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Naval Facilities Engineering Command Northwest
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ATTN: Mrs. Kimberly Kler - NWTRC EIS

Re: Comments on the NWTRC Draft EIS/OEIS

Our company, Cascadia Research Collective, is a small non-profit organization based in Olympia, WA. We have been conducting studies of marine mammals both here in the Pacific Northwest and in numerous other regions for nearly thirty years. We have specifically reviewed the marine mammal section of the Draft EIS for the Northwest Range Training Complex and wish to provide comments on some of the content.

We generally find the draft EIS/OEIS to be thorough and well-written, and commend the degree of analysis used to extrapolate potential effects based on available data. However, while we acknowledge that for much of the OPAREA there are limited data available, the EIS makes several assumptions regarding occurrence and abundance of local cetacean species that appear inaccurate and should be reviewed. We also believe that the rate of ship strike represented in the EIS is lower than actual data suggest, and that the increased risk of ship strike inherent in expanded naval operations should not be discounted. Finally, we wish to provide an opinion on the efficacy of the mitigation measures proposed.

Cetacean Species Occurrence

The draft EIS relies heavily on the calculated density of marine mammal species in the region to determine the population-wide level of impact naval activities are likely to have. While the text suggests spatial modeling was conducted sufficient to identify the range of densities expected for each species, the densities reported in Table 3.9-1 are averaged across the entire region, which in results in exceedingly low densities for all but the most prevalent species. Subsequently, a number of species are characterized as "Rare" that in reality have irregular distributions which can cause them to be locally abundant at times, such as humpback whales off northern Washington and Blue Whales off northern California (See www.cascadiaresearch.org/biblio for access to many of our publications and technical reports summarizing studies of these species off California, Oregon, and Washington). Further, we are concerned that the population estimates used for species such as fin whales, blue whales, sei whales, and sperm whales may be biased downward by the lack of survey effort in offshore areas, and that similar biases may exist for other species during winter months as there have been few winter surveys in the region historically. Recent year-round combined visual/ acoustic monitoring off the outer coast of Washington (Oleson et al., 2009) suggests that humpback whales, sperm whales, killer whales, and gray whales may be encountered with greater regularity than the estimates in the draft EIS suggest, and that the take levels anticipated for these species may be unrealistically low. Further, both satellite telemetry and an offshore sighting in January 2009 suggest that blue whales, although still quite rare in the

northern parts of the OPAREA, may be expanding their range north into Washington waters for the first time in many years.

The text acknowledges the small, seasonally resident population of gray whales in the study area, but it is unclear to what degree these whales are accounted for in the final take summaries. While the vast majority of the large eastern gray whale population will migrate through the area during winter months, seasonal resident whales (also known as the Pacific coast feeding aggregation) are present well into summer and fall, and occasionally aggregate resulting in higher than expected densities locally (Oleson et al. 2009). From June through September 2007, groups of 10-15 individual gray whales were observed feeding up to 15 nm from shore off the Central Washington coast, in water deeper than considered typical for west coast gray whales. These whales were within the proposed Quinalt Underwater Testing Range expansion area. We feel it is worth drawing specific attention to these whales for a number of reasons, including their small population size with apparently low recruitment levels from the overall eastern gray whale population, which puts them at greater risk of population level effects from anthropogenic impacts. Also, models likely did not account for the presence of these whales offshore during summer months, and it is unclear if models accounted for them inshore and along the Straits of Juan de Fuca, where they also occur. Finally, it was not noted anywhere in the text that gray whales are benthic foragers, and therefore are susceptible to accidental ingestion of expended materials wherever they might encounter them throughout their habitat.

Incidence of ship strikes in the region

Under section 3.9.1.1 the draft EIS states “Although marine mammal mortality from ship strikes has been documented, the incidence numbers are presently very low (generally on the order of zero to five documented records depending on the species) and infrequent. “. The source of this reference is unclear, but authors should see Douglas et al. 2008 for a more comprehensive review of ship strike data from Washington State. This paper identifies 19 vessel related strandings in the region. While we recognize that naval traffic represents a small percentage of total vessel traffic, and that due to a number of factors cited naval vessels are less likely to collide with marine mammals than large commercial ships, we do not feel this effect should be disregarded. A fin whale was struck and killed by a Navy vessel in the SOCAL OPAREA recently, during daylight hours and in apparently good visibility, presumably while all prescribed mitigatory measures were employed.

Mitigation

We agree that it is important for the Navy to undertake mitigation measures to the extent they are possible, but we find the document does not adequately acknowledge the limitations of the proposed mitigation for many marine mammal species. We acknowledge the training Navy lookouts receive and their experience in detecting objects at sea, but maintain that many species of marine mammals are difficult to detect at the surface in anything less than ideal sighting conditions, even by highly experienced marine mammal observers. Reduced horizontal visibility due to sea state, atmospheric conditions, swell height, time of day or other factors are common, if not predominant, in the offshore areas from Washington to Northern California. Given that the Navy does not limit operations due to

restricted visibility, there will likely be a considerable amount of training time when visual mitigation techniques are not effective for limiting the exposure of marine mammals to naval activities.

There are several species of marine mammals in the region whose behavior and/or physical characteristics severely limit the ability to detect them visually, even in good conditions. The 30 minute visual survey conducted in advance of many operations, as well as the 30 minute restriction on sonar use if an animal is detected, will likely be insufficient to determine the presence or absence of deep diving species such as sperm whales and beaked whales that routinely dive for an hour or more. In the case of sonar use by a vessel remaining within a limited area, beaked whales in particular move very little during long dives, so although they would not be resighted within 30 minutes they may be well within 1,000 yards of the vessel during this time.

In summary, we appreciate the lengths to which the Navy has gone to assess the impacts its activities may have on the environment. Marine mammals are notoriously difficult to mitigate for, and the navy has discounted most of the methods it considered, such as regional-, seasonal-, or conditions-based restrictions, due to their potential impact on military readiness. The inherent limitations of the proposed mitigation raises the standard by which impacts should be assessed and takes requested for marine mammals. In this region we are concerned the abundance of several species may be underestimated, and areas of locally increased density may not have been recognized. We suggest that these numbers be reviewed for accuracy in light of the most recent available data prior to the acceptance of a final EIS/OEIS for the region.

References

Douglas, A.B., J. Calambokidis, S. Raverty, S.J. Jeffries, D.M. Lambourn, and S.A. Norman. 2008. Incidence of ship strikes of large whales in Washington state. *Journal of the Marine Biological Association of the United Kingdom* 88:doi:10.1017/S0025315408000295.

Oleson, E.M., J. Calambokidis, E. Falcone, G. Schorr, and J.A. Hildebrand. 2009. Acoustic and Visual Monitoring for Cetaceans along the Outer Washington Coast. Report NPS-OC-09-001 to Naval Postgraduate School, Monterey, Ca. 45 pp.