

**Eyak Preservation Council, Friends of the San Juans, Hoh Tribe - Chálá-at: People of the Hoh River, Olympic Forest Coalition, Olympic Peninsula Watch, Orca Relief Citizens' Alliance, Oregon Shores Conservation Coalition, Peaceful Skies Coalition, Rosalind Peterson, Agriculture Defense Coalition, Quiet Skies Over San Juan County, Dr. Richard Steiner, Carol Van Strum, Veterans For Peace, West Coast Action Alliance**

June 27, 2016

Subject: Comments on NOAA Ocean Noise Strategy Roadmap

To: Dr. Kathryn Sullivan, Administrator, NOAA

By electronic submission to: [Comment.ONS@noaa.gov](mailto:Comment.ONS@noaa.gov).

Dear Dr. Sullivan,

The organizations and individuals named above wish to express our extreme concern about effects of rising noise levels on marine life in the richly diverse waters of the Pacific Northwest, and to thank you for initiating the Ocean Noise Strategy Roadmap project.

Due to the increasingly strategic importance of the Salish Sea for shipping and military purposes, noise problems in this region are becoming especially acute. Because of its hard bottom contours and deep channels, the Salish Sea acts as an acoustic echo chamber, which exacerbates problems for species that rely on hearing to find food, such as the highly endangered Southern Resident Killer Whales, of which only 83 remain.

Therefore, we ask that Pacific Northwest waters, including the Salish Sea, outer coast and offshore, be made a significant focus of this Strategy, and that tribal concerns about Usual and Accustomed places and the traditional harvests therefrom be included in planning and policy decisions. The following comments are intended to underscore ten recommended measures at the end of this letter, and to emphasize their urgency.

The Pacific Northwest is experiencing an accelerated rise of ocean noise. Most of the leading contributors to the problem of ocean noise are not currently regulated, and cumulative impacts have never been addressed. Numerous scientific studies demonstrate the adverse effects of noise on marine life, including several recent

studies mentioned in a 2013 letter from the Natural Resources Defense Council to the California Coastal Commission.<sup>1</sup>

Among the findings discussed in that letter are that mid-frequency human-generated sounds may pose significant risks to the recovery of endangered blue whale populations;<sup>2</sup> responses of Cuvier's beaked whales to sonar are much stronger than previously thought;<sup>3</sup> and that in the Bahamas, where Blainville's beaked whales are regularly exposed to Navy sonar, there are fewer calves per adult female.<sup>4</sup> Another paper showed that Southern California waters, which have far more sonar activity than the Bahamas, have become a "population sink" – a place where beaked whales are drawn but where they are unable to reproduce at the rate required to maintain their west coast population.<sup>5</sup>

In addition to the already predicted doubling of commercial shipping noise every decade, the US Navy is increasing its activity in Pacific Northwest waters by orders of magnitude, including the following, from their October 2015 Northwest Training and Testing Final Environmental Impact Statement (FEIS) as analyzed by the West Coast Action Alliance.<sup>6</sup>

72% increase in electronic warfare operations;  
50% increase in explosive ordnance disposal in Crescent Harbor and Hood Canal;  
400% increase in air-to-surface missile exercises (including Olympic National Marine Sanctuary);

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<sup>1</sup> Natural Resources Defense Council. "New Science on the Impacts of the Navy's Southern California Activities," letter to California Coastal Commission, August 28, 2013. [https://www.nrdc.org/sites/default/files/oce\\_13082901a.pdf](https://www.nrdc.org/sites/default/files/oce_13082901a.pdf)

<sup>2</sup> 1 Goldbogen JA, Southall BL, DeRuiter SL, Calambokidis J, Friedlaender AS, Hazen EL, Falcone EA, Schorr GS, Douglas A, Moretti DJ, Kyburg C, Mckenna MF, Tyack PL (2013) Blue whales respond to simulated mid-frequency sonar. *Proc R Soc B* 280: 20130657. <http://dx.doi.org/10.1098/rspb.2013.0657>.

<sup>3</sup> DeRuiter SL, Southall BL, Calambokidis J, Zimmer WMX, Sadyakova D, Falcone EA, Friedlaender AS, Joseph JE, Moretti D, Schorr GS, Thomas L, Tyack PL (2013) *First direct measurements of behavioural responses by Cuvier's beaked whales to mid-frequency active sonar*. *Biol Lett* 9: 20130223. <http://dx.doi.org/10.1098/rsbl.2013.0223>.

<sup>4</sup> Population ecology of Blainville's beaked whales (*Mesoplodon densirostris*) by Claridge, Diane E, PhD., University of St. Andrews, 2013 (available at: <http://hdl.handle.net/10023/3741>).

