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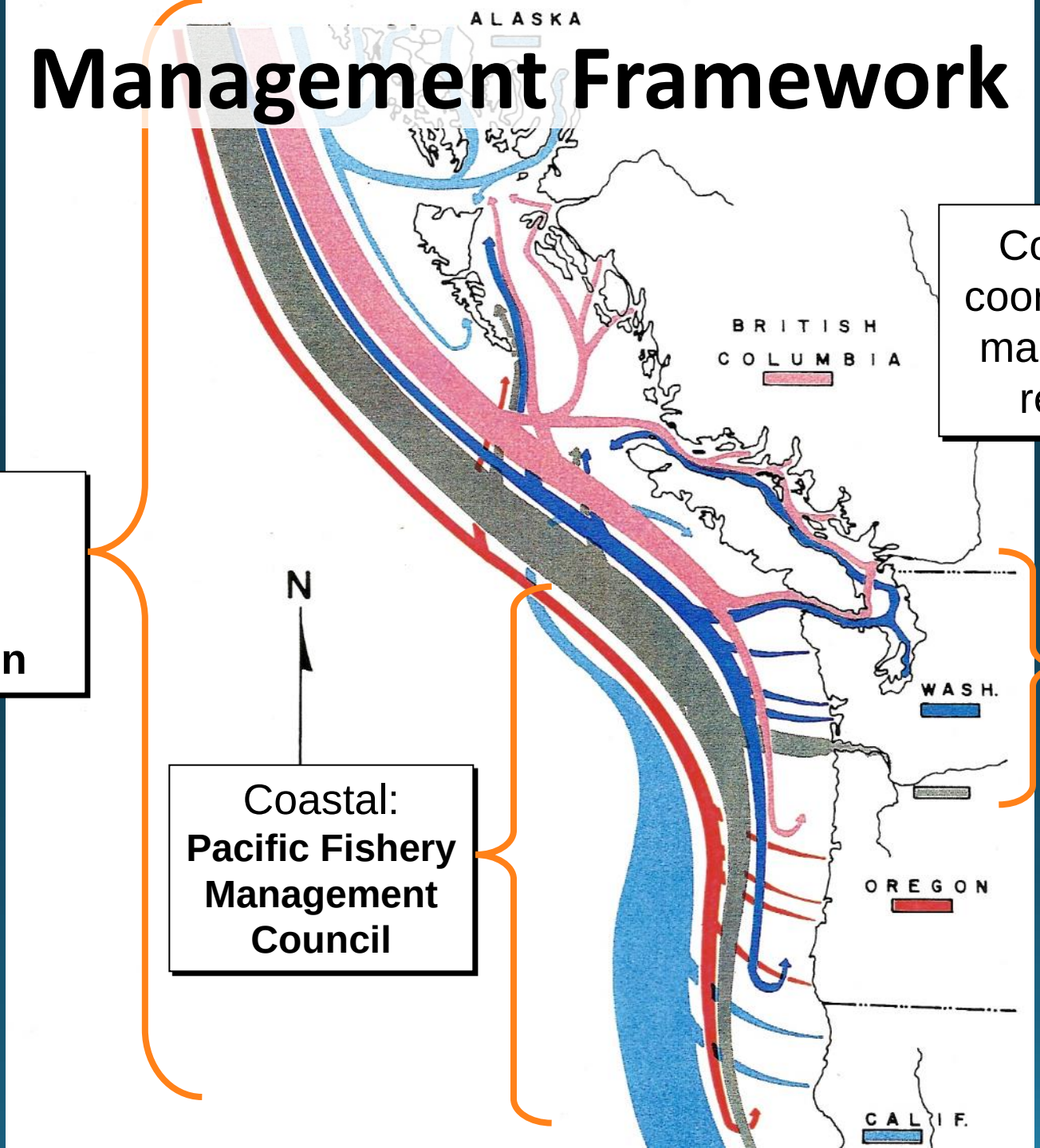
Puget Sound Salmon Fishery Management

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Outline of Presentation

- Salmon Management Framework
- North of Falcon
- Wild Future: How you can get involved
- Your Questions

Management Framework



Coast wide coordination of management required.

