



NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS



WELCOME

The U.S. Navy Welcomes Your Input!





NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS

National Environmental Policy Act Process and Milestones

Public involvement is a fundamental aspect of the environmental analysis process. The Navy welcomes and appreciates your substantive comments.



NEPA PROCESS AND TIMELINE

►	MILESTONE	DESCRIPTION	CURRENT SCHEDULE
	Notice of Intent to Prepare a Supplemental EIS/OEIS	<ul style="list-style-type: none">Starts the public involvement phase of the NEPA process.	Aug. 22, 2017
►	Scoping Period	<ul style="list-style-type: none">Provides an early and open public process for identifying potential environmental issues and viable alternatives to be evaluated in the Supplemental EIS/OEIS.Includes opportunities to learn more and submit comments.	Comment Period: Aug. 22–Oct. 6, 2017* *Comment period extended
	Draft Supplemental EIS/OEIS	<ul style="list-style-type: none">Presents the analysis of potential environmental impacts for each identified alternative.	March 29, 2019
►	Draft Supplemental EIS/OEIS Public Review and Comment Period	<ul style="list-style-type: none">Provides the public an opportunity to comment on the analysis presented in the Draft Supplemental EIS/OEIS.Includes eight public meetings and other opportunities to learn more and submit comments.	Comment Period: March 29–June 12, 2019* *Comment period extended Public Meetings: Everett, Wash.: April 24, 2019 Silverdale, Wash.: April 25, 2019 Port Angeles, Wash.: April 26, 2019 Astoria, Ore.: April 29, 2019 Newport, Ore.: April 30, 2019 Eureka, Calif.: May 2, 2019 Fort Bragg, Calif.: May 3, 2019 Ketchikan, Alaska: May 8, 2019
	Final Supplemental EIS/OEIS	<ul style="list-style-type: none">Includes revisions to the Draft Supplemental EIS/OEIS and responses to substantive comments received during the Draft Supplemental EIS/OEIS comment period.	Summer 2020
►	Final Supplemental EIS/OEIS 30-Day Wait Period	<ul style="list-style-type: none">Provides a 30-day wait period after the Final Supplemental EIS/OEIS is published before the Navy may take final action.	Summer 2020
	Record of Decision	<ul style="list-style-type: none">Follows the Final Supplemental EIS/OEIS public review and wait period, which includes consideration of public comments.Includes the selection of an alternative by the Office of the Assistant Secretary of the Navy (Energy, Installations, and Environment).	Fall 2020

► Opportunities for Public Review and Comment Complete In Progress Next Steps



NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS

Proposed Action and Alternatives

The Navy prepared the NWTT Supplemental EIS/OEIS to support the reevaluation and reauthorization of training and testing activities analyzed in the 2015 NWTT Final EIS/OEIS.

Proposed Action

- ▶ Conduct training and testing activities, at sea and in associated airspace, at levels required to support military readiness requirements beyond 2020.
- ▶ Accommodate evolving mission requirements, including those resulting from the development, testing, and introduction of new vessels, aircraft, and weapons systems into the fleet.



Alternative 1 (Preferred Alternative)	<ul style="list-style-type: none">▶ Includes adjustments to types and levels of training and testing to meet current and future requirements.▶ Includes potential increase of approximately 300 aircraft flights per year in Olympic Military Operations Areas.▶ Reflects a representative year of training and testing.▶ Consists of activities and requirements associated with the development, testing, and introduction of new vessels, aircraft, and weapons systems.
Alternative 2	<ul style="list-style-type: none">▶ Includes all activities described under Alternative 1.▶ Includes additional adjustments to types and levels of activities to reflect the maximum number of training and testing activities that could occur within a given year.
No Action Alternative	<ul style="list-style-type: none">▶ Authorization from the National Marine Fisheries Service would not be issued.▶ Proposed at-sea training and testing activities would not be conducted.▶ Other military activities not associated with the Proposed Action would continue.▶ Purpose of and need for the Proposed Action would not be met.



Importance of Military Readiness

The Navy's mission is to maintain, train, and equip combat-ready naval forces capable of winning wars, deterring aggression, and maintaining freedom of the seas. To succeed in combat or an emergency, Sailors must be ready to respond to many different situations, in varied settings, often under crisis conditions. Training and testing must be diverse and as realistic as possible to prepare them for what they will experience in real-world situations to ensure their success and survival.



KEY UPDATES MADE IN THE DRAFT SUPPLEMENTAL EIS/OEIS

- ▶ Included a No Action Alternative in which Marine Mammal Protection Act authorization would not be issued; therefore, proposed training and testing activities would not be conducted.
- ▶ Included analyses of both increases and decreases in training and testing from current levels.
- ▶ Recategorized or renamed many testing activities for consistency.
- ▶ Assessed potential acoustic impacts on marine species using an updated acoustic effects model, updated marine species criteria and thresholds, and more recent marine species density data.
- ▶ Used the most current and best available science and analytical methods.
- ▶ Reviewed procedural mitigation measures and considered geographic mitigation measures.
- ▶ Analyzed the impact of aircraft noise over the Olympic Peninsula.



