/lower_columbia/final_plan_documents/final_lcr_plan_june_2013_-corrected.pdf

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance Target	Contribution	Target Persistence Probability
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Clackamas	Fall	Threatened	1551	Contributing	Moderate
				Sandy	Fall	Threatened	1031	Contributing	Moderate
				Coweeman	Fall	Threatened	900	Primary	High+
				Toutle	Fall	Threatened	4000	Primary	High+
				Upper Cowlitz	Fall	Threatened	NA	Stabalizing	Very Low
				Lewis	Fall	Threatened	1500	Primary	High+
				Washougal	Fall	Threatened	1200	Primary	High+
				Lower Cowlitz	Fall	Threatened	3000	Contributing	Moderate+
				Kalama	Fall	Threatened	500	Contributing	Moderate

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Late Fall	Sandy	Fall (Late)	Threatened	3561	Primary	Very High
				North Fork Lewis River	Fall (Late)	Threatened	7300	Primary	Very High
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	Kalama	Spring	Threatened	300	Contributing	Low
				Upper Cowlitz	Spring	Threatened	1800	Primary	High+
				Toutle	Spring	Threatened	1100	Contributing	Moderate
				North Fork Lewis River	Spring	Threatened	1500	Primary	High
				Tilton	Spring	Threatened	100	Stabalizing	Very Low
				Cispus	Spring	Threatened	1800	Primary	High+
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Elochoman/Skamokawa	Fall	Threatened	1500	Primary	High
				Mill/Abernathy/Germany	Fall	Threatened	900	Primary	High
				Clatskanie	Fall	Threatened	1277	Primary	High
				Grays/Chinoo	Fall	Threatened	1000	Contributing	Moderate+
				Youngs Bay	Fall	Threatened	505	Stabalizing	Low
				Big Creek	Fall	Threatened	577	Contributing	Low
				Scappoose	Fall	Threatened	1222	Primary	High
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Lower Gorge	Fall	Threatened	1200	Contributing	Moderate

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Upper Gorge	Fall	Threatened	1200	Contributing	Moderate
				White Salmon	Fall	Threatened	500	Contributing	Moderate
				Hood	Fall	Threatened	1245	Primary	High
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Spring	Hood	Spring	Threatened	1493	Primary	Very High
				White Salmon	Spring	Threatened	500	Contributing	Low+

FOOTNOTES:
(1) The Cispus population requires improvements in every threat category. However, given that hydropower impacts are 100 percent for this population, it will not benefit from improvements in other threat categories until some degree of passage is restored. Although passage improvements alone will not lead to recovery, how successful passage improvements are will greatly influence how much improvement is needed in the other threat categories. The Tilton population also has hydropower impacts of 100 percent but is a stabilizing population not targeted for improvements in any threat category. Because hydropower impacts are 100 percent for both these populations, the formula for percent survival improvement for these populations was modified to account for the 100 percent hydropower impacts (i.e., to avoid having to divide by zero).□

NOTES:
Core populations, meaning those that historically were the most productive: Toutle (fall), Sandy (spring), Lower Cowlitz, Clackamas, Cispus, Upper Cowlitz (spring), Big Creek, Elochoman/Skamokawa, White Salmon (spring and fall), and Lower Gorge

Oregon's analysis indicates a low probability of meeting delisting objective of High Persistence Probability for this Hood population (Gorge Fall)

Genetic legacy populations, which best represent historical genetic diversity: Coweeman, Lewis, Sandy (spring), and Upper Cowlitz □
□
Survival improvements indicate the percentage improvement (rounded to the nearest 10) in population survival needed to achieve target impacts and are derived from the cumulative values (baseline and target). For most populations this was calculated using the following equation: [(1-CumulativeTarget)-(1-CumulativeBaseline)]/[1-CumulativeBaseline] x 100. These cumulative impact numbers were not explicitly reported by ODFW in 2010, but are implicit in the modeling approach that Oregon recovery planners used to derive target impacts. For populations where the survival improvement needed is larger than 500 percent, this table does not report the exact value.

Document: **Tucannon Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/120068/Entire_Document.pdf

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Long-Term Return	Natural Spawning Component	Hatchery Spawning Component	Total Spawning Component
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Tucannon	Fall	Threatened	2000 (6), 2000 (1), 2500 (2), 18300 hatchery and 14360 naturally produced (5)	1000 (6)	NA	NA
				Tucannon	Spring	Threatened	3000 (1), 3000 (2), 1000 (3), 2400-3400 (6), 2400 (1152 hatchery produced) (5	25000 (4), 2000 (6)	10000 (4)	35000 (4)

FOOTNOTES:
(1) CRITFC, Spirit of the Salmon
(2) 1990 Snake Subbasin Salmon and Steelhead Production Plan
(3) 2002. National Marine Fisheries Service Interim Abundance and Productivity Targets for Interior Columbia Basin Salmon and Steelhead Listed Under the Endangered Species Act. Website accessed January 30:
(4) CRFMP, which has expired (US v. Oregon), establishes interim management goals for fish passing over the Lower Granite Dam; Snake River specific goals are not defined.
(5) LSRCP
(6) Goals are derived from various management plans. These numbers do not imply consensus by all management agencies but merely gives direction to managers who must workout the restoration and recovery of each species and population over time through implementation of the plan.