Coast wide: **Pacific Salmon Commission**

Coastal: **Pacific Fishery Management Council**

Inside: **WDFW, ODFW, Tribes**

Management Framework

Constraints to Management

- Treaties/Boldt Decision
- Endangered Species Act (ESA)
- U.S./Canada Pacific Salmon Treaty
- Forecasted Run Size and Escapement Goals

North of Falcon (NOF) Policy
Fish & Wildlife Commission

Department staff will insure that management decisions are consistent with:

- Statutory Authority
- *U.S. v. Washington*
- *U.S. v. Oregon*
- Endangered Species Act
- Puget Sound Chinook Harvest Management Plan
- Pacific Salmon Treaty
- PFMC's Framework Salmon Management Plan
- State/Tribal agreements
- Fish and Wildlife Commission Policies

NOF Policy: Fishery Management

- Fisheries will be provided when they can be directed at healthy wild and hatchery stocks.
- Will utilize selective methods and gears to maximize fishing opportunity and minimize impacts on depressed stocks to the fullest extent possible.
- From a statewide perspective, will not be exclusively reserved for either sport or commercial users.

Co-management

- Includes joint state/tribal participation in determining:
  - Escapement goals
  - Sharing technical information/data/models
  - Preparing management regulations
  - Establishing a dispute resolution process
  - Equal responsibility assigned to each party

Model fisheries

Fisheries Regulation Assessment Model (FRAM)

- Inputs
  - Forecasts
  - Harvest – predict catch and encounters based on seasons proposed
- Predicts our exploitation rate (or harvest rate) on stocks
  - Compare with allowable rates under the ESA.

Co-management

Chinook & Coho Management Plans

- Exploitation rate (total mortality on the run)
- Upper management thresholds (spawning goals)

Pink, chum, sockeye

- Most based on spawning goals

Endangered Species Act

- ESA-listed species
  - PS Chinook listed at "threatened" in 1999
  - PS Steelhead listed as "threatened" in 2007
  - Southern resident Orcas listed as "threatened" in 2008
  - PS canary and yelloweye rockfish listed as "threatened" in 2010
  - PS bocaccio rockfish listed as "endangered" in 2010
- NOAA fisheries must approve state and tribal salmon fisheries – ESA permit for "take" coverage.
  - "Take" includes direct and indirect (releases) impacts.
- Salmon fisheries must not pose "jeopardy" for other listed species

North of Falcon Process

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

2016 North of Falcon review

Why such difficult negotiations?

- Very low coho forecasts (down 60% from recent 10-yr avg.)
- Average Chinook forecasts (down 31% vs. recent 10-yr avg.)
- Differences in cultural fishing values for State vs. Tribes (e.g., tribes oppose catch-and-release fishing).
- Frustrated recreational angling community.

2016 North of Falcon review

Why such difficult negotiations?

- By end of PFMC/NOF meetings (mid-April 2016), no-agreement reached with the co-managers on fishing package.
- Due to co-manager delays, no permit for ESA coverage starting May 1.
- Finally, agreement reached on May 26th that met conservation objectives. NOAA permit received 1 month later.
- Co-manager intent to improve the process in the future – work group established and series of meetings occurring in 2016-17.