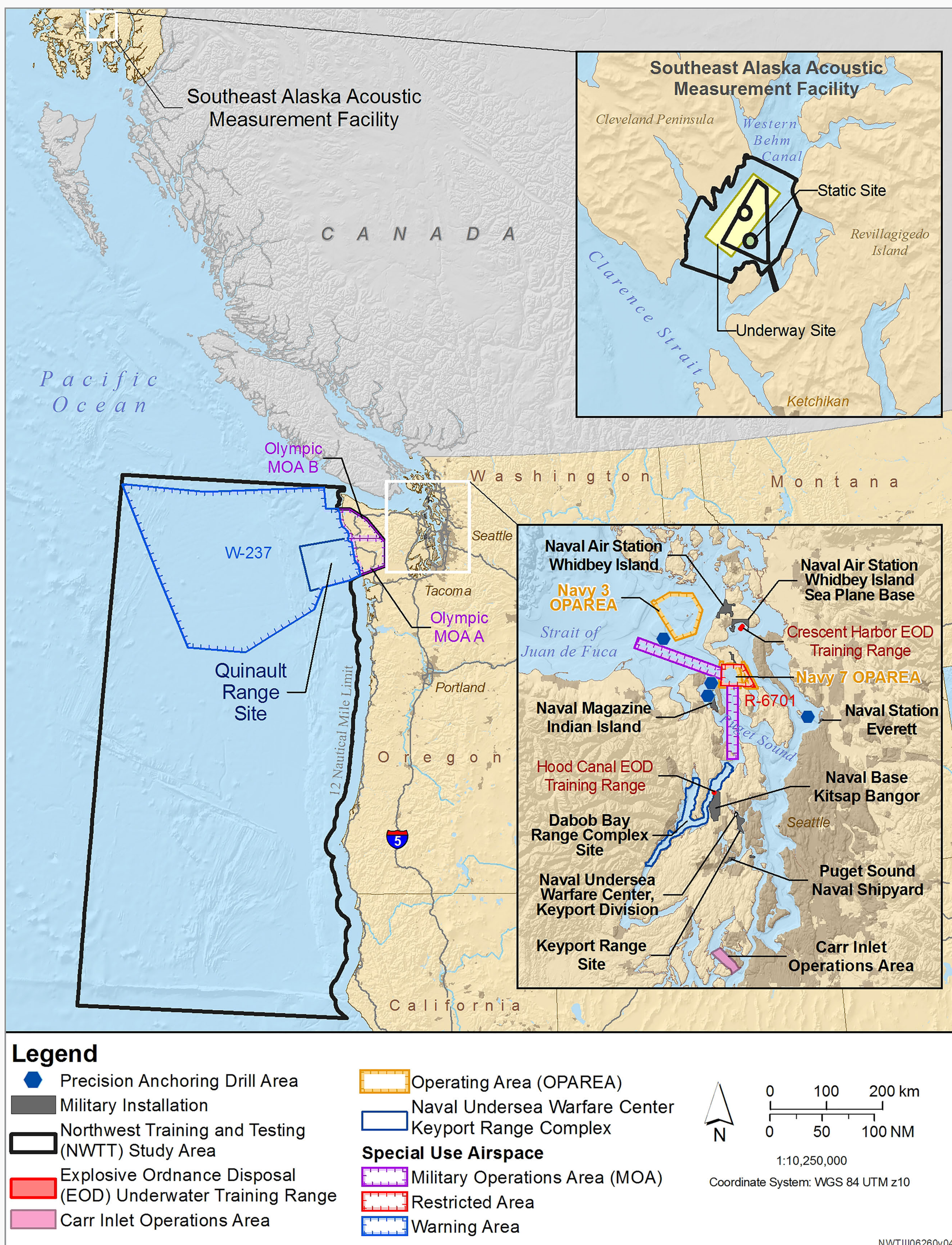
NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS

NWTT Study Area



THE STUDY AREA INCLUDES:

- ▶ Established maritime operating areas and warning areas in the northeastern Pacific Ocean, including areas within:
 - The Strait of Juan de Fuca.
 - Puget Sound.
 - The Western Behm Canal in southeastern Alaska.
- ▶ Air and water space within and outside of Washington state waters and established special use airspace.
- ▶ Navy pierside and harbor locations within Washington state waters.
- ▶ Air and water space outside the state waters of Oregon and Northern California.





NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS



Importance of Training and Testing with Active Sonar and Explosives

Torpedoes, in-water mines, and quieter submarines from hostile sources are true threats to global commerce, national security, and the safety of Sailors. Active sonar is the most effective method of detecting these threats.



Training and Testing Using Sonar

- ▶ Sonar proficiency is complex and requires regular, hands-on training in realistic and diverse conditions.
- ▶ Simulators are used but cannot completely replace training in a live environment.
- ▶ Sonar testing occurs at sea and pierside.
- ▶ Conducting research and testing of new sonar systems and technologies ensures forces are equipped to defend the nation.

