OCEANA Protecting the World's Oceans

222 NW Davis Street, Suite 402
Portland, OR 97209 USA

+1.503.235.0278
OCEANA.ORG

November 6, 2020

Mr. Marc Gorelnik, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

Mr. Barry Thom, West Coast Regional Administrator
National Marine Fisheries Service
1201 NE Lloyd Boulevard, Suite 1100
Portland, OR 97232

RE: Agenda Item F.2 - Southern Resident Killer Whale ESA Consultation

Dear Chair Gorelnik, Mr. Thom and Council members:

We cannot overemphasize that under status quo conditions Southern Resident orcas are on a path toward extinction. Even with the hopeful prospect of two recent births in J pod, this unique orca population has declined nearly 25% since 1996 and now only 74 individuals remain in the wild. As a precautionary backstop to prevent further impacts to Southern Resident orcas, we strongly urge NMFS and the Council to adopt conservation measures and tools to limit and reduce ocean fishery impacts during times of low Chinook abundance. Specifically, we request:

1. Adopt a critical Chinook salmon abundance threshold – Alternative 3.1.2.d – of approximately 1,144,000 adult Chinook.[1]
2. Adopt and implement automatic management responses when Chinook salmon abundance is at or below the threshold, including time and area closures and reduced catch limits;
    a. Close the proposed Southern Resident orca critical habitat north of Cape Meares, Oregon to non-treaty Chinook salmon fishing when the threshold is reached.
    b. Adopt Option 1a[2] which would limit non-treaty Chinook catch limits north of Cape Falcon, Oregon to ensure that in years of low abundance fisheries could not have disproportionately high removals relative to past years; and
    c. Adopt additional measures including later season openings south of Cape Falcon.
3. Require vessel tracking systems such as vessel monitoring systems (VMS), automated identification systems (AIS) or solar data loggers on commercial ocean salmon fishing vessels and collect refined spatial data on ocean salmon recreational fisheries.

Prey availability, primarily Chinook salmon, is the principal threat to Southern Resident orca survival.[3] Ocean salmon fisheries and Southern Resident orca compete for many of the same Chinook salmon populations off the outer coast. What is more, there is a substantial body of science demonstrating that Southern Resident orcas depend on Chinook salmon as their preferred

[1] Pacific Fishery Management Council, Agenda Item F.2.a *Workgroup Report 1*, November 2020, at 10-11.
[2] Pacific Fishery Management Council, Agenda Item F.2.a *Workgroup Report 2*, November 2020, at 1.
[3] Lacy RC, Williams R, Ashe E, *et al.* (2017) Evaluating anthropogenic threats to endangered killer whales to inform effective recovery plans. *Scientific Reports* 7: 14119. doi: 10.1038/s41598-017-14471-0

prey and that this orca population is suffering due to insufficient Chinook quality and quantity.[4,5,6,7] Inherently low reproductive rates are compounded by increasing rates of miscarriage which have been linked to nutritional stress. Wasser *et al.* 2017 documented that up to 69% of detectable pregnancies between 2008 and 2014 were unsuccessful and determined that the low availability of Chinook salmon is a significant cause of late pregnancy failure.[8] Southern Residents also have high newborn mortality rates; around 40% of calves do not survive past the first few years.

Urgent and bold actions are necessary to stop the orca decline and to begin to achieve recovery goals,[9] including addressing ocean salmon fisheries that are in direct competition with orcas for the same limited prey. While recovery requires actions to address multiple threats to the orcas and salmon, NMFS and the Council must not ignore their roles, but instead must act to be part of the solution.

1. **Identify and adopt a critical Chinook salmon abundance threshold.**

The Chinook salmon threshold can be viewed as a precautionary backstop for orca and salmon conservation. All alternatives represent past years of low Chinook salmon abundance where, if reached again, would require increased conservation. Of the alternatives in the PFMC Ad-hoc Southern Resident Killer Whale Workgroup report, Oceana supports Alternative 3.1.2.d (Alternative D in figure 1 below) which would set the threshold in relation to the maximum Chinook abundance during the mid to late 1990s, or 1,144,000 adult Chinook salmon. This represents a time when there was poor Southern Resident orca reproductive success, high mortalities, and consistently low Chinook salmon abundance. If abundance drops to this low level again, increased fishery conservation and management would be warranted for orcas and salmon. In contrast, we oppose threshold alternatives 3.1.2.a and b which are based on the lowest ocean Chinook abundance levels in the Fishery Regulation Assessment Model (FRAM) time series, and if reached, would be a devastating blow for orcas and fisheries well before conservation actions are taken.

