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West
Coast
Region

Lynne Barre

Southern Resident Killer Whale Recovery

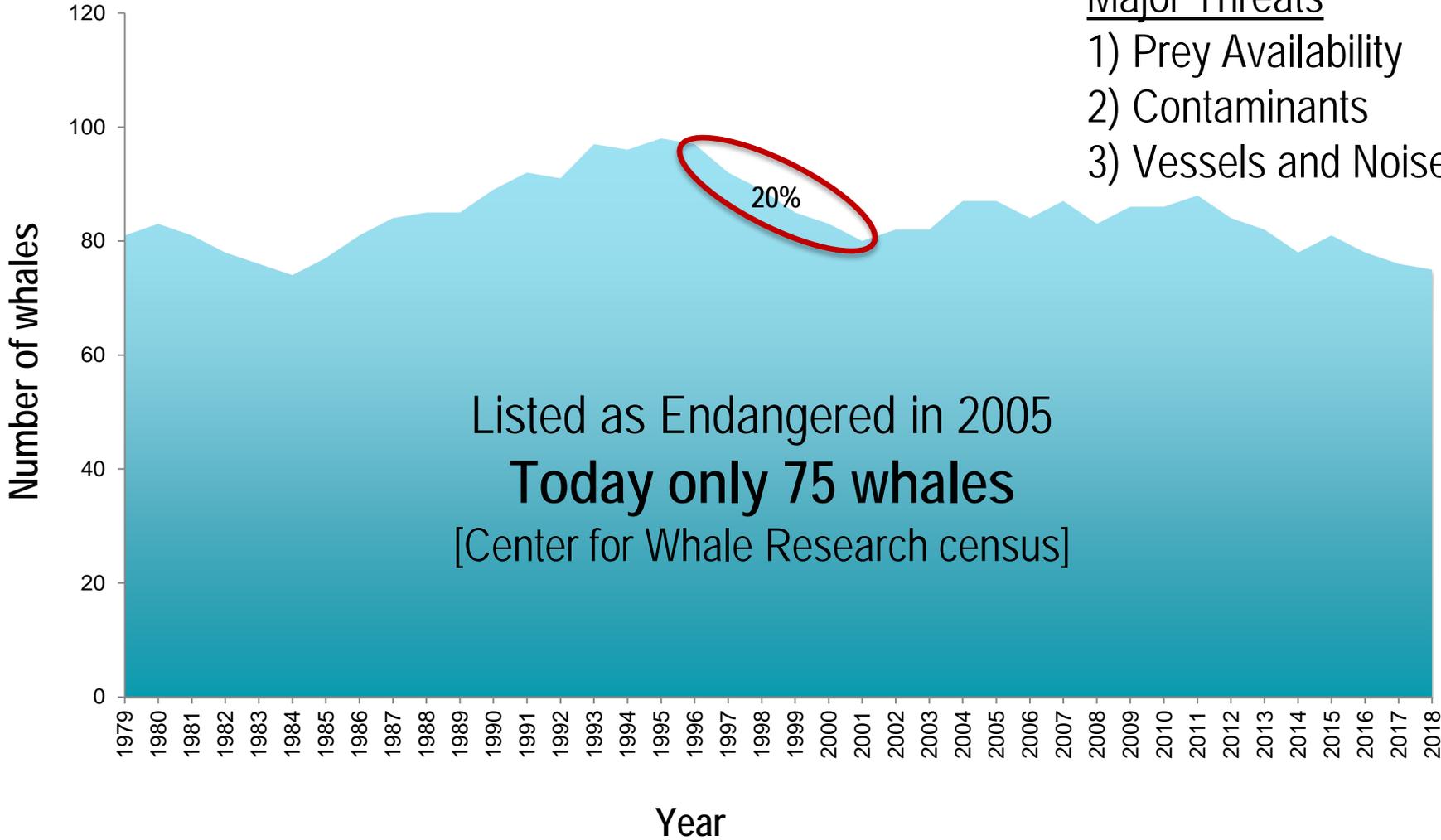
Emerging and Ongoing Actions



Southern Resident killer whales today

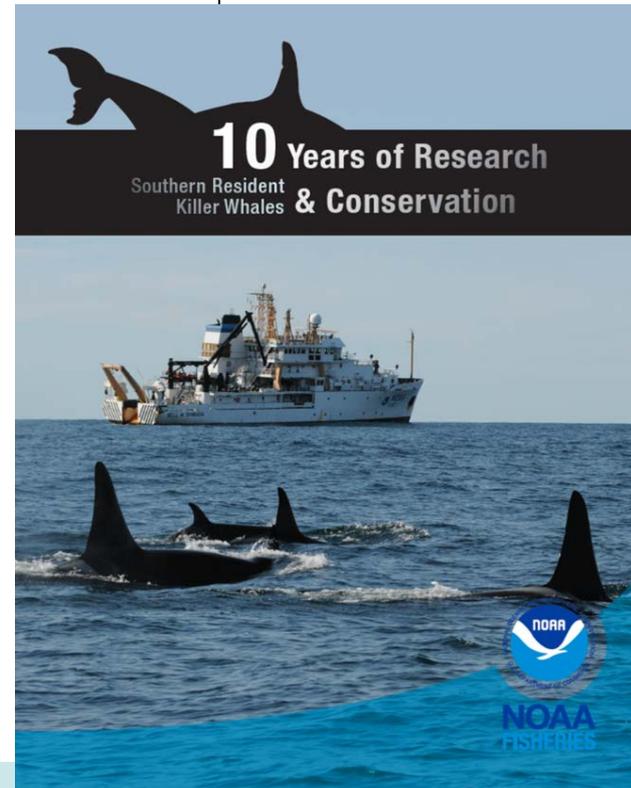
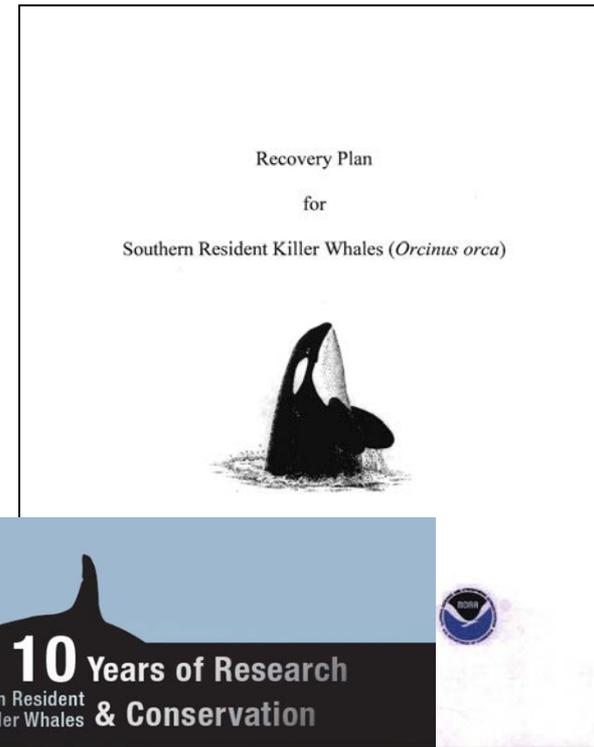
Major Threats

