



# Puget Sound Recreational Discussion – 3/17/2017





# Outline of Presentation

A photograph of a fishing net being pulled up from the water. A large fish is visible inside the net. The background shows a calm lake and distant mountains under a soft, hazy sky, suggesting a sunset or sunrise.

- **Forecast**
- **Modeling**
- **Issues List**
- **Public Comment**

# 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
<b>Dungeness</b>	<b>88</b>	<b>77</b>	<b>0.88</b>
Elwha	175	153	0.87
<b>Nooksack springs</b>	<b>340</b>	<b>225</b>	<b>0.66</b>
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
<b>Lake Washington</b>	<b>1,135</b>	<b>948</b>	<b>0.84</b>
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
<b>Mid Hood Canal</b>	<b>320</b>	<b>326</b>	<b>1.02</b>
<b>Total (others included)</b>	<b>34,158</b>	<b>31,330</b>	<b>0.92</b>

# Puget Sound Chinook Forecast Comparisons

Basin	Hatchery		
	2016	2017	Comparison
Hoko	876	820	0.94
Dungeness	296	256	0.86
Elwha	2,631	3,016	1.15
Nooksack/Samish	27,935	21,225	0.76
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
Nisqually	12,995	22,191	1.71
Hood Canal	42,694	48,305	1.13
<b>Total (others included)</b>	<b>140,550</b>	<b>177,001</b>	<b>1.26</b>

# 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 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
<b>Skagit</b>	<b>8,912</b>	<b>11,160</b>	<b>1.25</b>
<b>Stillaguamish</b>	<b>2,770</b>	<b>7,622</b>	<b>2.75</b>
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
<b>Total (others included)</b>	<b>87,350</b>	<b>289,640</b>	<b>3.32</b>



# 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
<b>Total (others included)</b>	<b>166,589</b>	<b>300,696</b>	<b>1.81</b>



# Coho Mark Rates

Region	Hatchery	Wild	% Hatchery
Strait of Juan de Fuca	15,165	14,689	50%
Nooksack, Samish	45,609	6,291	87%
Skagit, Stillaguamish, Skagit	71,029	126,107	36%
Mid Sound	84,924	15,300	84%
South Sound	17,434	4,932	78%
Hood Canal	70,190	115,577	38%

# 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
<b>Total (others included)</b>	<b>6,778,025</b>	<b>1,150,522</b>	<b>0.17</b>
<b>Fraser</b>			