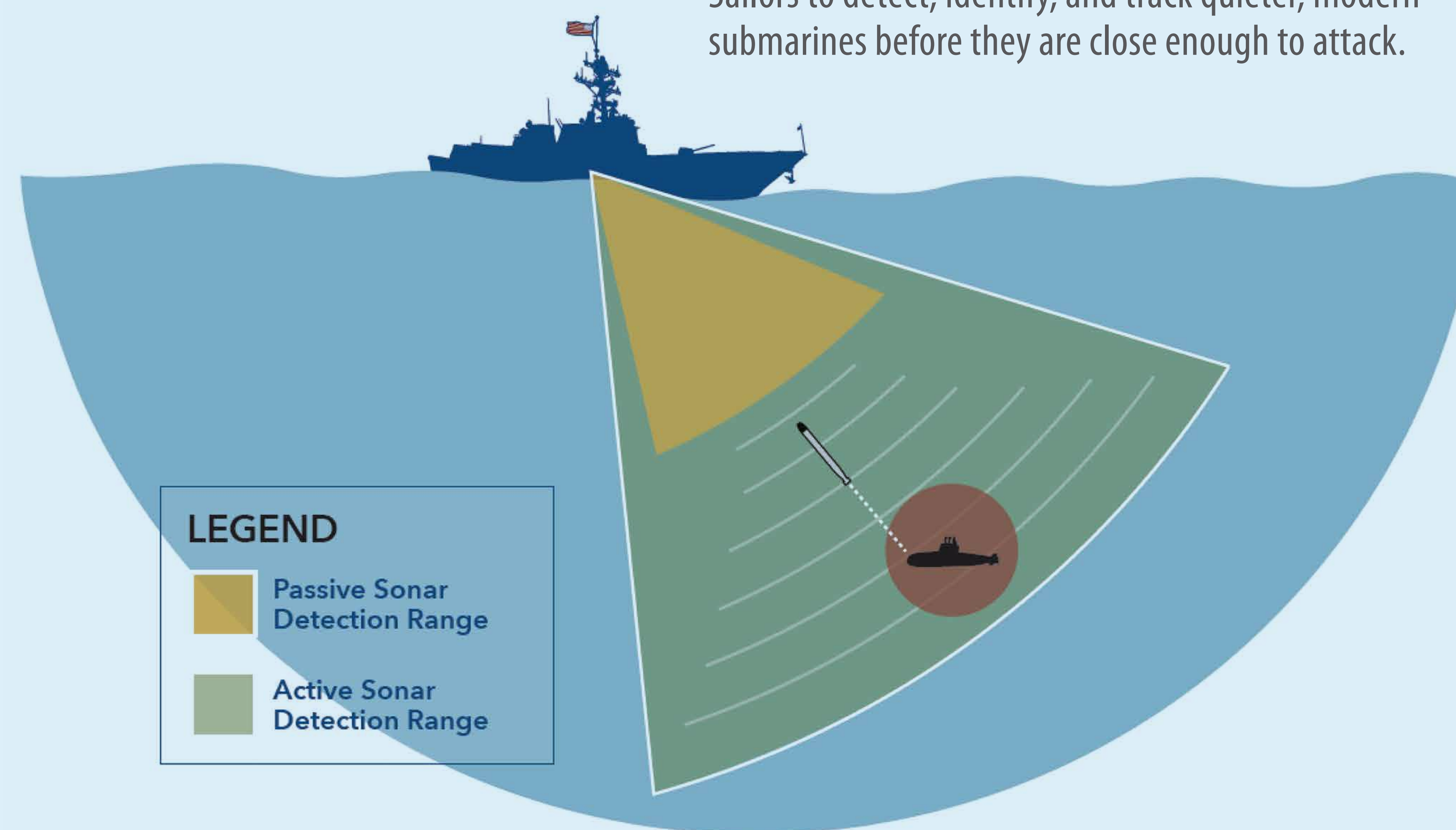
Training and Testing Using Explosives

- ▶ Prepares Sailors to respond to emergencies and national security threats.
- ▶ Verifies systems will function properly in the environments they will be used.
- ▶ Enhances the safety of U.S. forces in combat.
- ▶ Improves readiness and equipment reliability.

Passive and Active Sonar Detection Range

Submarines of the previous generation were noisy and could be detected with passive sonar before they came close enough to deploy short-range weapons against a vessel.

Extremely quiet, difficult-to-detect, diesel-electric submarines can approach close enough to deploy long-range weapons before entering the passive sonar detection range of U.S. vessels. Active sonar has a longer detection range that is needed to allow Navy Sailors to detect, identify, and track quieter, modern submarines before they are close enough to attack.



The Navy ensures public safety with a combination of notices to mariners and pilots, and vigilant establishment of safety buffers around activity sites when they are in use.



MITIGATION MEASURES FOR SONAR AND EXPLOSIVES

The Navy actively protects birds, fish, marine mammals, and their habitat by:

- ▶ Observing for protected species, including marine mammals and sea turtles, and floating vegetation and jellyfish (as indicators that marine mammals or sea turtles may be present), before the activity starts.
- ▶ Monitoring areas visually and acoustically (when practical) for marine species prior to certain activities.
- ▶ Establishing mitigation zones.
- ▶ Using highly trained Lookouts.
- ▶ Powering or shutting down active sonar or stopping explosive activity if marine mammals or sea turtles are observed within the mitigation zone.



NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS

Summary of Findings – Biological Resources



Minimizing impacts on the marine environment is imperative to the Navy. The analysis indicates the majority of effects on marine species would be behavioral responses. The Navy will continue to implement mitigation and monitoring measures to minimize effects on marine species.

► **Marine Habitats:** Would not change the habitat structure or prevent the seafloor from providing habitat function.

► **Marine Mammals:** May affect certain species, but not expected to decrease the overall health or survival of any population.

► **Sea Turtles:** May affect individual leatherback sea turtles, but not expected to decrease the overall health or survival of the leatherback population.

► **Birds:** May affect certain species, but not expected to decrease overall health or survival of any population.