- 1) Prey Availability
- 2) Contaminants
- 3) Vessels and Noise



Recovery Plan

- Started implementing actions in 2003 with specific funding
- Recovery Plan complete 2008
- Broad approach to address all threats
- Adaptive process to incorporate research results as available
- 2014 Report on 10 years of research and conservation

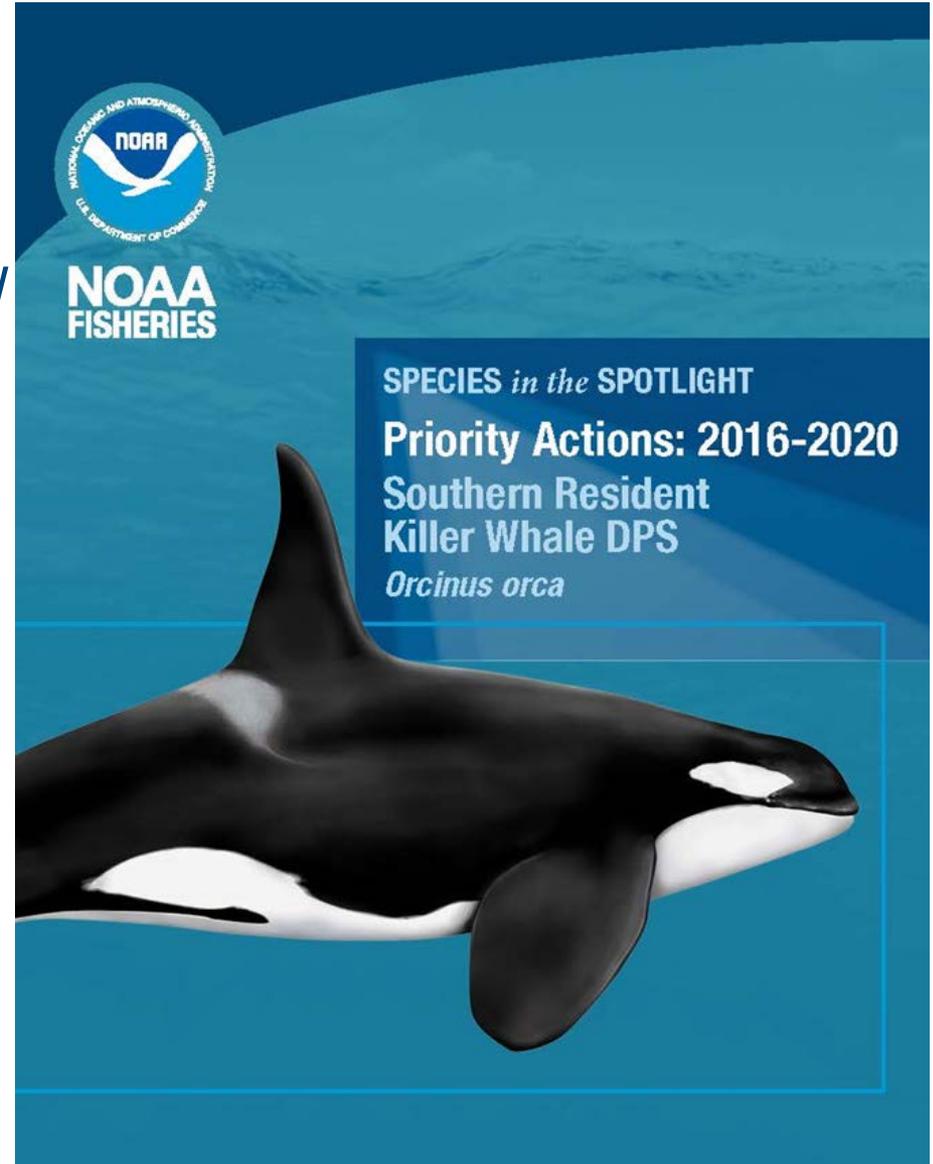


Action Plan 2016-2020

- Target recovery of critical prey
- Contaminants and health
- Protect whales from harmful vessel impacts
- Protect important habitats
- Raise awareness and inspire stewardship