Contributing environmental variables

'Warm Blob', El Nino, and other factors

Warm water (Blob & El Niño) impacts

- High seawater temperatures ➔ altered copepod composition

- In warm years - Dominant copepod species are less lipid (fat) rich
  = less productive food web for salmon

Healthy →

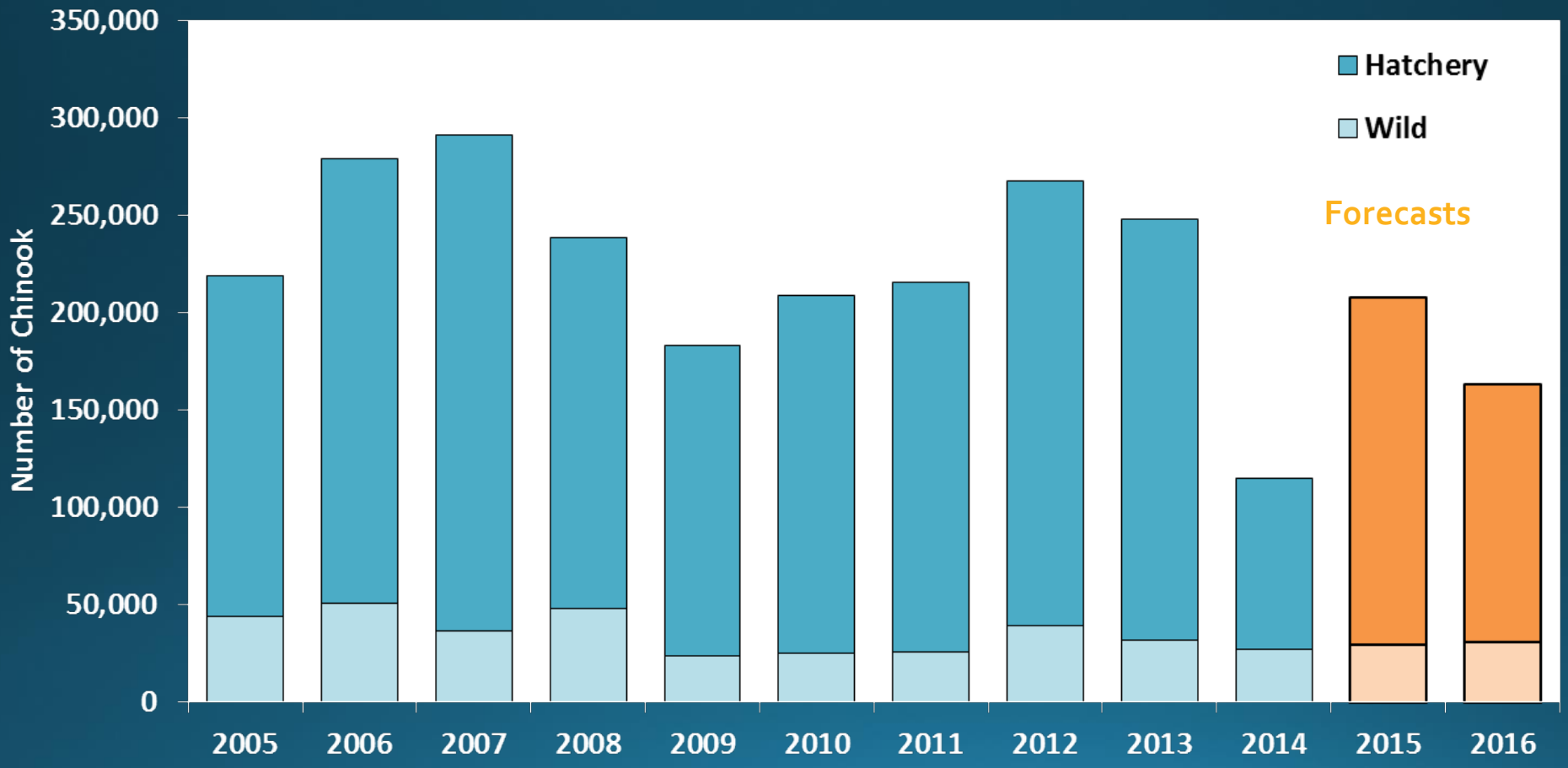
Skinny →

2015 Drought impacts

- Low mountain snowpack
- Reduced river/stream flows
- Warm temperatures
- Low Dissolved Oxygen
- Pre-spawn mortality
- Example: Columbia R. sockeye in 2015, > 200k fish died en route to spawning grounds

