Puget Sound Chinook Harvest Management Plan

Commission Briefing - January 11, 2019

Kyle Adicks
Intergovernmental Salmon Manager, Fish Program

Presentation Overview

- Background on the Puget Sound Chinook ESA listing and past ESA authorizations for Puget Sound fisheries
- Challenges with new long-term ESA plan
- Developments since Plan submission in December 2017
- Next steps

Puget Sound Chinook ESA listing

- March 1999 – Puget Sound Chinook were listed for protection under the Endangered Species Act (ESA), along with several other evolutionarily significant units (ESU) of Pacific salmon

- July 2000 – NMFS issued the salmon ESA 4(d) rule, establishing take prohibitions for the Puget Sound Chinook ESU (and 13 others)

Puget Sound Chinook ESA coverage

- July 2000 – NMFS issued the salmon ESA 4(d) rule, establishing take prohibitions for the Puget Sound Chinook ESU (and 13 others)
  - The rule provided 'limits' on the application of take prohibitions on plans and activities that meet the rule's criteria, including:
  - Section 10 permits
  - Rescue and salvage actions
  - Fishery management activities covered by an approved Fisheries Management and Evaluation Plan
  - Artificial propagation (Hatchery and Genetic Management Plans)
  - Joint tribal/state plans developed under US v. WA or US v. OR processes
  - Scientific research w/ approval
  - Habitat restoration as part of Habitat Conservation Plan
  - Water diversion screening, routine road maintenance, integrated pest management, forest management that comply with specified conditions

Puget Sound Chinook ESA coverage

- July 2000 – NMFS issued the salmon ESA 4(d) rule, establishing take prohibitions for the Puget Sound Chinook ESU (and 13 others)
  - Limit 6 of the rule applies to joint tribal-state resource management plans under the jurisdiction of US v Washington or US v Oregon
  - The Puget Sound Treaty Indian Tribes and WDFW have submitted a series of jointly developed fishery management plans under Limit 6 of the 4d Rule to NMFS, including long term plans submitted in 2004 and 2010

Puget Sound Chinook ESA coverage

- Comanager plan submitted in 2010 was originally a 5-year plan, to cover fisheries through 2014
- In response to concerns raised by NOAA related to Southern Resident Killer Whales (SRKW), the comanagers modified the duration of the plan, to only cover fisheries through 2013
- In 2014, the Bureau of Indian Affairs (BIA) requested Section 7 consultation to cover 2014 fisheries. BIA funding of tribal fishery management activities was used as the nexus for the consultation. The management plan for 2014 was essentially an extension of the 2010 plan, with some modifications.
- A similar extension occurred for 2015 fisheries

Puget Sound Chinook ESA coverage

- In 2016, the state and tribes planned to seek another 1- year extension. The comanagers did not reach agreement on fisheries during the normal North of Falcon process, and coverage for Puget Sound fisheries was delayed almost two months. Some tribal fisheries moved forward during that time, but WDFW could not find a nexus for Section 7 ESA consultation until agreement was reached with tribes.

- In October 2016 the United States and 16 tribes requested a meet and confer under the provisions of US v Washington regarding a request for determination to develop a court-approved Regional Salmon Management Plan. State and tribes agreed to mediation in lieu of litigation.

Puget Sound Chinook ESA coverage

- Early in 2017, co-managers completed multi-year process of updating of our Chinook fishery model (FRAM)
- BIA Section 7 consultation was used to obtain another single year of coverage for 2017 fisheries
- Development of the new multi-year Resource Management Plan was included as part of the mediation process

Puget Sound Chinook ESA coverage

- The focus of mediation was focused on completion of a new multi-year plan by December 1, 2017 which was expected to result in the new long-term plan going into effect in May 2019.

