



Northwest **Power** and
Conservation Council

Quantitative Objectives Report

Report: **Chinook**

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

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Abundance Target</u>	<u>Contribution</u>	<u>Viability Objective</u>	<u>Productivity Improvement Target(%)</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Fall	Kalama	Fall	Threatened	500	Contributing (1)	Moderate	110
				Washougal	Fall	Threatened	1200	Primary	High+	190
				Lewis	Fall	Threatened	1500	Primary	High+	280
				Lower Cowlitz	Fall	Threatened	3000	Contributing	Moderate+	50
				Upper Cowlitz	Fall	Threatened	NA	Stabilizing	Very Low	NA
				Toutle	Fall	Threatened	4000	Primary (2)	High+	265
				Coweeman	Fall	Threatened	900	Primary	High+	80
				Salmon	Fall	Threatened	NA	Stabilizing	Very Low	NA
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Late Fall	North Fork Lewis	Late Fall	Threatened	7300	Primary	Very High	0
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Spring	Upper Cowlitz	Spring	Threatened	1800	Primary	High+	>500
				Cispus	Spring	Threatened	1800	Primary	High+	>500
				Tilton	Spring	Threatened	NA	Stabilizing	Very Low	0
				Toutle	Spring	Threatened	1100	Contributing	Moderate	>500
				North Fork Lewis	Spring	Threatened	1500	Primary	High	>500

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

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Abundance</u>	<u>Overall Risk Class</u>	<u>A&P Gap</u>	<u>Contribution to Delisting</u>
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Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Fall	Clackamas	Fall	Threatened	1551	Moderate	993	Contributing
				Sandy	Fall	Threatened	1031	Moderate	887	Contributing
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Late Fall	Sandy	Late-Fall	Threatened	3858	Very Low	2064	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Spring	Sandy	Spring	Threatened	1230	Low	516	Primary
				Clackamas	Spring	Threatened	8377	(Very Low)	7006	NA
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Coast Fall	Clatskanie	Fall	Threatened	1277	Low	1271	Primary
				Big Creek	Fall	Threatened	577	High	361	Contributing
				Youngs Bay	Fall	Threatened	505	High	126	Stabalizing
				Scappoose	Fall	Threatened	1222	Low	866	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Gorge Fall	Lower Gorge	Fall	Threatened	387	High (Moderate)	313	Support WA (Moderate)
				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 Chinook	Gorge Spring	Hood	Spring	Threatened	1493	Very Low	1166	Primary

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.fws.gov/pacific//Fisheries/Hatcheryreview/Reports/columbiagorge/EC--032Revised_Viability_CriteriaLC-TRTApril_2006.pdf

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Size Category</u>	<u>RFT and QET</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Fall	Sandy	Fall	Threatened	Medium	150
				Hood	Fall	Threatened	Small	50
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Spring	Sandy	Spring	Threatened	Medium	150
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Coast Fall	Clackamas	Fall	Threatened	Medium	150
				Youngs Bay	Fall	Threatened	Small	50
				Clatskanie	Fall	Threatened	Small	50
				Scappoose	Fall	Threatened	Small	50
				Big Creek	Fall	Threatened	Small	50
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Gorge Fall	Upper Gorge Tributaries	Fall	Threatened	Small	50
				Lower Gorge Tributaries	Fall	Threatened	Small	50
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Gorge Spring	Hood	Spring	Threatened	Medium	150
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Willamette	Molalla	Spring	Threatened	Medium	150
				Clackamas	Spring	Threatened	Large	250
				South Santiam	Spring	Threatened	Large	250

Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Willamette	North Santiam	Spring	Threatened	Medium	150
				Calapooia	Spring	Threatened	Medium	150
				Middle Fork Willamette	Spring	Threatened	Large	250
				McKenzie	Spring	Threatened	Large	250

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: NOAA Fisheries

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

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Target Persistence Probability</u>	<u>Expected level of Contribution</u>	<u>Target Abundance</u>	<u>% Survival Improvement</u>
No Recovery Domain	NA	Lower Columbia Chinook	Cascade Fall	Kalama	Fall	Threatened	Moderate	Contributing	500	110
				Sandy	Fall	Threatened	Moderate+	Contributing	1031	>500
				Coweeman	Fall	Threatened	High+	Primary	900	80
				Toutle	Fall	Threatened	High+	Primary	4000	260
				Upper Cowlitz	Fall	Threatened	Very Low	Stabalizing	NA	0
				Lower Cowlitz	Fall	Threatened	Moderate+	Contributing	3000	50
				Lewis	Fall	Threatened	High+	Primary	1500	290
				Clackamas	Fall	Threatened	Moderate	Contributing	1551	180