<sup>5</sup> See New LF, Moretti DJ, Hooker SK, Costa DP, Simmons SE (2013) Using Energetic Models to Investigate the Survival and Reproduction of Beaked Whales (family *Ziphiidae*). *PLoS ONE* 8(7): e68725. Doi:10.1371/journal.pone.0068725.

<sup>6</sup> Sullivan, Karen. "ANALYSIS AND NOTES Vol. 1 of 4, Northwest Training and Testing (NWTT) EIS," West Coast Action Alliance, <http://westcoastactionalliance.org/wp-content/uploads/2016/06/Analysis-and-Notes-NWTT-EIS.pdf>

400% increase in helicopter tracking exercises using towed sonar;  
 778% increase in number of torpedoes in inland waters;  
 3,500% increase in number of sonobuoys;  
 From none to 284 sonar testing events in inland waters;  
 From none to 286 “Maritime Security Operations” using 1,320 small-caliber rounds (blanks) in Hood Canal, Dabob Bay, Puget Sound & Strait of Juan de Fuca,  
 72% increase in chaff dropped from aircraft (contains tiny glass fibers and more than a dozen metal);  
 1,150% increase in drone surface vehicles;  
 Unknown increase in underwater drones;  
 1,450% increase in expendable devices;  
 2 ship sinking exercises each year with 24 bombs, 22 missiles, 80 large caliber rounds and 2 heavyweight high explosive torpedoes;  
 30 air-to-surface bombing exercises, including in the Olympic Coast National Marine Sanctuary;  
 160 gunnery exercises with small, medium & large caliber rounds, missiles, and high explosive warheads offshore, including Olympic Coast National Marine Sanctuary;  
 SEALs combat training on 68 beaches and state parks; and more.

Noise from the Navy’s aviation activities is having severe impacts on human as well as animal life in far too many formerly quiet areas, that besides residential include wilderness, state and federal parks wildlife refuges, and marine sanctuary areas, ranging from the San Juan Islands to coastal and offshore waters.

According to NOAA’s Letter of Authorization issued in November 2015, the number of allowable takes of marine mammals in Pacific Northwest waters is as follows:

Coastal waters of Northern California, Oregon and Washington:	575,258
Washington inland waters (Puget Sound, Hood Canal):	343,310
Southeast Alaska:	10,950
Eastern North Pacific (offshore)	21,996

The number of incidental takes authorized to the Navy by NOAA for whales, dolphins, porpoises, seals and sea lions for activities listed above totals approximately 1.2 million in the waters between Northern California and Southeast Alaska including Puget Sound. This number did not include 133,090 takes of bottlenose dolphins along the California, Oregon and Washington coasts; that number was inexplicably listed in NOAA’s Navy Letter of Authorization for Hawaii-Southern California.<sup>7</sup> Because empirical, unbiased data on takes do not exist, it is impossible to know how many such takes actually occur and how many are lethal; we also note that all data tracking takes are suspect because the Navy does not

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<sup>7</sup> NOAA. Letter of Authorization, Hawaii-Southern California, December 26, 2013, through December 25, 2018. Page 3.  
[http://www.nmfs.noaa.gov/pr/pdfs/permits/hstt\\_loa\\_training.pdf](http://www.nmfs.noaa.gov/pr/pdfs/permits/hstt_loa_training.pdf)

allow independent observers aboard its ships, citing national security reasons, despite the fact that civilian fitness instructors are allowed aboard many ships.

When one considers that the estimate for the number of gray whales in the eastern North Pacific is 21,000, and that they migrate up and down the West Coast from Alaska to Mexico, but that the numbers of takes allowed to the Navy in the areas of the Pacific where gray whales might be found is more than 60,000, it becomes clear that multiple harassment incidents to the same animals throughout their range are anticipated. While addressing these in separate EISs is necessary, the marine mammal takes for just four of the many Navy EISs in the North Pacific total nearly 12 million.<sup>8 9</sup>

While we appreciate that the workload burden on NOAA staff is enormous, such huge take numbers, combined with the fact that many species migrate through areas covered by multiple NEPA documents, causes us to question whether cumulative impacts over time are being adequately considered from this particular source of noise. **When combined with a general lack of standards for methodology to measure ocean noise from this and other unregulated sources, plus the difficulty of coordinating research and policy among agencies with overlapping jurisdictions, it does not appear that cumulative impacts are being addressed.**

A recent lawsuit in Southern California and Hawaii resulted in an agreement that until 2018, the Navy would refrain from conducting its activities in Biologically Important Areas, habitats that are heavily used by marine mammals for feeding, breeding, resting and migration. Similar habitats exist in northern waters. These prohibitions, however, do not apply to the Pacific Northwest or Alaska, where the Navy has conducted (and plans to continue conducting) its activities at peak times for animals. They will also expire in 2018.