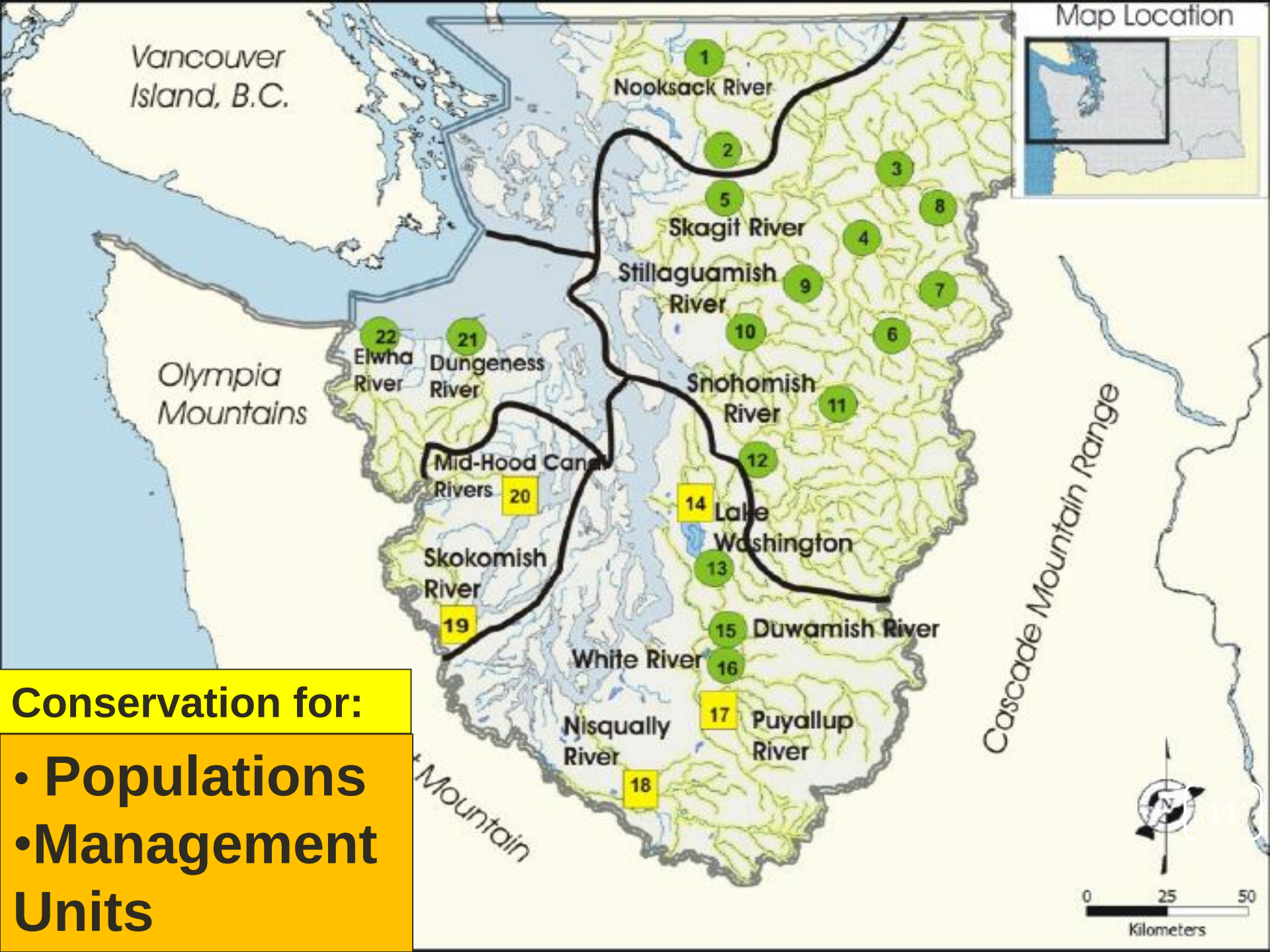
- Coverage for 2018 fisheries was planned through another one-year Section 7 consultation with BIA, using the same objectives developed for the 10-year plan.