Other ongoing actions include

- Oil spill response planning
- Transboundary coordination
- ESA consultations



Prey



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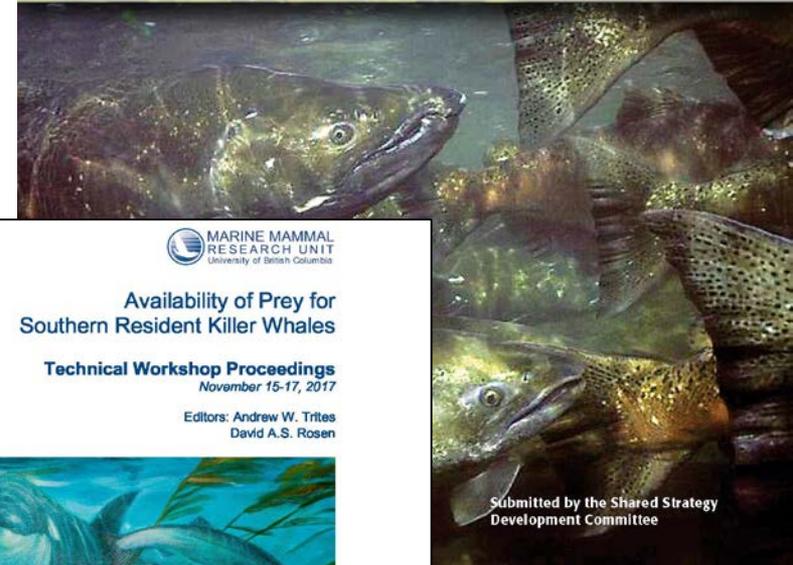
Recovery of critical prey

- Long-term salmon recovery actions
 - Coordination with ongoing salmon recovery efforts: workshops, events
- Review of salmon fisheries and Southern Resident killer whales
 - Short-term strategies to increase availability of existing prey (i.e., time/area adjustments to protect key foraging areas)

http://www.marinemammal.org/wp-content/pdfs/SRKW_Prey_Workshop_Proceedings_2018.pdf



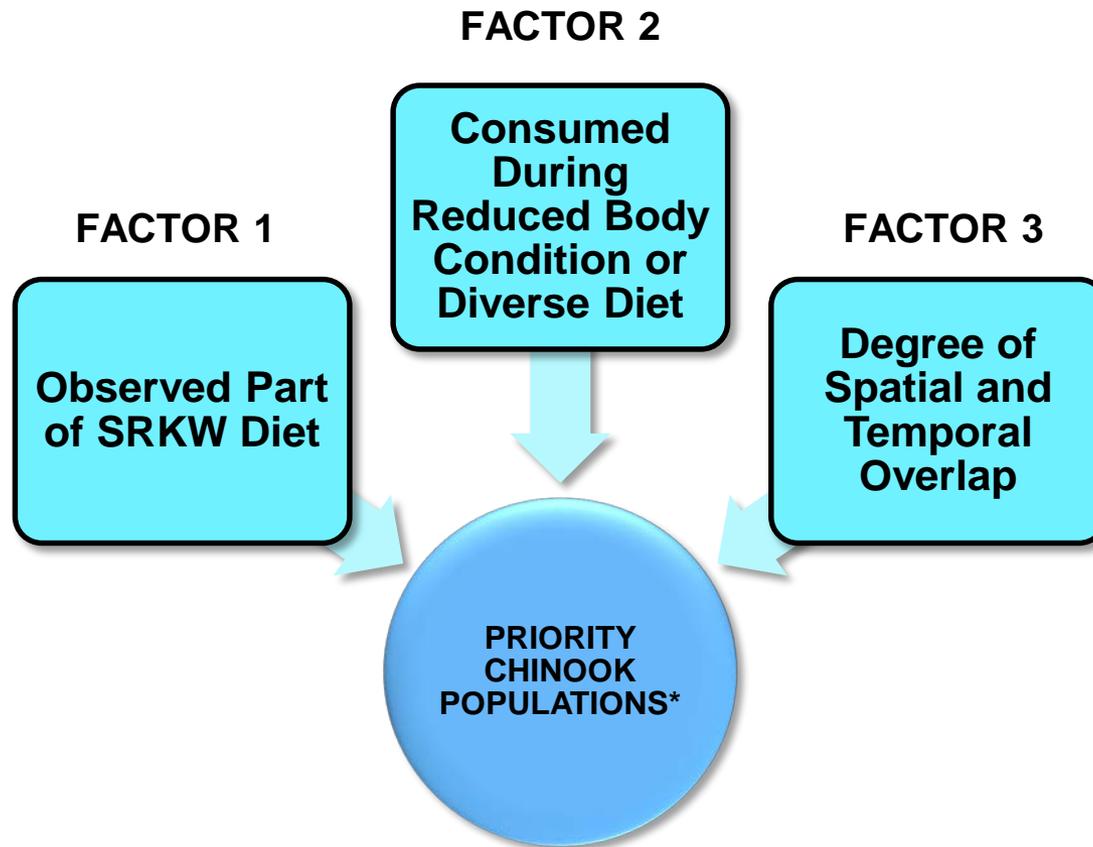
Puget Sound Salmon Recovery Plan



Hosted by:
Marine Mammal Research Unit
Institute for the Oceans and Fisheries
University of British Columbia
Vancouver, BC, Canada



Prey prioritization – conceptual model



*Chinook Population is generally defined here to be a Chinook stock, ESU, or a run within a stock or ESU.

Priority list of Chinook populations

1. **Northern and Southern Puget Sound (fall)**
2. LCR (fall tules and fall brights), Strait of Georgia (fall)
3. UCR and SR (fall- upriver brights); Fraser (spring 1.3); LCR (spring)
4. MCR (fall brights)
5. SR (spring-summer); **Northern Puget Sound (spring)**
6. WA coast (spring & fall)
7. Central Valley (spring)
8. MCR & UCR (spring & summer)
9. Fraser (summer 0.3)
10. Central Valley (fall/late fall); Klamath River (fall & spring)

**SOUTHERN RESIDENT KILLER WHALE PRIORITY CHINOOK STOCKS
REPORT**

NOAA Fisheries West Coast Region
and
Washington Department of Fish and Wildlife

June 22, 2018

Implementation

- NFWF RFP- Increase hatchery production where it is appropriate to do so for Chinook runs that have strong nexus with SRKW population needs (click here for prioritized list).
- PCSRF RFP- For applicants in areas supporting species in NMFS' "Species in the Spotlight: Survive to Thrive" initiative as well as supporting Chinook salmon populations that contribute to the prey base of Southern Resident Killer Whales (link to Prey Priority Report)
- Presented to WA Governor's Task Force Prey Working Group
- Presented to Columbia Basin Federal Caucus
- Pacific Salmon Treaty mitigation