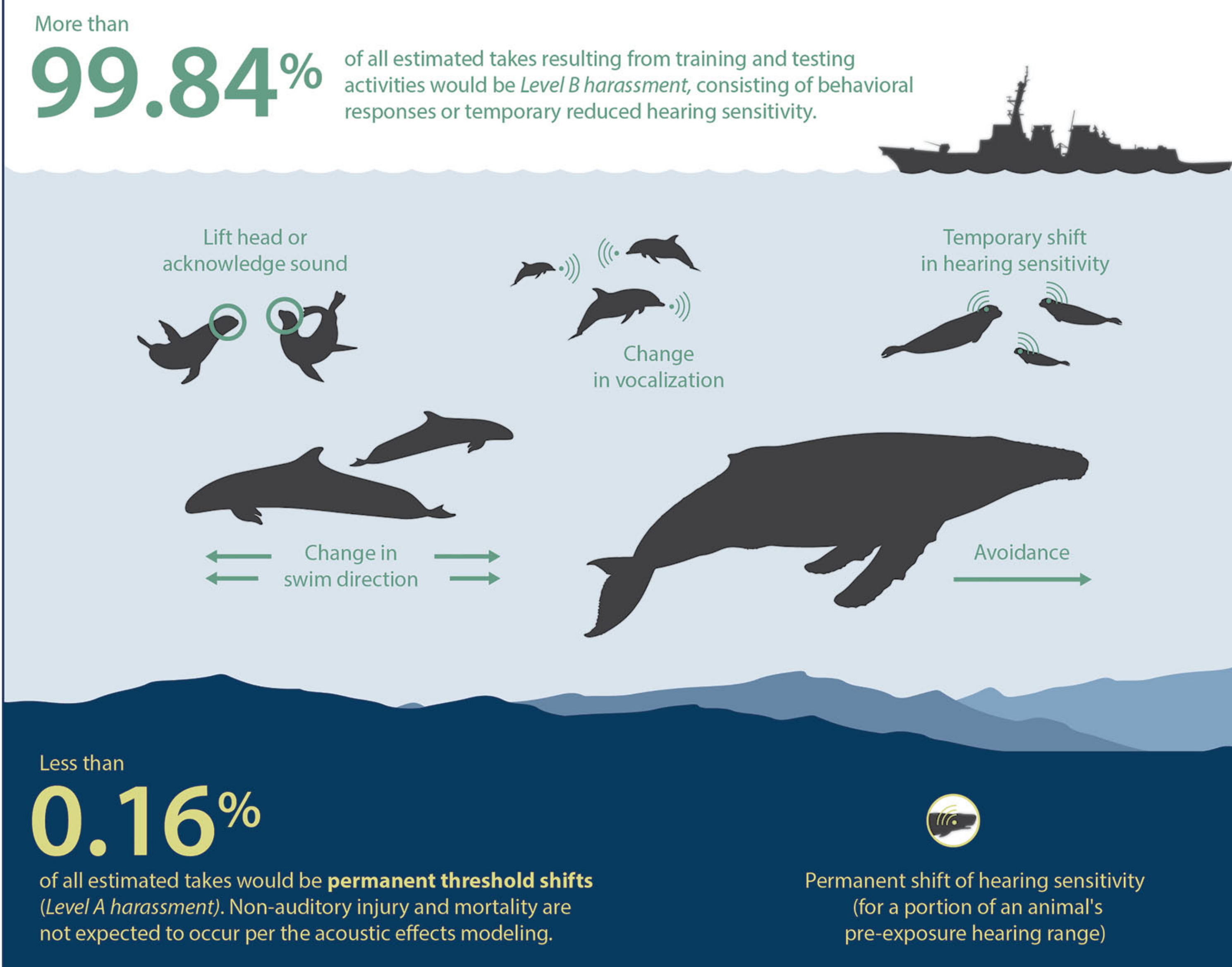
► **Marine Vegetation:** No detectable changes expected in marine vegetation growth, survival, propagation, or population-level impacts.

► **Marine Invertebrates:** Unlikely to impact populations or subpopulations of marine invertebrates.

► **Fishes:** May affect certain species but not expected to decrease the overall health or survival of any population.