- NOAA's initial review of that plan concluded that more information was needed to evaluate whether the Plan represented an acceptable level of risk for Puget Sound Chinook

Puget Sound Chinook ESA coverage

- The goal of past multi-year plans, and the Plan recently submitted to NOAA, is to:

"Ensure that fishery-related mortality will not impede rebuilding of natural Puget Sound Chinook salmon populations, consistent with the capacity of properly functioning habitat, to levels that will sustain fisheries, enable ecological functions, and are consistent with treaty-reserved fishing rights."



Conservation for:

- **Populations**
- **Management Units**

Complex, population specific management

Table 1. 2010 RMP Puget Sound Chinook Harvest Management Objectives.				
Management Unit	**Exploitation Rate Ceiling**	**CERC**	**Upper Management Threshold**	**Low Abundance Threshold**
Nooksack			4,000	
North Fork		7%/9% SUS [2]	2,000	1,000 [1]
South Fork			2,000	1,000 [1]
Skagit summer / fall	50%	15% SUS even-years;	14,500	4,800
Upper Skagit summer		17% SUS odd-years		2,200
Sauk summer				400
Lower Skagit fall				900
Skagit spring	38%	18% SUS	2,000	576
Upper Sauk				130
Cascade				170
Suiattle				170
Stillaguamish	25%	15% SUS	900	650 [1]
North Fork summer			600	500 [1]
South Fork & MS fall			300	
Snohomish	21%	15% SUS	4,600	2000 [1]
Skykomish			3,600	1745 [1]
Snoqualmie			1,000	521 [1]
Lake Washington	20% SUS	10% PTSUS		
Cedar River			1,650	200 [1]
Green	15% PTSUS	12% PTSUS	5,800	1,800
White River spring	20%	15% PTSUS	1,000	200
Puyallup fall	50%	12% PTSUS		500
South Prairie Creek			500	
Nisqually	65% / 56% / 47% [3]		1,200	
Skokomish	50%	12% PTSUS	3,650 aggregate; 1,650 natural	1,300 aggregate; 800 natural
Mid-Hood Canal	15% PTSUS	12% PTSUS	750	400
Dungeness	10% SUS	6% SUS	925	500
Elwha	10% SUS	6% SUS	2,900	1,000
Western SJDF	10% SUS	6% SUS	850	500