Document: **Umatilla Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/120142/EntirePlan.pdf

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Total Return	Natural Return	Hatchery Return

Interior Columbia	Middle Columbia River	Middle Columbia River Spring Chinook	N/A	Umatilla	Spring	Not Listed	11000 (1), 11000 (2), 8000 (3)	1000 (1), 1000 (2), 3000 (3), 1702 (4)	10000 (1), 10000 (2), 6000 (3)	
Interior Columbia	Middle Columbia River	NA	N/A	Umatilla	Fall	Not Listed	21000 (1), 21000 (2), 12000 (3)	11000 (1), 11000 (2), 3000 (3), 4192 (4)	10000 (1), 10000 (2), 6000 (3)	

FOOTNOTES:
(1) 1990 NPPC Subbasin Plan
(2) 1996 CRITFC Spirit of the Salmon (Tribal Restoration Plan)
(3) 2001 NPPC Subbasin Summary
(4) 2004 EDT natural production estimates were derived from the PFC analysis

Document: **Viability Criteria for Application to Interior Columbia Basin Salmonid ESUs**

Author: Interior Columbia Basin Technical Recovery Team

Document Year: **2007**

Link: http://www.nwfsc.noaa.gov/trt/trt_documents/ictrt_viability_criteria_reviewdraft_2007_complete.pdf

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Minimum Abundance Threshold (MAT)	Population Weighted Area	Role in Viability Scenario
Interior Columbia	Snake River	Snake Hells Canyon Fall Chinook	N/A	Snake Hells Canyon	Fall		NA	NA	NA
				Weiser River	Fall		NA	NA	NA
				Burnt River	Fall		NA	NA	NA
				Powder River	Fall		NA	NA	NA
Interior Columbia	Snake River	Snake Hells Canyon Fall Chinook	Snake River Mainstem	Salmon Falls	Fall		NA	NA	Reconsider as recovery efforts progress (one of the two to be highly viable)

Interior Columbia	Snake River	Snake Hells Canyon Fall Chinook	Snake River Mainstem	Lower Mainstem	Fall		<2500(1)	Small	Highly Viable
				Marsing Reach	Fall		NA	NA	Reconsider as recovery efforts progress (one of the two to be highly viable)
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Minam River	Spring	Threatened	750	Intermediate	1 Highly Viable and 3 Viable: Imnaha River, Lostine/Wallowa River, Catherine Creek or Upper Grande Ronde River, Wenaha River or Minam River - All remaining extant populaitons Maintained
				Lostine/Wallowa River	Spring	Threatened	1000	Large	1 Highly Viable and 3 Viable: Imnaha River, Lostine/Wallowa River, Catherine Creek or Upper Grande Ronde River, Wenaha River or Minam River - All remaining extant populaitons Maintained
				Imnaha River Mainstem	Spring/Summer	Threatened	750	Intermediate	1 Highly Viable and 3 Viable: Imnaha River, Lostine/Wallowa River, Catherine Creek or Upper Grande Ronde River, Wenaha River or Minam River - All remaining extant populaitons Maintained

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Wenaha River	Spring	Threatened	750	Intermediate	1 Highly Viable and 3 Viable: Imnaha River, Lostine/Wallowa River, Catherine Creek or Upper Grande Ronde River, Wenaha River or Minam River - All remaining extant populaitons Maintained
				Catherine Creek	Spring	Threatened	1000	Large	1 Highly Viable and 3 Viable: Imnaha River, Lostine/Wallowa River, Catherine Creek or Upper Grande Ronde River, Wenaha River or Minam River - All remaining extant populaitons Maintained
				Big Sheep Creek (FUNCTIONALLY EXTIRPATED)	Spring	Threatened	500	Basic	Consider for reintroduction as recovery efforts progress
				Upper Grande	Spring	Threatened	1000	Large	1 Highly Viable and 3 Viable: Imnaha River, Lostine/Wallowa River, Catherine Creek or Upper Grande Ronde River, Wenaha River or Minam River - All remaining extant populaitons Maintained
				Lookingglass Creek (functionally expirated)	Spring	Threatened	500	Basic	Consider for reintroduction as recovery efforts progress
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Tucannon River	Spring	Threatened	750	Intermediate	Highly Viable

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Asotin River (functionally extint)	Spring	Basic	500	Basic	Consider for reintroduction as recovery efforts progress
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Camas Creek	Spring	Threatened	500	Basic	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Upper Mainstem Middle Fork	Spring	Threatened	750	Intermediate	Maintained
				Bear Valley Creek	Spring	Threatened	750	Intermediate	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Marsh Creek	Spring	Threatened	500	Basic	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Loon Creek	Spring	Threatened	500	Basic	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Lower Mainstem Middle Fork	Spring	Threatened	500	Basic	Maintained
				Big Creek	Spring	Threatened	1000	Large	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Chamberlain Creek	Spring	Threatened	750(500)	Intermediate (Basic)	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Sulphur Creek	Spring	Threatened	500	Basic	Maintained
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	South Fork Salmon	East Fork/Johnson Creek	Spring	Threatened	1000	Large	Maintained
				Little Salmon	Spring	Threatened	750(500)	Intermediate (Basic)	Maintained
				Secesh River	Spring	Threatened	750	Intermediate	Maintained
				South Fork Salmon	Spring	Threatened	1000	Large	1 Highly Viable and 1 viable - Two populations in the main South Fork Basin
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Upper Salmon River	Pahsimeroi River	Spring	Threatened	1000	Large	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek
				Upper Salmon East Fork	Spring/Summer	Threatened	1000	Large	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek
				Valley Creek	Spring	Threatened	500	Basic	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Upper Salmon River	Upper Salmon River	Spring	Threatened	1000	Large	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek
				Lower Mainstem	Spring/Summer	Threatened	2000	Very Large	Maintained
				Panther Creek (EXTIRPATED)	Spring		750	Intermediate	Maintained
				Yankee Fork	Spring	Threatened	500	Basic	Maintained
				North Fork Salmon River	Spring	Threatened	500	Basic	Maintained
				Lemhi River	Spring	Threatened	2000	Very Large	Maintained
Interior Columbia	Upper Columbia River	Upper Columbia Spring Chinook	Eastern Cascades	Wenatchee River	Spring	Endangered	2000	Very Large	Highly Viable
				Methow River	Spring	Endangered	2000	Very Large	Highly Viable
				Entiat River	Spring	Endangered	500	Basic	Viable
				Okanogan River (US Portion Only)	Spring		750	Intermediate	Reconsider as recovery efforts progress

NOTES:
(1) Up to 500 distributed between the upper extant spawning areas used by the lower mainstem population.