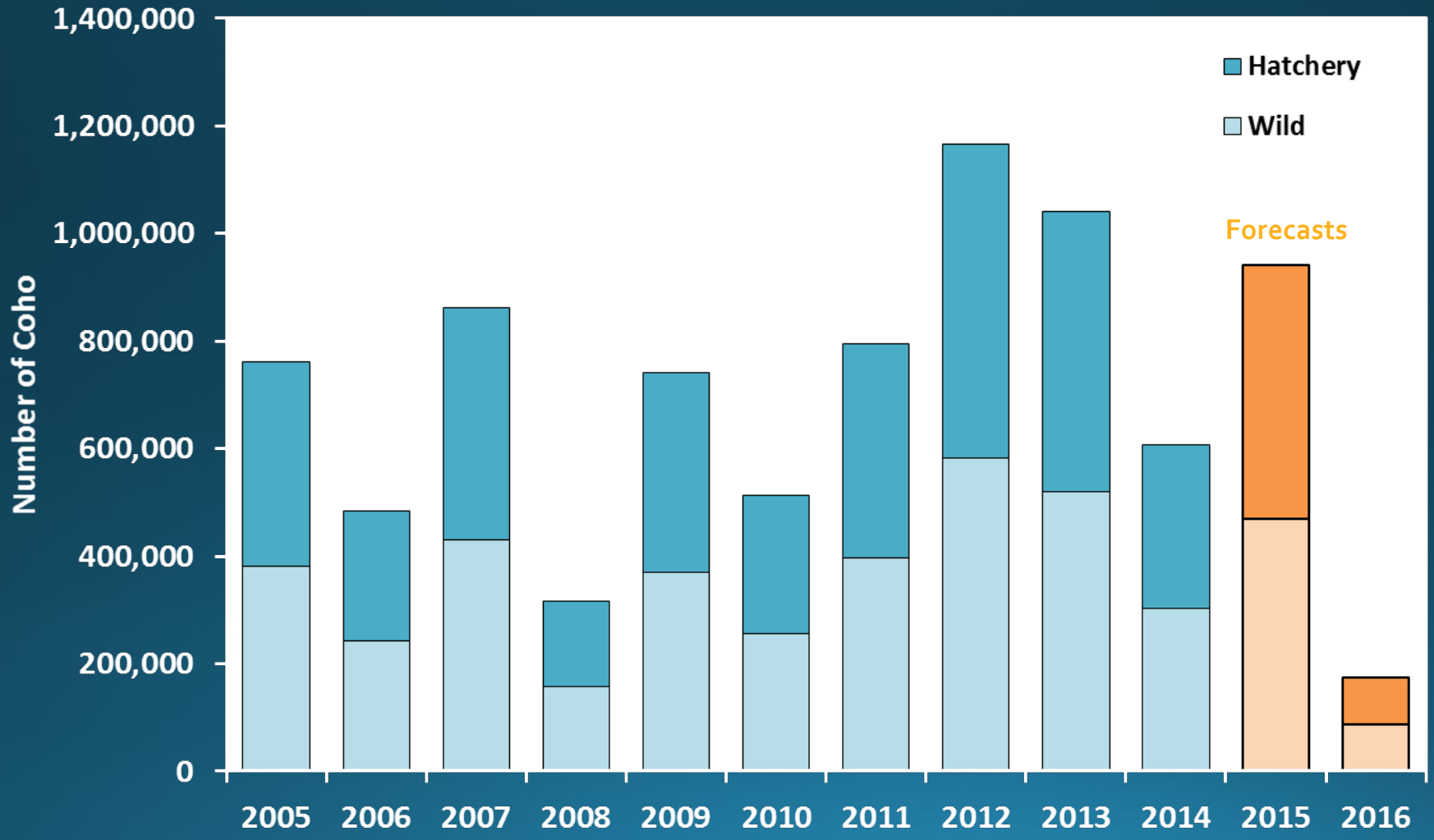
Puget Sound Chinook Forecasts

Puget Sound hatchery Chinook forecast ⬇31% from recent 10 year avg
(⬇ 26% from 2015 forecast)