*2015 Puget Sound Pink*

*forecast: 6.8 mil*

*return: 3.7 mil*

*0.53*

	Alt 1 (Chin0717)				Alt 2 (Chin0817)				Alt 3 (Chin0917)			
Stock	Tot. ER	SUS ER	SUS PT ER	Natural Escape-ment	Tot. ER	SUS ER	SUS PT ER	Natural Escape-ment	Tot. ER	SUS ER	SUS PT ER	Natural Escape-ment
Spring/Early:												
Nooksack (n) - Total	36.9%	<u>12.8%</u>	7.4%	215	36.3%	<u>12.2%</u>	6.7%	217	35.7%	<u>11.6%</u>	6.1%	218
North Fork				168				169				171
South Fork				47				47				47
Skagit (n) - Total	<u>20.1%</u>	12.4%	3.4%	2,514	<u>20.0%</u>	12.2%	3.2%	2,517	<u>19.8%</u>	12.0%	3.1%	2,521
Upper Sauk				1,463				1,465				1,466
Upper Cascade				365				365				365
Suiattle				687				688				689
White	23.2%	<u>18.3%</u>	6.5%	1,495	22.9%	<u>17.9%</u>	6.1%	1,500	22.6%	<u>17.7%</u>	5.8%	1,504
Dungeness	23.7%	<u>7.2%</u>	7.0%	363	23.4%	<u>6.9%</u>	6.7%	364	23.2%	<u>6.7%</u>	6.4%	364
Summer/Fall:												
Skagit - Total	<u>39.8%</u>	15.1%	6.3%	14,289	<u>39.6%</u>	14.9%	6.0%	14,330	<u>39.5%</u>	14.8%	5.9%	14,350
Upper Skagit				10,899				10,930				10,945
Sauk				635				637				637
Lower Skagit				2,387				2,394				2,397
Stillaguamish (n) - Total	22.8%	<u>10.5%</u>	6.5%	227	22.7%	<u>10.4%</u>	6.3%	227	22.6%	<u>10.2%</u>	6.2%	227
North Fork Summer				180				180				180
South Fork Fall				46				46				46
Snohomish (n) - Total	<u>16.8%</u>	7.3%	5.9%	3,285	<u>16.5%</u>	6.9%	5.5%	3,291	<u>16.3%</u>	6.8%	5.4%	3,295
Skykomish				2,671				2,676				2,679
Snoqualmie				614				615				616
Lake Wa. (Cedar R.)	32.9%	<u>21.4%</u>	10.4%	1,068	31.8%	<u>20.2%</u>	9.2%	1,082	31.1%	<u>19.4%</u>	8.3%	1,092
Green	25.5%	13.9%	<u>10.4%</u>	7,586	24.4%	12.7%	<u>9.2%</u>	7,678	23.6%	11.9%	<u>8.3%</u>	7,743
Puyallup	<u>41.2%</u>	29.6%	10.4%	1,422	<u>40.3%</u>	28.7%	9.2%	1,439	<u>39.7%</u>	28.0%	8.3%	1,450
Nisqually	<u>42.1%</u>	34.2%	13.3%	1,510	<u>40.9%</u>	32.9%	11.7%	1,537	<u>40.0%</u>	32.0%	10.5%	1,556
Western Strait-Hoko	25.2%	<u>2.2%</u>	2.2%	1,201	25.0%	<u>2.1%</u>	2.1%	1,202	24.7%	<u>1.7%</u>	1.7%	1,206
Elwha	24.6%	<u>7.7%</u>	7.6%	2,616	24.4%	<u>7.4%</u>	7.3%	2,619	24.1%	<u>7.1%</u>	7.0%	2,621
Mid-Hood Canal tribs. (n)	22.1%	12.6%	<u>12.3%</u>	332	20.7%	11.0%	<u>10.7%</u>	336	19.7%	10.0%	<u>9.7%</u>	339
Skokomish	<u>44.8%</u>	35.3%	12.6%	1,449	<u>43.8%</u>	34.2%	11.1%	1,472	<u>43.1%</u>	33.5%	10.1%	1,487

Stock Impacts by Puget Sound Sport Fisheries for New Chinook FRAM Base Period

Chin0817

Area	Season	Nooksack Earlies	Dungeness Spring	Stillaguamish	Snohomish	LakeWA/ Green/ Puyallup	Nisqually	Mid-HC	Skokomish
Area 5 Sport	May-Sep	Yellow	Yellow	Yellow	Red	Orange	Red	Orange	Orange
Area 5 Sport	Oct-Apr	Yellow	Orange	Yellow	Yellow	Green	Green	Green	Green
Area 6 Sport	May-Sep	Yellow	Yellow	Yellow	Light Green	Red	Yellow	Red	Red
Area 6 Sport	Oct-Apr	Orange	Red	Orange	Yellow	Orange	Green	Orange	Yellow
Area 7 Sport	May-Sep	Red	Yellow	Red	Red	Red	Red	Red	Red
Area 7 Sport	Oct-Apr	Orange	Yellow	Orange	Red	Orange	Yellow	Orange	Orange
Area 8-1 Spt	May-Sep	Green	Green	Green	Green	Green	Green	Green	Green
Area 8-1 Spt	Oct-Apr	Yellow	Yellow	Orange	Orange	Orange	Orange	Yellow	Yellow
Area 9 Sport	May-Sep	Yellow	Yellow	Orange	Orange	Orange	Red	Orange	Orange
Area 9 Sport	Oct-Apr	Yellow	Yellow	Orange	Yellow	Orange	Yellow	Yellow	Yellow
Area 10 Sport	May-Sep	Green	Green	Yellow	Orange	Red	Orange	Light Green	Light Green
Area 10 Sport	Oct-Apr	Green	Green	Light Green	Yellow	Yellow	Light Green	Yellow	Yellow
Area 11 Sport	May-Sep	Orange	Yellow	Yellow	Yellow	Orange	Red	Yellow	Yellow
Area 11 Sport	Oct-Apr	Green	Yellow	Yellow	Light Green	Light Green	Orange	Green	Green
Area 12 Sport	May-Sep	Green	Green	Green	Green	Green	Green	Green	Orange
Area 12 Sport	Oct-Apr	Green	Green	Light Green	Light Green	Light Green	Light Green	Yellow	Orange
Area 13 Sport	May-Sep	Green	Green	Green	Green	Green	Yellow	Light Green	Light Green
Area 13 Sport	Oct-Apr	Green	Green	Green	Green	Green	Light Green	Light Green	Light Green