No Recovery Domain	NA	Lower Columbia Chinook	Cascade Fall	Washougal	Fall	Threatened	High+	Primary	1200	190
No Recovery Domain	NA	Lower Columbia Chinook	Cascade Late Fall	Sandy	Fall (Late)	Threatened	Very High	Primary	3561	310
				North Fork Lewis	Fall (Late)	Threatened	Very High	Primary	7300	0
No Recovery Domain	NA	Lower Columbia Chinook	Cascade Spring	Upper Cowlitz	Spring	Threatened	High+	Primary	1800	>500
				Kalama	Spring	Threatened	Low	Contributing	300	>500
				Toutle	Spring	Threatened	Moderate	Contributing	1100	>500
				Tilton	Spring	Threatened	Very Low	Stabalizing	100	0
				Cispus	Spring	Threatened	High+	Primary	1800	>500 (1)
				North Fork Lewis	Spring	Threatened	High	Primary	1500	>500
No Recovery Domain	NA	Lower Columbia Chinook	Coast Fall	Mill/Abernathy /Germany	Fall	Threatened	High	Primary	900	150
				Scappoose	Fall	Threatened	High	Primary	1222	240
				Clatskanie	Fall	Threatened	High	Primary	1277	>500
				Elochoman/Skamokawa	Fall	Threatened	High	Primary	1500	150
				Big Creek	Fall	Threatened	Low	Contributing	577	170
				Grays/Chinook	Fall	Threatened	Moderate+	Contributing	1000	>500
				Youngs Bay	Fall	Threatened	Low	Stabalizing	505	30
No Recovery Domain	NA	Lower Columbia Chinook	Gorge Fall	Hood	Fall	Threatened	High	Primary	1245	>500
				White Salmon	Fall	Threatened	Moderate	Contributing	500	>500
				Upper Gorge	Fall	Threatened	Moderate	Contributing	1200	>500 (WA), 410 (OR)

No Recovery Domain	NA	Lower Columbia Chinook	Gorge Fall	Lower Gorge	Fall	Threatened	Moderate	Contributing	1200	>500 (WA), 420 (OR)
No Recovery Domain	NA	Lower Columbia Chinook	Gorge Spring	White Salmon	Spring	Threatened	Very High	Contributing	500	330
				Hood	Spring	Threatened	Low+	Primary	1493	>500

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: $[(1 - \text{CumulativeTarget}) - (1 - \text{CumulativeBaseline})] / [1 - \text{CumulativeBaseline}] \times 100$. 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

Chinook

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

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>

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Total Return</u>	<u>Natural Return</u>	<u>Hatchery Return</u>
Interior Columbia	Snake River	Middle Columbia River Spring-run Chinook	N/A	Walla Walla	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	Snake River	NA	N/A	Walla Walla	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

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Minimum Abundance Threshold (MAT)</u>	<u>Size Category</u>	<u>Minimum Productivity</u>	<u>Role in Viability Scenario</u>
Interior Columbia	Snake River	Lower Columbia Chinook	Grande Ronde-Imnaha	Lookingglass (functionally extirpated)	Spring	Threatened	500	Basic	2.21	Consider for reintroduction as recovery efforts progress
				Catherine Creek	Spring	Threatened	1000	Large	1.56	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 populations Maintained
				Upper Grande	Spring	Threatened	1000	Large	1.56	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 populations Maintained

Interior Columbia	Snake River	Lower Columbia Chinook	Grande Ronde-Imnaha	Minam	Spring	Threatened	750	Intermediate	1.76	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 populations Maintained
				Big Sheep Creek (FUNCTIONALLY EXTIRPATED)	Spring	Threatened	500	Basic	2.21	Consider for reintroduction as recovery efforts progress
				Lostine/Wallowa	Spring	Threatened	1000	Large	1.56	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 populations Maintained
				Wenaha	Spring	Threatened	750	Intermediate	1.76	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 populations Maintained
				Imnaha	Spring/Summer	Threatened	750	Intermediate	1.76	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 populations Maintained