Document: **Nez Perce Tribe Department of Fisheries Resources Management Plan 2013-2018**

Author: Nez Perce Tribe

Document Year: **2013**

Link: http://www.nptfisheries.org/portals/0/images/dfrm/home/fisheries-management-plan-final-sm.pdf

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Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Designated Stronghold	Viability Threshold	Sustainable Escapement	Ecological Escapement
Interior Columbia	Snake River	Snake Hells Canyon Fall Chinook	Snake River Fall above Hells Canyon	NA	Fall		NA	NA	NA	NA
Interior Columbia	Snake River	Snake River Fall Chinook	Snake River Fall Chinook	Marsing Reach	Fall		NA	NA	NA	NA
				Salmon Falls	Fall		NA	NA	NA	NA
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Clearwater	Lochsa	Spring/Summer	Threatened	Yes	1000	10200	24000
				Lolo Creek	Spring/Summer	Threatened	Yes	500	6600	15000
				Upper South Fork Clearwater	Spring/Summer	Threatened	Yes	1000	9600	22000
				Upper Selway	Spring/Summer	Threatened	Yes	1000	7600	18000
				Lapwai/Big Canyon Creeks	Spring/Summer	Threatened	NA	750	6600	15000
				Potlatch River	Spring/Summer	Threatened	NA	500	5700	13000
				Moose Creek	Spring/Summer	Threatened	Yes	750	5000	12000
				Meadow Creek	Spring/Summer	Threatened	Yes	500	3300	8000
				Lawyer Creek	Spring/Summer	Threatened	NA	500	5500	13000

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Catherine Creek	Spring/Summer	Threatened	NA	1000	3000	22000
				Imnaha	Spring/Summer	Threatened	Yes	1000	5700	38000
				Lookingglass (functionally extirpated)	Spring/Summer	Threatened	NA	500	1000	3000
				Wenaha	Spring/Summer	Threatened	Yes	750	1800	13000
				Lostine/Wallowa	Spring/Summer	Threatened	Yes	1000	4800	36000
				Minam	Spring/Summer	Threatened	NA	750	1900	14000
				Upper Grande	Spring/Summer	Threatened	NA	1000	4100	31000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Asotin (functionally extinct)	Spring/Summer	Threatened	NA	500	2000	10000
				Tucannon	Spring/Summer	Threatened	Yes	750	3400	22000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Big Creek	Spring/Summer	Threatened	Yes	1000	6900	19000
				Marsh Creek	Spring/Summer	Threatened	NA	500	2600	7000
				Camas Creek	Spring/Summer	Threatened	NA	500	3000	8000
				Loon Creek	Spring/Summer	Threatened	NA	500	3200	9000
				Sulphur Creek	Spring/Summer	Threatened	NA	500	1400	4000
				Bear Valley	Spring/Summer	Threatened	Yes	750	5700	16000
				Lower Mainstem Middle Fork	Spring/Summer	Threatened	NA	500	2100	6000

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Upper Mainstem Middle Fork	Spring/Summer	Threatened	NA	750	6100	17000
				Chamberlain Creek	Spring/Summer	Threatened	NA	750	3900	11000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	South Fork Salmon	Secesh River	Spring/Summer	Threatened	Yes	750	5400	15000
				East Fork Salmon/Johnson Creek	Spring/Summer	Threatened	Yes	1000	6900	19000
				South Fork Salmon Mainstem	Spring/Summer	Threatened	Yes	2000	8600	24000
				Little Salmon River	Spring/Summer	Threatened	Yes	750	5100	14000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Upper Salmon River	Upper Salmon Mainstem	Spring/Summer	Threatened	Yes	1000	8000	22000
				East Fork Upper Salmon	Spring/Summer	Threatened	NA	1000	6600	18000
				Lower Mainstem Salmon	Spring/Summer	Threatened	NA	1000	16500	46000
				Valley Creek	Spring/Summer	Threatened	NA	500	3200	9000
				Panther Creek (EXTIRPATED)	Spring/Summer	Threatened	NA	NA	NA	NA
				Yankee Fork	Spring/Summer	Threatened	NA	500	2400	7000
				Pahsimeroi	Spring/Summer	Threatened	Yes	1000	12800	35000
				Lemhi River	Spring/Summer	Threatened	Yes	2000	15500	43000
				North Fork Salmon	Spring/Summer	Threatened	NA	500	2200	6000

NOTES:
Designated stronghold: Restoration of all populations, including non-stronghold populations, remains the Nez Perce Tribe's goal for maintaining healthy and harvestable escapement levels.

Document: **Imnaha Subbasin Management Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/20692/Imnaha_Plan.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Long-Term Return	Natural Spawning Component
Interior Columbia	Snake River	Snake Hells Canyon Fall Chinook	Snake River Fall Chinook	Snake Hells Canyon	Fall	Threatened	3000	3000 (1)
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Imnaha	Spring/Summer	Threatened	5740	3800 (1)

FOOTNOTES:
(1) Chinook salmon estimates exclude jacks

NOTES:
Goals are derived from various management plans as described in Appendix A, Appendix Table 1. This table does not necessarily imply consensus by all management agencies but merely gives direction to managers who must workout the restoration and recovery of each species and population over time through implementation of the plan.