<b>Total PS Sport ER</b>	3.5%	4.1%	4.1%	3.5%	3.2%	3.8%	3.0%	3.4%
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	SUS	SUS	SUS	SUS	SUS	Total	PT-SUS	Total
<b>Management Objective</b>	10%	6%	15%	15%	20%	47%	12%	50%
<b>Current ER</b>	12.2%	6.9%	10.4%	6.9%	20.2%	40.9%	10.7%	43.8%

# 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 fisherman wearing a white cap and a blue jacket is leaning over the side of a boat, casting a lure into the water. The water is a deep blue-green color. The fisherman's hands are visible as he holds the fishing rod.

# 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**

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

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

# 2016-17 Winter Chinook Fishery Encounters

(updated March 12, 2017)

Marine Area	Preseason Guideline	Preliminary Estimate	% of Guideline
6	3,975	3,421	86%
7	10,248	8,385	82%
8-1/8-2	6,125	2,920	48%
9	6,081	5,342	88%
10	2,597	2,761	106%
<b>Total</b>	<b>29,026</b>	<b>22,828</b>	<b>79%</b>

[http://wdfw.wa.gov/fishing/reports\\_plants.html](http://wdfw.wa.gov/fishing/reports_plants.html)

### 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 Salmon Season Setting

## NORTH of FALCON



### 2017 Puget Sound Salmon Forecasts: Sockeye, Chum and Pink

#### Sockeye

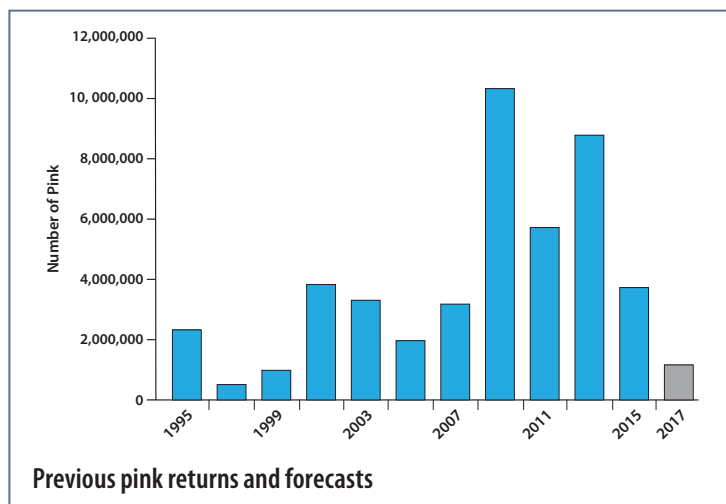
