



Puget Sound Recreational Discussion – 3/15/2017

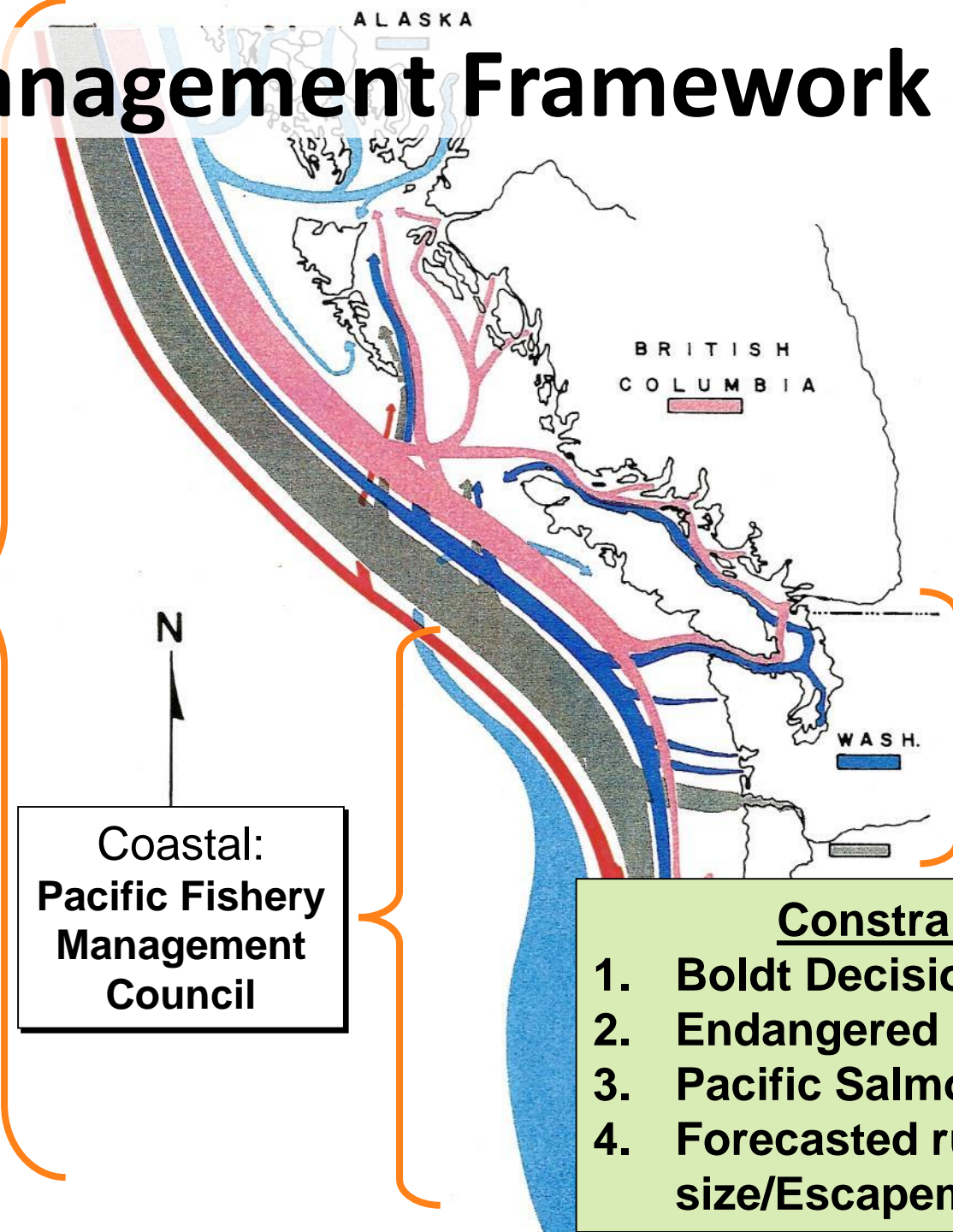


Outline of Presentation

A fishing net is suspended from the side of a boat, with a large salmon curled inside it. The background shows a body of water and distant mountains under a sunset sky. The net is made of dark mesh and is attached to a wooden frame. The salmon is light-colored with a dark stripe along its back. The water is dark and choppy. The sky is a mix of orange, yellow, and grey. The mountains in the distance are dark and hazy.

- **Salmon Management Framework**
 - North of Falcon
- **Forecast**
- **Issues List**
- **Public Comment**

Management Framework



Coast wide:
**Pacific
Salmon
Commission**

Coastal:
**Pacific Fishery
Management
Council**

Inside:
**WDFW,
ODFW,
Tribes**

- Constraints**
1. **Boldt Decision**
 2. **Endangered Species Act**
 3. **Pacific Salmon Treaty**
 4. **Forecasted run size/Escapement Goals**

North of Falcon Process

1. Forecast the abundance of each stock.
2. Determine if there is a harvestable surplus.
3. Propose fisheries - predict what we will catch.
4. Model fisheries to determine which stocks are of conservation concern, constraining fisheries.
5. Negotiate with tribes and other states for fair sharing of catch and stocks that are constraining.
6. Final agreed-to State and Tribal salmon fisheries (ocean, Puget Sound) are described in the "List of Agreed Fisheries" document.