The screenshot shows the National Fish and Wildlife Foundation (NFWF) website. The header includes the NFWF logo and navigation links: 'Who We Are', 'What We Do', 'Partnerships', 'Results', and a 'DONATE' button. The main content area features a 'QUICK LAUNCH' sidebar with links to 'Program Home' and 'Theme: Oceans and Coasts'. The main heading is 'Killer Whale Research and Conservation Program 2018 Request for Proposals'. Below the heading, it states: 'Applicant Overview Webinar: July 17, 2018 2:00PM Eastern Time' and 'Full Proposal Due Date: August 20, 2018 by 11:59PM Eastern Time'. An 'OVERVIEW' section follows, detailing the program's goals and funding. A 'RELATED DOCUMENTS' sidebar on the right lists 'PDF Version', 'Applicant Tip Sheet', and 'Applicant Webinar Registration'. A list of initial conservation strategies is provided at the bottom, including 'Increase prey availability: support projects that increase availability of key salmon runs that are a critical part of the Southern Resident population's diet.'



Contaminants and health



NOAA- J16



2015, 2016, 2017, 2019 SRKW health workshops

- Discuss needs, strategies and priorities related to:
 - What is causing decreased reproduction?
 - What is causing increased mortality?

http://www.westcoast.fisheries.noaa.gov/publications/protected_species/marine_mammals/killer_whales/srkw_healthpriority_dec2015.pdf



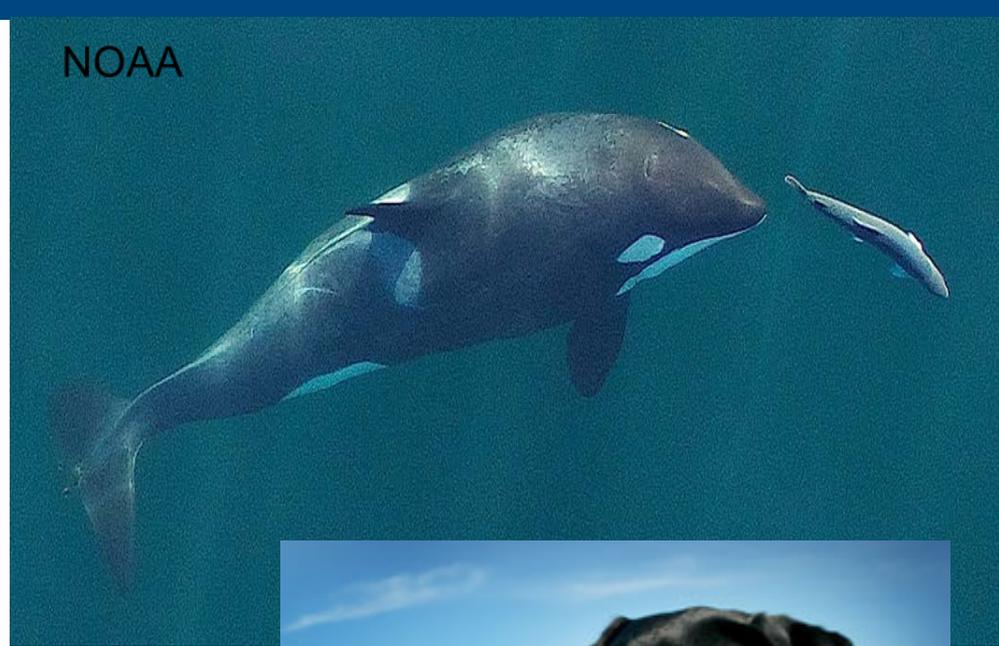
Soundwatch



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Ongoing actions

- Health database
- Photogrammetry/body condition and links to biomarkers and prey
- Track and sample animals of interest (fecal, breath)
- Stranding investigations- causes of death, disease and pathogens



Conservation Canines



Contaminants

- Puget Sound Partnership Action Agenda to restore Puget Sound by 2020
- Report and recommendations from PBDEs working group with EPA and WA state agencies

<https://www.eopugetsound.org/articles/report-potential-effects-pbdes-puget-sound-and-southern-resident-killer-whales>

Potential Effects of PBDEs on Puget Sound and Southern Resident Killer Whales

A Report on the Technical Workgroups and Policy Forum



Catherine K. Gockel, EPA Region 10
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Teresa Mongillo, NMFS Northwest Region
Teresa.Mongillo@noaa.gov

July 24, 2013

Protect killer whales from harmful vessel impacts through enforcement, education and evaluation