The harm from noise does not end with marine mammals. According to a complaint filed by Earthjustice and the Natural Resources Defense Council, "High-intensity sound has been shown to reduce the viability of fish eggs and to cause developmental damage in young fish. Intense sound can kill eggs, larvae, and fry outright or retard their growth in ways that may hinder their survival later. It has also been shown to injure the ears and lateral lines necessary for hearing in adult fish. Intense sound may also have harmful resonance impacts on fish with swim

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<sup>8</sup> West Coast Action Alliance. "The Navy's Incidental Take of Marine Mammals and Endangered Species in Pacific Northwest Waters: An Analysis," June 16, 2016. <http://westcoastactionalliance.org/wp-content/uploads/2016/06/Incidental-take-of-marine-mammals---NWTT.pdf>

<sup>9</sup> West Coast Action Alliance. "Species-by-species takes of marine mammal species in four areas of the North Pacific covered by EISs." Calculated from 4 EISs. <http://westcoastactionalliance.org/wp-content/uploads/2016/04/Takes-by-species.pdf>

bladders, particularly larger pelagic fish such as tuna. Because fish rely on hearing to locate prey and avoid predators, affects to their hearing both impair their ability to find food and increase their vulnerability to predation.”<sup>10</sup>

In addition to the above, thousands of pilings are being driven throughout Puget Sound and the Strait of Juan de Fuca in naval facility construction projects. According to a spreadsheet provided to Veterans For Peace by a Navy employee, the Navy plans to add 144 pilings for harbor facilities in Port Angeles in a new Environmental Assessment (EA) to be introduced this year;<sup>11</sup> this is in addition to its existing proposal (a 2015 EA) for up to 40 pilings in Port Angeles harbor.<sup>12 13</sup> In late June 2016, the US Army Corps of Engineers and the Washington Department of Ecology received an application from the Navy for Clean Water Act and Rivers and Harbors Act review of the 144 additional pilings, but as of this date the Navy has not produced an EA for public review and comment.<sup>14</sup> Our concern is that by the time an EA is produced, the project will be a done deal and the public comment process a mere formality.

Pile-driving noise can carry for 18 miles underwater. Large whales, including the critically endangered Southern Resident Population of Killer Whales, frequent the Port Angeles area. The driving of up to 184 pilings in that harbor qualifies as a major federal action, yet is being handled in separate EAs that preclude the public’s ability to evaluate the full scope of impacts. This amounts to segmentation of the effort to evaluate impacts that taken together would rise to the level of an EIS, which would have addressed them cumulatively. **We wish to call NOAA’s attention to NEPA segmentation as a contributory cause of unregulated noise in the sea.**

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<sup>10</sup> Earthjustice and NRDC. Complaint for Declaratory and Injunctive Relief (Civ. No.) January 25, 2012. <http://earthjustice.org/sites/default/files/NW-Training-Range-Complaint.pdf>

<sup>11</sup> US Navy. “NW NEPA Report,” December 2015. Excel spreadsheet. See item #14. <http://westcoastactionalliance.org/wp-content/uploads/2016/06/NW-NEPA-Report-12.15.15-4.xlsx>

<sup>12</sup> US Navy. Environmental Assessment. “Description of Proposed Action and Alternatives, Pier and Support Facilities for Transit Protection System at U.S. Coast Guard Air Station/Sector Field Office, Port Angeles, Washington,” January 2015. [http://westcoastactionalliance.org/wp-content/uploads/2015/02/2015-01-2015-nw\\_Pier\\_and\\_Support\\_Facilities\\_TPS\\_Port\\_Angeles\\_DoPAA.pdf](http://westcoastactionalliance.org/wp-content/uploads/2015/02/2015-01-2015-nw_Pier_and_Support_Facilities_TPS_Port_Angeles_DoPAA.pdf)

<sup>13</sup> US Navy. “Proposed Pier and Support Facilities for Transit Protection System (TPS) at US Coast Guard Air Station/Sector Field Office Port Angeles, Washington. Web page. <http://www.cnrc.navy.mil/content/dam/cnrc/cnrnw/pdfs/CNRNW-Environmental-policies/160114-ZZ999-N-001.pdf>