Puget Sound Chinook Forecast Comparisons

Basin	Wild		
	2016	2017	Comparison
Hoko	2,032	606	0.30
Dungeness	88	77	0.88
Elwha	175	153	0.87
Nooksack springs	340	225	0.66
Skagit springs	1,994	2,785	1.40
Skagit summer/falls	15,132	15,837	1.05
Stillaguamish	299	438	1.46
Snohomish	3,339	3,412	1.02
Lake Washington	1,135	948	0.84
Green	2,228	2,374	1.07
Puyallup	353	945	2.68
White River springs	811	593	0.73
Nisqually	762	478	0.63
Skokomish	1,835	1,956	1.07
Mid Hood Canal	320	326	1.02
Total (others included)	34,158	31,330	0.92

Puget Sound Chinook Forecast Comparisons

Basin	Hatchery		
	2016	2017	Comparison
Nooksack spring	2,066	3,950	1.91
Skagit spring	2,497	2,610	1.05
Nooksack/Samish	27,935	21,225	0.76
Stillaguamish	247	1,038	4.20
Snohomish	5,027	4,780	0.95
Lake Washington	3,512	3,722	1.06
Green	8,158	13,988	1.71
Puyallup	3,708	3,804	1.03
White River springs	1,850	2,016	1.09
Sinclair Inlet	6,840	8,886	1.30
Total (others included)	140,550	177,001	1.26

Puget Sound Coho Forecast Comparisons

Basin	Wild		
	2016	2017	Comparison
Dungeness	116	918	7.91
Elwha	153	513	3.35
other Strait	4,427	13,058	2.95
Nooksack/Samish	8,987	6,291	0.70
Skagit	8,912	11,160	1.25
Stillaguamish	2,770	7,622	2.75
Snohomish	16,740	107,325	6.41
Lake Washington	912	2,160	2.37
Green	958	3,852	4.02
Puyallup	1,576	7,560	4.80
Nisqually	1,486	3,290	2.21
Deschutes	48	67	1.40
Skokomish	3,959	24,271	6.13
other Hood Canal	35,313	115,577	3.27
Total (others included)	87,350	289,640	3.32

Puget Sound Coho Forecast Comparisons

Basin	Hatchery		
	2016	2017	Comparison
Nooksack/Samish	28,789	45,609	1.58
Skagit	4,947	7,551	1.53
Snohomish	20,625	61,958	3.00
Lake Washington	3,502	18,218	5.20
Green	8,012	39,924	4.98
Elliot Bay/Agate Pass Net Pens	5,366	6,831	1.27
Puyallup	7,606	19,951	2.62
Nisqually	735	871	1.19
Port Gamble	14,199	12,067	0.85
Quilcene	43,164	36,261	0.84
other Hood Canal	48,212	43,724	0.91
Total (others included)	166,589	300,696	1.81

Coho Forecast vs Returns

<u>Year</u>	<u>Forecast</u>	<u>Run Size</u>	<u>Comparison</u>
2012	732,363	1,002,557	1.37
2013	882,134	836,494	0.95
2014	872,848	467,779	0.54
2015	891,854	215,081	0.24
2016*	225,403	~390k	1.74
Avg.	720,920	583,019	0.81
2017	559,045	-	-

**preliminary estimate*

Puget Sound Pink Forecast Comparisons

Basin			
	2015	2017	Comparison
Nooksack	281,979	96,218	0.34
Skagit	603,385	85,600	0.14
Stillaguamish	210,062	40,205	0.19
Snohomish	1,625,306	171,632	0.11
Green	626,102	118,689	0.19
Puyallup	837,967	382,301	0.46
Nisqually	979,298	21,463	0.02
Hood Canal	312,576	229,440	0.73
Strait of Juan de Fuca	1,299,356	3,655	0.002
Total (others included)	6,778,025	1,150,522	0.17

2015 Pink

Forecast: 6.8 mil

Return: 3.7 mil

0.53

Recreational Discussion

- Timely agreement
- Constraining stocks
 - Chinook (new FRAM): Nooksack early, Dungeness, Mid Hood Canal, Lake Washington
 - Coho: Queets, Skagit, Stillaguamish
- In-season action
 - Winter in-season action
 - Run updates
- Meaningful angler opportunity
 - Freshwater and marine

A person wearing a white cap and a blue jacket is leaning over the side of a boat, holding a fishing rod. A large, silvery fish is being pulled out of the water. The background shows the blue water of the sea.

Public Comment

On-line commenting – March-April

<http://wdfw.wa.gov/fishing/northfalcon/>

Puget Sound Sport Fishing Advisory Group

<http://wdfw.wa.gov/about/advisory/pssfag/>

Public Meetings

March 16 – Sequim Trinity Church, 7 pm

March 17 – North of Falcon #1, Olympia, 9 am

April 4 – North of Falcon #2, Lynnwood Embassy Suites, 9:30 am

April 7-11 – PFMC #2, Double Tree Sacramento

What is North of Falcon?

- Each year (February-April) state, federal, and tribal fishery managers plan recreational and commercial salmon fisheries for the state and tribes
- Pacific Fishery Management Council (PFMC) establishes ocean salmon seasons from three to 200 miles off the Pacific Coast
- "North of Falcon" (NOF) process involves a series of public and state/tribal meetings to come to an agreement for the upcoming year's salmon fisheries
- NOF is north of Cape Falcon in northern Oregon and encompasses Oregon and Washington (Columbia River, Coast, and Puget Sound)

What Governmental Policies affect the NOF process?

- The Boldt Decision (1974): upheld by the Supreme Court and based upon treaties with the Puget Sound Treaty tribes to allow the state and tribes to manage their own fisheries (co-managers) and share half of the harvestable salmon
- Endangered Species Act (ESA): fisheries must not pose jeopardy ESA-listed fish such as Puget Sound Chinook (1999)
- Pacific Salmon Treaty (U.S./Canada): helps ensure enough fish destined for the southern U.S. are allowed to pass through Canadian waters to allow fishing opportunity and enough fish to reach the spawning grounds (and vice versa for fish returning to Canada)
- Conservation objectives are agreed to by the co-managers to ensure enough fish get past fisheries and reach rivers to spawn and recover the population

What are the steps?

