

Dr J Pete Schroeder, Marine Mammal Vet

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I second the comments made by so many others in favor of the proposed new rule . Additionally, and extremely importantly, the benefits described in the rule may play an important role in the survival of the Endangered Southern Resident Killer Whale (SRKW) population. These iconic animals were listed by Washington State as Endangered in 2003, Giles,G, WDFW, as endangered. The Recovery Plan for SRKW (*Orcinus orca*), to which I made contributions, was published in 2008 and the SRKW were listed as endangered by NOAA, National Marine Fisheries Service, North West Regional Office. My main contributions were in section II H. Potential Threats to SRKW, especially Environmental Contaminants, Disease and the Cumulative Effects Of Chronic Stressors.

Since 2006 my co-investigators and I have been documenting the respiratory biome of the orcas, now back to their 1978 population level of 76-78 individual orcas. We also investigated the microbiota of the surrounding sea surface microlayer (SML) in the eastern north pacific, concentrating on the San Juan Island waters. (2017, Raverty, SA, et al.) Our data, an array of bacteria and fungi in breath and SML samples were identified, as well as microorganisms that exhibited resistance to multiple antimicrobial agents, identified, for the first time. The SML microbes and respiratory microbiota carry a pathogenic risk which we propose as an additional, forth putative stressor, (biological pollution) which may adversely impact the endangered SRKW population. The theory of dilution of pollution by the ocean is outdated. Free ranging SRKW and other cetacean species do not recognize boundaries, but they may be impacted by ship discharge, biological pollution, into their critical habitat, anywhere in the Salish Sea. I have seen live and stranded orcas inside the Dungeness Spit, so there is no doubt, having lived on the bluff overlooking Dungeness Bay, for 27 years, that cetaceans have to pass east of the New Dungeness Lighthouse to get there. I too strongly recommend passage of the subject rule. Thank you for the opportunity to submit comments. I won't add to your volumes of material that will be generated by this request for information, but will recommend your library acquire the publication, including the bibliography of, Respiratory Microbiome of Endangered Southern Resident Killer Whales and Microbiota of Surrounding Sea Surface Microlayer in the Eastern North Pacific, March, 2017, Scientific Reports, Nature, Raverty, et al..