



## Cherry Point Aquatic Reserve Implementation Committee Meeting Summary

Prepared by Jamie Kilgo

**Tuesday, November 7<sup>th</sup>, 2017, 1:00 p.m. – 3:30 p.m.**

Department of Ecology Bellingham Field Office | 1440 10th St. Suite 102, Bellingham

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**Participants:** Elizabeth Kilanowski, Bert Rubash (*Whatcom County MRC*); Marie Hitchman, Kim Clarkin, Lyle Anderson, Rick Hann (*Cherry Point Citizen Stewardship Committee*); Austin Rose (*Whatcom County*); Sandy McMullen (*Birch Bay Water & Sewer District*); Eleanor Hines, Natalie Lord (*REsources*); Michael Kyte (*Independent Biologist*); Andrew Gamble, Travis Linds (*Petrogas*); Brian Kirk (*Dept. of Ecology*); Evelyn Brown (*Lummi Natural Resources*); Brendan Brokes, Todd Sandell (*Washington Department of Fish & Wildlife*); Becca Hardie, Lesli Higginson (*BP Cherry Point Refinery*); Kyle Loring (*Friends of the San Juans*); Birdie Davenport, Dennis Clark, Joelene Boyd, Erica Bleke, Betty Bookheim & Jamie Kilgo (*Department of Natural Resources*)

**1:00 p.m.**

Welcome & Introductions, Meeting Agenda & Outcomes

**1:15 p.m.**

Cherry Point Herring Research Report

*Todd Sandell, Washington Department Fish and Wildlife*

### 2017 Herring Biomass Summary

- 9,466 metric tons herring spawn across southern Salish Sea
  - 2017 was the 4<sup>th</sup> lowest year on record
  - Overall decline was driven by declines in the Semiahmoo and Quilcene Bay
  - Herring spawn biomass is highly variable
- Survey effort was up ~21% in 2017 vs. 2016
  - Did not find new spawning areas

### 2017 Cherry Point Herring Summary

- Cherry Point stock declined from 516 to 372 metric tons (new low)
  - 2017 survey effort at Cherry Point was reduced due to high winds
  - All spawn was located north of Birch Bay
- Lots of variability over the years, spawning does seem to be moving later in the year
- Work by WDFW Toxicology (TBIOS) implies Cherry Point herring residency in Strait of Georgia
- New data from USGS/NOAA (unpublished) suggests larval abnormalities are not common in recent years, which is good news.
- Predation work by Tessa Francis and Megsie Siple (paper in the works) suggests that predator-driven egg mortality is high across most spawning sites, with the biggest impact at Cherry Point because the compressed nature of the stock makes it particularly susceptible to predation

## DNR-funded Cherry Point Aquatic Reserve gill net study

### Methods

- 100 ft. variable mesh gill net panels
- Collect information on timing, sex ratios, maturity stage, gonad weight, age structure, genetic samples
- Goal was 100 herring per day, 6-8 sample days per year
- A few non-spawners from Elliot Bay stock were caught
- Draft report will be available before the end of 2017

### Timing

- First sample day in 2016 (4/18/16), caught 144 fish and speculated that an earlier spawning event was may have been missed. Oldest fish usually spawn earlier in the season, so went out earlier this year, started on (4/10/17) and most likely caught the first push of spawners.

### Historical Age Structure of Cherry Point Herring

- In 2000, oldest fish caught was 4 years old
- In 2016-2017, very good age structure, with herring from 2-8 years old and most 4-5 years old. Important to repeat age structure research every few years.

### Data Gaps for Cherry Point Herring

- Age class (stock structure) – repeat at intervals
- Residency/Migration: Toxics/ Genetics/Tagging
- Egg survival
- Larval dispersion and survival
- Spawn survey coverage in BC Strait of Georgia – apply for DFO permit to monitor
- Explore theory of Salish Sea herring stocks slowing moving northward for spawning

### Future Projects

- Genetics SeaGrant award with Lorenz Hauser, UW
  - Detect Cherry Point herring elsewhere in Puget Sound – (fish fin clips from 2016 WDFW mid-water trawl surveys).
  - Do Strait of Georgia herring include Cherry Point stock (use mid-water trawl genetics)?
  - Detect Cherry Point herring in Canadian Strait of Georgia research catch?
  - May be able to differentiate additional Puget Sound herring stocks
- Sample Canadian waters in 2018
- Sample Fraser River Estuary
- Larval fish surveys
- Link to Todd Sandell presentation:  
[https://www.dnr.wa.gov/sites/default/files/publications/aqr\\_resv\\_cp\\_herring\\_update\\_201711.pdf](https://www.dnr.wa.gov/sites/default/files/publications/aqr_resv_cp_herring_update_201711.pdf)

**1:50 p.m.**

## Aquatic Reserve Program Reports

*Birdie Davenport, Washington Department of Natural Resources*

- The Aquatic Reserve Program Puget SoundCorps (PSC) team has some budget issues since the capital budget did not pass; they are currently using re-appropriated money for the last capital budget. We are down one member and now have five team members and a team supervisor.
- This affects our overall ability to support work because we need to save money to support the PSC. However, supporting Cherry Point research is a top priority for available funds.
- The National Estuary Program (NEP) grant that supports Aquatic Reserve Citizen Stewardship Committees is extended through June 2017. We have been invited to submit a full grant application for the NOAA marine debris prevention grant. We are seeking other sources of funding and grant opportunities.