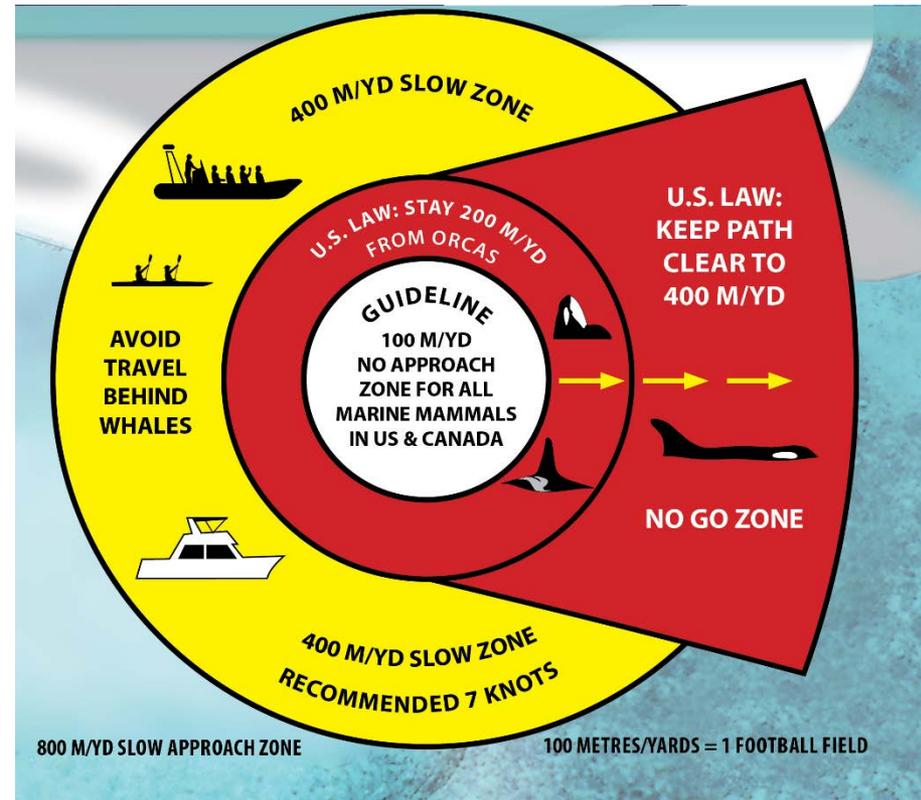


Protective regulations and guidelines



Approach Restrictions:
Prohibits vessels from approaching any killer whale in inland waters of WA closer than 200 yards

Parking in the Path Prohibition: Requires vessels to keep clear of the whales' path within 400 yards of the whales



www.bewhalewise.org

Review of vessel regulations: recommendations

- Continued and expanded enforcement, Soundwatch/Straitwatch monitoring, and education/outreach
- Compare the behavioral and acoustic effects of different boat activity patterns to determine the vessel behaviors with the highest impact
- Improve estimates of the energetic cost of reduced foraging opportunities
- Encourage Canada to establish similar vessel regulations to improve protection and compliance

Be Whale Wise

MARINE WILDLIFE GUIDELINES FOR BOATERS, PADDLERS AND VIEWERS



TRANS-BOUNDARY GUIDELINES FOR THE UNITED STATES AND CANADA APPLIES TO ALL MARINE MAMMALS AND BIRDS.

1. **DO NOT APPROACH** or position your vessel closer than 200 metres/yards to any killer whale in the U.S. **DO NOT APPROACH** or get closer than 100 metres/yards to any other marine mammals or birds, whether on the water or on land.
2. **BE CAUTIOUS, COURTEOUS AND QUIET** when around areas of known or suspected marine wildlife activity, in the water or at haul-outs and bled colonies on land. Especially from May to September during breeding, mating and seal pupping seasons.
3. **LOOK** in all directions before planning your approach or departure from viewing wildlife.
4. **SLOW DOWN** reduce speed to less than 7 knots when within 400 metres/yards of the nearest marine mammal to reduce your engine's noise and vessel's wake.
5. **ALWAYS** approach and depart from the side, moving parallel to the animal's direction of travel. If the animal(s) are approaching you, cautiously move out of the way and avoid abrupt course changes. **DO NOT** approach from the front or from behind.
6. If your vessel is not in compliance with the 100 metres/yards approach guideline (#1), place engine in neutral and allow animals to pass.
7. **PAY ATTENTION** and move away, slowly and cautiously, at the first sign of disturbance or agitation.
8. **STAY ON THE OFFSHORE** side of the whales when they are traveling close to shore.
9. **ALWAYS** avoid going through groups of porpoises or dolphins and hold course and reduce speed gradually to discourage bow or stern-riding.
10. **LIMIT** your viewing time to 30 minutes or less. This will reduce the cumulative impact of all vessels and give consideration to other viewers.



IN INLAND WATERS OF WASHINGTON IT IS UNLAWFUL FOR ANY PERSON TO:

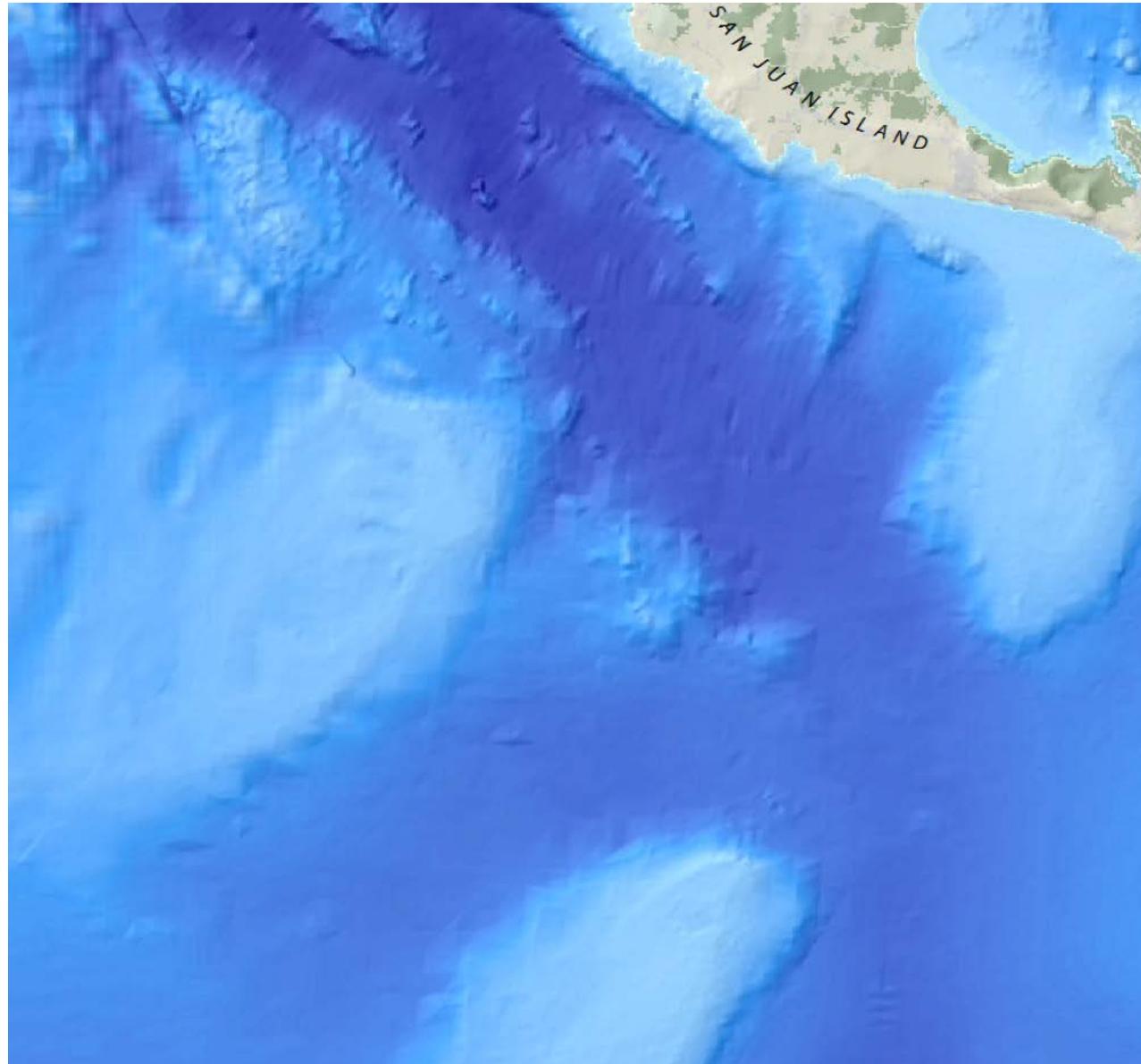
- Cause a vessel to approach, in any manner, within 200 yards/metres of any killer whale.
- Position a vessel to be in the path of any killer whale at any point located within 400 yards/metres of the whale.

