

RECORD OF DECISION
ISSUANCE OF AN INCIDENTAL HARASSMENT AUTHORIZATION TO THE U.S. NAVY
TO TAKE MARINE MAMMALS INCIDENTAL TO CONSTRUCTION OF AN
EXPLOSIVES HANDLING WHARF

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As required by the National Environmental Policy Act (NEPA), this document comprises the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service's (NMFS) Record of Decision (ROD) for issuance of an incidental harassment authorization (IHA) pursuant to section 101(a)(5)(D) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1361 *et seq.*) to the U.S. Navy (Navy) for the taking, by Level B harassment, of small numbers of several species of marine mammals incidental to construction of an explosives handling wharf (EHW-2) in the Hood Canal, Washington.

Introduction

In November, 2011, NMFS received a complete application from Navy for a 1-year IHA, under section 101(a)(5)(D) of the MMPA, to take small numbers of several species of marine mammals, by Level B harassment, incidental to construction of EHW-2 in the Hood Canal, Washington. The IHA would cover the first year of construction, from July 16, 2012, through July 15, 2013.

The Navy prepared a *Final Environmental Impact Statement on TRIDENT Support Facilities Explosives Handling Wharf* (FEIS). The NMFS Office of Protected Resources (PR) has reviewed the information contained in the Navy FEIS and determined that the FEIS accurately and completely describes the proposed action alternative, reasonable additional alternatives, and the potential impacts on marine mammals, endangered species, and other marine life that could be impacted by the proposed action and the other alternatives.

Because noise generated during construction of the wharf has the potential to disrupt the behavior patterns of marine mammals in the vicinity, an IHA is warranted under the MMPA. Therefore, NMFS participated as a cooperating agency in the preparation of the Navy Draft and Final EISs, and this ROD has been prepared in accordance with NMFS' decision-making requirements under NEPA and is intended to: (a) state the NMFS decision, present the rationale for its selection, and describe its implementation; (b) identify the alternatives considered in reaching the decision; and (c) state whether all practicable means to avoid or minimize environmental harm from implementation of the selected alternative have been adopted (40 CFR 1505.2).

Section 101(a)(5)(D) of the MMPA (16 U.S.C. 1361 *et seq.*) directs the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified

geographical region if certain findings are made and, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review. Under the MMPA, permission shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring, and reporting of such takings are set forth. NMFS has defined “negligible impact” in 50 CFR 216.103 as “...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.”

Decision to Be Made

This ROD documents the decision by NOAA NMFS to issue an IHA to Navy for harassment of marine mammals incidental to construction of EHW-2, based on the Navy FEIS, the Navy’s application for an IHA, NMFS’ analysis, and comments received on the proposed IHA. The IHA is specific to the proposed action alternative in the FEIS. This ROD is based on and incorporates the Navy FEIS, Navy’s application for an IHA, and all of NMFS’ analytical documents prepared for this action.

Pursuant to the requirements of NEPA, the Navy published a notice of intent to prepare an EIS in the *Federal Register* on May 15, 2009 (74 FR 22900), conducted public scoping, released a Draft EIS in March, 2011 and a notice of availability on March 18, 2011 (76 FR 14968) announcing a 45-day comment period. Comments submitted during this period, as well as at public hearings, were considered during the development of the FEIS. After careful review of the proposed measures and the associated analyses in the FEIS and the public comments that NMFS received on the proposed IHA *Federal Register* notice, NMFS has decided to issue an IHA to Navy, provided that mitigation, monitoring, and reporting requirements described below and analyzed in the FEIS are incorporated.

Alternatives Considered by NMFS

NMFS’ proposed action (issuance of an IHA to Navy) would authorize take of marine mammals incidental to a subset of the activities analyzed in the Navy’s EIS that are anticipated to result in the take of marine mammals, i.e., pile driving activities. Thus, these components of the Navy’s proposed action are the subject of NMFS’ proposed MMPA regulatory action. The Navy’s EIS contains a thorough analysis of the environmental consequences of their proposed action on the human environment, including a specific section addressing the effects of underwater sound on marine mammals.

NMFS was a cooperating agency in the development of the Navy’s EIS. This allowed NMFS to ensure that the necessary information and analyses were included in the Navy’s EIS to support NMFS’ proposed action and allow for adoption of the document for NMFS’ NEPA purposes. In adopting the Navy’s EIS, NMFS considered two alternatives, as well as the No Action Alternative. The following briefly summarizes these alternatives:

Alternative 1: NMFS issues an IHA authorizing take of marine mammals incidental to activities described in Navy’s preferred alternative, with the mitigation, monitoring and reporting measures presented in the Navy’s EIS.