- Estimate the forecasted returns of individual hatchery and wild stocks of salmon
 - Determine if enough fish are returning to allow for harvest
- Predict harvest for tribal and state recreational and commercial fisheries for Oregon and Washington; include the northern fisheries (Alaska and Canada) too
- Analyze forecast and harvest scenarios using the Fisheries Regulations Assessment Model (FRAM) to determine whether proposed fishing plans meet management objectives (e.g., ESA impact limits)
- Negotiate with the recreational anglers, commercial fishers, and tribes to allow a fair sharing of catch and ensure conservation objectives are met
- Combine all Puget Sound and ocean fisheries into the "Agreed-to Fisheries Document" that the recreational (sport) fishing rules pamphlet is based upon

Glossary

AEQ: Adult equivalents (number of wild salmon that would have returned to the river if not killed in fisheries)

CERC: Critical exploitation rate ceiling (maximum fishery impacts allowed when a stock is in critically low abundance, see Escapement LAT)

Constraining stock: Wild fish for a particular river that is estimated to be the most over-impacted that will limit (or reduce) fishing opportunities

CWT: Coded-wire tag (placed in nose of juvenile salmon and recovered from adults that return to estimate where the fish is from)

Encounters: Number of fish harvested plus released fish

ESA: Endangered Species Act

ERC: Exploitation rate ceiling (maximum allowable rate of returning wild salmon that can be killed in fisheries without compromising stock recovery)

Escapement LAT: Escapement Low Abundance Threshold (minimum number of naturally spawning salmon needed to recover that stock; if below then stock is in critical status)

Exploitation Rate (ER): Percent of total mortality (i.e., in fisheries and on spawning grounds) that occurs in fisheries, including landed and non-landed fishery mortality components

Forecast: Estimated number of adult salmon that will return

FRAM: Fisheries Regulation Assessment Model (used to combine forecasts and harvest of fisheries to estimate number of wild fish that will return to the rivers to spawn)

LCN: Lower Columbia Natural Tule Chinook (sometimes called LCR, Lower Columbia River, tule)

Release Mortality Rate: Percent of fish released that die due to the encounter with handling

MSF: Mark-selective fisheries (hatchery targeted fishery where wild fish are released)

Escapement: Number of wild salmon returning to the spawning grounds for a particular stock

NOF: North of Falcon (process to establish salmon seasons for state and tribal fisheries)

NT: Non-treaty fisheries (sport and commercial including net and troll)

SUS: Southern United States (WA, OR, CA)

SUS PT ER: Southern U.S. (WA, OR, CA) pre-terminal exploitation rate (caught in marine waters within the southern U.S.)

T: Treaty fisheries (tribal ceremonial/subsistence and commercial: net, freshwater net, troll (tr))

Total ER: Total exploitation rate for Alaska, Canada, and southern U.S.

FISH AND WILDLIFE COMMISSION

POLICY DECISION

POLICY TITLE: 2017-2018 North of Falcon

POLICY NUMBER: C-3608

Supersedes: C-3608, 2015-2016

Effective Date: January 13, 2017

Termination Date: December 31, 2018

See Also: C-3001 C-3622
C-3620
C-3621

Approved by:  Chair
Washington Fish and Wildlife Commission, January 13, 2017

North of Falcon Policy

This Policy will guide Department staff in considering conservation, allocation, in-season management, and monitoring issues associated with the annual salmon fishery planning process known as "North of Falcon." When considering management issues, Department staff will ensure that decisions are made consistent with: the Department's statutory authority; *U.S. v. Washington*; *U.S. v. Oregon*; the Endangered Species Act; the Puget Sound Chinook Harvest Management Plan; the Pacific Salmon Treaty; the Pacific Fishery Management Council's Framework Salmon Management Plan; pertinent state/tribal agreements; and the applicable Fish and Wildlife Commission policies.

The Department will implement this Policy consistent with the purposes and intended outcomes described in the 21st Century Salmon and Steelhead Planning Project including:

- Salmon and steelhead will be managed to recovery and to assure sustainability in a way that is science-based, well-documented, transparent, well-communicated, and accountable.
- Fisheries will be managed to meet or exceed ESA, recovery, and conservation goals; and harvest management measures will protect and promote the long-term well-being of the commercial and recreational fisheries.

Fishery Management

General

- On a statewide basis, fishing opportunities will be provided when they can be directed at healthy wild and hatchery stocks.
- Selective fishing methods and gears that maximize fishing opportunity and minimize impacts on depressed stocks will be utilized to the fullest extent possible taking into consideration legal constraints on implementation and budgetary limits associated with required sampling, monitoring and enforcement programs.
- When assessed from a statewide perspective, fishing directed at chinook, coho, pink, sockeye, or chum salmon will not be exclusively reserved for either sport or commercial users.
- When managing sport fisheries, meaningful recreational fishing opportunities will be distributed equitably across fishing areas and reflect the diverse interests of fishers, including retention and catch and release fisheries.
- The Department will seek non-treaty fishing access to unutilized portions of treaty harvest allocations through the implementation of pre-season agreements, taking into consideration changes in abundance, fishery conflicts, and factors that may influence attainment of spawning escapement objectives.

Puget Sound

- The Puget Sound harvest management objectives for chinook and coho stocks, in priority order, are to: (1) provide meaningful recreational fishing opportunities; and (2) identify and provide opportunities for commercial harvest. When managing sport fisheries in this region, recreational opportunities will be distributed equitably across fishing areas, considering factors such as: the uniqueness of each area; the availability of opportunities for various species in each area throughout the season; the desire to provide high levels of total recreational opportunity; and the biological impacts.
- For fisheries directed at Fraser River-origin chum, pink, and sockeye stocks, the majority of harvest will be provided to the commercial fisheries.
- For fisheries directed at harvestable Puget Sound-origin chum stocks, the majority of harvest will be provided to the commercial fisheries.
- For fisheries directed at Lake Washington sockeye, the first 200,000 non-treaty harvest will be provided to recreational fishers. If the allowable non-treaty harvest is greater than 200,000, commercial harvest directed at this stock may be considered.
- For fisheries directed at harvestable Puget Sound origin pink salmon, seasons will be established that provide meaningful opportunities for both recreational and commercial fisheries while minimizing gear and other fishery conflicts.