Interior Columbia	Snake River	Lower Columbia Chinook	Grande Ronde-Imnaha	Big Creek	Spring	Threatened	500	Basic	2.21	
Interior Columbia	Snake River	Lower Columbia Chinook	Lower Snake River	Asofin (functionally extinct)	Spring	Threatened	500	Basic	2.21	Consider for reintroduction as recovery efforts progress
				Tucannon	Spring	Threatened	750	Intermediate	1.76	Highly viable
Interior Columbia	Snake River	Lower Columbia Chinook	Middle Fork Salmon	Bear Valley Elk Creek	Spring	Threatened	750	Intermediate	1.76	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	2.21	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Middle Fork Salmon above Indian Creek	Spring	Threatened	750	Intermediate	1.76	Maintained
				Chamberlain Creek	Spring	Threatened	750	Intermediate	1.76	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Camas Creek	Spring	Threatened	500	Basic	2.21	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
				Big Creek	Spring	Threatened	1000	Large	1.56	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek

Interior Columbia	Snake River	Lower Columbia Chinook	Middle Fork Salmon	Middle Fork Salmon below Indian Creek	Spring	Threatened	500	Basic	2.21	Maintained
				Sulphur Creek	Spring	Threatened	500	Basic	2.21	Maintained
				Loon Creek	Spring	Threatened	500	Basic	2.21	1 Highly Viable and 4 Viable: Big Creek, Chamberlain Creek, Bear Valley Creek, Marsh Creek, Camas, or Loon Creek
Interior Columbia	Snake River	Lower Columbia Chinook	South Fork Salmon	Secesh	Spring	Threatened	750	Intermediate	1.76	Maintained
				Little Salmon (includes Rapid River)	Spring	Threatened	750	Intermediate	1.76	Maintained
				South Fork Salmon	Spring	Threatened	1000	Large	1.56	Option: Viable or Highly Viable - Two populations in the main South Fork Basin
				East Fork-South Fork Johnson	Spring	Threatened	1000	Large	1.56	Maintained
Interior Columbia	Snake River	Lower Columbia Chinook	Upper Salmon River	Upper Salmon River Mainstem (above Redfish Lake)	Spring	Threatened	1000	Large	1.56	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek
				Valley	Spring	Threatened	500	Basic	2.21	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek
				Yankee Fork	Spring	Threatened	500	Basic	2.21	Maintained
				East Fork Salmon River	Spring/Summer	Threatened	1000	Large	1.56	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek

Interior Columbia	Snake River	Lower Columbia Chinook	Upper Salmon River	Salmon River Mainstem (below Redfish Lake)	Spring/Summer	Threatened	2000	Very Large	1.34	Maintained	
				Pahsimeroi	Spring	Threatened	1000	Large	1.56	1 Highly Viable and 4 viable - Lemhi River, Pahsimeroi River, East Fork Salmon River, Upper Salmon River, Valley Creek	
				Lemhi River	Spring	Threatened	2000	Very Large	1.34	Maintained	
				North Fork Salmon River	Spring	Threatened	500	Basic	2.21	Maintained	
				Panther Creek (EXTIRPATED)	Spring	Extirpated	750	Intermediate	1.76	Maintained	
Interior Columbia	Snake River	Snake Hells Canyon Fall-run Chinook	Hells Canyon	Powder River	Fall	Extirpated	NA	NA	NA	NA	
				Burnt River	Fall	Extirpated	NA	NA	NA	NA	NA
				Snake Hells Canyon	Fall		NA	NA	NA	NA	NA
				Weiser Rier	Fall	Extirpated	NA	NA	NA	NA	NA
Interior Columbia	Snake River	Snake Hells Canyon Fall-run Chinook	Snake River Mainstem	Marsing Reach	Fall	Extirpated	1000	Large	NA	reconsider as recovery efforts progress	
				Salmon Falls	Fall	Extirpated	1000	Large	NA	reconsider as recovery efforts progress	
				Lower Mainstem	Fall			Small	NA	Highly viable	
Interior Columbia	Snake River	Upper Columbia Spring Chinook	East Cascades	Okanogan	Spring	Extirpated	500	Basic (only U.S.)	NA	reconsider as recovery efforts progress	
				Entiat	Spring	Endangered	500	Basic	NA	Viable	
				Methow	Spring	Endangered	2000	Very Large	NA	Highly viable	