Alternative 2: NMFS issues an IHA authorizing take of marine mammals incidental to activities described in Navy's preferred alternative, but with additional mitigation requirements for marine mammals, potentially including additional measures developed by NMFS or suggested to NMFS via public comment on the proposed IHA.

No Action: NMFS would not issue an IHA to the Navy for the take of marine mammals incidental to activities described in the Navy's preferred alternative.

Alternatives Considered by the Navy

Consistent with NEPA, the FEIS considered alternative means to construct an explosives handling wharf. The Navy evaluated a wide range of alternative designs for the EHW-2 using the following criteria:

- Capability to meet TRIDENT mission requirements,
- Ability to avoid or minimize environmental impacts,
- Siting requirements including proximity to existing infrastructure,
- Availability of waterfront property,
- Constructability of essential project features, and
- Explosives safety restrictions.

All of the action alternatives analyzed in the EIS would meet the above criteria. Considering alternatives helps to avoid unnecessary impacts and allows analysis of reasonable ways to achieve the stated purpose. Consistent with NEPA, the FEIS considered impacts to marine mammals and their habitats associated with each alternative considered.

The EHW-2 would consist of two components: (1) the wharf proper; and (2) access trestle(s). The Navy EIS considered five alternatives that were comprised of different design alternatives for the EHW-2, as well as the No Action Alternative. The following briefly summarizes these alternatives:

Alternative 1: Combined Trestle, Large Pile Wharf (Preferred Alternative).

Under this alternative, the access trestles would be combined over shallow water to reduce impacts to shallow-water habitat and resources. The wharf would be supported primarily on large (up to 48-inch diameter) piles, along with some smaller (24-inch diameter) piles. This alternative provides the most suitable design relative to the Navy's Purpose and Need, while reducing pile driving compared with Alternatives 2 and 4, and reducing the overwater area of the wharf in comparison with Alternatives 3-5.

Alternative 2: Combined Trestle, Conventional Pile Wharf.

This alternative would have the same combined trestles as Alternative 1, but would use a conventional pile wharf supported on a larger number of smaller (24- to 36-inch diameter) piles than the Large Pile Wharf. Otherwise, the dimensions of the Conventional Pile Wharf would be the same as those of the Large Pile Wharf. Pile driving would take longer than for Alternative 1, increasing the length of time required for pile driving and the amount of noise introduced into the environment.

Alternative 3: Separate Trestles, Large Pile Wharf.

Unlike Alternatives 1 and 2, this alternative would have completely separate access trestles. As a result, there would be more trestle piles and overwater area, including more area over shallow water, which would increase impacts to marine vegetation and benthic habitat. This Large Pile Wharf would be the same as Alternative 1.

Alternative 4: Separate Trestles, Conventional Pile Wharf.

This alternative would have the same separate trestles as Alternative 3 and the same Conventional Pile Wharf as Alternative 2.

Alternative 5: Combined Trestle, Floating Wharf.

This alternative would employ a floating wharf rather than a pile-supported wharf. The wharf would be supported on large concrete pontoons and connected to mooring dolphins. This alternative would use combined trestles similar to Alternatives 1 and 2. The floating wharf would be larger than the pile-supported wharves. This alternative would entail considerably fewer piles than the other alternatives.

No Action.

Under this alternative, no EHW-2 would be built, and the Navy would not have the required facilities to perform routine operations and upgrades required to maintain the current fleet of TRIDENT submarines at Naval Base Kitsap Bangor in the Hood Canal through 2042.

Environmentally Preferred Alternative(s)

Section 101 of NEPA requires that an agency identify the environmentally preferred alternative when preparing a ROD for actions considered in an EIS. The Council on Environmental Quality has advised that such an alternative is to be based solely on the physical and biological impacts of the proposed action on the resources in question and not the social or economic impacts of the action. The FEIS demonstrates that the Navy's Proposed Action (Preferred Alternative) is the environmentally preferred action alternative. The Proposed Action would have the least impact on the human environment based on the analyses of location and construction design and schedule.

Rationale for Selection of the Preferred Alternative

The decision is to issue an IHA to Navy for the initial year of construction of the EHW-2. This decision is made based on the evaluations in the FEIS and in consideration of NMFS' statutory responsibilities under the MMPA, as well as in compliance with the Endangered Species Act (ESA), Magnuson-Stevens Fishery Conservation and Management Act, Coastal Zone Management Act, and other laws and implementing regulations as fully analyzed in the FEIS.