Grays Harbor

- Grays Harbor will be managed consistent with the Commission's Grays Harbor Policy (POL C-3621).

Willapa Bay

- Willapa Bay will be managed consistent with the Commission's Willapa Bay Salmon Management Policy (POL-C3622).

Columbia River

- The Fish and Wildlife Commission's policy on Columbia River Salmon Management (POL- C3620) shall guide pre-season and in-season planning of Columbia River salmon fisheries. Columbia River harvest management regimes shall be developed in cooperation with Oregon Department of Fish and Wildlife representatives.

Pacific Ocean

- Pacific Ocean harvest shall be managed consistent with the Pacific Fishery Management Council's Framework Salmon Management Plan and the National Standards that provide for fair and equitable allocation of fishing privileges among various fishers.

In-Season Management

- When in-season management actions are taken, they will be implemented in a manner that is consistent with pre-season conservation and harvest management objectives, and the fishery intent developed through the North of Falcon process.
- Prior to use, in-season updates of stock abundance affecting Puget Sound fisheries will be evaluated for technical merit and potential to improve achievement of conservation and allocation objectives.
 - When possible, in-season updates should be documented within the co-manager's annual List of Agreed Fisheries or as part of regional comanager memoranda of understanding.
 - Descriptions of potential modifications to fisheries that are contingent on in-season updates should be included in the List of Agreed Fisheries.

Monitoring and Sampling

- Monitoring, sampling and enforcement programs will be provided to account for species and population impacts of all fisheries.
- Fishery participants will be required to comply with fishery monitoring and evaluation programs designed to account for species and population impacts.

Enforcement and Compliance

- Enforcement strategies will be developed and staffing will be provided to promote compliance with state regulations.
- WDFW Enforcement will seek to establish and maintain effective coordination with Tribal enforcement to enhance the sharing of information.

Gear and Fishery Conflicts

- Recreational and commercial fisheries shall be structured to minimize gear and other fishery conflicts. Unanticipated fishery interaction issues identified in-season, including conflicts with fisheries directed at other species, shall be resolved by involving the appropriate sport and commercial representatives in a dispute resolution process managed by Department staff.

Incidental Mortalities

- The Department will manage fisheries to minimize mortalities on non-target species (e.g. rockfish, sea birds, etc.). Management regimes will include strategies to limit seabird mortalities consistent with the federal Migratory Bird Treaty Act.

Communications

- The Department shall strive to make ongoing improvements for effective public involvement during the North of Falcon planning process and annual salmon fishery implementation, incorporating the following intents:
 - North of Falcon participants will be included as observers during appropriate state/tribal discussions of fishery issues.
 - All decisions made during the North of Falcon process will be recorded in writing.
 - A variety of tools will be used to effectively communicate with the public, to receive input on pre-season planning or in-season fishery issues, and to make available the record of decisions. Such tools will include: recreational and commercial advisory groups; public workshops to address key issues; the WDFW North of Falcon Web site; and in-season tele-conferences.
 - The Department will increase transparency by consulting with stakeholders throughout the pre-season planning process and prior to making major decisions with the co-managers.

Other Species

- The Fish and Wildlife Commission's policy on Lower Columbia Sturgeon Management (POL-C3001) shall guide pre-season and in-season planning of Columbia River and coastal sturgeon fisheries and related incidental impacts.

Delegation of Authority

The Fish and Wildlife Commission delegates the authority to the Director to make harvest agreements with Northwest treaty tribes and other governmental agencies, and adopt permanent and emergency regulations resulting from the agreements made during the annual North of Falcon process.

2017 Puget Sound Summer/Fall Chinook Preseason Forecasts

Region	Watershed	Notes	Forecast Type	Hatchery	Supplmt	Wild	Total	Comp Chinook Management Criteria	
								RER ¹	Low Abundance Thresholds ^{2,3}
Strait	Hoko		Escape w/o fishing	876		606	1,482	<10% So. U.S.	500 spawners
	Dungeness		Terminal	296		77	373	<10% So. U.S.	500 spawners
	Elwha		Terminal	2,631		153	2,784	<10% So. U.S.	1,000 spawners
	Morse Creek		Terminal	225			225		
	Region total			4,028		836	4,864	4,258	
North Sound	Glenwood Springs		Terminal	772			772		
	Nooksack/Samish		Terminal	21,225			21,225		
	Skagit		Terminal	411		15,837	16,248	50% total	4,800 spawners
	Stillaguamish		Esc. w/o fishing	1038		438	1,476	25% total	700 spawners
	Snohomish		Extreme Terminal w/ harvest	4,780		3,412	8,192	21% total	2,800 spawners
	Tulalip		Terminal Run w Harvest	5,296			5,296		
	Region total			33,522	0	19,687	53,209		
Upper South Sound	Lake Washington								
	Issaquah		Terminal	3,722			3,722		
	Cedar		Terminal			811	811	15% preterm So. U.S., 1,680 esc goal	200 spawners
	Sammamish		Terminal			137	137		
	Subregion total			3,722		948	4,670		
	Green River								
	Soos Creek Hatchery		Terminal	13,347			13,347		
	Icy Creek		Terminal	641			641		
	Mainstem/Newaukum		Terminal			2,374	2,374	12% preterm So. U.S.	
	Subregion total			13,988		2,374	16,362		
Grovers		Terminal	2,598			2,598			
East Kitsap (Gorst, Dogfish)		Terminal	6,288			6,288			
Subregion total			8,886			8,886			
Puyallup River		Terminal	3,804		945	4,749	50% total	500 spawners	
Upper South Sound Total			30,400		4,267	34,667			

