



Proposed 2018 Salmon Fishery
Management Measures to Support
Chinook Salmon Prey Availability for
Southern Resident Killer Whales

Webinar: February 23, 2018



Webinar Purpose:

1. Review scientific information on Southern Resident Killer Whales in relation to chinook prey availability;
2. Outline proposed fishery management measures to support chinook prey availability;
3. Clarify process for providing feedback and timelines;
4. Opportunity for questions of clarification



Background:

Key threats to recovery are identified in the SARA [Recovery Strategy for Northern and Southern Resident Killer Whale \(*Orcinus orca*\) in Canada](#) (DFO 2008, 2011) and include:

- 1. Decreased availability and quality of prey**
2. Environmental contamination
- 3. Physical and acoustic disturbance**

The purpose of this discussion paper, is to identify potential salmon fishery management measures aimed at mitigating the threat of reduced chinook prey availability for Southern Resident Killer Whales (SRKW) in 2018.

Informed by:

- Scientific research on SRKW and chinook salmon
- UBC Prey Availability Workshop (November)
- Input from First Nations and stakeholders



Background - UBC Workshop

This workshop assembled scientists and managers with technical expertise on killer whales and Chinook salmon to identify and evaluate short-term management actions that might increase immediate abundance and accessibility of Chinook salmon for SRKW, given the current size of Chinook salmon stocks.

Reviewed three potential non-exclusive Management Actions:

- A. Increase the abundance of Chinook for SRKW by reducing coast-wide fishery removals.
- B. Increase the abundance of Chinook for SRKW by adjusting fishery removals at specific times and in specific areas of SRKW habitat.
- C. Increase the accessibility of Chinook by decreasing underwater noise and the physical presence of vessels where SRKW forage.

Report available at:

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



UBC Workshop Findings

- Broad recognition that targeted, area-based fishery management measures designed to improve Chinook Salmon availability for SRKW in key foraging areas should be a high priority.
- Measures could assist SRKW by decreasing potential fishery competition for Chinook Salmon, as well as, minimizing physical and acoustic disturbance in key foraging areas.



Proposed Management Measures

Intended to increase Chinook Salmon prey availability in key foraging areas by using salmon fishing or fin fish closures to:

1. reduce competition for Chinook Salmon present in these areas;

and,

2. minimize physical (i.e. presence of vessels) and acoustic disturbance in key foraging areas to the extent possible.



Southern Resident Killer Whale (SRKW) Impact Assessment Research Areas



LEGEND

- SRKW foraging areas
- PFMA Subareas ¹

Acoustic Recorder Deployments

- OPP AMAR-3 – 2018

Critical Habitat

- SRKW - legal (CAN)
- SRKW - legal (USA)
- SRKW - proposed (CAN)

¹ Subareas as described in the Pacific Fishery Management Area (PFMA) Regulations, 2007.





What chinook populations are important?

- SRKW preference for larger, older aged chinook
- Chinook salmon in foraging areas when SRKW present
- Stock composition in winter months (Oct to April) is >70% Southern US populations; Fraser origin chinook begin moving through area in May.
- Fishery measures also planned to address conservation concerns for Fraser Chinook



Figure: Stock composition from DNA of the recreational fishery catch in the Victoria to Sooke area of Juan de Fuca, in 2009. The figure shows the relative abundance of various Fraser River Chinook run timing groups as they migrate through the area. Similar results observed in 2010 and 2014 samples.



Management Measure Considerations:

When? May 1 to September 30th proposed as key dates given they correspond with:

- Timing of SRKW foraging observations in these areas; and,
- Highest fishing effort in recreational salmon fishery

Which fisheries?