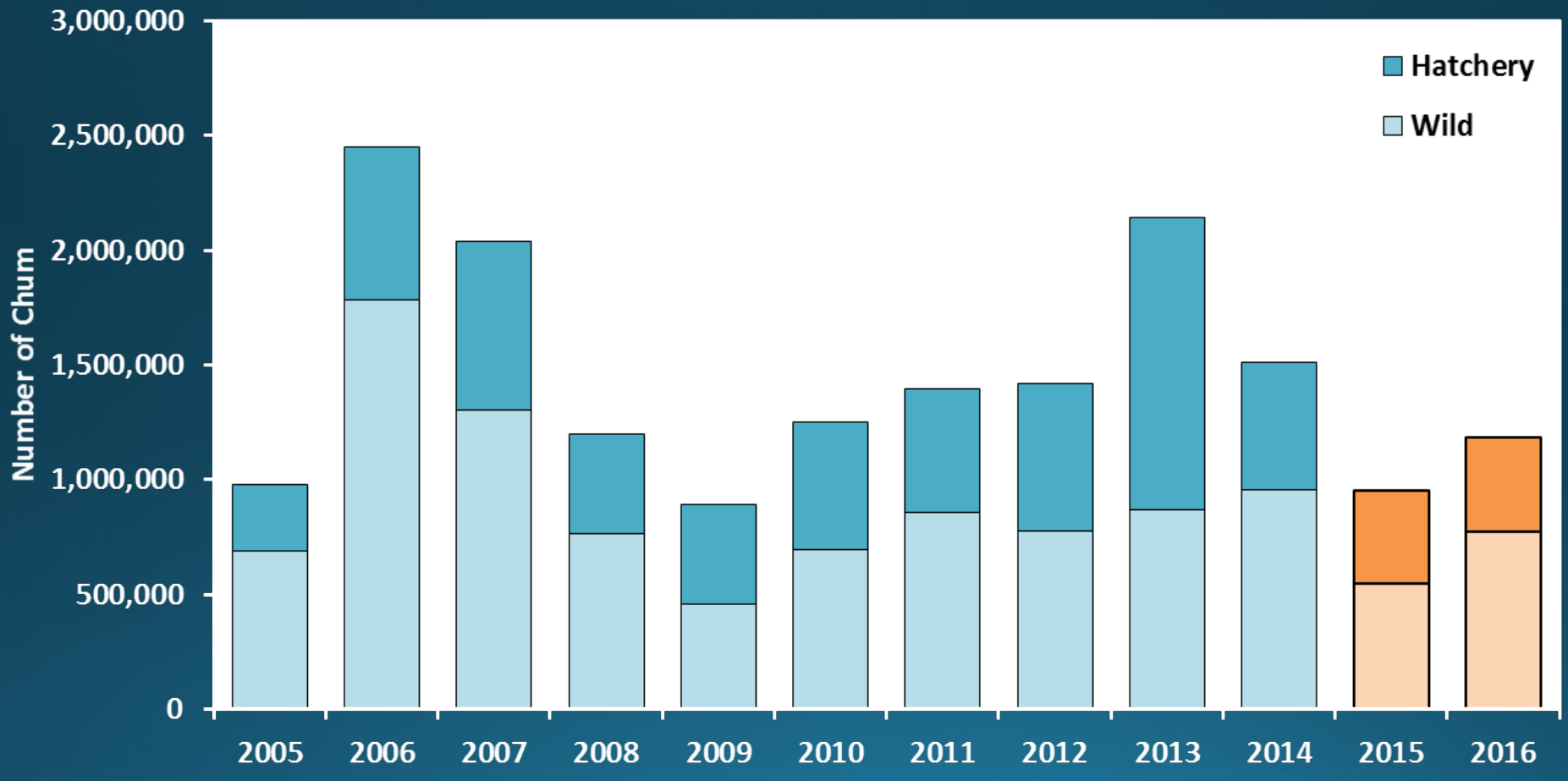
Puget Sound Coho Forecasts

Aggregate Puget Sound Coho forecast ⬇ 60% from recent 10 year avg.
(⬇ 71% compared to 2015 forecast)