2017 Puget Sound Summer/Fall Chinook Preseason Forecasts (continued)

Region	Watershed	Notes	Hatchery	Supplmt	Wild	Total	Comp Chinook Management Criteria	
							RER ¹	Low Abundance Thresholds ³
Lower South Sound	Carr Inlet	Terminal	8,219			8,219	52% ERC	700 spawners
	Deschutes	Terminal	18,341			18,341		
	Nisqually	Terminal	22,191		478	22,669		
	Chambers	Terminal	1,229			1,229		
	Lower South Sound Total		49,980		478	50,458		
	South Sound Total		80,380	0	4,745	85,125		
Hood Canal	Skokomish w/George Adams	Terminal	25,773		1,956	27,729	50% ERC	1,300 spawners ⁴
	12B Naturals	Terminal			326	326	12% PTSUS CERC	400 spawners
	12C/12H/12D	Terminal	22,532		177	22,709		
	Hood Canal Total		48,305	0	2,459	50,764		
Puget Sound Total			166,235	0	27,227	193,962		
Footnotes	1. RER = Recovery Exploitation Rate (interim management ceiling during recovery phase). 2. Level of spawning abundance that triggers additional management action. 3. Threshold expressed as natural origin spawners 4. Aggregate for combined hatchery and wild spawners							

Puget Sound Spring Chinook 2017 Preseason Forecasts

Notes	Forecast					RER	Low Abundance Thresholds
	Type	Hatchery	Supplmt	Wild	Total		
Nooksack River							
North Fork	Terminal	2,866	1,066	193	4,125	Under Development	1000 spawners ¹
South Fork	Terminal	1,084		32	1,116	Under Development	1000 spawners ¹
Skagit River	Terminal	2,610		2,785	5,395	38% total	576 spawners
White River							
Minter Creek	Terminal	522			522		
White River Hatchery	Terminal	1,494			1,494		
Buckley Trap	Terminal		1,124	593	1,717	20% total	200 spawners
Total White River Springs					3,733		
Total		8,576	2,190	3,603	14,369		
1. Supplementation number is hatchery-origin acclimated fish expected to spawn in the wild. 2. Forecast of SF Nooksack stock origin chinook. 3. Forecast of returns to the hatchery rack only. 4. Includes naturally produced spring and fall chinook returns and acclimation pond production.							

Washington Coast 2017 Chinook Preseason Forecasts

		Hatchery	Wild	Totals	Natural Escapement Goal
North Coast					
Quillayute River					
Spring	Terminal	2,152		2,152	200
Summer	Terminal		1,132	1,132	1,200
Fall	Terminal		6,433	6,433	> of 3,000 or 60% of run
Hoh					
Spring/Summer	Terminal		1,000	1,000	>of 900 or 69% of RS
Fall	Terminal		2,725	2,725	>of 1,200 or 60% of RS
Queets					
Spring/Summer	Terminal		-	-	>of 700 or 70% of RS
Fall	Terminal	900	3,692	4,592	>of 2,500 or 60% of RS
Quinault					
Fall	Terminal	0	0	0	
North Coast totals Summer/Falls:		900	10,290	11,190	
Spring/Summers:		2,152	1,000	3,152	14,342
Grays Harbor					
Chehalis springs	Terminal		0	0	1,400
Chehalis falls	Terminal	0	0	0	9,880
Humtulpis falls	Terminal	0	0	0	3,620
Subregion Falls Total		0	0	0	
Willapa Bay - Fall Chinook	Terminal	34,328	4,178	38,506	
Coast total		37,380	15,468	52,848	

2016 and 2017 Washington Coho Forecast Summary¹

Last updated: 02/26/17

Production unit	2016 Hatchery	2017 Hatchery	2016 Wild	2017 Wild	2016 Total	2017 Total
Dungeness R	2,915	10,203	116	918	3,030	11,121
Elwha R	740	1,308	153	359	894	1,667
Eastern Strait (excl. Dung, Elwha)	-	-	541	2,762		2,762
Western Strait	-	-	3,886	10,296	3,886	10,296
West/East sub-total excl. Dung, Elwha	-	-	4,427	13,058	4,427	13,058
West/East Strait sub-total	3,655	11,510	4,696	14,335	7,810	25,845
Nooksack R	19,815	39,041	4,750	6,291	24,565	45,332
Lummi Ponds	8,010	6,568	-	-	8,010	6,568
7B net pens	0	0	-	-	0	0
Indian Slough Hatchery	0	0	-	-	0	0
Samish R	-	-	3,473	6,209	3,473	6,209
Misc 7&7A (incl. San Juans CoOps)	964	0	765	735	1,729	735
Nook/Samish R sub-total	28,789	45,609	8,987	13,235	37,776	58,845
Skagit R sub-total	4,947	7,551	8,912	11,160	13,859	18,711
Stillaguamish R sub-total	0	1,520	2,770	7,622	2,770	9,142
Snohomish R	1,809	9,452	16,740	107,325	18,549	116,777
Tulalip Bay	18,564	51,626	-	-	18,564	51,626
Area 8A Misc. Hatchery	252	880	-	-	252	880
Snohomish R sub-total	20,625	61,958	16,740	107,325	37,365	169,283
Lake Washington	3,502	18,218	912	2,160	4,414	20,378
Green River	8,012	39,924	958	3,852	8,970	43,776
Elliot Bay Net Pens	3,270	0	-	-	3,270	0
Misc. Area 10,11,10E	2,096	6,831	600	1,728	2,696	8,559
Puyallup R	7,606	19,951	1,576	7,560	9,182	27,511
Mid-Sound sub-total	24,486	84,924	4,046	15,300	28,532	100,224
Area 13A-K wild, exc. Deschutes	-	-	4,352	1,575	4,352	1,575
Area 13A Hatchery (Minter CR)	85	6,546	-	-	85	6,546
Nisqually R	735	871	1,486	3,290	2,221	4,161
Deschutes R	-	-	48	67	48	67
Area 13D net pens (Squaxin Island)	1,798	10,017	-	-	1,798	10,017
Deep South Sound sub-total	2,618	17,434	5,886	4,932	8,504	22,366
Mid+Deep South Sound sub-total	27,105	102,358	9,932	20,232	37,036	122,590
Area 9A (Port Gamble)	14,766	10,883	-	-	14,766	10,883
Area 12A - Quilcene R	41,553	29,813	-	-	41,553	29,813
Area 12A - Quilcene Net Pens	3,034	2,349	-	-	3,034	2,349
Area 12/12B	-	-	14,924	35,276	14,924	35,276
Area 12C/12D (exc. Skokomish R)	-	-	16,439	38,854	16,439	38,854
Skokomish R	24,112	17,749	3,959	19,705	28,071	37,455
Area 12/12B-12D/Skok. R sub-total	24,112	17,749	35,322	93,835	59,434	111,585
Hood Canal sub-total	83,465	60,794	35,322	93,835	118,787	154,629
Puget Sound Total	168,585	291,301	87,359	267,745	255,403	559,045
Willapa Bay	28,093	54,998	39,516	36,720	67,609	91,718
Grays Harbor	22,890	NA	4,951	NA	27,841	NA
Quinault R	19,821	29,435	17,100	26,300	36,921	55,735
Queets R	4,492	NA	3,494	NA	7,986	NA
North Coast Indept. Tribs	2,541	132	1,924	6,460	4,465	6,592
Hoh R	0	0	2,066	5,799	2,066	5,799
Quillayute R summer	1,368	3,376	285	1,468	1,653	4,844
Quillayute R fall	6,443	17,619	4,468	15,808	10,911	33,427
Coast total	85,648	105,560	73,804	92,555	159,452	198,115