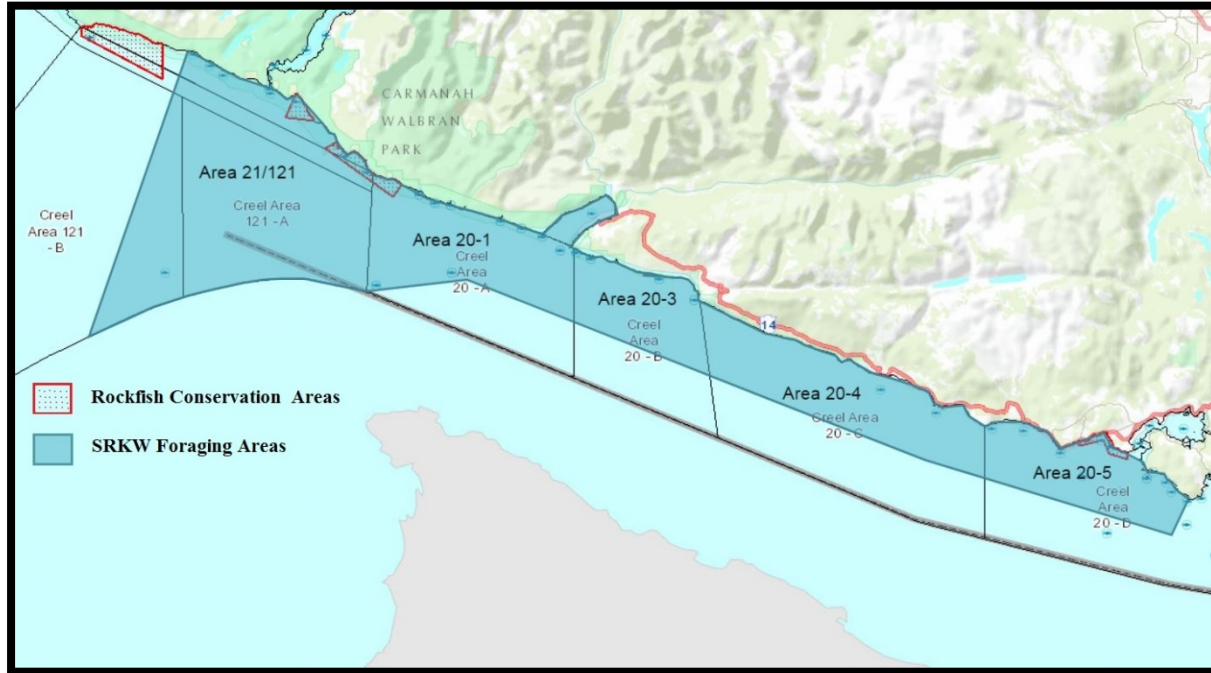
- commercial, recreational and First Nations salmon fisheries under consideration here as these are the focus of salmon Integrated Fisheries Management Plans.

What areas?

- four key foraging areas within the Canadian portion of the SRKW Critical Habitat (current and proposed) identified based on SRKW foraging observations