<sup>14</sup> US Army Corps of Engineers and Washington Department of Ecology. “Joint Public Notice: Application for a Department of the Army Permit and a Washington State Department of Ecology Water Quality Certification and Coastal Zone Management Consistency Concurrence.” <http://www.ecy.wa.gov/programs/sea/fed-permit/pdf/201500107JPN.pdf>

When the Navy published its Northwest Training and Testing Final EIS (FEIS) on October 2, 2015, it did so without a public comment period and without the necessary endangered species/marine mammal/cultural-historic property consultations with NOAA, the US Fish and Wildlife Service (USFWS), and the State of Washington. All three lapses are extraordinary and unprecedented. NOAA was able to complete its consultation and issue a Letter of Authorization for take of marine mammals by early November, but as of late June 2016, the US Fish and Wildlife Service's endangered species consultation has not been completed, nor has a permit been issued for incidental take of marbled murrelets or other species managed by FWS.

While we do not know the reason for this unprecedented delay, a series of internal emails provided by a Navy employee to an investigative reporter showed that the Navy is proceeding with its activities despite lack of coverage under the Endangered Species Act.<sup>15 16 17</sup>

In one email dated September 10, 2015, from the above-footnoted call synopsis thread, a Navy staffer describing a phone conversation with the USFWS described how the Navy does not consider temporary hearing loss to be a form of harm, and that it should therefore should not count as a take. She wrote, "We have a difference of opinion on Permanent Threshold Shift (PTS) vs Temporary Threshold shift (TTS). Navy position is that PTS is permanent as a result of hair cell loss and would cause a loss in hearing at certain frequencies. This would be considered injury. In contrast, TTS is auditory fatigue and would not result in hair cell loss and thus is temporary and non-injurious. USFWS maintains that TTS is hair cell loss and thus is injury." **In other words, the Navy's position remains that temporary hearing loss should not be considered a form of harm.**

In this email she explained that this lower threshold for harm should be substituted for current standards, and continued, "They are not separating harassment from harm. Rather all harassment is considered harm. We explained that the Navy's proposed criteria would allow for them to separate harassment from harm. This is biologically significant from an animal's perspective, as well as significant from a public perception stand point (behavioral harassments should not be quantified as

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<sup>15</sup> Jamail, Dahr. "Emails Reveal Navy's Intent to break law, threatening endangered species. Truthout, May 9, 2016. <http://www.truth-out.org/news/item/35954-exclusive-emails-reveal-navy-s-intent-to-break-law-threatening-endangered-wildlife>

<sup>16</sup> US Navy. Emails. Pentagon-FWS call synopsis. September 2015. [http://westcoastactionalliance.org/wp-content/uploads/2016/05/3\\_EMAIL-09-10-ESA-MAMU-Pentagon-FWS-call-synopsis-3.docx](http://westcoastactionalliance.org/wp-content/uploads/2016/05/3_EMAIL-09-10-ESA-MAMU-Pentagon-FWS-call-synopsis-3.docx)

<sup>17</sup> US Navy. Emails. Pentagon calls FWS Field Office. August-September 2015. [http://westcoastactionalliance.org/wp-content/uploads/2016/05/2\\_EMAIL-08-18-ESA-BO-Pentagon-calls-FWS-Field-Office-11.docx](http://westcoastactionalliance.org/wp-content/uploads/2016/05/2_EMAIL-08-18-ESA-BO-Pentagon-calls-FWS-Field-Office-11.docx)

**harm).” Standards for harm under the Marine Mammal Protection Act cannot and should not be substituted for the standards of harm under the Endangered Species Act. Harm is specifically defined by the Endangered Species Act, <sup>18</sup> under which authority the marbled murrelet consultation is being conducted, and any separation of behavioral response to harassment from that definition for the purpose of appearing to reduce the actual amount of take is unlawful.**

The history of the Navy’s dismissal of animal behavioral responses to sonar as an insignificant factor, along with its desire to separate harassment from the definition of harm, goes back several years. In a 2007 letter to the California Coastal Commission, they stated: “The Navy conducted acoustic propagation modeling and effects analysis and determined that the nature of potential effects on marine mammals from exposure to MFA (medium frequency) sonar would primarily be of a behavioral nature,” and that “...studies do not indicate that exposure to MFA sonar would have an effect on the population of marine mammals, rather these studies indicate that there is a potential for behavioral effects.” <sup>19</sup>