Columbia Hatch/WA Wild Early ²	136,200	222,800	11,900	5,100	148,100	227,900
Columbia Hatch/WA Wild Late ²	199,900	133,500	26,100	20,600	226,000	154,100
Columbia Oregon Wild ³	-	-	6,500	4,400	6,500	4,401
Columbia total	336,100	356,300	44,500	30,100	380,600	386,401
Grand Total	590,333	753,161	205,663	390,400	795,455	1,143,562

Notes:

1) Ocean Age 3 (OA3) abundance

2) Columbia Early and Late Production Unit hatchery forecast categories include hatchery production from all states, Columbia Early and Late Wild Production Unit forecasts contain Washington-origin stocks only.

3) Oregon Wild Production Unit category is summarized separately from Columbia Early and Late categories because it is considered by ODFW to account for entire fall coho return on Oregon side of river.

**CHUM, PINK, AND SOCKEYE SALMON
CO-MANAGER RUNSIZE FORECASTS FOR THE 2017 RETURN YEAR**

CHUM - SUMMER

	HATCHERY	WILD	TOTAL	FORECAST METHOD
Puget Sound				
Central Sound		2,702	2,702	R/S, recent perform adj.
South Sound		31,014	31,014	R/S, recent perform adj.
Hood Canal*		34,188	34,188	4-year avg.
Strait of Juan de Fuca		11,094	11,094	4-year avg.
Puget Sound Total		78,998	78,998	

* Wild forecast includes supplementation returns.

CHUM - FALL

	HATCHERY	WILD	TOTAL	FORECAST METHOD
Puget Sound				
Nooksack/Samish	20,511	88,826	109,337	R/S
Skagit	438	6,528	6,966	Fry based
Stillaguamish	367	5,614	5,981	Fry based
Snohomish	15,255	5,280	20,535	Fry based
Central Sound	40,527	101,312	141,839	R/S
South Sound	25,798	265,559	291,357	R/S
Hood Canal	336,156	156,736	492,892	R/S
Strait of Juan de Fuca	373	1,688	2,061	R/S-Ocean indicators adjusted
Puget Sound Total	439,425	631,543	1,070,968	

CHUM - WINTER

	HATCHERY	WILD	TOTAL	FORECAST METHOD
Puget Sound				
South Sound	13,594	23,102	36,696	R/S Regression, perform adj.
Puget Sound Total	13,594	23,102	36,696	

CHUM - FALL

	HATCHERY	WILD	TOTAL	FORECAST METHOD
Coastal				
Grays Harbor	1,200	30,100	31,300	R/S-brood perform adjustment
Willapa	1,273	56,453	57,726	R/S-brood perform adjustment
Coastal Total	2,473	86,553	89,026	

PINK

	HATCHERY	WILD	TOTAL	FORECAST METHOD
Puget Sound				
Nooksack	19	96,199	96,218	Fry based
Skagit		85,600	85,600	Fry based
Stillaguamish		40,205	40,205	Fry based
Snohomish		171,632	171,632	Fry based
Green		118,689	118,689	Fry Based
Puyallup		382,301	382,301	Fry Based
Nisqually		21,463	21,463	Fry Based
South Sound Misc.		1,319	1,319	R/S
Hood Canal	3,034	226,406	229,440	Fry and R/S Avg
Strait of Juan de Fuca		3,655	3,655	R/S-Ocean indicators adjusted
Puget Sound Total	3,053	1,147,469	1,150,522	

SOCKEYE

	HATCHERY	WILD	TOTAL	FORECAST METHOD
Puget Sound				
Baker River*		47,000	47,000	Avg. smolt/adult return rates
Lake Washington	14,673	62,619	77,292	Sibling relationships
Puget Sound Total			124,292	

* Forecast contains hatchery and wild production

SOCKEYE

	HATCHERY	WILD	TOTAL	FORECAST METHOD
Columbia River				
Wenatchee River		54,200	54,200	Adult-cohort relationships
Okanogan River		192,100	192,100	Adult-cohort relationships
Columbia River Total		246,300	246,300	

Fraser River Forecasts (from Fisheries and Oceans Canada)