Interior Columbia	Snake River	Upper Columbia Spring Chinook	East Cascades	Wenatchee	Spring	Endangered	2000	Very Large	NA	Highly viable
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Document: **Salmon Subbasin Management Plan**

Author: Northwest Power and Conservation Council and Partners

Document Year: **2014**

Link: http://www.nwcouncil.org/media/119926/Salmon_Subbasin_Management_Plan.pdf

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Long-Term Return</u>	<u>Natural Spawning Component</u>
Interior Columbia	Snake River	Snake River Fall Chinook	Snake River Fall Chinook	NA	Fall	Threatened	5000	2100 (3) - 2500 (4)
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	NA	Spring/Summer	Threatened	60200-126000 (1)	>36,400 (2)
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	South Fork Salmon	NA	Spring	Threatened	119000-128000 (1)	>36,400 (2)

FOOTNOTES:

(1) Long-term return objectives are derived from management plans as described in Appendix D, Appendix Table 4. This table does not necessarily imply consensus by all management agencies but merely gives direction to managers who must work out the rehabilitation and recovery of each species and population over time through implementation of the plan.

(2) NMFS interim abundance delisting criteria (spring and summer chinook salmon combined; A and B run steelhead combined).

(3) Estimate based on fall chinook salmon spawning habitat quantification in the lower Salmon River (Nez Perce Tribe data)

(4) NMFS interim abundance target for fall chinook salmon in the mainstem Snake River.

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

Author: Nez Perce Tribe

Document Year: **2013**

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

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<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Designated Stronghold</u>	<u>Viability Threshold</u>	<u>Sustainable Escapement</u>	<u>Ecological Escapement</u>
Interior Columbia	Snake River	Snake Hells Canyon Fall-run Chinook	Snake River Fall above Hells Canyon	NA	Spring/Summer	Extirpated	NA	NA	NA	NA
Interior Columbia	Snake River	Snake River Fall Chinook	Snake River Fall Chinook	Snake Basin Population	Fall	Threatened	Yes	3000	39100	120000
				Marsing Reach	Fall	Extirpated	NA	NA	NA	NA
				Salmon Falls	Fall	Extirpated	NA	NA	NA	NA
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Clearwater	Upper Selway	Spring/Summer	Threatened	Yes	1000	7600	18000
				Upper South Fork Clearwater	Spring/Summer	Threatened	Yes	1000	9600	22000
				Lolo Creek	Spring/Summer	Threatened	Yes	500	6600	15000
				Lochsa	Spring/Summer	Threatened	Yes	1000	10200	24000
				Lapwai/Big Canyon Creeks	Spring/Summer	Threatened	NA	750	6600	15000
				Potlatch River	Spring/Summer	Threatened	NA	500	5700	13000
				Lawyer Creek	Spring/Summer	Threatened	NA	500	5500	13000
				Meadow Creek	Spring/Summer	Threatened	Yes	500	3300	8000

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Clearwater	Moose Creek	Spring/Summer	Threatened	Yes	750	5000	12000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	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
				Catherine Creek	Spring/Summer	Threatened	NA	1000	3000	22000
				Imnaha	Spring/Summer	Threatened	Yes	1000	5700	38000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Tucannon	Spring/Summer	Threatened	Yes	750	3400	22000
				Asotin (functionally extinct)	Spring/Summer	Threatened	NA	500	2000	10000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Loon Creek	Spring/Summer	Threatened	NA	500	3200	9000
				Sulphur Creek	Spring/Summer	Threatened	NA	500	1400	4000
				Middle Fork Salmon above Indian Creek	Spring/Summer	Threatened	NA	750	6100	17000
				Marsh Creek	Spring/Summer	Threatened	NA	500	2600	7000
				Chamberlain Creek	Spring/Summer	Threatened	NA	750	3900	11000
				Big Creek	Spring/Summer	Threatened	Yes	1000	6900	19000