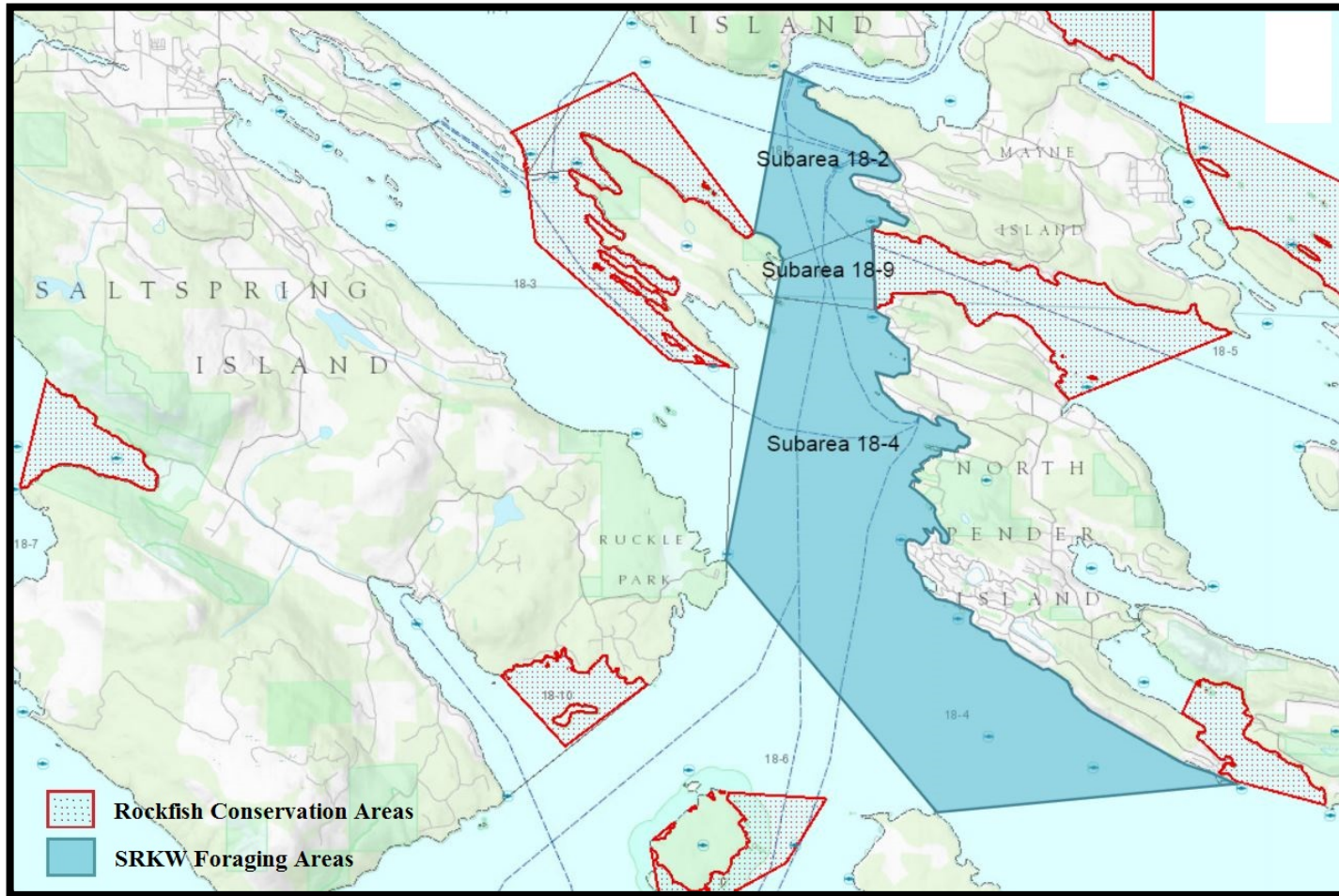
Strait of Juan De Fuca



Proposed Management Measures: For this area, an experimental approach is proposed with salmon fishing or fin fish closures proposed for Subareas 20-3 and 20-4 from May 1 to September 30. Monitoring is planned to compare SRKW foraging behaviour in these areas with the adjacent Subareas 20-1 and 20-5, which will remain open to fin fish.