Sockeye Salmon	4,432,000
Pink Salmon	8,693,000

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
North of Cape Falcon	North of Cape Falcon	North of Cape Falcon
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Overall non-Indian TAC: 104,500 (non-mark-selective equivalent of 100,000) Chinook and 64,400 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 54,500 (non-mark selective equivalent of 50,000) Chinook and 58,800 marked coho; all retained coho must be marked.</p> <p>3. A trade with commercial troll may be considered in April.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens August 1 with an expected landed catch of 15,000 marked coho in August and September.</p> <p>6. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 90,000 Chinook and 60,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 45,000 Chinook and 50,400 marked coho; all retained coho must be marked.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens August 1 with an expected landed catch of 15,000 marked coho in August and September.</p> <p>6. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>	<p>1. Overall non-Indian TAC: 80,000 Chinook and 18,900 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 40,000 Chinook and 18,900 marked coho; all retained coho must be marked.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens August 1 with an expected landed catch of 15,000 marked coho in August and September.</p> <p>6. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p>
<p>Queets Rivers to Leadbetter Point</p> <ul style="list-style-type: none"> June 17 through earlier of June 30 or a coastwide marked Chinook quota of 7,500 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho. All Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>	<p>Queets Rivers to Leadbetter Point</p>	<p>Queets Rivers to Leadbetter Point</p>

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Leadbetter Point to Cape Falcon</p> <ul style="list-style-type: none"> June 17 through earlier of June 30 or a coastwide marked Chinook quota of 7,500 (C.5). <p>Seven days per week. Two fish per day, all salmon except coho. All Chinook must be marked with a healed adipose fin clip (C.1). Chinook 24-inch total length minimum size limit (B). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon (C.5).</p>		
<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> June 24 through earlier of September 30 or 6,120 marked coho subarea quota with a subarea guideline of 8,800 Chinook (C.5). <p>Seven days per week. All salmon, except no chum beginning August 1; two fish per day. All coho must be marked with a healed adipose fin clip (C.1). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> June 24 through earlier of September 30 or 5,240 marked coho subarea quota with a subarea guideline of 7,900 Chinook (C.5). <p>Seven days per week. All salmon, except no chum beginning August 1; two fish per day plus one additional pink. All coho must be marked with a healed adipose fin clip (C.1). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>U.S./Canada Border to Cape Alava (Neah Bay)</p> <ul style="list-style-type: none"> July 1 through earlier of September 10 or a subarea guideline of 7,100 Chinook (C.5). <p>Seven days per week. All salmon, except coho; no chum beginning August 1; two fish per day (C.1). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>
<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 24 through earlier of September 30 or 1,530 marked coho subarea quota with a subarea guideline of 2,700 Chinook (C.5). October 1 through earlier of October 15 or 100 marked coho quota or 100 Chinook quota (C.5) in the area north of 47°50'00" N. lat. and south of 48°00'00" N. lat. <p>Seven days per week. All salmon, two fish per day. All coho must be marked with a healed adipose fin clip. (see Ocean Boat Limits, C.1). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 24 through earlier of September 30 or 1,310 marked coho subarea quota with a subarea guideline of 2,500 Chinook (C.5). <p>Seven days per week. All salmon, two fish per day plus one additional pink. All coho must be marked with a healed adipose fin clip (see Ocean Boat Limits, C.1). See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> July 1 through earlier of September 10 or a subarea guideline of 2,100 Chinook (C.5). October 1 through earlier of October 15 or 100 Chinook quota (C.5) in the area north of 47°50'00" N. lat. and south of 48°00'00" N. lat. <p>Seven days per week. All salmon, except coho; two fish per day. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>

A. SEASON ALTERNATIVE DESCRIPTIONS		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> July 1 through earlier of September 30 or 21,750 marked coho subarea quota with a subarea guideline of 21,900 Chinook (C.5). <p>Seven days per week. All salmon; two fish per day, no more than one of which can be a Chinook. All coho must be marked with a healed adipose fin clip (C.1). See gear restrictions and definitions (C.2, C.3). Grays Harbor Control Zone closed beginning August 14 (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> June 24 through earlier of September 17 or 18,650 marked coho subarea quota with a subarea guideline of 21,400 Chinook (C.5). <p>Same as Alternative 1.</p>	<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> July 2 through earlier of September 7 or a subarea guideline of 19,000 Chinook (C.5). <p>Five days per week (Sunday through Thursday). All salmon, except coho; two fish per day (C.1). See gear restrictions and definitions (C.2, C.3). Grays Harbor Control Zone closed beginning August 14 (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> July 1 through earlier of September 30 or 29,400 marked coho subarea quota with a subarea guideline of 13,500 Chinook (C.5). <p>Seven days per week. All salmon; two fish per day, no more than one of which can be a Chinook. All coho must be marked with a healed adipose fin clip (C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.c). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> June 24 through earlier of September 30 or 25,200 marked coho subarea quota with a subarea guideline of 13,200 Chinook (C.5). <p>Same as Alternative 1.</p>	<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> July 1 through earlier of September 16 or 18,900 marked coho subarea quota with a subarea guideline of 11,700 Chinook (C.5). <p>Same as Alternative 1.</p>

2017 Salmon Season Setting NORTH of FALCON



Puget Sound Chinook minimum size limit reduction

Background:

The minimum size limit for Chinook retention has varied widely during the history of the Puget Sound sport fishery. It was 12" in the 1930's, no size limit in the 1970's, size limit of 20" in the late 1970's, and has remained 22" (today's limit) since 1983. The current size limit (22") was designed to help achieve 50:50 harvest sharing between state and tribal fisheries. Reducing the size limit for winter mark-selective fisheries has received the most support, while some would like to see the change made for summer fisheries to help catch jacks in terminal areas.

Some of the reasons for reducing the size limit to 20 inches, include:



More successful angler trips and helping to reduce the number hatchery fish on the spawning grounds

Reducing the minimum size limit to 20" will allow for more successful trips for those who choose to keep 20-22" fish. It will allow anglers to access a more hatchery fish that they help to fund through license fees, while simultaneously reducing the number of hatchery strays on spawning grounds. Increased harvest will help restore 50:50 sharing of allowable catch.

Modeling of the size limit change has been approved

In 2013, the Pacific Fishery Management Council approved the changes necessary to properly model size limit changes in the Fishery Regulation Assessment Model (FRAM).