Document: **Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan (Working with the Upper Columbia Salmon Recovery Board, NOAA Fisheries Adopted A Recovery Plan for Upper Columbia Spring-Run Chinook and Steelhead 2007)**

Author: Upper Columbia Salmon Recovery Board

Document Year: **2007**

Link: http://www.westcoast.fisheries.noaa.gov/protected_species/salmon_steelhead/recovery_planning_and_implementation/upper_columbia/upper_columbia_spring_chinook_steelhead_recovery_plan.html

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Minimum 12-yr Geometric Mean Spawners	Minimum 12-yr Geometric Mean Spawners:Spawners(1)
Interior Columbia	Upper Columbia River	Upper Columbia Spring Chinook	Eastern Cascades	Wenatchee	Spring	Endangered	2000	1.2
				Entiat	Spring	Endangered	500	1.4
				Methow	Spring	Endangered	2000	1.2

NOTES:
(1) These values represent the minimum growth rates associated with the minimum number of spawners of a viable population

Document: **Draft Clearwater Subbasin Management Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/19923/managementplan.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Long-Term Return	Natural Spawning Component
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Clearwater	NA	Fall		50000 (1)	up to 10000 (2)
				NA	Spring	Threatened	60000 (1)(3)	10000 (2)

FOOTNOTES:
(1) Clearwater River Subbasin Production Plan 1990. Appendix A, Table 8 of this plan provides the opinions of various management documents as to what the long-term return goal should be. Most values displayed here were derived from the Tribal Recovery Plan, CRITFC (1996).

(2) Intensive chinook spawning grounds redd count data from 24 streams from 1994-2002.

(3) Adult return objectives are 9,135 for Dworshak National Fish Hatchery and 11,915 for Clearwater Fish Hatchery

Document: **Snake River Salmon Recovery Plan for SE Washington**

Author: Snake River Salmon Recovery Board

Document Year: **2011**

Link: http://snakeriverboard.org/wpi/wp-content/uploads/2013/01/Full-Version-SE-WA-recovery-plan-121211.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Minimum Abundance Threshold (MAT)	Population Size	Productivity Threshold	Restoration Goal
							Broad Sense			
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Wenaha	Spring	Threatened	750	Intermediate	1.76	1335 (3)(6)
							Broad Sense			
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Tucannon	Spring	Threatened	750	Intermediate	2.10 (1)	2400-3400 (3)(5)
				Asotin (functionally extinct)	Spring		500	Basic	1.90 (2)	500 (3)(4)
							Broad Sense			

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	N/A	Walla Walla	Spring	Not Listed	None	None	None	5500 or 1110 NOF, and 2750 HOF, (CTUIR goal to the mouth of the Walla Walla is 5500, but 3850 in the Walla River excludingTouchet and Mill Creek) (3)

FOOTNOTES:
(1) Because the Lower Snake River spring/summer Chinook MPG consists of only two populations, and that the Asotin is considered functionally extinct, the ICTRT recommends that the Tucannon spring/summer Chinook population should be at a Very Low Risk level of abundance and productivity (< 1%) for the MPG to meet delisting criteria.
(2) The ICTRT considers the Asotin Creek spring/summer Chinook salmon population to be functionally extinct
(3) SRSRB - http://snakeriverboard.org/wpi/wp-content/uploads/2013/01/Full-Version-SE-WA-recovery-plan-121211.pdf
(4) from LSRCP , NPT goal, etc., and spring Chinook = NPT/CRITFC goal per SRSRB Plan
(5) from LSRCP goals and NPT goal
(6) The Lower Grande Ronde River population includes the Wenaha River and tributaries, Mud, Courtney, Grossman, Menatchee, Bear, and other lower Grande Ronde tributaries, and Elbow creeks.

Document: **Lower Snake River Fish and Wildlife Compensation Plan**

Author: U.S. Army Corps of Engineers

Document Year: **1975**

Link: http://www.fws.gov/lsnakecomplan/Reports/LSRCP/Special%20Report%20June%201975/Special%20Report.PDF

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Adult Escapement
Interior Columbia	Snake River	Snake River Fall Chinook	N/A	NA			18300 (1)
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	N/A	NA			58700 (1)

FOOTNOTES:
(1) Hatchery adult returns above Lower Granite Dam

Document: **Asotin Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/116948/Entire_Plan.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Long-Term Return	Natural Spawning Component	Hatchery Spawning Component	Total Spawning Component
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Asotin (functionally extinct)	Spring		1018 (2), 4348 (3), >500 (4)(5), 1,152 hatchery plus 1,248 naturally produced (6)	>250 (4)(5), >100 (7), 1000 (8),25000 (9)	158 (1), 1018 (2), 4348 (3), 10000 (9)	158 (1), 35000 (9)

FOOTNOTES:
(1) EDT Model Current -Washington Department of Fish and Wildlife. 2004. Asotin Subbasin Aquatic Assessment.
(2) EDT Model PFC - Washington Department of Fish and Wildlife. 2004. Asotin Subbasin Aquatic Assessment.
(3) EDT Model Holistic - Washington Department of Fish and Wildlife. 2004. Asotin Subbasin Aquatic Assessment.
(4) Nez Perce Tribe Spring Chinook Adult Return Goals for Asotin Subbasin
(5) Goals are derived from various management plans. These numbers do not imply consensus by all management agencies but merely gives direction to managers who must workout the restoration and recovery of each species and population over time through implementation of the plan.
(6) LSRCP- Lower/Mid Snake River and tributaries
(7) ACCD 1995
(8) NMFS 2002 Interim Abundance Goal-Lower Mainstem Tributaries
(9) Columbia River Fish Management Plan (at Lower Granite Dam)

Document: **Upper Willamette River Conservation and Recovery Plan for Chinook Salmon and Steelhead**

Author: ODFW, NMFS

Document Year: **2011**

Link: http://www.dfw.state.or.us/fish/CRP/docs/upper_willamette/UWR%20FRN2%20Mainbody%20final.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Extinction Risk	Modeled Abundance