Navy Activities and Marine Mammal Annual Estimated Takes

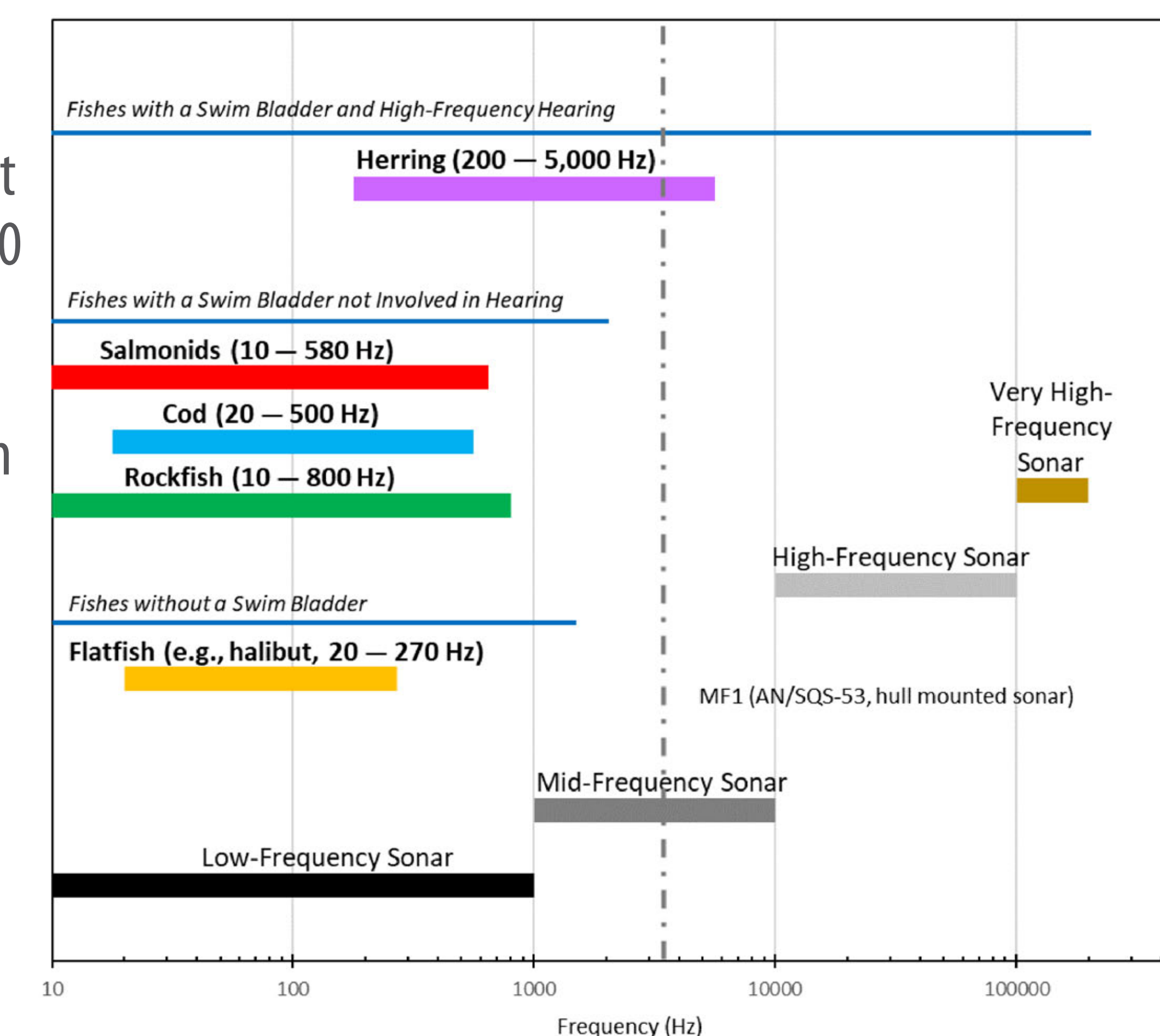


Fish Hearing Group and Navy Sonar Bin Frequency Ranges.

The thin blue lines represent the estimated minimum and maximum range of frequency detection for each hearing group, grey and brown lines represent the ranges of each sonar system, and thick colored lines represent example hearing data for specific species. For example, herring can only detect frequencies up to 5,000 Hz, although fishes in the same hearing group can detect much higher frequencies.

Acronyms:

- Hz = hertz
- MF1 = Mid-frequency 1



POTENTIAL IMPACTS ON FISHES AND MARINE INVERTEBRATES

- Most mid-frequency sonar is not heard by marine invertebrates and most marine fish species.
- Fish species able to hear sonar are not likely to experience hearing loss.
- Long-term consequences for fish populations are not expected.
- Explosives could injure or kill individual fish or result in temporary hearing loss; however, long-term consequences for populations are not expected.
- Military expended materials would not significantly affect habitats, invertebrates, or fishes.





NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS



Marine Resource Protection

The Navy uses the most current and best available science and analytical methods to reevaluate protective measures that help minimize impacts on the marine environment.



Navy Marine Species Research and Monitoring Efforts

The Navy continues to be a world leader in marine species research and monitoring. Research allows Navy scientists to:

- ▶ Better understand abundance, distribution, foraging, reproduction, physiology, hearing and sound production, behavior, and ecology of marine species, which is needed to assess effects on species from naval activities.
- ▶ Assess behavioral responses of marine species to sonar and explosives.
- ▶ Develop and improve models to better predict potential effects of underwater sound and explosives on marine species.
- ▶ Develop effective protective measures.



Research Findings

Scientific research indicates Navy training and testing activities are unlikely to have long-term consequences on marine mammal populations. Although some species displayed short-term behavioral responses, observations indicate Navy activity is compatible with the long-term survival of marine mammals. These observations include:

- ▶ Increases in the number of many marine species present in the Study Area.
- ▶ Continued presence of species and long-term residence by individual animals, including species thought to be sensitive to sound, in areas highly used by the Navy.
- ▶ Lack of observable negative effects on marine mammal stocks or populations with more than 10 years of comprehensive monitoring and data collection.

Existing At-Sea Mitigation Measures

- ▶ Posting qualified Lookouts.
- ▶ Observing the area prior to activities.
- ▶ Establishing mitigation zones for marine species.
- ▶ Implementing geographic and temporal mitigation measures.
- ▶ Navigating safely.

PROPOSED GEOGRAPHIC MITIGATION AREAS FOR MARINE RESOURCES

- ▶ Limiting some types of training and testing within the Olympic Coast National Marine Sanctuary and Marine Species Coastal mitigation areas, and humpback and gray whale biologically important feeding areas to avoid impacts on important foraging, migration, and reproduction habitat of marine species.
- ▶ In the Puget Sound and Strait of Juan de Fuca Mitigation Area, continuing to require units to obtain Command approval prior to (1) use of hull-mounted mid-frequency active sonar during training underway, and (2) conducting ship and submarine active sonar pierside maintenance or testing.
- ▶ Not conducting precision anchoring or explosive mine countermeasure activities within the Seafloor Resource Mitigation Area to avoid impacting live hard-bottom habitat, artificial reefs, and historic shipwrecks.

Visit www.navymarinespeciesmonitoring.us for more information on the Navy's marine species monitoring program.



Photo Credit: Julie Rivers, U.S. Navy



NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS

Summary of Findings – Physical and Human Resources

The Navy analyzed the Proposed Action and alternatives to determine potential impacts on the environment. The Navy strives to reduce impacts by implementing management practices, monitoring, and mitigation measures.