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Middle Fork Salmon	Middle Fork Salmon below Indian Creek	Spring/Summer	Threatened	NA	500	2100	6000
				Camas Creek	Spring/Summer	Threatened	NA	500	3000	8000
				Bear Valley Elk Creek	Spring/Summer	Threatened	Yes	750	5700	16000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	South Fork Salmon	South Fork Salmon	Spring/Summer	Threatened	Yes	2000	8600	24000
				Secesh	Spring/Summer	Threatened	Yes	750	5400	15000
				Little Salmon (includes Rapid River)	Spring/Summer	Threatened	Yes	750	5100	14000
				East Fork-South Fork Johnson	Spring/Summer	Threatened	Yes	1000	6900	19000
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Upper Salmon River	Panther Creek (EXTIRPATED)	Spring/Summer	Threatened	Extirpated			
				Upper Salmon River Mainstem (above Redfish Lake)	Spring/Summer	Threatened	Yes	1000	8000	22000
				Valley	Spring/Summer	Threatened	NA	500	3200	9000
				Yankee Fork	Spring/Summer	Threatened	NA	500	2400	7000
				Lower Mainstem Salmon	Spring/Summer	Threatened	NA	1000	16500	46000
				Lemhi River	Spring/Summer	Threatened	Yes	2000	15500	43000
				North Fork Salmon River	Spring/Summer	Threatened	NA	500	2200	6000
East Fork Salmon River	Spring/Summer	Threatened	NA	1000	6600	18000				

Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Upper Salmon River	Pahsimeroi	Spring/Summer	Threatened	Yes	1000	12800	35000
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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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Long-Term Return</u>	<u>Natural Spawning Component</u>
Interior Columbia	Snake River	Snake Hells Canyon Fall-run Chinook	Snake River Fall Chinook	Snake Hells Canyon	Fall	Threatened	3000	3000 (1)
Interior Columbia	Snake River	Snake River Fall Chinook	Grande Ronde-Imnaha	Imnaha	Spring	Threatened	57400	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 work out 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**

Author: Upper Columbia Salmon Recovery Board

Document Year: **2007**

Link: <http://www.ucsr.org/library/plans/>

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Minimum 12-yr Geometric Mean Spawners</u>	<u>Minimum 12-yr Geometric Mean Spawners:Spawners</u>
Interior Columbia	Upper Columbia River	Upper Columbia Spring Chinook	East Cascades	Wenatchee	Spring	Endangered	1.2	2000
Interior Columbia	Upper Columbia River	Upper Columbia Spring Chinook	North Cascades	Entiat	Spring	Endangered	1.4	500
				Methow	Spring	Endangered	1.2	2000

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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Long-Term Return</u>	<u>Natural Spawning Component</u>
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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Minimum Abundance Threshold (MAT)</u>	<u>Population Size</u>	<u>Productivity Threshold</u>	<u>Restoration Goal</u>
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Grande Ronde-Imnaha	Wenaha	Spring	Threatened	750	Intermediate	1.76	1335 (3)(6)
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	Extirpated	500	Basic	1.90 (2)	500 (3)(4)
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 excluding Touche t 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/snakecomplan/Reports/LSRCP/Special%20Report%20June%201975/Special%20Report.PDF>

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Adult Escapement</u>
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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Long-Term Return</u>	<u>Natural Spawning Component</u>	<u>Hatchery Spawning Component</u>	<u>Total Spawning Component</u>
Interior Columbia	Snake River	Snake River Spring/Summer Chinook	Lower Snake River	Asotin (functionally extinct)	Spring	Functionally Extinct	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 work out the restoration and recovery of each species and population over time through implementation of the plan.
- (6) LSRCF- 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, NOAA Fisheries

Document Year: **2011**

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

Chinook

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Extinction Risk</u>	<u>Size Category</u>	<u>RFT and QET</u>
Willamette Lower Columbia	Upper Willamette River	Upper Willamette River Chinook	Willamette	Calapooia	Spring	Threatened	High	Medium	150
				Clackamas	Spring	Threatened	Very Low	Large	250
				Middle Fork Willamette	Spring	Threatened	Low	Large	250

Willamette Lower Columbia	Upper Willamette River	Upper Willamette River Chinook	Willamette	McKenzie	Spring	Threatened	Very Low	Large	250
				Molalla	Spring	Threatened	High	Medium	150
				North Santiam	Spring	Threatened	Low	Medium	150
				South Santiam	Spring	Threatened	Moderate	Large	250