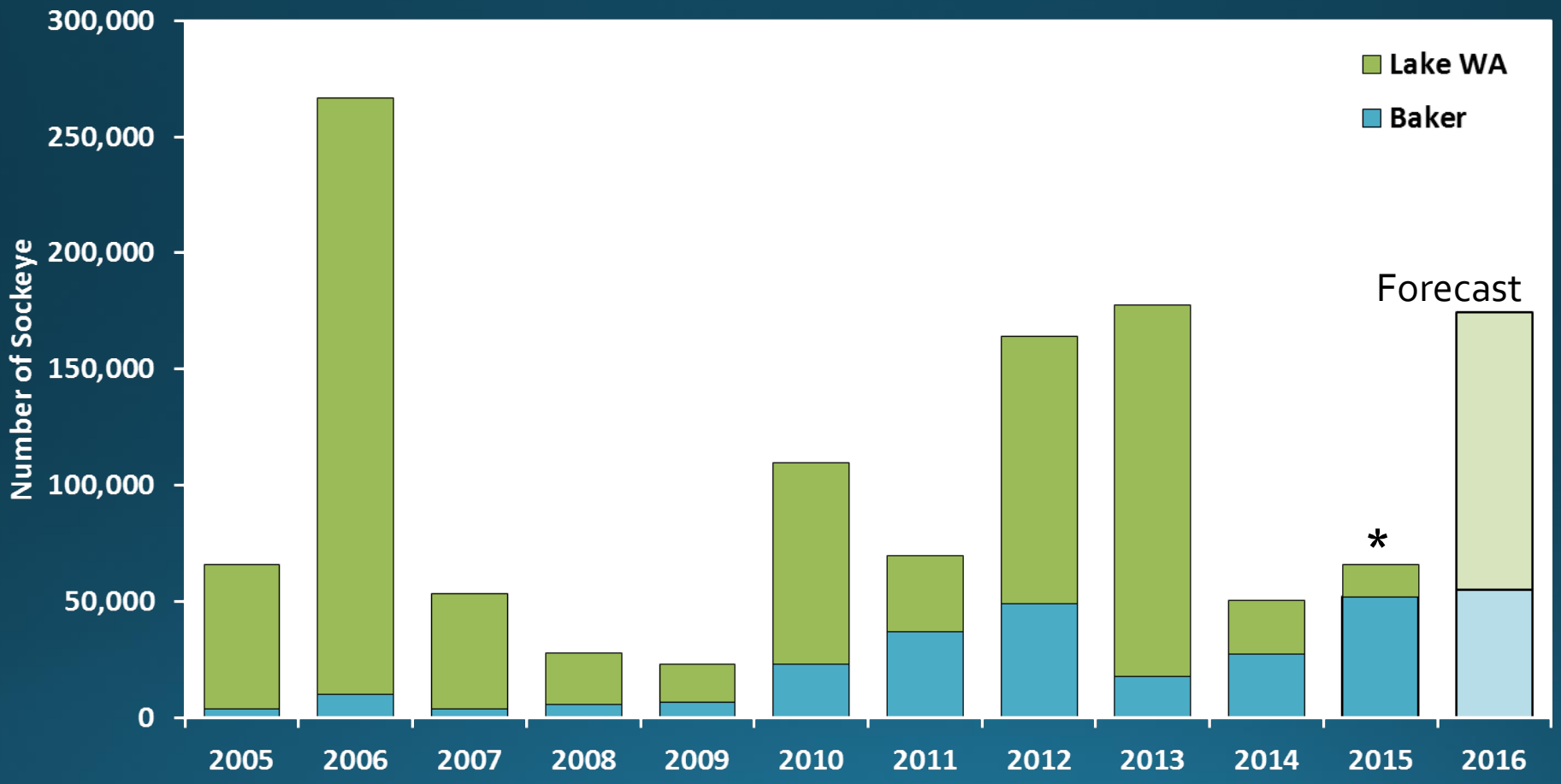
Puget Sound Chum Forecasts

Hatchery ⬇ 32% and Wild ⬇ 16% over recent 10 year avg.