---

[4] Ward, EJ, EE Holmes, and KC Balcomb. 2009. Quantifying the Effects of Prey Abundance on Killer Whale Reproduction. *Source Journal of Applied Ecology Journal of Applied Ecology*, *46*(46), 632–640. http://doi.org/10.1111/J.1365-2664.2009.01647.X

[5] Ford, JKB, GM Ellis, PF Olesiuk, and KC Balcomb. 2009. Linking killer whale survival and prey abundance: food limitation in the oceans' apex predator? Biol. Lett. (2010) 6, 139-142 http://doi.org/10.1098/rsbl.2009.0468

[6] Wasser, SK, JI Lundin, K Ayres, E Seely, D Giles, K Balcomb, et al. 2017. Population growth is limited by nutritional impacts on pregnancy success in endangered Southern Resident killer whales (*Orcinus orca*). PLoS ONE. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0179824

[7] Velez-Espino, L. A., J. K. B. Ford, H. A. Araujo, G. Ellis, C. K. Parken, and R. Sharma. 2014. Relative importance of Chinook salmon abundance on resident killer whale population growth and viability. Aquatic Conservation: Marine and Freshwater Ecosystems. 25(6): 756-780.

[8] Wasser, SK, JI Lundin, K Ayres, E Seely, D Giles, K Balcomb, et al. 2017. Population growth is limited by nutritional impacts on pregnancy success in endangered Southern Resident killer whales (*Orcinus orca*). PLoS ONE. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0179824

[9] A delisting criterion for the Southern Resident orcas is that the population exhibit an average growth rate of 2.3 percent for 28 years.

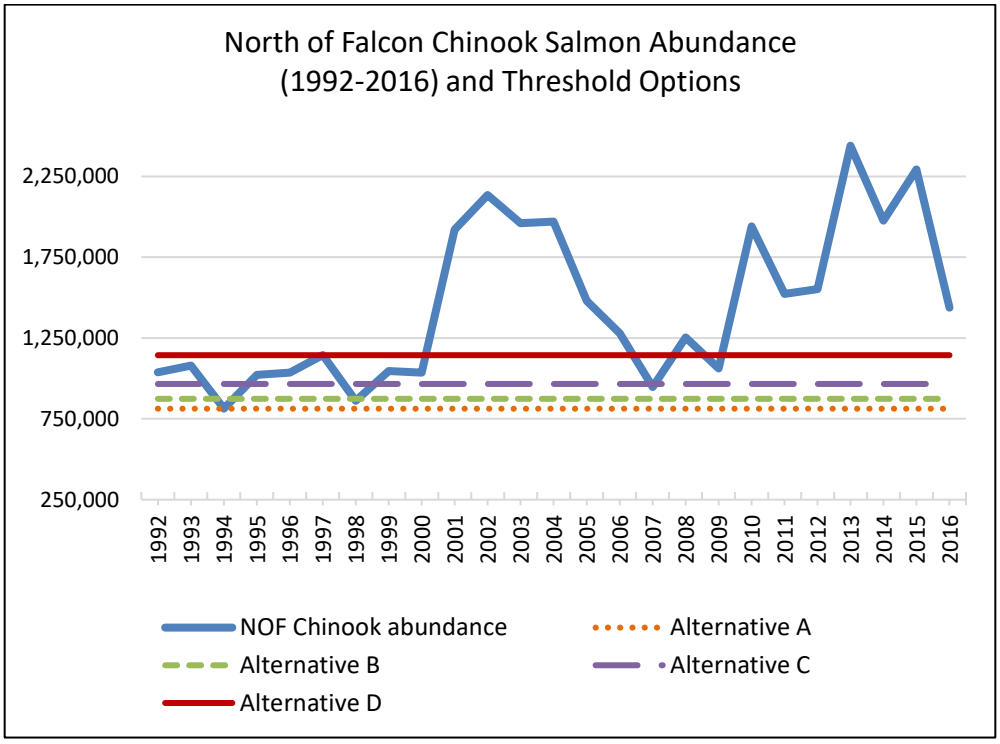

Figure 1. *North of Falcon (NOF) Chinook salmon abundance (1992-2016) compared with Alternatives 3.1.2. a-d (labeled here, Alternatives A to D) in the PFMC SRKW ad hoc workgroup report; see page 11, table 3.1.a – 'Summary of Alternatives for NOF Chinook salmon abundance TS1 thresholds'.*[10]