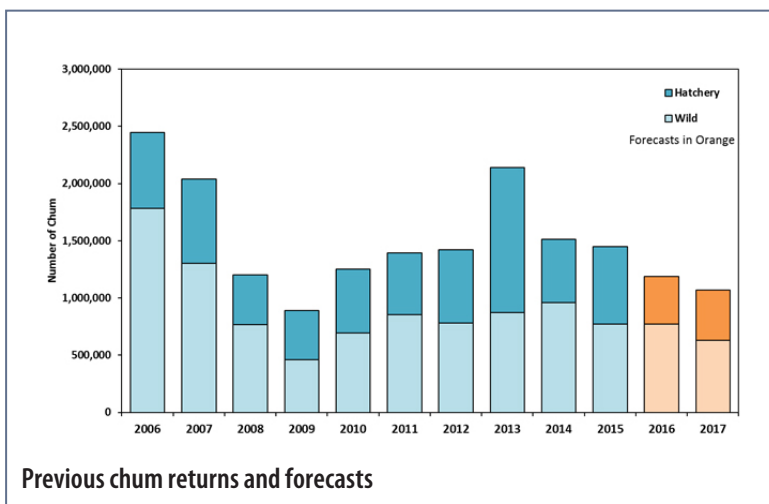
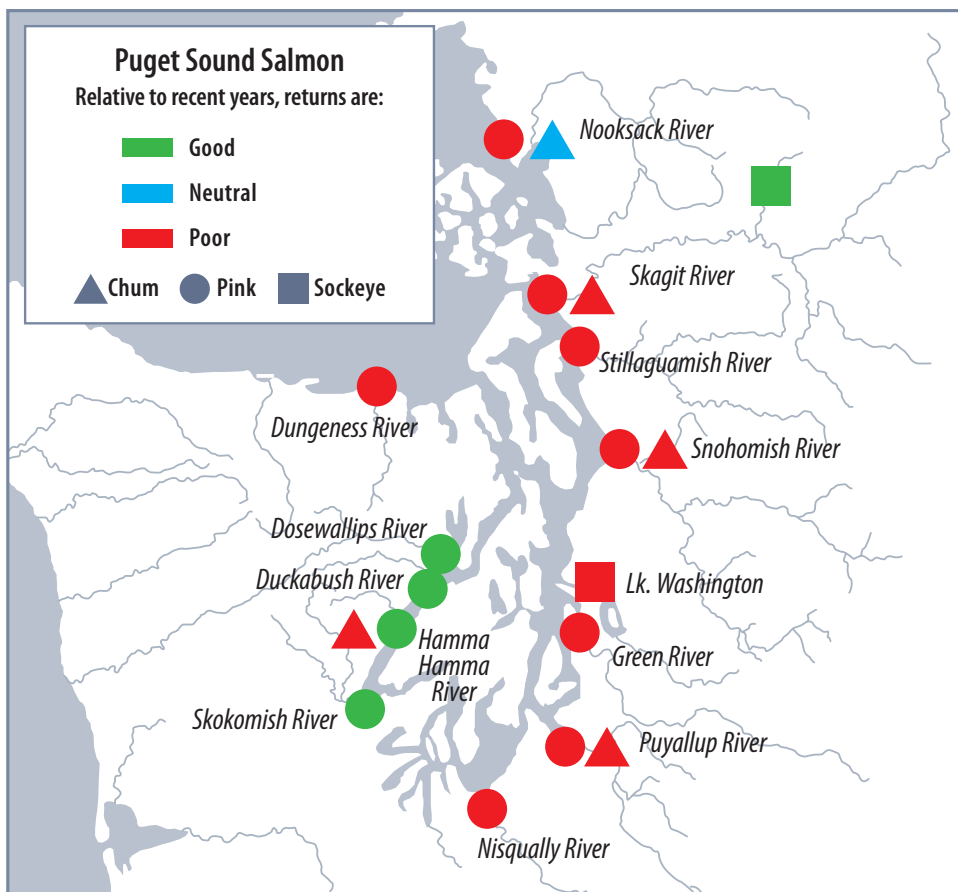
- The forecast for Baker Lake sockeye is 47,000 fish, which is about 25 percent above the recent five year average.
- A fishery is unlikely in Lake Washington, where only 77,300 sockeye are expected to return this year, continuing about a decade of poor returns.

#### Chum

- The overall forecast for Puget Sound wild chum is down 32 percent from the recent 10 year average and the hatchery chum forecast is down 33 percent.
- The major areas that support fisheries are Hood Canal and South Sound. The Hood Canal forecast is about 493,000 and the forecast for South Sound is 433,000. Both are down about 30 percent from the 10 year average.
- Several rivers, including the Skagit, Stillaguamish, and Snohomish, are expected to have very low returns of chum, similar to the last several years.

#### Pink

- The total forecast for Puget Sound pink salmon is 1.15 million, which is 82 percent lower than the previous 10-year period.
- Some rivers, such as the Skagit, Stillaguamish and Dungeness, are not forecast to meet escapement goals.
- The low number of pink salmon returning is likely due to poor conditions in Puget Sound rivers in 2015 and marine areas in 2016.