Willamette Lower Columbia	Upper Willamette River	Upper Willamette River Chinook	Willamette	Clackamas	Spring	Threatened	Moderate	2314
				South Santiam	Spring	Threatened	Very High	3116
				North Santiam	Spring	Threatened	Very Low	5428
				Molalla	Spring	Threatened	Very High	699
				McKenzie	Spring	Threatened	Low	10916
				Calapooia	Spring	Threatened	Very High	598
				Middle Fork Willamette	Spring	Threatened	Very High	5802

Document: **John Day Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/fw/subbasinplanning/johnday/plan

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	NOAA Recovery Target	Target to allow Sport Fishing	Adult and Jack Returns	Smolts per Spawner
Interior Columbia	Middle Columbia River	Middle Columbia River Spring Chinook	John Day	Upper Mainstem John Day	Spring	Not Listed	NA	NA	NA	25 year interim objective: 136; 50 year interim objective: 227
				North Fork John Day	Spring	Not Listed	NA	NA	NA	25 year interim objective: 88; 50 year interim objective: 147

Interior Columbia	Middle Columbia River	Middle Columbia River Spring Chinook	John Day	Middle Fork John Day	Spring	Not Listed	NA	NA	NA	25 year interim objective: 134; 50 year interim objective: 223
				Granite Creek	Spring	Not Listed	NA	NA	NA	25 year interim objective: 92; 50 year interim objective: 154
				John Day (Mouth)	Spring	Not Listed	0	5950	25 year interim objective: 12000; 50 year interim objective: 20000	25 year interim objective: 113; 50 year interim objective: 188

NOTE:
Goal is define as an average run year

Document: **Lower Columbia River Mainstem and Estuary Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/119232/Vol_II_A__Col_Estuary_mainstem.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance	Productivity
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	N/A	Iveas and Pierce Islands	Fall	Threatened	12000	>1

NOTES:
Abundance performance levels represent twice the 2002 spawning escapement estimates

Document: **Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/6865748/RP.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance Goal	Viability Goal	Scenerio Contribution
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Toutle	Fall	Threatened	1000	Low	Stabilizing
				Lewis/Salmon	Fall	Threatened	2900	High+	Primary
				Coweeman	Fall	Threatened	3600	High+	Primary
				Upper Cowlitz	Fall	Threatened	NA	Very Low	Stabilizing
				Lower Cowlitz	Fall	Threatened	2300	Medium	Contributing
				Clackamas	Fall	Threatened	NA	Medium	Contributing
				Washougal	Fall	Threatened	5800	High	Primary
				Sandy	Fall	Threatened	NA	Low+	Stabilizing
				Kalama	Fall	Threatened	1300	High	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Late Fall	Sandy	Late Fall	Threatened	NA	Low+	Primary
				North Fork Lewis River	Late Fall	Threatened	11600	High+	Primary

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	Kalama	Spring	Threatened	1400	High	Primary
				Upper Cowlitz	Spring	Threatened	5400	High+	Primary
				Toutle	Spring	Threatened	800	Medium	Contributing
				Sandy	Spring	Threatened	NA	High	Primary
				North Fork Lewis River	Spring	Threatened	2200	High	Primary
				Tilton	Spring	Threatened	150	Very Low	Stabilizing
				Cispus	Spring	Threatened	1800	High+	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Big Creek	Fall	Threatened	NA	Low+	Stabilizing
				Mill/Abernathy /Germany	Fall	Threatened	1100	Medium	Contributing
				Scappoose	Fall	Threatened	NA	Low	Stabilizing
				Clatskanie	Fall	Threatened	NA	High	Primary
				Elochoman/Skamokawa	Fall	Threatened	1400	High	Primary
				Youngs Bay	Fall	Threatened	NA	Low	Stabilizing
				Grays/Chinoo	Fall	Threatened	1400	High	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Hood	Fall	Threatened	NA	Low+	Primary
				Upper Gorge (Wind)	Fall	Threatened	100	Low	Stabilizing

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Lower Gorge (Hamilton)	Fall	Threatened	700	Medium	Contributing
				White Salmon	Fall	Threatened	900	Medium	Contributing
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Spring	White Salmon	Spring	Threatened	400	Low	Contributing
				Hood	Spring	Threatened	NA	High	Primary

NOTES:
Primary, contributing, and stabalizing designations are based on priorities identified in the recovery scenario
Viability goal is related to the scenario contribution
Abundance goals are interpolated fromcurrent, viable, and/or potential numbers based on viability goals

Document: **Grays Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/21265/Vol_II_C__Grays.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Grays/Chinoo	Fall	Threatened	1400	High

NOTES:
Primary population in recovery scenario

Document: **Elochoman, Skamakowa, Mill, Abernathy, and Germany Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/119235/Vol_II_D__Eloch_MAG.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast Fall	Elochoman/Skamokawa	Fall	Threatened	1400	High

NOTES:
Primary population in recovery scenario

Document: **Cowlitz, Coweeman, and Toutle Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/119238/Vol_II_E__Cowlitz.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Cowlitz	Fall	Threatened	3900-33200	Medium

NOTES:
Contributing population in recovery scenario

Document: **Kalama Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/21268/Vol_II_F__Kalama.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Kalama	Fall	Threatened	1300	High
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Spring	Kalama	Spring	Threatened	1400	High

NOTES:
Contributing population in recovery scenario

Document: **NF and EF Lewis Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/119241/Vol_II_G__Lewis.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	NF Lewis (Upper)	Spring	Threatened	2200	High

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	NF Lewis (Lower)	Spring	Threatened	2200	High
				EF Lewis	Fall	Threatened	1900-3900	High+
				NF Lewis (Lower)	Fall	Threatened	6500-16600	High+

NOTES:
Primary population in recovery scenario

Document: **Lower Columbia Tributaries: Bonneville and Salmon Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/21271/Vol_II_H__L_Columbia_Tribs.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Lower Gorge Tributaries	Fall	Threatened	100-1400	Medium