The regulation applies to all motorized and non-motorized vessels (including kayaks and paddleboards) with exceptions for government vessels conducting official duties, ships in the shipping lanes, permitted research vessels, and vessels lawfully engaged in commercial or treaty Indian fishing that are actively setting, retrieving, or tending fishing gear.



Dtag study

- Sept 22, 2010
- K33 track
- Vessel tracks
 - C- commercial whale watch
 - P- private
 - E- enforcement
 - R- research



Whale warning boater safety flag- SJ County

Boaters hoisting this flag have spotted a whale in the area

Other boaters please:

- Slow to stop, determine where the whales are (to avoid crossing path)
- Proceed with enhanced caution once spotted
- Stay below 7 knots
- Avoid following the whales
- Turn off navigational sonar to reduce noise footprint



Voluntary no-go zone

- Expansion of no boat zone down to Cattle Point for ¼ mile no vessel zone in 2018
- Federal, State, County, Industry and NGOs



San Juan County
Marine Resources
Committee



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Whale Protection Zone petition

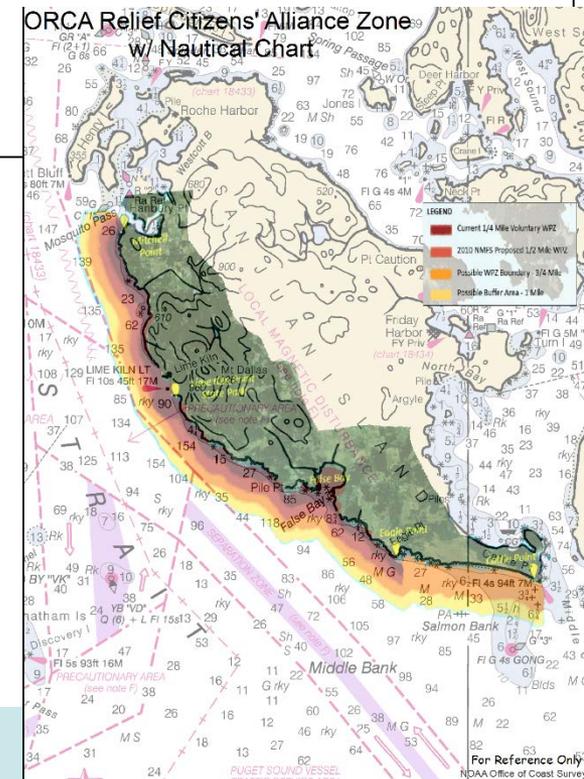
- Petition submitted by three NGOs
November 2016
- Notice of Receipt of petition and request
for public comment 2017
- Next Steps
 - Review 1,000+ public comments
 - Consider vessel regulations review
 - Coordinate with State and San Juan County efforts
 - Additional Dtag results

PETITION TO ESTABLISH A WHALE PROTECTION ZONE FOR THE SOUTHERN RESIDENT KILLER WHALE (*ORCINUS ORCA*) DISTINCT POPULATION SEGMENT UNDER THE ENDANGERED SPECIES ACT AND MARINE MAMMAL PROTECTION ACT



