



# The Society for Marine Mammalogy

<http://www.marinemammalogy.org>

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Donna Wieting, Director  
NOAA Fisheries Office of Protected Species  
1315 East-West Highway  
Silver Spring, MD 20910

Dear Director Wieting:

NOAA Fisheries recently requested comments on “ways to reduce impacts of vessels and noise on [southern resident] killer whales in the inland waters of Washington State.” The Society for Marine Mammalogy urges you to be as precautionary and protective as possible, based on the following three points.

### ***The southern resident killer whale population is at critical risk of extinction***

The population now numbers 73 individuals, having declined at the rate of about one whale per year since a recent high of 98 individuals in 1995. Of those 73 whales, 38 are known to be female and the sex of one 2019 calf has not yet been determined. Of the 38 known females, eight are post-reproductive and seven are immature; hence, the population presently consists of 23 females currently capable of reproduction. However, success in reproduction and recruitment has been sorely limited: since January 2010, only five females have been born and survived to the present, and since 2015, only two calves have been born and survived. In addition, the population is being depleted by higher than expected mortality of prime-aged (e.g., 16 to 25 year-old) individuals. The population will perish if these vital rates continue.

### ***Vessels and associated noise have serious impacts on these whales***

The best available science strongly supports the U.S. National Research Council's conceptual model for how ocean noise affects marine mammals. That science indicates that —

- vessel noise masks sounds the whales depend upon to forage (echolocate), communicate, and navigate;
- vessel noise causes the whales to change their behavior, including reduced time foraging, more time traveling, more erratic surface behavior, and increased energy costs of communication;
- changes in behavior in response to vessel noise cause an estimated 20 percent net energy loss and the portion of the whales in poor condition is increasing;



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- individuals in poor condition are less likely to reproduce and survive and, as noted above, these vital rates have worsened and are insufficient to maintain the population's abundance; and
- the ongoing decline is likely to continue without stronger recovery efforts.

## ***A precautionary approach is essential to conserve and recover this population***

The three main causes for the decline of this population are thought to be insufficient prey (Chinook salmon), exposure to vessel noise and disturbance, and exposure to contaminants. The amount of prey is considered by many to be the key factor, but these three risk factors likely interact synergistically. In addition, the population is also at risk from events of low probability but potentially high consequence (e.g., disease, oil spill), conditions that become a particular concern for populations that are small (e.g., inbreeding, imbalanced sex ratio), and conditions that will result from further ecosystem degradation (e.g., increased coastal development and vessel traffic, climate change).

All of the risk factors are caused by human-related impacts on the population's habitat. In almost all cases, restoring that habitat will be difficult and expensive, and will take decades. We look forward to multiple agency actions — taken as soon as possible — to ensure the availability of sufficient prey to promote recovery of this population. That being said, this request for comments is focused on vessel noise and disturbance, including that caused by commercial and recreational whale-watching vessels. This risk factor can be addressed immediately and with relatively little cost. Although we often support whale-watching to inform the public about marine mammals, we also believe such activity should not add to a population's risk of extinction. Whale-watching presently appears to be adding to the risk of extinction for the southern resident killer whale population because of insufficient enforcement of existing regulations and because existing regulations are simply inadequately precautionary given this population's critically endangered status.

On the Society's behalf, I urge NOAA Fisheries to impose the most protective and precautionary measures possible for this highly endangered population. For commercial and recreational whale watching vessels, this step requires increasing the approach distance to avoid any impact on these critically endangered whales. For large commercial vessels, it requires reducing anthropogenic sound levels by slowing their movement in the whales' critical habitat and possibly moving shipping lanes away from critical habitat. Anything less will increase the likelihood of continued decline, the long-term costs of recovery efforts, and the likelihood of failed recovery leading to extinction. If we fail, we will deprive ourselves and all future generations of the opportunity to know and appreciate first-hand these remarkable, iconic whales.

Sincerely,

D. Ann Pabst  
President, Society for Marine Mammalogy