NOTES:

Document: **Washougal Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/21274/Vol_II_I__Washougal.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade Fall	Washougal	Fall	Threatened	5800	High

NOTES:
Primary population in recovery scenario

Document: **Wind Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/21277/Vol_II_J__Wind.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	Wind	Fall	Threatened	0-400	Low

NOTES:
Stabilizing population in recovery scenario

Document: **Little White Salmon Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/21280/Vol_II_K__Little_White.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Number Objective	Viability Objective
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	White Salmon	Fall	Threatened	NA	Low

NOTES:
Stabilizing population in recovery scenario

Document: **Deschutes River Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/118290/EntirePlan.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance	Productivity	Diversity Index %	Spawner Escapement
Interior Columbia	Middle Columbia River	Middle Columbia River Spring Chinook	Eastern Cascades	Deschutes Westside	Fall	Not Listed	13000-16000	7.1	60	NA
				Deschutes Westside	Spring	Not Listed	2600-2800	7	98	2200-2300
				Deschutes Middle	Spring	Not Listed	NA	NA	NA	1800-2150
				Crooked River	Spring	Not Listed	NA	5.5	NA	750-1000

NOTES:
Abundance represents annual natural-origin adults returning in 25 years

Lower Westside Descutes escapement (wild adults) above barrier at Warm Springs National Fish Hatchery with 400-500 adults into Shitike Creek

Middle Deschutes escapement (natural adults) distribution includes 1400-1600 to Metolius River, 250-350 to Squaw Creek, and 150-200 to Middle Deschutes River when passage is established at the Pelton Round Butte and Squaw Creek dams

Document: **White Salmon Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/116777/EntirePlan.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance	Productivity	Diversity Index %	Capacity
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Fall	White Salmon	Fall	Threatened	Short-Term: 792; Long-Term: 995	Short-Term: 3.7; Long-Term: 5.6	Short-Term: 79; Long-Term: 94	Short-Term: 1086; Long-Term: 1210
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge Spring	White Salmon	Spring	Threatened	Short-Term: 570; Long-Term: 814	Short-Term: 3.1; Long-Term: 5.1	Short-Term: 71; Long-Term: 99	Short-Term: 835; Long-Term: 1013

NOTES:
WDFW objectives
Short-term biological objective under dam removal
Long-term biological objective under dam removal and PFC

Document: **Walla Walla Subbasin Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2004**

Link: http://www.nwcouncil.org/media/120337/EntirePlan.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Total Return	Natural Return	Hatchery Return
Interior Columbia	Middle Columbia River	Middle Columbia River Spring Chinook	N/A	Walla Walla	Spring	Not Listed	5000 (1)(2), 5500 (3)(4), 8625 (5)(6)	2000 (1)(2), 3000 (3), 4500(5)	3000 (1)(2), 2500 (3), 4125 (5)

FOOTNOTES:
1. 1990 NPPC Subbasin Plan
2. 1996 CRITFC Spirit of the Salmon
3. 2001 NPPC Subbasin Summary
4. Only the CTUIR and ODFW agreed
5. 2004 CTUIR Draft Walla Walla Hatchery Master Plan
6. Reflects only CTUIR goals

Document: **Draft Proposed ESA Recovery Plan Snake River Spring/Summer Chinook Salmon and Snake River Steelhead**

Author: NMFS

Document Year: **2013**

Link: http://www.westcoast.fisheries.noaa.gov/publications/recovery_planning/salmon_steelhead/domains/interior_columbia/snake/snake_river_spring-summer_chinook___steelhead_draft_rollup__12-06-13.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Abundance Threshold	Population Size	Productivity Threshold	Role in Recovery Scenario
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Minam	Spring	Threatened	750	Intermediate	1.76	Option: Either Wenaha or Minam should be Viable or Highly Viable. The other should be Maintained.

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Big Sheep Creek	Spring		500	Basic	2.21	Consider for reintroduction as recovery efforts progress
				Lostine/Wallowa	Spring	Threatened	1000	Large	1.58	Option: Viable or Highly Viable
				Catherine Creek	Spring	Threatened	750	Large	1.76	Option: Either Catherine Creek or Upper Grande Ronde should be Viable or Highly Viable. The other should be Maintained.
				Wenaha	Spring	Threatened	750	Intermediate	1.76	Option: Either Wenaha or Minam should be Viable or Highly Viable. The other should be Maintained.
				Imnaha	Spring/Summer	Threatened	1000	Intermediate	1.58	Option: Viable or Highly Viable
				Upper Grande	Spring	Threatened	1000	Large	1.58	Option: Either Catherine Creek or Upper Grande Ronde should be Viable or Highly Viable. The other should be Maintained.
				Lookingclass Creek	Spring		NA	NA	NA	Consider for reintroduction as recovery efforts progress
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Tucannon River	Spring	Threatened	750	Intermediate	1.76	Highly Viable

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Asotin Creek	Spring		500	Basic	2.21	Consider for reintroduction as recovery efforts progress
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Sulphur Creek	Spring	Threatened	500	Basic	2.21	Maintained
				Upper Middle Fork Salmon	Spring	Threatened	750	Intermediate	1.76	Option: Viable or Maintained
				Lower Middle Fork Salmon River	Spring/Summer	Threatened	500	Basic	2.21	Maintained
				Marsh Creek	Spring	Threatened	500	Basin	2.21	Option: Viable or Highly Viable
				Loon Creek	Spring/Summer	Threatened	500	Basic	2.21	Option: Viable or Highly Viable
				Camas Creek	Spring	Threatened	500	Basic	2.21	Viable or Maintained
				Big Creek	Spring/Summer	Threatened	1000	Large	1.58	Need for Viable status: Viable or Highly Viable
				Chamberlain Creek	Spring	Threatened	500	Intermediate	2.21	Option: Viable or Highly Viable
				Bear Valley Creek	Spring	Threatened	750	Intermediate	1.76	Option: Viable or Highly Viable
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	South Fork Salmon	Little Salmon River	Spring/Summer	Threatened	500	Intermediate	2.21	Need for Viable status lessened because of minor amount of spring-run production and location outside main drainage.