ORCA RELIEF CITIZENS' ALLIANCE
CENTER FOR BIOLOGICAL DIVERSITY
PROJECT SEAWOLF

November 2016



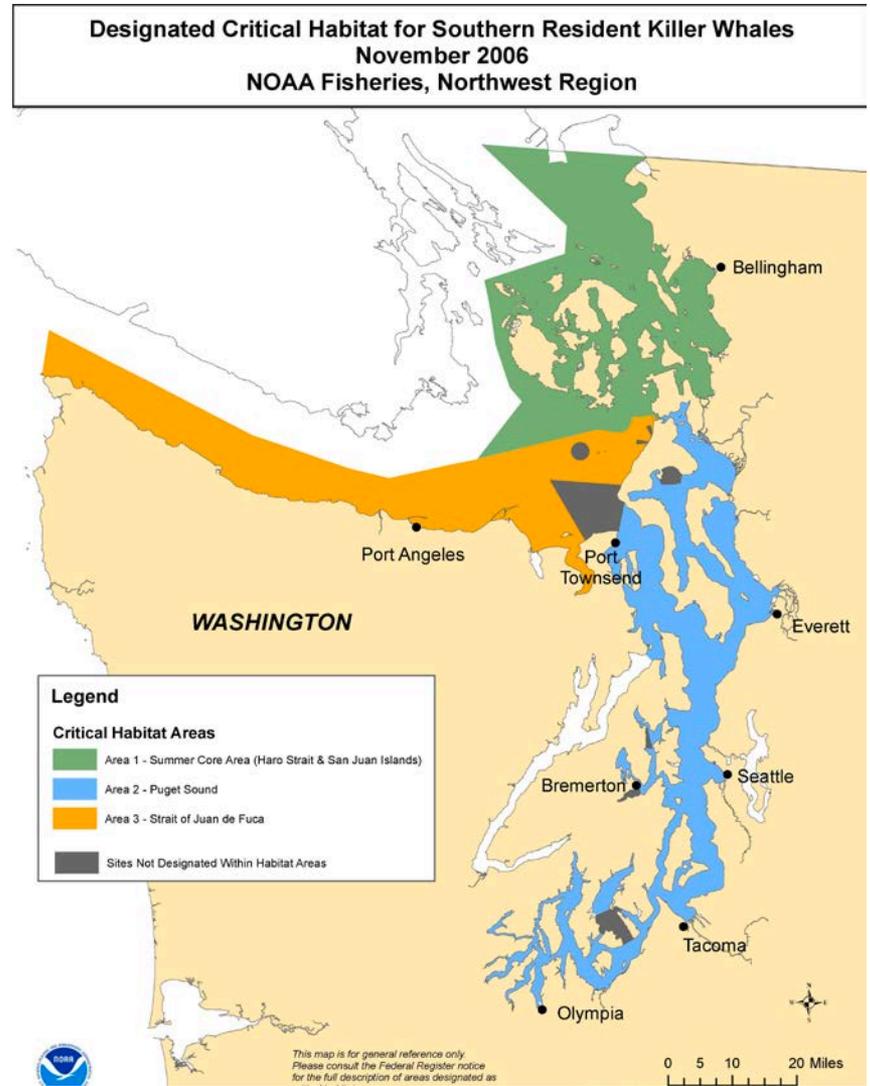
Protect important habitat areas from anthropogenic threats



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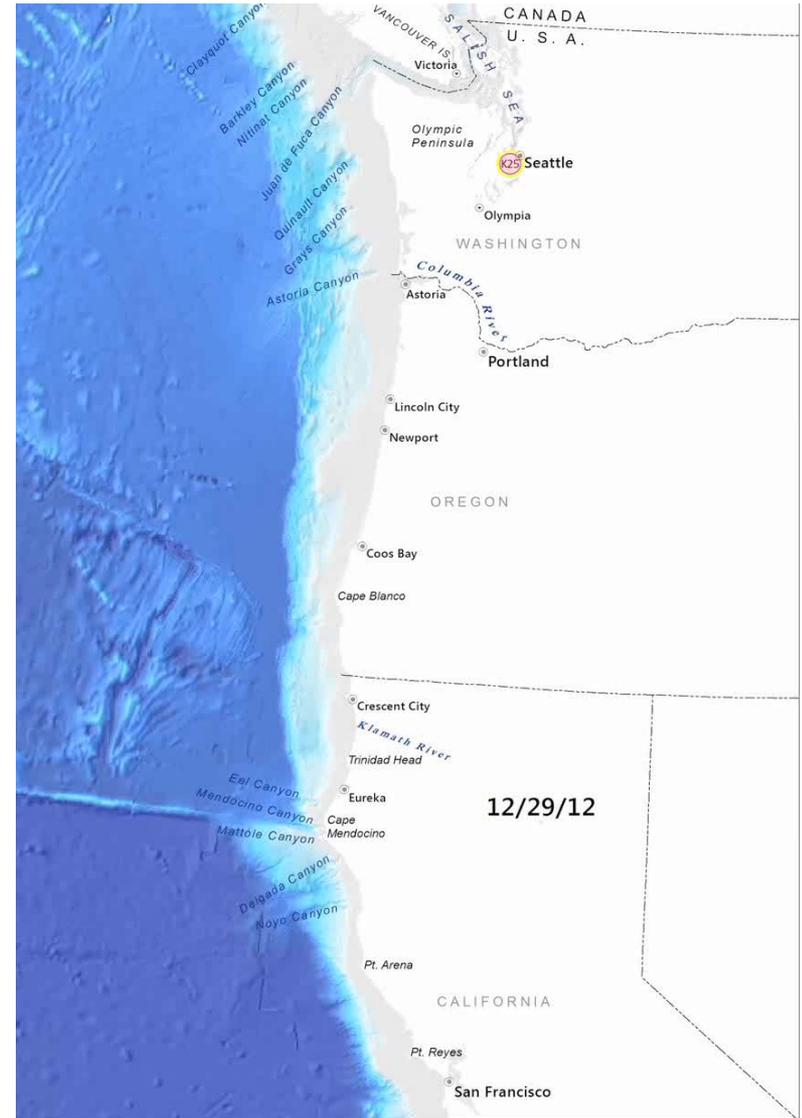
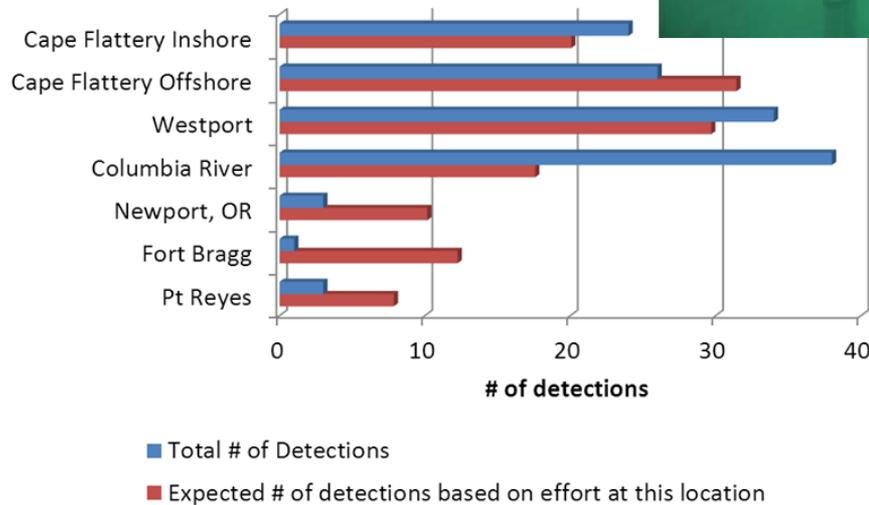
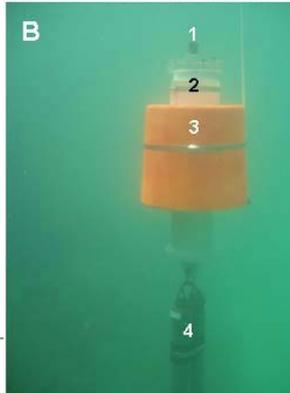
2006 critical habitat