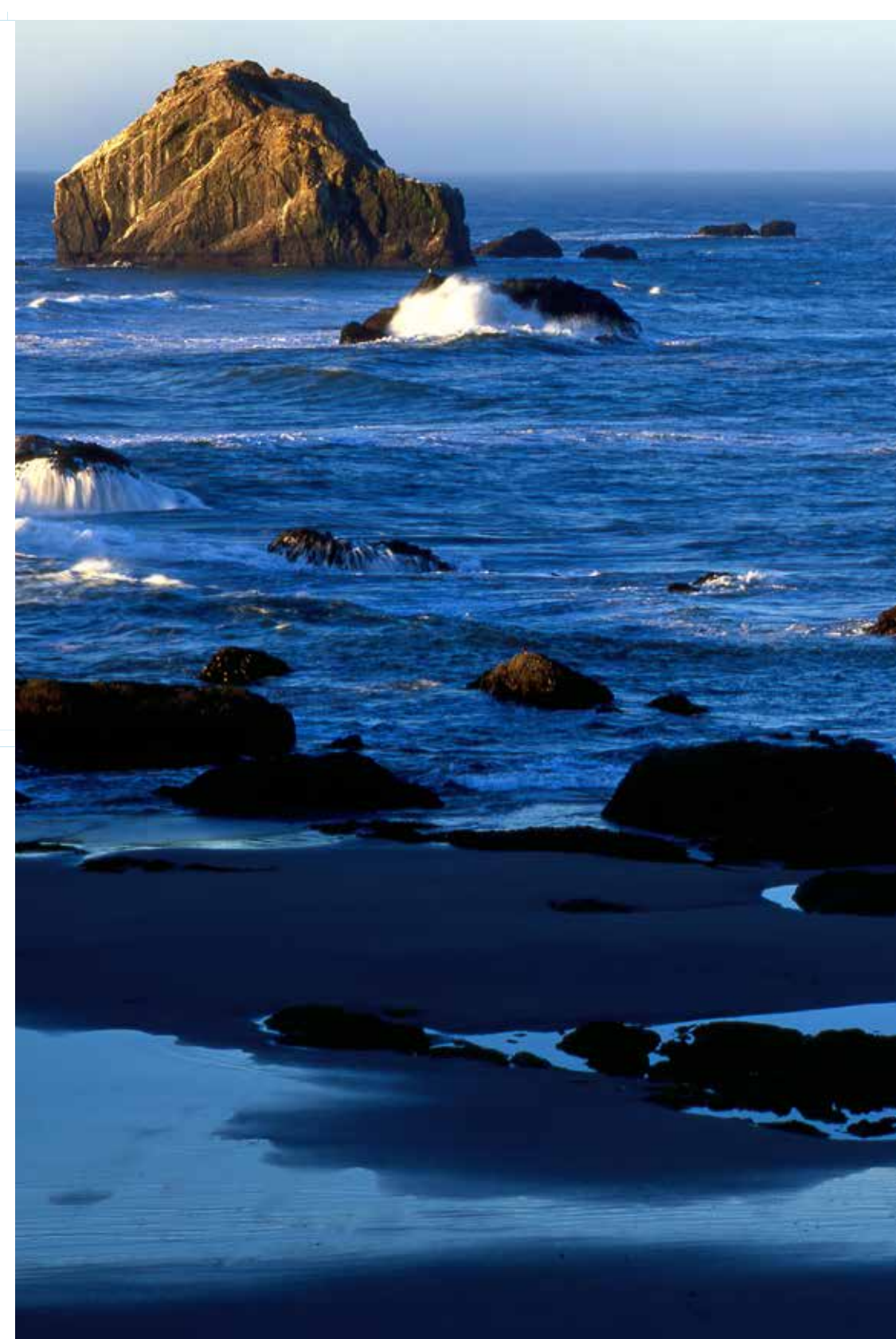
► **Sediments and Water Quality:**

Could result in short- and long-term impacts, but most impacts would be negligible. No regulatory thresholds or guidelines would be exceeded.

► **Cultural Resources:**

Not expected to impact cultural resources within U.S. territorial waters or under established special use airspace.

► **Socioeconomic Resources:** No disproportionately high impacts or adverse effects on low-income or minority populations. Minor impacts due to localized and temporary inaccessibility to areas of co-use.



► **Air Quality:**

Not expected to result in detectable hazardous air pollutants or impact public health.

► **American Indian and Alaska Native Traditional Resources:**

Not expected to have a measureable effect on the availability of marine resources, and the potential for loss of or damage to fishing gear is low.



► **Public Health and Safety:** Would not impact public health and safety.



Cumulative Impacts: Navy activities may continue to have cumulative impacts on a number of marine mammal, sea turtle, bird, and fish species as well as American Indian and Alaska Native traditional resources from the Proposed Action with combined impacts of past, present, and other future actions.

The Navy strives to maintain the public's access to ocean and coastal areas whenever possible while ensuring safety at all times. Some access restrictions must occur for public safety and the security of Navy assets and personnel.

AIRCRAFT NOISE ASSESSMENT

The Navy modeled noise from aircraft training activities in relevant operating areas. The assessment indicates areas underneath aircraft training would be exposed to less than 37 decibels Day-Night Average Sound Level.



Public Access and Safety

The Navy trains and conducts tests in a manner that is compatible with civilian activity at sea. The Navy notifies the public when training and testing areas are temporarily closed for public safety.





NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS



National Historic Preservation Act (NHPA), Section 106

The Navy is seeking public input and information about historic properties to continue compliance with the National Historic Preservation Act.

Section 106 Process

Requires federal agencies to consider the effects of their undertakings on historic properties. The Navy's undertaking is the proposed continuation of training and testing activities conducted in state and territorial waters within the Study Area. The Navy is required to:

- ▶ Initiate the process.
 - ▶ Identify historic properties.
 - ▶ Assess effects.
 - ▶ Resolve adverse effects.
- (WE ARE HERE)

Adverse Effects

May occur when an undertaking alters characteristics that qualify a property for inclusion in the National Register of Historic Places. Effects may include:

- ▶ Physical damage from anchors or explosive shock waves.
- ▶ Intrusive visual elements from military expended materials.