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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>NOAA Recovery Target</u>	<u>Target to allow Sport Fishing</u>	<u>Adult and Jack Returns</u>	<u>Smolts per Spawner</u>
Willamette Lower Columbia	Lower Columbia River	Middle Columbia River Spring-run Chinook	John Day	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
				Granite Creek	Spring	Not Listed	NA	NA	NA	25 year interim objective: 92; 50 year interim objective: 154
				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

Willamette Lower Columbia	Lower Columbia River	Middle Columbia River Spring-run Chinook	John Day	Middle Fork John Day	Spring	Not Listed	NA	NA	NA	25 year interim objective: 134; 50 year interim objective: 223
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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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Abundance</u>	<u>Productivity</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia 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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Abundance Goal</u>	<u>Viability Goal</u>	<u>Scenario Contribution</u>
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Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Fall	Kalama	Fall	Threatened	1300	High	Primary
				Sandy	Fall	Threatened	NA	Low+	Stabilizing
				Coweeman	Fall	Threatened	3600	High+	Primary
				Toutle	Fall	Threatened	1000	Low	Stabilizing
				Upper Cowlitz	Fall	Threatened	NA	Very Low	Stabilizing
				Lower Cowlitz	Fall	Threatened	2300	Medium	Contributing
				Lewis	Fall	Threatened	2900	High+	Primary
				Washougal	Fall	Threatened	5800	High	Primary
				Clackamas	Fall	Threatened	NA	Medium	Contributing
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Late Fall	North Fork Lewis	Late Fall	Threatened	11600	High+	Primary
				Sandy	Late Fall	Threatened	NA	Low+	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Spring	North Fork Lewis	Spring	Threatened	2200	High	Primary
				Upper Cowlitz	Spring	Threatened	5400	High+	Primary
				Toutle	Spring	Threatened	800	Medium	Contributing
				Sandy	Spring	Threatened	NA	High	Primary
				Tilton	Spring	Threatened	150	Very Low	Stabilizing
				Cispus	Spring	Threatened	1800	High+	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Coast Fall	Youngs Bay	Fall	Threatened	NA	Low	Stabilizing
				Grays/Chinook	Fall	Threatened	1400	High	Primary
				Big Creek	Fall	Threatened	NA	Low+	Stabilizing

Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Coast Fall	Elochoman/Sk amokawa	Fall	Threatened	1400	High	Primary
				Clatskanie	Fall	Threatened	NA	High	Primary
				Mill/Abernathy /Germany	Fall	Threatened	1100	Medium	Contributing
				Scappoose	Fall	Threatened	NA	Low	Stabilizing
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Gorge Fall	Lower Gorge	Fall	Threatened	700	Medium	Contributing
				Upper Gorge	Fall	Threatened	100	Low	Stabilizing
				White Salmon	Fall	Threatened	900	Medium	Contributing
				Hood	Fall	Threatened	NA	Low+	Primary
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Gorge Spring	White Salmon	Spring	Threatened	NA	High	Contributing

NOTES:□

Primary, contributing, and stabilizing designations are based on priorities identified in the recovery scenario□

Viability goal is related to the scenario contribution□

Abundance goals are interpolated from current, 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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Coast Fall	Grays/Chinook	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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Coast Fall	Elochoman/Skamakowa	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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia 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

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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia Chinook	Cascade Fall	EF Lewis	Fall	Threatened	1900-3900	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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia 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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia 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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia 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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Number Objective</u>	<u>Viability Objective</u>
Willamette Lower Columbia	Lower Columbia River	Lower Columbia 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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Abundance</u>	<u>Productivity</u>	<u>Diversity Index %</u>	<u>Spawner Escapement</u>
Willamette Lower Columbia	Lower Columbia River	Middle Columbia River Spring-run Chinook	East Cascades	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
				Deschutes Westside	Fall	Not Listed	13000-16000	7.1	60	NA

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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Abundance</u>	<u>Productivity</u>	<u>Diversity Index %</u>	<u>Capacity</u>
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Willamette Lower Columbia	Lower Columbia River	Lower Columbia 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 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: 935; 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

<u>Recovery Domain</u>	<u>Recovery Sub Domain</u>	<u>ESU/DPS</u>	<u>MPG</u>	<u>Population</u>	<u>Run</u>	<u>ESA Listed</u>	<u>Total Return</u>	<u>Natural Return</u>	<u>Hatchery Return</u>
Willamette Lower Columbia	Lower Columbia River	Middle Columbia River Spring-run 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