# 2017 Salmon Season Setting

## NORTH of FALCON



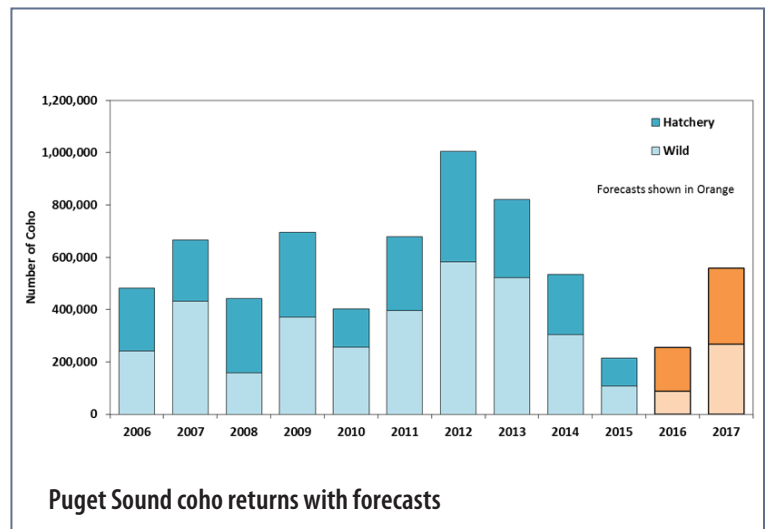
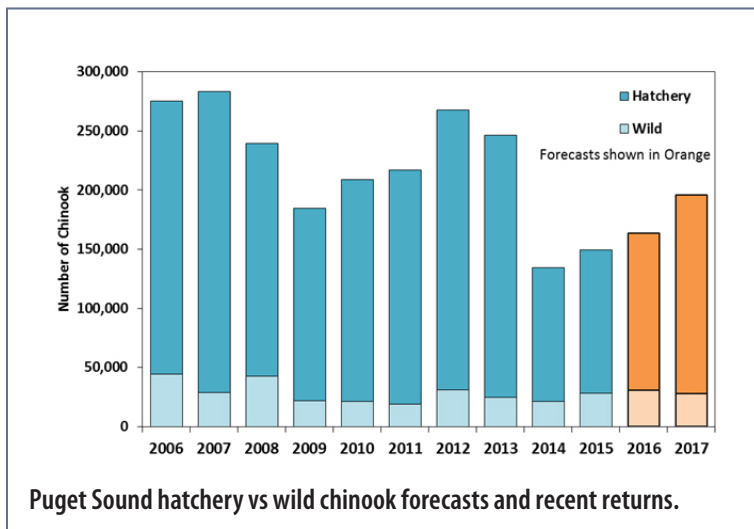
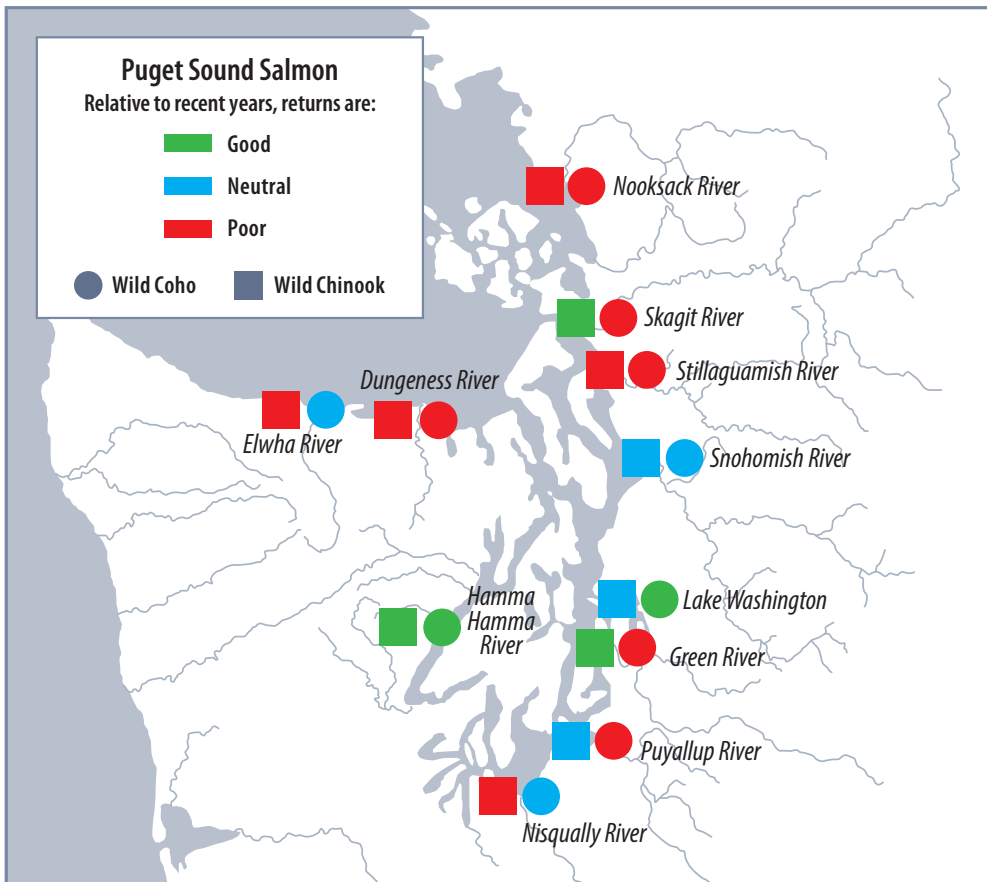
### 2017 Puget Sound Salmon Forecasts: Coho and Chinook