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	South Fork Salmon	Secesh River	Summer	Threatened	750	Intermediate	1.76	Viable or Highly Viable
				East Fork Salmon River	Summer	Threatened	1000	Large	1.58	Option: Viable or Maintained
				South Fork Salmon	Summer	Threatened	1000	Large	1.58	Option: Viable or Highly Viable
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Upper Salmon River	East Fork Salmon River	Spring/Summer	Threatened	1000	Large	1.58	Option: Viable or Highly Viable
				Upper Salmon River Mainstem (above Redfish Lake)	Spring	Threatened	1000	Large	1.58	Option: Viable or Highly Viable
				Panther Creek	Spring		750	Intermediate	1.76	NA
				North Fork Salmon River	Spring	Threatened	500	Basic	2.21	Maintained
				Lemhi River	Spring	Threatened	2000	Very Large	1.34	Option: Viable or Highly Viable
				Pahsimeroi	Spring	Threatened	1000	Large	1.58	Need to meet Viability Criteria: Viable or Highly Viable
				Salmon River Mainstem (below Redfish Lake)	Spring/Summer	Threatened	2000	Very Large	1.34	Maintained
				Yankee Fork	Spring	Threatened	500	Basic	2.21	Maintained
				Valley Creek	Spring	Threatened	500	Basic	2.21	Option: Viable or Highly Viable

Document: **CBFWA Fish and Wildlife Program Recommendation 2009 Amendment**

Author: CBFWA

Document Year: **2009**

Link: http://www.nwcouncil.org/uploads/2008amend/uploadedfiles/111/2_Recommendation.pdf

Chinook

Recovery Domain	Recovery Sub Domain	ESU/DPS	MPG	Population	Run	ESA Listed	Minimum Abundance Threshold (MAT)	Adult Returns: Adult Returns (Natural Spawners)	Spawner to Spawner	Population Viability Status
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade	Washougal	Fall	Threatened	5800	NA:5800(10)	NA	High
				Sandy	Fall	Threatened	NA	NA	NA	Early - Medium, Late - High
				Cispus River	Spring	Threatened	1400	NA:1800(10)	NA	High+
				Cowlitz	Spring	Threatened	NA	8150(9):NA	NA	NA
				Cowlitz	Fall	Threatened	NA	6900(9):NA	NA	NA
				North Fork Lewis River	Late Fall	Threatened	6500	NA:11600(10)	NA	High+
				Sandy	Spring	Threatened	NA	NA	NA	High
				Coweeman River	Fall	Threatened	3000	NA:3600(19)	NA	High+
				Upper Cowlitz	Fall	Threatened	1400	NA	NA	Very Low
				Lower Cowlitz	Fall	Threatened	3900	NA:2300	NA	Medium
				Tilton River	Spring	Threatened	1400	NA:150(10)	NA	Very Low

Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Cascade	Lewis	Fall	Threatened	NA	14500(9):NA	NA	NA
				Toutle River	Fall	Threatened	1400	NA:1000(10)	NA	Low
				Kalama	Spring	Threatened	1400	NA:1400(10)	NA	High
				Kalama	Fall	Threatened	1300	NA:1300(10)	NA	High
				Lewis	Spring	Threatened	2200	NA:2200(10)	NA	High
				East Fork Lewis River	Fall	Threatened	1900	NA:2900(10)	NA	High+
				Upper Cowlitz River	Spring	Threatened	2800	NA:5400(10)	NA	High+
				Toutle River	Spring	Threatened	1400	NA:800(10)	NA	Medium
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Coast	Elochoman	Fall	Threatened	1400	NA:1400(10)	NA	High
				Grays	Fall	Threatened	1400	NA:1400(10)	NA	High
Willamette Lower Columbia	Lower Columbia River	Lower Columbia River Chinook	Gorge	Wind	Fall	Threatened	NA	NA:0-400(10)	NA	NA
				Hood	Fall	Threatened	NA	NA	NA	Very High Risk
				White Salmon	Spring	Threatened	NA	570(9):NA	3.1 (10)	NA
				White Salmon	Fall	Threatened	NA	982(9),792(10):NA	3.7 (10)	NA
				Hood	Spring	Threatened	NA	NA:200(10)	NA	NA

Interior Columbia	Middle Columbia River	Middle Columbia River Spring Chinook	Eastern Cascades	Deschutes	Spring	Not listed	NA	NA:2600-2800 (9):2600-2800 Above Warm Springs NFH, 400-500 in Shitike Creek(10)	7	NA
				Deschutes	Fall	Not listed	NA	NA:13000-16000(10)	7.1	NA
Interior Columbia	Middle Columbia River	Middle Columbia River Spring Chinook	N/A	Umatilla	Spring	Not listed	NA	8000 (1,9):2000(10)	NA	NA
				John Day	Spring	Not listed	NA	12000(10):NA	NA	NA
				Yakima	Spring	Not listed	NA	3300-4400 short term (adult escapement) (3,9) : >26800 total adult return, 6500 natural adult spawners, Delisting - 3000 natural adult returns, Short-term- 22984 total adult returns and 7500 natural adult returns, Long-term - 39110 total adult returns a	NA	NA
				Walla Walla	Spring	Not listed	NA	5500(1,2,9):3000	NA	NA
Interior Columbia	Upper Columbia River	NA	Eastern Cascades	Methow	Summer/Fall		NA	NA:2000 (10)	NA	NA
				Wenatchee	Summer/Fall		NA	13500 (6,9):NA	NA	NA
Interior Columbia	Snake River	NA	Grande Ronde-Imnaha	Imnaha River	Spring		1000	5740:3800	1.8	NA