- Approximately 2,560 square miles
- Primary constituent elements/essential features are:
 - (1) Water quality to support growth and development
 - (2) Prey species of sufficient quantity, quality, and availability to support individual growth, reproduction, and development, as well as overall population growth
 - (3) Passage conditions to allow for migration, resting, and foraging.



Coastal habitat use research informing revision

- Satellite tagging
- Acoustic recorders
- Sightings



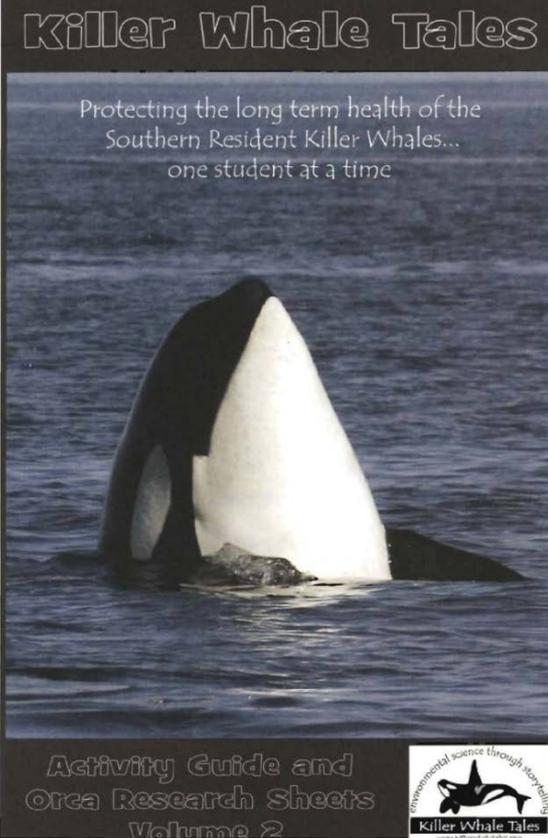
Raise awareness about the recovery needs of Southern Resident killer whales and inspire stewardship through education and outreach



Outreach Partners

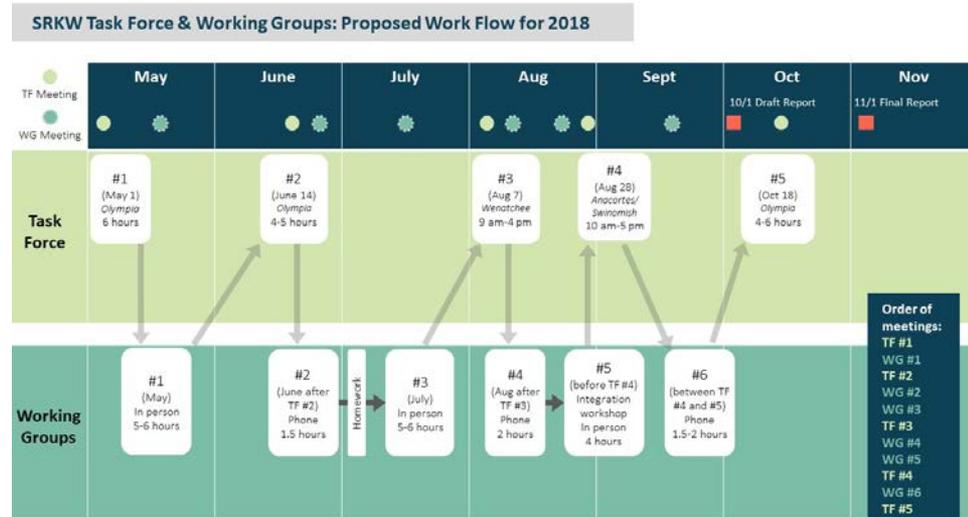


- The Whale Museum
- Soundwatch
- The Whale Trail
- Seattle Aquarium
- Killer Whale Tales
- Sighting Networks
- Naturalists
- Whale Watch Assoc.
- NGOs



Coordination

- Local/County
- WA State Governor Inslee Executive Order and Task Force
 - Monitor and evaluate the immediate actions undertaken by state agencies and build upon the progress and effectiveness of that work.
 - Identify, prioritize, and support the implementation of a longer term action plan needed for the recovery of Southern Residents.
 - Where available and applicable, build upon existing state, regional, and federal plans.



Coordination

- Trans-boundary species requires coordination with Canada
 - Research and recovery planning
 - Stranding response
 - Enforcement
- Oceans Protection Plan and Whale Initiative



Species at Risk Act
Recovery Strategy Series

Recovery Strategy for the Northern and Southern Resident Killer Whales (*Orcinus orca*) in Canada

Killer Whale

Fisheries and Oceans Canada / Pêches et Océans Canada

Canada



Thank you