Puget Sound Chinook ESA coverage

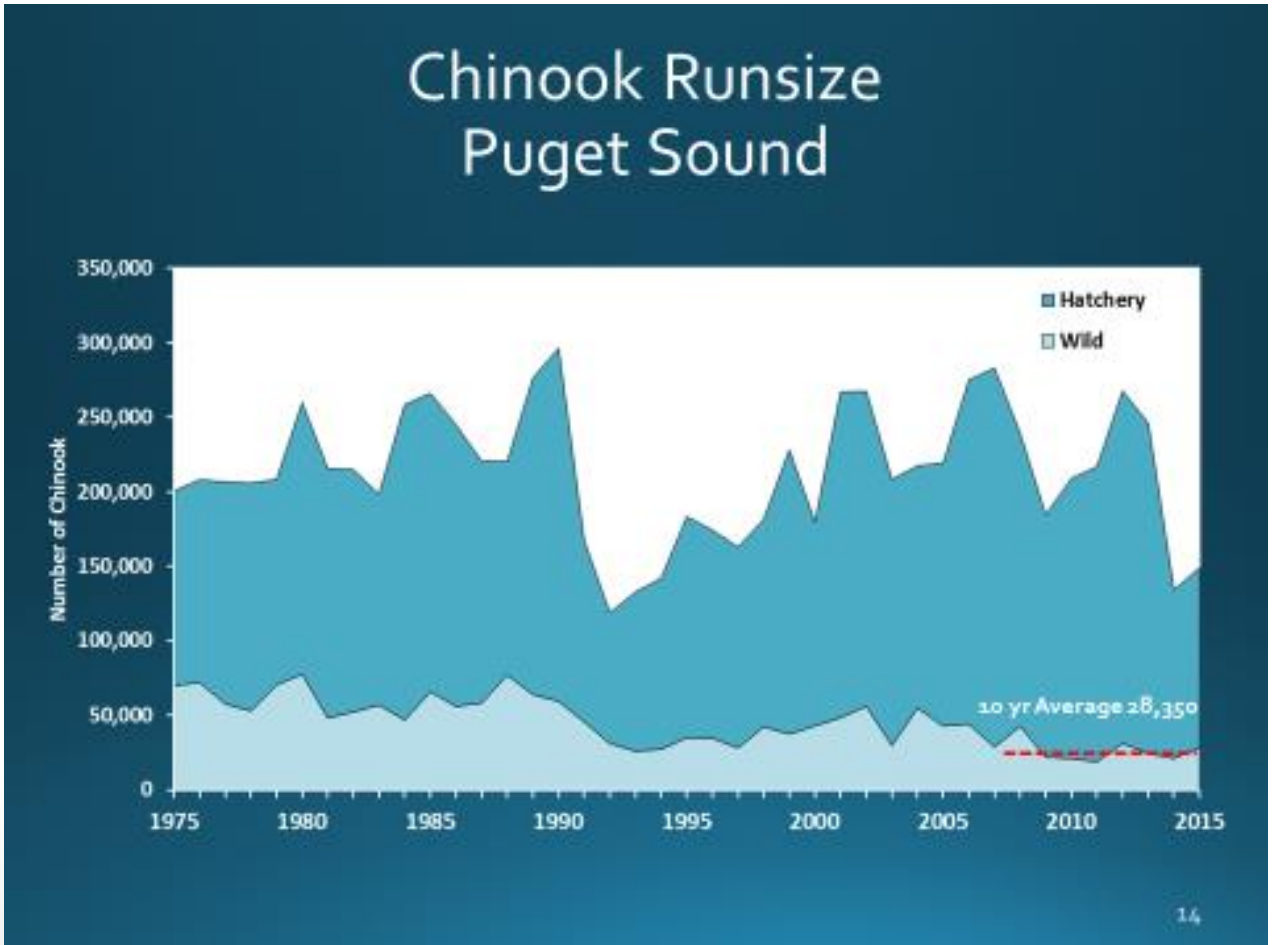
- Fisheries are planned each year through the North of Falcon process so that the total impact of fisheries as projected by the fishery planning model does not exceed the exploitation rate (ER) ceilings for each Management Unit, at their expected abundances, as defined in the Resource Management Plan

- Fishery planning model (FRAM) uses coded-wire tag recovery data to estimate impacts of each fishery on each stock

- Impact of fisheries on each Management Unit varies by fishery type, location and time of year

Conservation concerns with new long-term plan

- Chinook abundance has not improved since ESA listing



Conservation concerns with new long-term plan

- Chinook have been identified as a primary food source for Southern Resident Killer Whales (SRKW)
- Abundance of SRKW has declined in recent years, increasing scrutiny on activities that affect prey abundance
- NOAA updated their analyses of the maximum rates at which individual stocks can be impacted without negatively impacting their likelihood of recovery (Rebuilding Exploitation Rate, or RER), with decreases to estimated maximum rates for several stocks
- Exploitation rates in Northern fisheries exceed NOAA's RER for some stocks (e.g. Nooksack), meaning that risk to those populations will be high

Conservation concerns with new long-term plan

- Additional constraints on fisheries are likely needed in the new plan given decline in abundances and lower RER values.

- Completion of a comanager plan requires reaching agreement with 17 tribes on management objectives for 15 Management Units and 22 populations

Structure of new long-term plan

- 10-year duration
- Structure of plan similar to past plans
  - Body of plan includes chapters on:
    - Fisheries and Jurisdictions
    - Population structure & aggregation for management
    - Management objectives
    - Implementation
    - Conservative management
    - Monitoring and Assessment
  - Appendices includes ‘Management Unit Profiles’
    - Watershed by watershed overview of habitat issues, hatchery production, stock data and status, and description of management objectives

Structure of new long-term plan

- Notable changes in Plan submitted in 2017
  - Points of instability identified for several stocks
  - Total ER ceilings implemented for Snohomish and Stillaguamish
  - Escapement goals rather than maximum ER ceilings identified for Puyallup, White, Green and Lake Washington
  - SUS ER ceilings that vary by abundance identified for Stillaguamish natural-origin and hatchery-origin Chinook