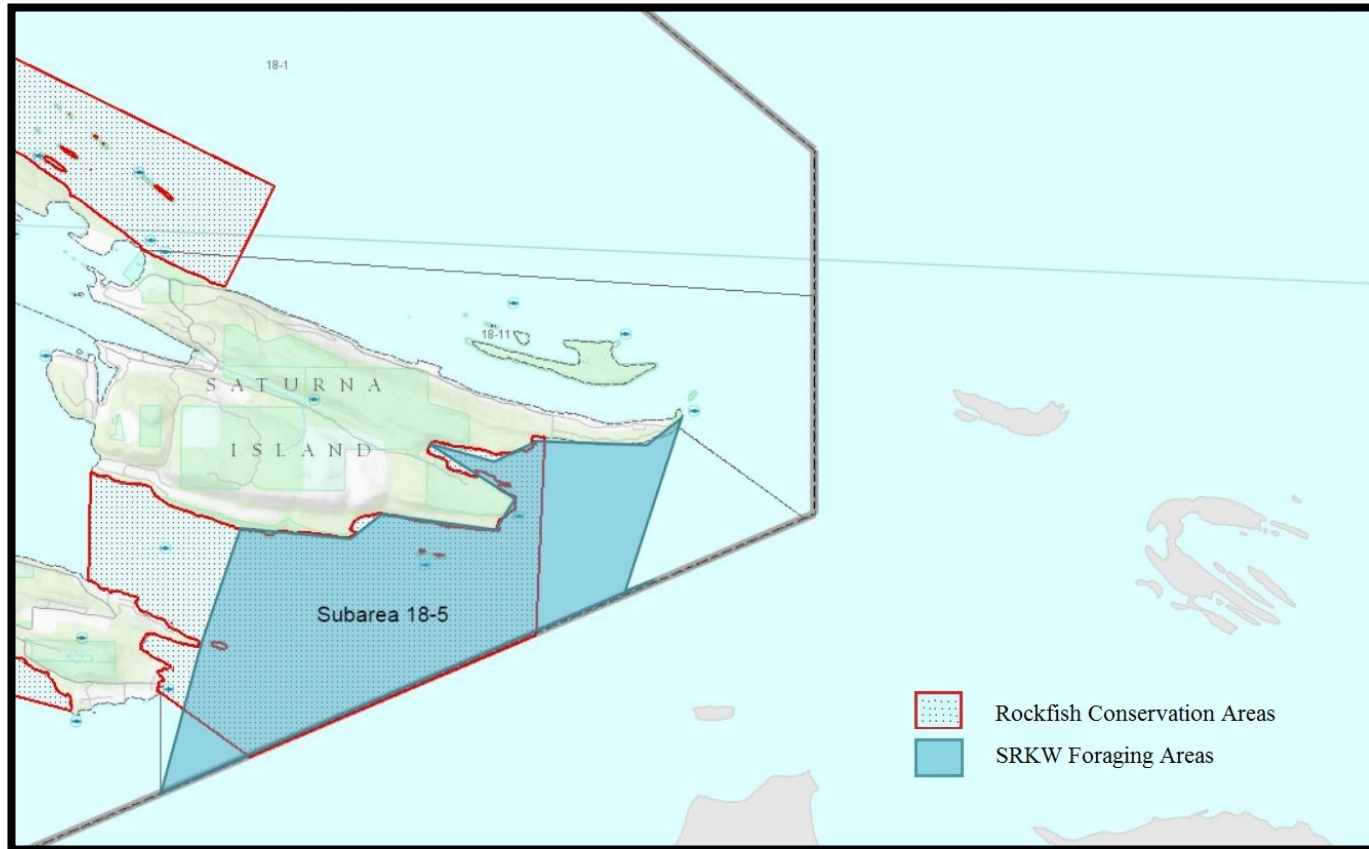
Pender Island



Proposed Management Measures: Proposed salmon fishing or fin fish closure in Subareas 18-2, 18-4 and 18-9 from May 1 to September 30.