2. Response to reaching the threshold.

Fundamental to the threshold concept is the prescribed management response to reaching or falling below that threshold. Many of the working group's proposed management responses closely resemble status quo. Oceana urges adoption of strong conservation actions that will increase Chinook salmon abundance and availability for Southern Residents.

a. Identify and adopt an additional alternative that would close non-tribal treaty Chinook fisheries in the proposed Southern Resident orca critical habitat off northern Oregon and Washington when Chinook abundance is at or below the threshold.

We request the Council identify and adopt an additional alternative that would close proposed Southern Resident killer whale critical habitat off northern Oregon and Washington to non-treaty Chinook salmon fisheries in the event the Chinook abundance threshold is reached. We are disappointed that the Council and workgroup have consistently ignored this meaningful and biologically grounded recommendation. NMFS identified these proposed critical habitat areas off

[10] PFMC Agenda Item F.2.a, Workgroup Report 1. November 2020, at 9-11.

northern Oregon and Washington as high use foraging areas for Southern Residents based on J, K and L pod presence documented through sightings, acoustic detections, and satellite tag data.[11]

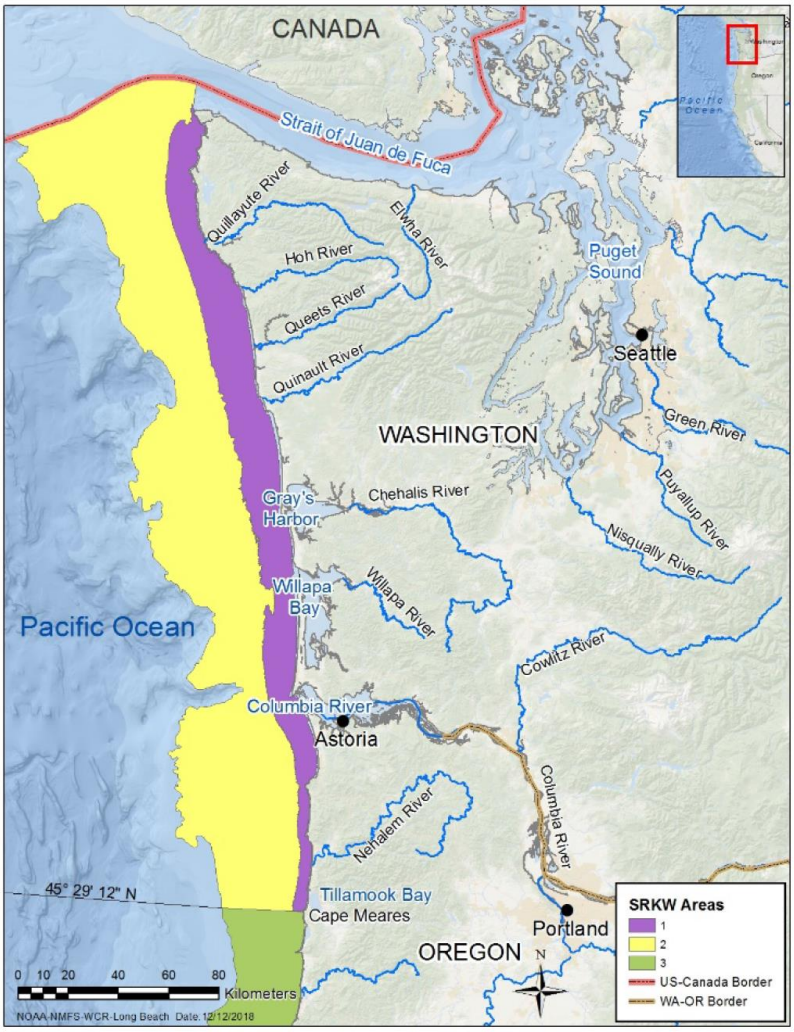

***Figure 2**. Oceana recommends the proposed Southern Resident critical habitat areas 1 and 2 off northern Oregon and the outer Washington Coast be closed to ocean salmon fisheries when Chinook abundance is below the critical abundance threshold (not excluding the Navy's Quinault range site).*

The biological report for the proposed critical habitat states that Southern Resident "sightings and encounters off the Washington coast occurred in February-April and June-October." Acoustic recorders detected Southern Residents off the Washington outer coast in all months of the year.[12] Therefore, we do not support the alternatives that would only delay the start date of the fishery in these areas to mid-June as this would provide no relief for orcas foraging in the area during summer and fall.