Developments since December 2017 submission

- NOAA's initial review of Plan identified issues that needed resolution before Plan could be formally reviewed
  - Exploitation rate limits in the Plan are higher than NOAA's calculated Rebuilding Exploitation Rates for most populations
  - Additional explanations of how the Plan meets requirements of the 4(d) rule were needed

Management Unit	Population (Tier)	Status	2010-2014 NOR /2005-2009 NOR	NMFS RER (total)	Comanager proposed ER (total expected)
Nooksack	NF Nooksack (1) SF Nooksack (1)	critical	-44/-64%	4%	10-16% SUS (41-47%)
Skagit sp	Suiattle (1)	above	+38%	25%	38%
	U. Sauk (1)	above	+68%	19%	38%
	Cascade (1)	above	+1%	25%	38%
Skagit S/F	Upper Skagit (1)	above	-31%	40%	47%
	L. Sauk (1)	above	-24%	39%	47%
	L. Skagit (1)	between	-34%	23%	47%
Snohomish	Skykomish (2)	above	-29%	14%	21%
	Snoqualmie (3)	above	-32%	19%	21%
Stillaguamish	NF Stilly (2)	above	+4%	24%	24%
	SF Stilly (2)	critical	-30%	18%	24%
Green	Green (2)	between	-33%	18%	18% SUS (27%)
L. WA	Sammamish (3)	critical	-45%	19%[a]	18% SUS (27%)
	Cedar (3)	between	-16%	19% [a]	18% SUS (27%)
Puyallup	Puyallup (3)	above	-25%	30%[b]	30% SUS (43%)
White	White (1)	between	-59%		22% SUS (26%)
Nisqually	Nisqually (1)	between	+19%	30% [b]	47%
Skokomish	Skokomish (1)	critical	-49%	30%	50%
MHC	MHC (1)	critical	+60%	4%[c]	12-15% SUS (24-29%)
Elwha	Elwha (1)	critical	-15%	4% [c]	6-10% SUS (19-23%)
Dungeness	Dungeness (1)	critical	-27%	4% [c]	6-10% SUS (19-23%)

Developments since December 2017 submission

- Work on plan minimal through 2018 North of Falcon process
- Technical work group convened to assess differences in NOAA and comanager exploitation rate estimates
- Additional data revisions and refinement of FRAM exploitation rate estimates (validation runs)
- Recalculation of objectives/thresholds with updated data for several management units

Developments since December 2017 submission

- Revision of Management Unit Profiles to better address ESA criteria
- Completion of Pacific Salmon Treaty negotiations – more clarity on treaty obligations for SUS fisheries
- Periodic updates provided to Puget Sound sportfishing advisors

Developments since December 2017 submission

- Skokomish section completed & ready to submit as part of long-term plan
- Skagit sections revised with updated data and resubmitted to NOAA
- Nooksack objectives revised (higher tier exploitation rate eliminated), and section resubmitted. Still working on addressing NOAA comments for final submission
- Ongoing work with NOAA and comanagers to resolve outstanding issues on Elwha, Dungeness, Mid Hood Canal, Nisqually, Puyallup, White River, Green and Lake Washington sections
- Comanager discussions continuing on Stillaguamish and Snohomish populations, harvest and non-harvest issues and potential solutions

Next steps

- Increased emphasis on Southern Resident Killer Whales since last submission
  - Predation on Chinook by other species
  - NOAA work on tools for evaluation of Harvest Plan
- Revisions to main chapters of plan (non-watershed specific) ongoing
- Schedule has not been set for resubmission of the long-term plan to NOAA for formal evaluation

Next steps

- Continue work on all outstanding management unit sections
- Comanager and NOAA-comanager meetings scheduled through late January (some rescheduling has occurred due to Federal shutdown)
- Goal is to resolve all issues with management objectives prior to 2019 North of Falcon

Questions?