#### Chinook

- The forecast of 166,235 hatchery chinook is up 27 percent from the 2016 forecast and is very close to the recent five-year average.
- The return of wild chinook is expected to be 27,918, which is down 10 percent from the 2016 forecast. Returns of wild chinook will constrain fisheries – including those targeting hatchery fish – in some areas.

#### Coho

- Puget Sound wild coho are up considerably over 2016, when wild coho were forecast to return in historically low numbers. This year's return is similar to the 10-year average.
- Skagit and Stillaguamish coho are expected to return in very low numbers, which will mean fishing will be limited in those areas.
- The forecast for Puget Sound hatchery coho is up 73 percent over last year.





<b>A. SEASON ALTERNATIVE DESCRIPTIONS</b>		
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><b>Queets Rivers to Leadbetter Point</b></p> <ul style="list-style-type: none"> <li>June 17 through earlier of June 30 or a coastwide marked Chinook quota of 7,500 (C.5).</li> </ul> <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><b>Queets Rivers to Leadbetter Point</b></p>	<p><b>Queets Rivers to Leadbetter Point</b></p>

<b>A. SEASON ALTERNATIVE DESCRIPTIONS</b>		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>Leadbetter Point to Cape Falcon</b></p> <ul style="list-style-type: none"> <li>June 17 through earlier of June 30 or a coastwide marked Chinook quota of 7,500 (C.5).</li> </ul> <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><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 30 or 6,120 marked coho subarea quota with a subarea guideline of 8,800 Chinook (C.5).</li> </ul> <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><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 30 or 5,240 marked coho subarea quota with a subarea guideline of 7,900 Chinook (C.5).</li> </ul> <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><b>U.S./Canada Border to Cape Alava (Neah Bay)</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 10 or a subarea guideline of 7,100 Chinook (C.5).</li> </ul> <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><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 30 or 1,530 marked coho subarea quota with a subarea guideline of 2,700 Chinook (C.5).</li> <li>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.</li> </ul> <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><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 30 or 1,310 marked coho subarea quota with a subarea guideline of 2,500 Chinook (C.5).</li> </ul> <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><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 10 or a subarea guideline of 2,100 Chinook (C.5).</li> <li>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.</li> </ul> <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>

<b>A. SEASON ALTERNATIVE DESCRIPTIONS</b>		
ALTERNATIVE I	ALTERNATIVE II	ALTERNATIVE III
<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 30 or 21,750 marked coho subarea quota with a subarea guideline of 21,900 Chinook (C.5).</li> </ul> <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><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 17 or 18,650 marked coho subarea quota with a subarea guideline of 21,400 Chinook (C.5).</li> </ul> <p>Same as Alternative 1.</p>	<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>July 2 through earlier of September 7 or a subarea guideline of 19,000 Chinook (C.5).</li> </ul> <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><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 30 or 29,400 marked coho subarea quota with a subarea guideline of 13,500 Chinook (C.5).</li> </ul> <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><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>June 24 through earlier of September 30 or 25,200 marked coho subarea quota with a subarea guideline of 13,200 Chinook (C.5).</li> </ul> <p>Same as Alternative 1.</p>	<p><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>July 1 through earlier of September 16 or 18,900 marked coho subarea quota with a subarea guideline of 11,700 Chinook (C.5).</li> </ul> <p>Same as Alternative 1.</p>

## 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/](http://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](http://wdfw.wa.gov/fishing/salmon/sockeye/baker_river.html).

## **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.

# 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.