Affected property types may include:

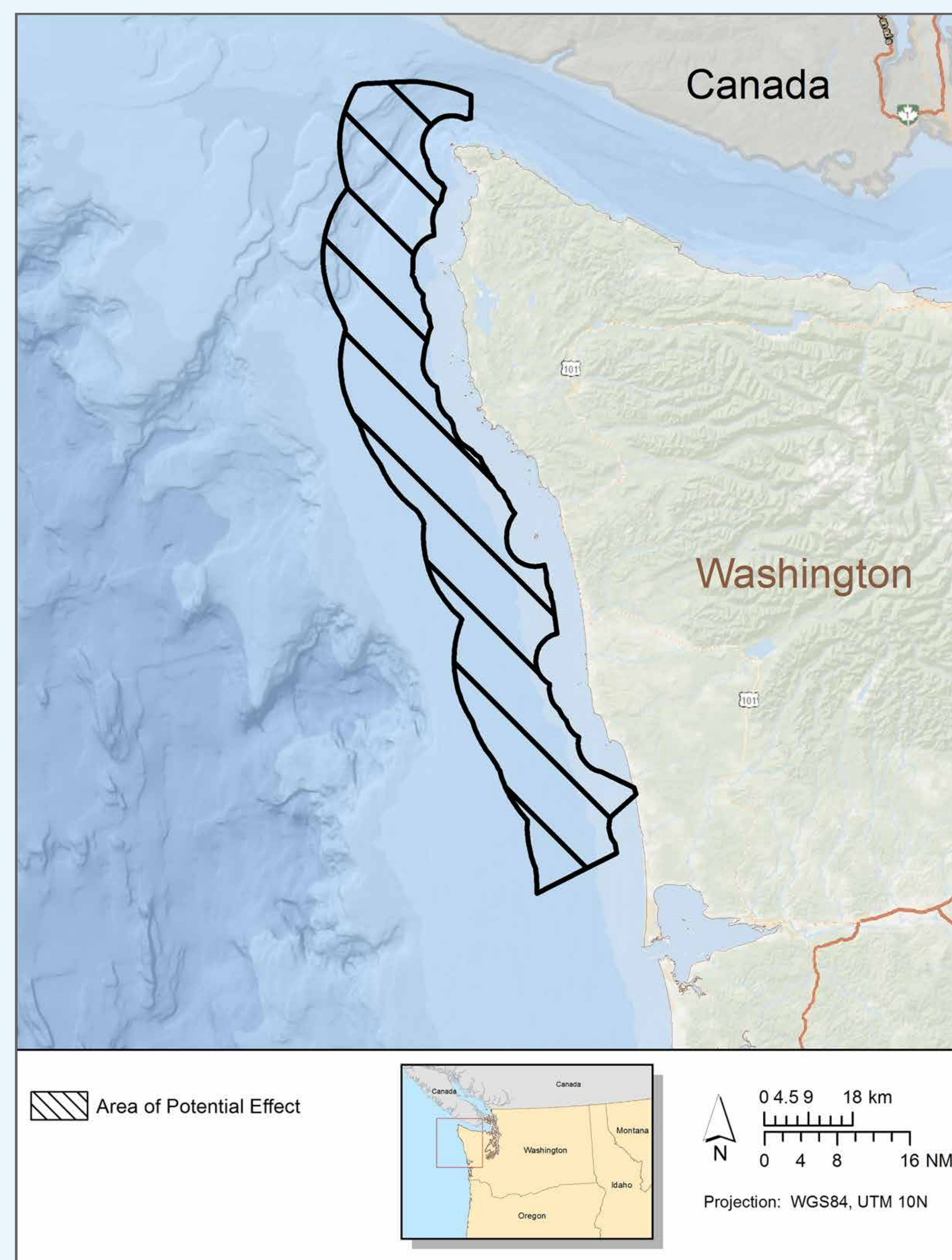
- ▶ Inundated pre-contact sites or features.
- ▶ Shipwrecks.
- ▶ Submerged aircraft.

The Navy does not anticipate the undertaking would adversely affect historic properties because anchors would not be deployed on or near historic properties and military expended materials are not expected to alter the qualifying characteristics of historic properties.

The Navy welcomes your input on:

- ▶ Identification of historic properties.
- ▶ Ways to avoid, minimize, and/or mitigate impacts on historic properties resulting from the undertaking.

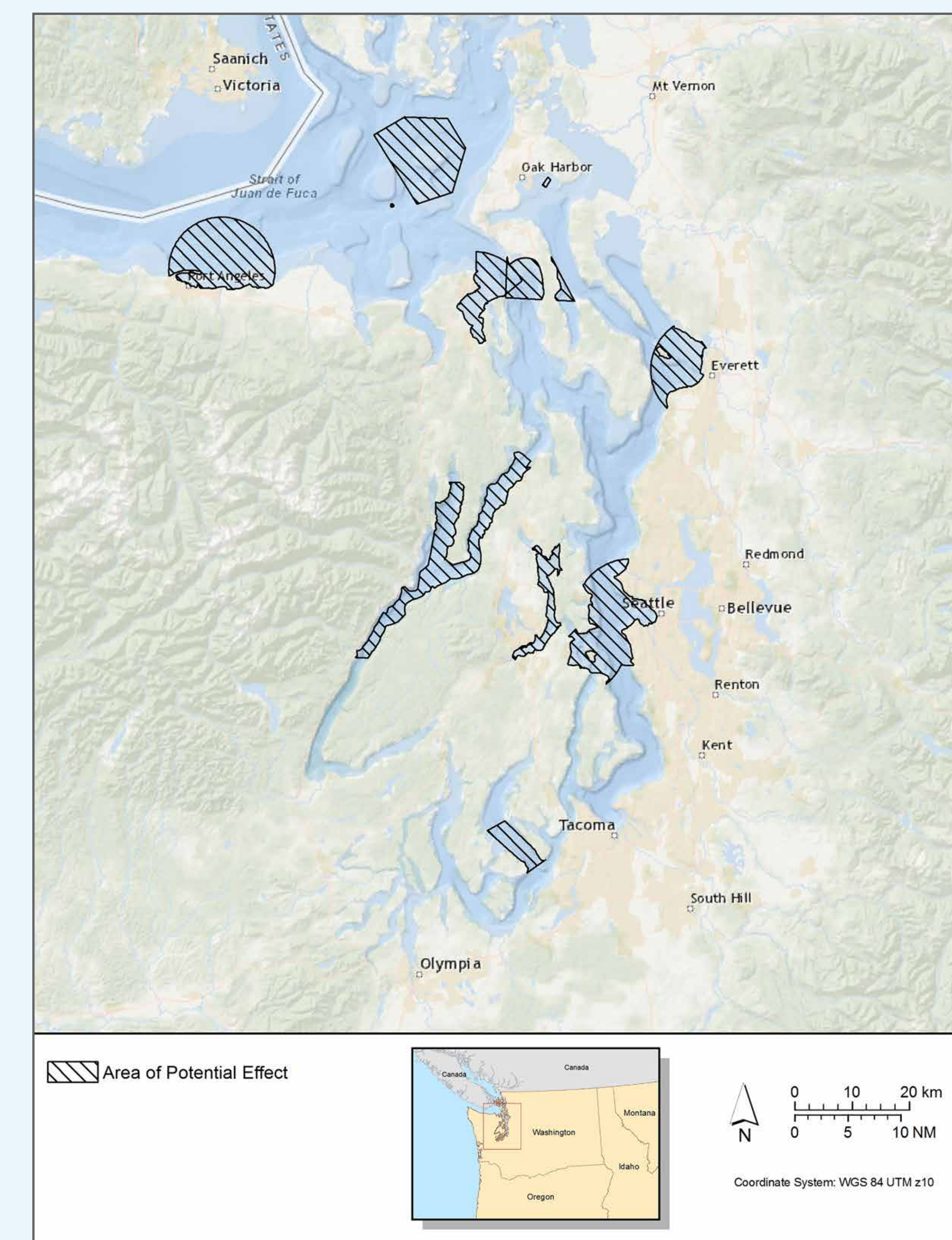
Participate in the process by providing comments at this open house public meeting, online, or via mail at the address found in the fact sheet booklet.