Size limit reductions will have a negligible impact on protected Chinook

Modeling indicates that reducing the minimum size limit from 22" to 20" during winter MSFs will not measurably increase ESA impacts, because these are mark-selective, hatchery-directed fisheries.

Recreational fisheries will see an increase in the number of allowable encounters

The abundance and size structure of fish present in Puget Sound in any given year is variable, but on average reducing the size limit to 20" may translate into

a about 30% increase in what's considered to be legal to keep during winter MSFs and a about 10% increase during summer fisheries. Mid and South Puget Sound areas would likely see the largest increase in catch during the winter.

Shouldn't decrease the number of larger chinook available in the fishery

Dropping the minimum size limit to 20" would not result in a noticeable decrease in the number of Chinook that grow to larger sizes (ages 4-5). There is a very low chance of catching the same fish twice in marine recreational fisheries. These odds are further reduced due to the mortality rates of released fish combined with the expected natural mortality, which is about a 50 percent chance of surviving from age 2 until maturing to an adult salmon ready to return to rivers.

Monitoring fisheries will continue so that changes are well understood

Given that it has been nearly 20 years since the minimum limit was less than 22," it will be necessary to monitor fisheries to measure changes in fishing effort, angler behavior (e.g., compliance, voluntary release), catch success, and stock exploitation patterns. The sampling programs already in place for "intensively monitored" mark-selective fisheries are sufficiently rigorous to provide this insight.

Marine Area 7 (San Juan Islands) summer Chinook fishery fact sheet

Background

The summer Chinook fishery in Area 7 (San Juan Islands) has remained under nonselective regulations during the months of July, August, and September while many other areas have switched to mark-selective (MSF) regulations, except July 2016 which was MSF. The Area 7 summer fishery is considered a mixed-stock fishery that harvests fish from both Puget Sound and Canadian river systems. The Pacific Salmon Treaty (Canada and U.S.) provides protection to wild salmon stocks compelling both countries to limit impacts on wild stocks of concern, with the conservation burden relying more heavily on the country of origin. Each year fewer wild Chinook return to Puget Sound, comprising an expected 15% of the total Chinook forecast. The Commission issued a North of Falcon policy (policy C-3608), which provides guidance to maintain meaningful opportunity, uniqueness of fisheries, and utilize MSF regulations in order to aid in maximizing fishing opportunity and minimize impacts on depressed stocks.

July Fishery Proposal

- Convert July Chinook fishery to MSF (release wild Chinook)
 - Daily limit of Chinook would increase from 1 to 2
 - Southern Rosario and Eastern Strait closure would be considered for removal
- August and September would remain a nonselective Chinook fishery and the Rosario and Eastern Strait closures would remain in effect

Data analysis from dockside samples

- Legal-sized mark rates (mark rate has improved by 5% from 2011-13 to 2014-16 average)
 - July: 68%
 - August: 34%
 - September: 32%
- Coded Wire Tag proportions used in FRAM model for North of Falcon during July
 - Nooksack-Samish: 18%; Skagit: 17%; Stilly-Sno: 7%; Mid Sound: 12%; South Sound: 7%; Hood Canal: 6%; Canada: 29%; Other: 4%
- Genetics (2009 study)
 - July: Puget Sound: 79%; Canada: 19%; Other: 2%
 - August: Puget Sound: 43%; Canada: 54%; Other: 3%
 - September: Puget Sound: 49%; Canada: 45%; Other: 6%

Justification

Nearly all Chinook released from Puget Sound hatcheries are marked (>99%). The high July mark rate in Area 7 makes it a strong candidate for converting to MSF as almost 2 out of every 3 legal-sized Chinook encountered could be kept, and fewer wild fish die due to the release mortality rate for legal-sized Chinook (at an assumed mortality rate of 10%). Further, anglers would have an increased daily limit from 1 to 2 Chinook. Most of the wild Chinook encountered during July are from Puget Sound stocks, thus converting to MSF would help stabilize Puget Sound fisheries, including Area 7 and allow for additional conservation.

Baker Sockeye Fisheries Fact Sheet

Background: WDFW held two public meetings during 2014-15 to receive input on the management of future Baker Sockeye fisheries. At the meetings, constituents were able to voice their opinions to fisheries managers on how WDFW could best meet the established conservation goals, as well as meeting the needs of anglers through management changes. At the conclusion of the meetings, attendees reached consensus on several key fishery regulations they would recommend to be implemented for future seasons. These recommendations include: season start/end dates, river harvest quotas, and daily limits. The details provided below serve as a starting place for the North of Falcon Baker sockeye discussions. We are still accepting public input on how to proceed with the Baker Sockeye fishing season and you are encouraged to submit any comments you may have, online at: wdfw.wa.gov/fishing/northfalcon/.

1) **2017 Forecast**

The 2017 Baker sockeye preseason forecast is for 47,000 sockeye. After setting aside the necessary fish for broodstock needs, natural spawning, and test fishing, approximately 18,000 harvestable fish remain in the state's half of the total harvestable share.

2) **Season Start/End Dates and Bag Limits**

At the end of the second Baker Sockeye workshop, the meeting attendees agreed upon the following regulations recommendations for Baker sockeye seasons:

Skagit River Fishery

River Share: 20% of state share

Season Dates: June 16 – July 15 or when the river fishery quota is reached

Daily limit: 3 fish

Requests to extend the area of the Skagit River fishery, depending on monitoring costs.

Baker Lake Fishery

Lake Share: 80% of state share

Season Dates: July 10 – Sept. 8

Daily limit: Runsize dependent (30,000 forecast = 3 fish; 40,000 = 4 fish; 50,000 = 5 fish; 60,000 = 6 fish); Ability to update bag limits after run is updated from in-season update (ISU) model.

For a full summary of the notes and presentations from both Baker Sockeye Workshops please go to: wdfw.wa.gov/fishing/salmon/sockeye/baker_river.html.