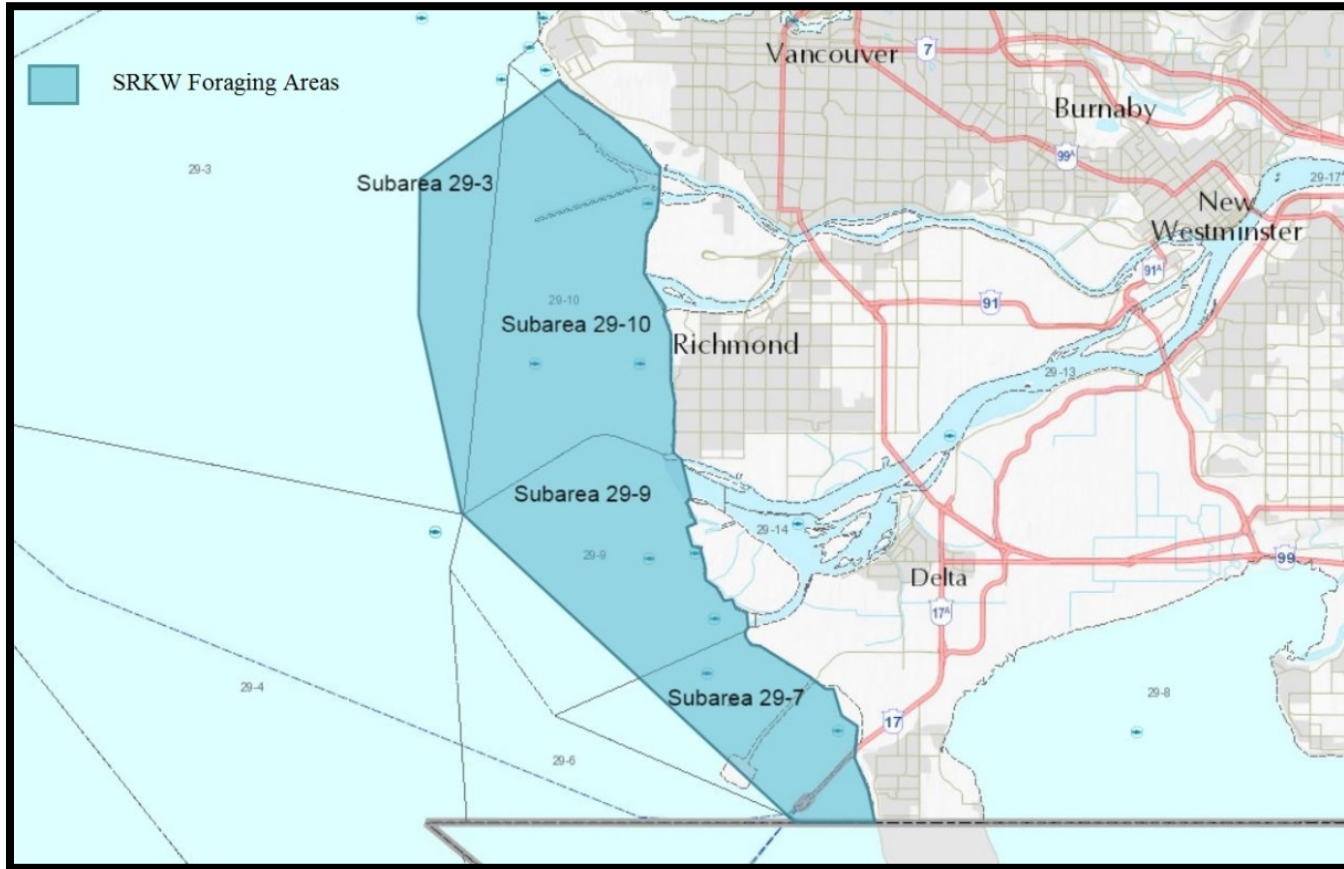
Saturna Island



Proposed Management Measures: Proposed salmon fishing or fin fish closure in Subarea 18-5 from May 1 to September 30.



Mouth of the Fraser River (Area 29)



Proposed Management Measures: For this area, salmon fishing or fin fish closures are proposed for Subareas 29-6, 29-7, 29-9, 29-10 and 29-12 from May 1 to Sept. 30.



Feedback sought on proposed measures

Questions to Consider:

- What is your perspective on the proposed management measures?
- How might the proposed measures impact your fishery?
- What could be considered to improve the measures or mitigate impacts on your fishery?



Monitoring and Evaluation Plans

- Department intends to implement measures on trial basis in 2018 with additional monitoring designed to assess effectiveness of measures over time.
- Range of potential performance measures could include: SRKW body condition, area use and foraging success; acoustic monitoring; vessel counts (e.g. creel survey over-flights) and available assessment information for chinook salmon.
- Annual post-season review meetings will provide an opportunity to review relevant performance measures and consider future adjustments to management measures as required.

Question to Consider:

Do you have suggestions for information that your organization could provide and/or assist in collecting?



Do you have other suggested management measures?

Question to Consider:

- *What other fisheries management measures should be considered to support prey availability for SRKW in the short term? Longer term?*
 - *Are there voluntary measures that should be considered to support chinook availability for SRKW's?*
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- Other suggestions will be summarized and considered for future potential management measures.
- A subsequent workshop is planned for later in 2018, which will bring together the best available science to inform ways to improve overall chinook abundance.



How to Provide Feedback?

The Department requests your feedback on the discussion questions in this document by March 15, 2018.

The Department requests feedback be provided through appropriate **First Nations groups / organizations** and official advisory bodies i.e. **Sport Fishing Advisory Board (SFAB)**, **Commercial Salmon Advisory Board (CSAB)**, **Marine Conservation Caucus (MCC)**

Feedback will be reviewed with First Nations groups/organizations and official advisory bodies as part of the process to develop salmon Integrated Fisheries Management Plans.

Department also forming a working group with First Nations and advisory body representatives for further discussion on feedback received.

Feedback on these questions can be directed to Ashley Dobko at: Ashley.Dobko@dfo-mpo.gc.ca.



Questions?