**2:15 p.m.**

## Vessel Traffic Assessment Update

*Brian Kirk, Washington Department of Ecology*

### Wa. Dept. of Ecology Spill Program

Mission:

- Protect Washington’s environment, public health and safety through a comprehensive spill prevention, preparedness, and response program

Vision:

- Prevent, prepare for, and respond aggressively to oil spills
- Be our best for the state of Washington
- Our spills goal is “zero spills.”  
\*Prevention is the focus

## 2015 Vessel Traffic Risk Assessment (VTRA)

Background

- Sponsor: Ecology
- Principle Investigators: George Washington University, Virginia Commonwealth University
- Purpose: Provide updated information about the risks of oil spills from commercial vessel traffic in the Salish Sea
- The third study of this type with same methodology
- Workgroup represented a wide variety of interests, which facilitated a rich and robust discussion around each issue.

VTRA Process

- Updated the model with 2015 vessel traffic data
  - Almost every ship has a transponder, this is the data used
- Define and model “what-if” cases to reflect marine terminal projects that could become operational by 2015
- Define and model risk reduction measures to provide information about their potential to reduce accidents and oils spill risk

Key Risk Reduction Measures Modelled

- Improvements to international and federal standards that are in the process of being implemented
- Rescue tug(s) for Haro Strait and Boundary Pass
- Tug escort for articulated tug barges (ATBs) and towed oil barges in Puget Sound

- Removal of the current size restriction (125,000 deadweight tons) on oil tankers in Puget Sound
- Escort of outbound tankers from Kinder Morgan's Westridge Marine Terminal to the Pacific Ocean

#### Model Results

- Oil spills from commercial vessels are "low probability/ high consequence events"
- 98% of accidents did not result in oil loss for both the base case and the 1600 vessel what-if cases
- For the 1,600 vessel what-if case, the largest increases in potential oil loss and potential accident frequency were at the entrance to the Strait of Juan de Fuca and in the Haro Strait/Boundary Pass waterway zone
- Not much change in oil spill risk at Cherry Point Aquatic Reserve
- Removing the 125,000-deadweight ton restriction on oil tankers increased potential oil loss. The restriction is working to minimize oil spill potential.
- Tug escorts for articulated tug barges reduced potential accidents by 15% and potential oil loss by 3% compared to the 1,600 vessel what-if case

Full Report is available here:

<http://www.ecy.wa.gov/programs/spills/prevention/RiskAssessment.html>

**3:00 p.m.**

### DNR Land Management Update

*Joelene Boyd and Dennis Clark, Washington Department of Natural Resources*

Activities since June 2017:

- Compliance site visit to Petrogas pier and dock (7.10.2017)
  - Petrogas and Intalco both use the pier
  - Maintenance and repairs includes replacing steel what on north fender and rubber elements on the fenders
  - Replace solid wood surface on walkways with grating that has 60% light penetration
  - Pilings have been repaired by placing grout around them
  - From February 2016 – January 2017, 27 vessel calls (typically 2-3 vessels per month), lease allows 48 vessels
- Birch Bay Buoy Removals – 2017 activities
  - May 3<sup>rd</sup>: sent general letter
  - May 30<sup>th</sup>: tagged 12 buoys for removal
  - July 24<sup>th</sup>: removed 10 buoys and anchors (only one vessel was still there)
  - Sept 5<sup>th</sup>: follow-up site visit (more vessels were there and more follow up letters were sent)
  - Sept-Oct: notified owners of unauthorized use and occupancy, will start charging for unauthorized use of State-Owned Aquatic Lands if vessels are not moved
  - Note: there are private tidelands located just south of the Birch Bay boat ramp
- Phillips 66 booming vessel moorage
  - A booming vessel has been anchoring out of their leasehold where they are able to respond quickly. There is no near-term environmental concerns (drop anchor in 90 ft of water where there is no aquatic vegetation, long-term we need to talk about how to balance operational needs and environmental needs.

Q: How do you find out how many vessels are coming in?

A: Lessees report numbers, and that can be double-checked with Coast Guard.

Whale carcasses sometimes need to be disposed of and one location carcasses may be placed is between Gulf Road and Petrogas. Generally, whales are placed on beach for necropsies, to let scavengers feed on the carcass, and then they are deposited in deep water.

**3:10 p.m.**

### Partner Updates

- Citizen Stewardship Committee
  - The Cherry Point Science Forum was well attended (40-60 people) with great presentations. Videos of the presentations will be available on REsources website and [aquaticreserves.org](http://aquaticreserves.org)
  - Hosted a successful beach cleanup and may adopt Gulf Road so that the county will come and collect trash
  - Meetings are held the first Wednesday of the month, 4-6 pm at REsources

**3:30 p.m.** Adjourn