Puget Sound Sockeye Forecasts

Lake WA ⬆ 53% and Baker ⬆ 137% over recent 10 year avg.



*Preliminary Return

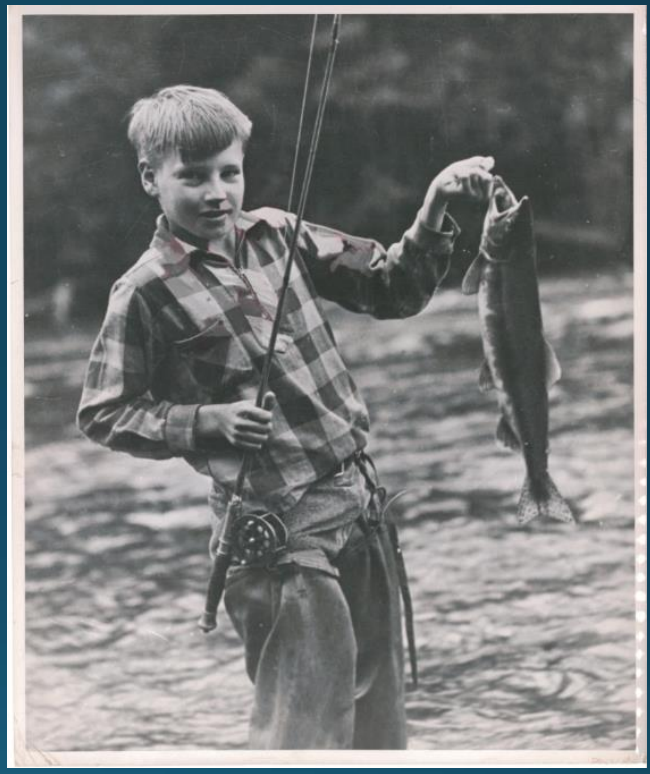
In-season Management Example: Puget Sound Coho

- Preseason, State and Tribal co-managers agreed to close most Puget Sound marine and freshwater fisheries during the peak coho migration periods.
- The main exceptions were Bellingham Bay/Nooksack River and Hood Canal, where forecast numbers were strong enough to plan state and tribal fisheries.

In-season Management Example: Puget Sound Coho

- Starting in early September, state and tribal co-managers assessed coho runs throughout Puget Sound, held conference calls.
- WDFW announced openings in several areas -- where we determined coho were returning in sufficient numbers to support recreational and tribal fisheries.
- In-season announced fisheries included:
  - Lake Washington and the Green River
  - Skagit and Cascade rivers
  - Snohomish River (including portions of the Skykomish and Wallace rivers)
  - Marine Area 13
  - Puyallup River

Elements of successful fishery management



- Co-managers agree on forecasts and conservation objectives
- Best available data, models used
- Stakeholders are provided meaningful participation in process
- Fisheries are conducted in accordance with the pre-season plan;
    - In-season management criteria established pre-season.
- Post-season annual assessments

How to get more involved:

- Understand the current and past salmon management issues and process – *wdfw.wa.gov/fishing/northfalcon/*
- Attend a North of Falcon public meeting (late Feb-April)
  - 15-20 meetings statewide
  - 3-5 meetings in Olympia
- Provide comments online at the NOF website
- Reach out to experienced NOF participants, including the Puget Sound Sport Fishing Advisory Board
- Be patient

2016-17 Puget Sound Sportfish Advisory Board

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Washington's Wild Future – *wdfw.wa.gov/wildfuture*