If this recommendation were implemented, recreational Chinook salmon fisheries could continue in rivers and estuaries off northern Oregon and Washington and in the ocean south of Cape Meares as appropriate, and commercial ocean Chinook salmon fisheries could continue to fish west and south of these two critical habitat areas.[13] Ocean coho salmon fisheries could continue as appropriate in these areas while minimizing and avoiding Chinook bycatch.

The workgroup report includes a few small time and area closures such as the existing 'control zones' located at the mouth of Grays Harbor and the Columbia River. The existing Columbia River control zone, however, is 6.4 mi^2,

[11] NMFS 2019, Draft Biological Report. Proposed Revision of the Critical Habitat Designation for Southern Resident Killer Whales. Available: https://www.fisheries.noaa.gov/webdam/download/96814549 At, 37-41.
[12] Id.
[13] Id at 36.

representing no more than 0.1 percent of the orcas' high use foraging habitat north of Cape Meares, Oregon. The Grays Harbor and Columbia River control zones and potential expansions identified in the workgroup report have minimal overlap with the proposed critical habitat and would be entirely inadequate in size to meaningfully protect Southern Resident foraging hotspots.

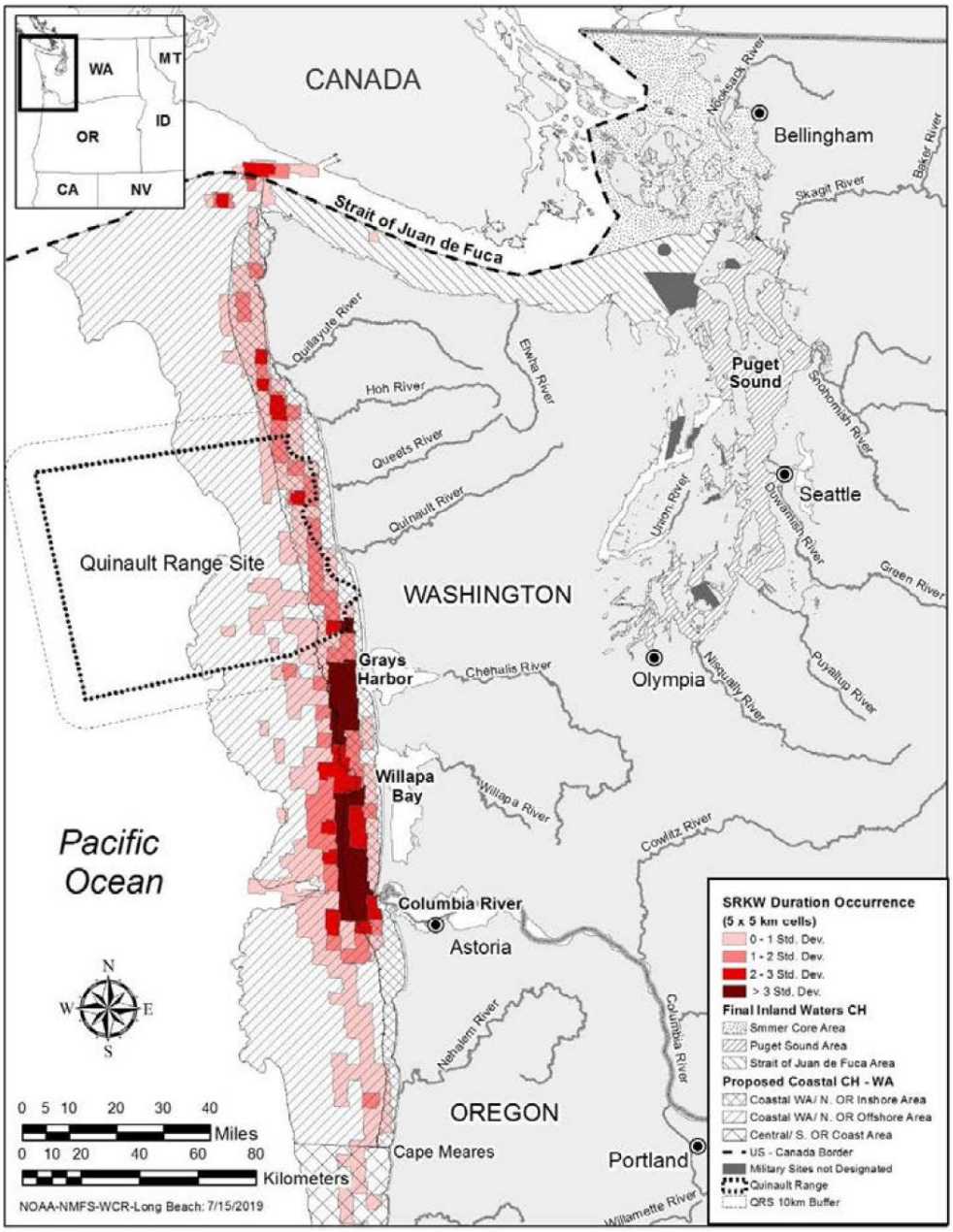

Figure 3. *Showing areas of high Southern Resident killer whale use and proposed Southern Resident critical habitat.*[14]

[14] Figure 3 from: NMFS 2019. Proposed Revision of the Critical Habitat Designation for Southern Resident Killer Whales Draft ESA Section 4(b)(2) Report. *September 2019*

b. Reduce and limit ocean Chinook salmon catch limits when abundance is at or below the threshold.

In addition to the above area-based recommendation, Oceana supports reduced and limited ocean Chinook salmon catch limits North of Falcon (Option 1a) outside of the proposed critical habitat areas, and delayed start dates for ocean salmon fisheries South of Falcon as described in workgroup report two. These are relatively minor actions that would prevent a future increase in non-treaty Chinook catch at low abundance levels (at or below the threshold) relative to the current management approach.

We find it troubling, however, that these and many of the other management actions identified by the workgroup under section 3.1.2.e – "List of potential responses if a year's preseason projection fall below a threshold" – simply represent status quo management. Options 6A to 6D, for example, appear to close the fisheries during times and in areas when and where they are already closed. As described above, we strongly urge a more precautionary approach for Southern Resident orca conservation and recovery that would reduce, and limit ocean Chinook salmon catch limits when abundance is at or below the threshold.