It is from such dismissal of impacts, abuse of the NEPA process, lack of adequate mitigation measures, and ignoring ESA requirements, that significant levels of noise in the sea go unaddressed. We recognize the gigantic hole that lack of NEPA enforcement has played and continues to play, in protecting the environment, and the role that the Navy’s conduct as evidenced in leaked materials has played. It is our goal to ensure that NOAA also recognizes this as a major contributor to rapid and unregulated increases of noise in the sea. Therefore, we ask that the following recommendations be incorporated into NOAA’s research and policy decisions as the Ocean Noise Strategy Roadmap project moves forward:

1. Develop and implement a wider set of noise mitigation measures, such as standardizing the methodology for measuring underwater noise, realigning some portions of shipping lanes to reduce shipping noise footprint on Biologically Important Areas, seasonal restrictions on the use of underwater explosives and seismic activity during peak marine mammal migration times, moving naval war exercises further offshore, restrictions on the use of sonar in critical habitat for the Southern Resident Killer Whale population and whenever

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<sup>18</sup> Endangered Species Act: Section 9 of the ESA makes it illegal to take an endangered species of fish or wildlife. The definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." (16 U.S.C. 1532(19)).

<sup>19</sup> US Navy. “US Navy Pacific Fleet’s Offshore and Onshore Military Training Exercises in Southern California,” Letter to California Coastal Commission, February 12, 2007. <http://www.coastal.ca.gov/fedcd/sonar/navy-response-sonar-3-22-2007..pdf>

marine mammals are present, and a noise mitigation focus on salmon, which are the primary food source for the Southern Resident Killer Whale population.

2. Refuse to allow NEPA segmentation of connected and functionally related activities to preclude full and cumulative evaluations of their full scope of impacts;

3. Urge the Navy to not conduct sonar and explosive activity in the Olympic Coast National Marine Sanctuary and other biologically sensitive areas;

4. More research is needed on effects of multiple harassment incidents on single individuals; where is the line crossed from harassment to harm when an individual experiencing stress caused by climate change is repeatedly chased by sonar, explosions or ship noise? Due to the acute problems in Pacific Northwest waters, we ask for a research emphasis on this region.

5. Adopt seasonal marine mammal and other protections as granted to "Biologically Important Areas" in new rules set for Navy training ranges in Hawaii and Southern California;

6. Urge the Navy to allow observers to be trained by NOAA for marine mammals, and by USFWS for seabirds such as the marbled murrelet, and allow independent observers aboard ships during exercises to monitor take;

7. Urge the Navy to accept and implement mitigation measures requested by federal wildlife agencies;

8. Require the Navy to partner with Tribal, Federal, State, and other organizations to help provide "take" (or catch rate) biomass data of important indicator species, as if Navy training activities/sonar operations/release of "expended materials" were similar to subsistence, sport, or commercial fishing and related activities. Research and report similar for avian species.

9. Until more is known about potential for adverse impacts to migratory and resident fish and birds that tend hold to coastlines and off-shore canyons, or areas designated as "Essential Fish Habitat," move exercises further off-shore into/over deeper waters, well off the continental shelf. Proof of "no adverse impacts" by Navy exercises should be verified by data obtained and tracked over time in items 6 through 8 described above.



10. Consider incorporating the frames of reference and recommendations from the 2005 report, "Sounding the Depths II" into priorities and policy decisions of the Ocean Noise Strategy Roadmap Project.<sup>20</sup>

Thank you for initiating the Ocean Noise Strategy; it will be an important step toward restoring the healthy oceans that marine mammals evolved for living in, over millions of years. Thank you also for consideration of these comments; we ask that the NOAA Administrator direct the agency to develop a concrete, measurable implementation plan, clear directives on how NOAA will engage other agencies such as the Department of the Navy, and a budget to achieve the goals, in the shortest possible time. Thank you.

Sincerely yours,  
Karen Sullivan

**on behalf of the West Coast Action Alliance**

P.O. Box 1805  
Port Townsend, WA 98368

**and**

**Eyak Preservation Council  
Friends of the San Juans  
Hoh Tribe - Chalá·at: People of the Hoh River  
Olympic Forest Coalition  
Olympic Peninsula Watch  
Orca Relief Citizens' Alliance  
Oregon Shores Conservation Coalition  
Peaceful Skies Coalition  
Rosalind Peterson, Agriculture Defense Coalition  
Quiet Skies Over San Juan County  
Dr. Richard Steiner  
Carol Van Strum  
Veterans For Peace**

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<sup>20</sup> Jasny, Michael et al. "Sounding the Depths II: The Rising Toll of Sonar, Shipping and Industrial Noise on Marine Life," Natural Resources Defense Council, November 2005. <https://www.nrdc.org/sites/default/files/sound.pdf>