Interior Columbia	Snake River	NA	Grande Ronde-Imnaha	Grande Ronde	Fall		NA	10000: (4,10), 7500(4,10)	NA	NA
No Recovery Domain	NA	NA	N/A	Big Sheep Creek						NA
Interior Columbia	Middle Columbia River			Umatilla	Fall	Not listed	NA	12000 (1,9):6000(10)	NA	NA
No Recovery Domain	NA			Big Sheep Creek			250	NA	NA	
Interior Columbia	Snake River	Snake Hells Canyon Fall Chinook	Hells Canyon	Snake Hells Canyon	Fall		NA	26800(9):6500	NA	NA
Interior Columbia	Snake River	Snake River Fall Chinook	Clearwater	Clearwater	Fall		3000 (total Snake Rver)	50000(1,4,9):10000 (4,10)	NA	NA
Interior Columbia	Snake River	Snake River Fall Chinook	Snake River Fall Chinook	Salmon	Fall	Threatened	NA	5000(9):2100-2500 (10)	NA	NA
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Clearwater	Clearwater	Spring	Threatened	NA	60000 (1,9):10,000(4,10)	NA	NA
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Minam River	Spring	Threatened	750	NA	1.6	NA
				Wenaha River	Spring	Threatened	750	NA	1.6	NA
				Lookingglass Creek (functionally expirated)	Spring	Threatened	500	NA	1.45	NA
				Grande Ronde	Spring	Threatened	NA	5000-16000 (4,10):5000-12400(4,10)	NA	NA
				Imnaha	Spring/Summer	Threatened	NA	5740 (1,9):3800(10)	NA	NA

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Catherine Creek	Spring	Threatened	750	NA	1.45	NA
				Lostine River	Spring	Threatened	1000	NA	1.45	NA
				Lookingglass Creek	Spring	Threatened	500	NA	NA	NA
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Tucannon	Spring	Threatened	750	2400-3400(4,9): 2000(11,10)	1.6	Highly Viable
				Asotin (functionally extinct)	Spring		500	500(9):250(10)	1.9	NA
				Tucannon	Fall	Threatened	NA	2000(4,9):1000(10)	NA	NA
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Bear Valley Creek	Spring/Summer	Threatened	750	NA	1.6	Viable
				Middle Fork Salmon below Indian Creek	Spring/Summer	Threatened	1000	NA	1.45	NA
				Camas Creek	Spring/Summer	Threatened	500	NA	1.9	NA
				Marsh Creek	Spring/Summer	Threatened	500	NA	1.9	Viable
				Sulphur Creek	Spring/Summer	Threatened	500	NA	1.9	NA
				Chamberlain Creek	Spring/Summer	Threatened	500	NA	1.9	Viable
				Upper Middle Fork Salmon River	Spring/Summer	Threatened	750	NA	1.6	NA
				Loon Creek	Spring/Summer	Threatened	500	NA	1.9	Viable
				Lower Middle Fork Salmon River	Spring/Summer	Threatened	750	NA	1.6	NA

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	N/A	Snake Hells Canyon	Spring	Extirpated	NA	NA:25000(9)	NA	NA
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	South Fork Salmon	Secesh River	Spring/Summer	Threatened	750	NA	2.1	Viable
				Little Salmon River	Spring/Summer	Threatened	500	NA	1.9	NA
				South Fork Salmon River	Spring/Summer	Threatened	1000	NA	1.45	Viable
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Upper Salmon River	Yankee Fork Salmon River	Spring/Summer	Threatened	500	NA	1.9	NA
				Panther Creek	Spring/Summer	Threatened	750	NA	1.6	NA
				Pahsimeroi River	Spring/Summer	Threatened	1000	NA	1.45	Viable
				Valley Creek	Spring/Summer	Threatened	500	NA	1.9	NA
				Lower Mainstem Salmon River	Spring/Summer	Threatened	2000	NA	1.2	NA
				East Fork Salmon River	Spring/Summer	Threatened	1000	NA	1.45	Viable
				Lemhi River	Spring/Summer	Threatened	2000	NA	1.2	Viable
				North Fork Salmon River	Spring/Summer	Threatened	500	NA	1.9	NA
				Upper Mainstem Salmon River	Spring/Summer	Threatened	1000	NA	1.46	Viable
Interior Columbia	Upper Columbia River	Upper Columbia Spring Chinook	Eastern Cascades	Okanogan	Spring	Extirpated	NA	300 (1,9)	NA	NA

Interior Columbia	Upper Columbia River	Upper Columbia Spring Chinook	Eastern Cascades	Okanogan	Summer/Fall		NA	3500 (7,10):NA	NA	NA
				Entiat	Spring	Endangered	500	NA:500(6,10)	1.4	Viable
				Methow	Spring	Endangered	2000	NA:2000(10)	1.2	Viable
				Methow	Summer	Endangered	NA	NA:2000	NA	NA
				Wenatchee	Spring	Endangered	2000	5500:4100(10)	1.2	Viable
Willamette Lower Columbia	Upper Willamette River	Upper Willamette River Chinook	Willamette	Willamette	Spring	Threatened	NA	100000 (past Willamette Falls)(10)	NA	Clackamas River - High

FOOTNOTES:
1 - Includes hatchery fish
2 - ODFW and CTUIR objective
3 - Yakama Indian Nation project proposal 199506325
4 - Nez Perce Tribe objective
5 - Draft Recovery Plan
6 - WDFW objective
7 - Past Wells Dam
8 - Yakama Nation Master Plan
9 - CBFWA 2009 F&W Program Amendment
10 - Subbain plan unless otherwise noted as described in CBFWA recommendation
11 - Minimum delisting criteria from draft recovery plan of technical plan as described in CBFWA recommendation