3. **Require VMS or AIS[15] on commercial ocean salmon fishing vessels and collect refined spatial data on ocean salmon recreational fisheries.**

Spatial data would reduce speculation and greatly improve the ability of managers and the public to assess fishing impacts and risk, as well as to inform conservation and management measures. During this ESA consultation and ad-hoc working group review, no spatial data or maps have been provided to show where and when the ocean salmon fisheries occur off the West Coast. We have more spatial information on the location of the orcas than the salmon fishery (e.g. Figure 3). It is our understanding that NMFS does not collect spatial data on ocean salmon fisheries. The lack of such vessel movement data seriously hampers the ability to have a full understanding of the overlap of Southern Resident orca habitat and fisheries. For example, at one working group meeting it was asserted that closing the proposed critical habitat to fishing in the nearshore (figure 2, SRKW Area 1) would be akin to having no fishery where a commercial salmon fisherman indicated they rarely fish in the nearshore area and are further offshore. Spatial data and analyses are needed to inform management.

Further, we suspect the lack of vessel monitoring also hinders the ability to enforce existing conservation areas. Thus, independent of the threshold and management responses, we recommend NMFS and the Council require VMS, AIS or solar data loggers on commercial salmon vessels and work to collect refined spatial data on the location of recreational fisheries. Doing so would provide invaluable information for future conservation and management decisions regarding Southern Resident orcas and enforcement of ocean salmon fisheries generally.

[15] Oceana. AIS: What is It? https://usa.oceana.org/sites/default/files/4046/oceana_ais_fin_all_hr.pdf

Please consider the above recommendations to adopt and implement strong and bold conservation and management tools to reduce fishery impacts on Southern Resident orcas, help stop the orca population decline, and aid in their recovery. The risk of inaction is the extinction of Southern Resident orcas.

Thank you for time and attention to this urgent issue.

Sincerely,

Ben Enticknap
Pacific Campaign Manager and Senior Scientist