Based upon review of the Proposed Action and all other alternatives, NMFS has determined that the impact of construction of the EHW-2 may result, at worst, in a temporary modification in behavior of small numbers of certain species of marine mammals that may be in close proximity to the EHW-2 facility during its construction. These activities are expected to result in some local, short-term displacement resulting in no more than a negligible impact on the affected species or stocks of marine mammals. These impacts will be reduced to effect the least

practicable adverse impact by incorporation of the mitigation and monitoring measures summarized below. No injuries or mortalities of marine mammals are expected to result from this activity.

NMFS participated as a cooperating agency in the preparation of the FEIS to ensure that the potential impacts to marine mammals and their habitat were fully considered in the evaluation of the environmental consequences of the proposed action and alternatives. Any of the proposed alternatives would be conducted in a manner that would be expected to result in only temporary Level B (behavioral) harassment of several marine mammal species. However, the Project as presented for NMFS consideration in the Navy IHA application represents the environmentally preferable action alternative (Preferred Alternative) when evaluated in accordance with the NEPA and in consideration of the MMPA and the ESA. Although NMFS evaluated an alternative that would require additional mitigation measures, those measures are not feasible for Navy implementation, and therefore would not meet the purpose and need of the proposed action.

There has been substantial opportunity for public review and comment in association with the Navy's preparation of the EIS, as well as through the MMPA incidental take authorization process. The Navy's scoping period began with the publication of a Notice of Intent in the *Federal Register* on May 15, 2009. The scoping period lasted 64 days, during which time the Navy held three public scoping meetings and received 156 public comments. The Navy's draft EIS was responsive to these comments, and was made available for public review and comment on March 18, 2011 through a Notice of Availability published in the *Federal Register*. On March 21, 2011, the Navy published a Notice of Public Hearings in the *Federal Register*, which provided a brief description of the proposed action and announced the dates and locations of the public hearings, locations of the information repositories, and comment submission information. On May 3, 2011, the Navy published a Notice for the Extension of Public Comment Period in the *Federal Register*, announcing that the comment period would end on May 17, 2011. During the 60-day review period, the Navy held three public hearings and received 328 formal comments. Subsequently, the Navy made a supplement to the draft EIS publicly-available for a 45-day comment period. The final EIS incorporates additional environmental analysis in response to issues raised by the public, agencies, and tribes during these public review periods. All of the comments on the Navy's FEIS that are related to NMFS' action have been considered by NMFS in reaching the decision recorded in this document.

In addition, NMFS received public comment on the proposed IHA *Federal Register* notice from the Marine Mammal Commission (MMC). The MMC made several recommendations, including some additional mitigation measures. While we agreed with certain recommendations from the MMC, additional mitigation measures were deemed unnecessary, as the measures agreed upon by NMFS and the Navy and required under the terms of the IHA would effect the least practicable impact on the affected species or stock. The numbers of incidental take analyzed in the FEIS, as well as the numbers in the final IHA *Federal Register* notice, are small relative to the relevant stock sizes. NMFS responded to these comments more fully in the final IHA *Federal Register* notice of issuance. NMFS has made the decision to issue the IHA after careful review of these comments.

Mitigation Measures and Monitoring

In accordance with the MMPA, an extensive series of mitigation and monitoring measures were analyzed in the FEIS and will be required as part of the IHA. These measures will effect the least practicable adverse impact on the affected species or stock of marine mammals under NMFS jurisdiction. The mitigation, monitoring, and reporting requirements that will be included in the IHA are summarized below, and were developed by NMFS in cooperation with Navy to achieve the least practicable adverse impact to marine mammal species or stocks and consider all practicable means to avoid or minimize harm to resources under NMFS jurisdiction:

Shutdown and Monitoring of Construction Activity

For in-water heavy machinery work other than pile driving, if a marine mammal comes within 10 m (33 ft), operations will cease and vessels will reduce speed to the minimum level required to maintain steerage and safe working conditions. Monitoring of these activities would take place from 15 minutes prior to initiation until the action is complete.

The Navy would implement a minimum shutdown zone of 25 m (82 ft) radius for cetaceans and 10 m for pinnipeds around all pile driving activity.

In order to conduct monitoring additional to the monitoring conducted in support of the shutdown zones, the Navy would establish an observation position within the Waterfront Restricted Area (a security zone surrounding the project site), maximally distant from the pile driving operations. Any marine mammal observations would be relayed to the observers monitoring the shutdown zones and would be recorded as Level B takes. The additional position would be able to monitor an effective area of at least 500 m distance from the pile driving activity, and any sighted animals would be recorded as takes. The shutdown and buffer zones would be monitored throughout the time required to drive a pile. If a marine mammal is observed within the buffer zone, a take would be recorded and behaviors documented. However, that pile segment would be completed without cessation, unless the animal approaches or enters the shutdown zone, at which point all pile driving activities would be halted. Monitoring would take place from 15 minutes prior to initiation through 30 minutes post-completion of pile driving activities.