Proposed Area of Potential Effects for the Offshore Area of the Study Area.

Area of Potential Effects

Marks the geographic extent to which the undertaking may have direct or indirect effects on historic properties subject to NHPA (within 12 nautical miles of Washington state).



Proposed Area of Potential Effects for the Inland Waters of the Study Area.



NORTHWEST TRAINING AND TESTING Supplemental EIS/OEIS

Environmental Stewardship

The Navy's environmental stewardship programs contribute both to the success of the Navy mission and the preservation of the environment for future generations.

Environmental Protection at Sea

The Navy continues to implement and improve programs to reduce a vessel's environmental footprint by:

- ▶ Consolidating plastic waste into disks and disposing of them when ships return to port.
- ▶ Conserving energy by installing energy efficient technologies.
- ▶ Managing ballast water to prevent the introduction of non-native species.

Partnering for Sustainability

The Navy has developed partnerships and built coalitions with other government agencies, organizations, and communities to better manage and protect natural and cultural resources.

Environmental Protection in the NWTT Study Area

The Navy is dedicated to protecting the marine and coastal environments of the Pacific Northwest and Alaska.

Seabird Research and Surveys

- ▶ Determining presence, distribution, and abundance of the Endangered Species Act (ESA)-listed marbled murrelet and short-tailed albatross in offshore waters. *Partner: Washington Department of Fish and Wildlife (WDFW).*
- ▶ Estimating marbled murrelet fall/winter densities within inland Puget Sound waters. *Partner: WDFW.*
- ▶ Determining marbled murrelet seasonal trends, abundance, and distribution within inland Puget Sound waters. *Partners: U.S. Fish and Wildlife Service, WDFW.*

Fish Studies and Surveys

- ▶ Surveying ESA-listed salmon and ESA-listed rockfish, and long-term, ongoing surveying of forage fish spawning. *Partners: WDFW, fisheries conservation organizations.*
- ▶ Estimating seasonal variation in ocean distribution, survivorship, and abundance of fall-run ESA-listed Chinook salmon. *Partner: National Marine Fisheries Service (NMFS).*
- ▶ Documenting oceanic distribution of Chinook salmon, steelhead, coho salmon, and bull trout using satellite tags. *Partner: NMFS.*

Marine Mammal Monitoring, Surveys, and Tagging

- ▶ Distribution, Abundance, Seasonality, and Density:
 - Determining densities for marine mammals in inland Puget Sound waters through multi-season aerial surveys. *Partner: Smultea Sciences.*
 - Documenting seasonal variation in seal and sea lion haulout use throughout inland Puget Sound waters through multi-season, regional aerial haulout surveys. *Partner: WDFW.*
 - Developing the first density estimates for harbor seals in inland Puget Sound waters. *Partners: NMFS, WDFW.*
 - Determining seal and sea lion haulout abundance, seasonal trends, and densities at Navy installations. *Partners: WDFW, NMFS.*
- ▶ Passive Acoustic Monitoring Offshore:
 - Determining seasonal movements of ESA-listed Southern Resident killer whales through acoustic and visual monitoring. *Partner: NMFS.*
 - Studying acoustic soundscape and occurrence and seasonality of marine mammals, including different killer whale ecotypes, through acoustic recording devices. *Partner: Scripps Institution of Oceanography.*
- ▶ Satellite Tag Tracking:
 - Studying distribution of ESA-listed Guadalupe fur seals through satellite tagging. *Partner: Marine Mammal Center.*
 - Studying California sea lion habitat use, foraging, dive behavior, and movements between inland waters of the Salish Sea and along outer coast from Washington to California. *Partner: NMFS.*
 - Studying habitat use, dive behaviors, and overlap with and movement between Navy training areas of blue whales, fin whales, and gray whales. *Partner: Oregon State University.*
 - Studying mix of distinct population segments of humpback whales through satellite tagging off the coasts of Washington, Oregon, California, and Hawaii. *Partner: Oregon State University.*
 - Studying movement patterns of fin, humpback, gray, and offshore killer whales through satellite tagging off the Washington coast. *Partner: Cascadia Research Collective.*