All buffer and shutdown zones would initially be based on the distances from the source that are predicted by modeling for each threshold level. However, in-situ acoustic monitoring would be utilized to determine the actual distances to these threshold zones, and the size of the shutdown and buffer zones would be adjusted accordingly based on received SPLs.

Monitoring would be conducted by qualified observers. A trained observer would be placed from the best vantage point(s) practicable (e.g., from a small boat, the pile driving barge, on shore, or any other suitable location) to monitor for marine mammals and implement shut-down or delay procedures when applicable by calling for the shut-down to the hammer operator. Prior to the start of pile driving activity, the shut-down zone would be monitored for 15 minutes to ensure that it is clear of marine mammals. Pile driving would only commence once observers have declared the shut-down zone clear of marine mammals; animals would be allowed to remain in the buffer zone (i.e., must leave of their own volition) and their behavior would be monitored and documented. If a marine mammal approaches or enters the shut-down zone during the course

of pile driving operations, pile driving would be halted and delayed until either the animal has voluntarily left and been visually confirmed beyond the shut-down zone or 15 minutes have passed without re-detection of the animal.

Sound Attenuation Devices

Sound attenuation devices would be utilized during all impact pile driving operations. The Navy plans to use a bubble curtain as mitigation for in-water sound during construction activities. Bubble curtains absorb sound, attenuate pressure waves, exclude marine life from work areas, and control the migration of debris, sediments and process fluids.

Timing Restrictions

The Navy has set timing restrictions for pile driving activities to avoid in-water work when ESA-listed fish populations are most likely to be present. The in-water work window for avoiding negative impacts to fish species is July 16-February 15.

Impact pile driving during the first half of the in-water work window (July 16 to September 15) would only occur between 2 hours after sunrise and 2 hours before sunset to protect breeding marbled murrelets. Vibratory pile driving and other construction activities occurring in the water between July 16 and September 15 could occur during daylight hours (sunrise to sunset). Between September 16 and February 15, construction activities occurring in the water would occur during daylight hours (sunrise to sunset).

Soft Start

The use of a soft start procedure is believed to provide additional protection to marine mammals by warning, or providing marine mammals a chance to leave the area prior to the hammer operating at full capacity. The wharf construction project would utilize soft start techniques (ramp-up and dry fire) for impact and vibratory pile driving. The soft start requires contractors to initiate sound from vibratory hammers for fifteen seconds at reduced energy followed by a 30-second waiting period. This procedure would be repeated two additional times. For impact driving, contractors would be required to provide an initial set of three strikes from the impact hammer at forty percent energy, followed by a 30-second waiting period, then two subsequent three strike sets.

Reporting

Required reporting on the Navy's activities and implementation of these mitigation measures would be submitted to NMFS within 60 days of the completion of the first 30 days of acoustic measurements and marine mammal monitoring. The report would also provide descriptions of any problems encountered in deploying sound attenuating devices, any adverse responses to construction activities by marine mammals, and actions taken to solve these problems. A final report would be prepared and submitted to NMFS within 30 days following receipt of comments on the draft report from NMFS. Within 60 days of the end of the in-water work period, a draft comprehensive report on all marine mammal monitoring conducted under the proposed IHA would be submitted to NMFS. The report would include marine mammal observations pre-activity, during-activity, and post-activity during pile driving days. A final report would be prepared and submitted to NMFS within 30 days following receipt of comments on the draft report from NMFS.

Conclusions

Through adoption of the Navy FEIS and as documented in this ROD, NMFS has fulfilled the requirements of NEPA to consider the objectives of the proposed action and analyze a reasonable range of alternatives that adequately address the objectives of the proposed action. Furthermore, NMFS has analyzed the associated environmental consequences and impacts of the alternatives and identified mitigation and monitoring measures to address, to the extent practicable, those consequences and impacts. NMFS has also considered public comments on issuance of an IHA and has been informed by public comment on the Navy EIS. Consequently, NMFS concludes that issuance of an IHA for construction of EHW-2 in Hood Canal is warranted under the MMPA, as long as the mitigation, monitoring, and reporting requirements described above are implemented.


Further information regarding this ROD may be obtained by contacting Ben Laws, NOAA NMFS PR, 1315 East-West Highway, Silver Spring, MD 20910, (301) 427-8425.



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