

**FINAL
Environmental Assessment/
Overseas Environmental Assessment
Dismantling of the Supercarrier
ex-CONSTELLATION (CV 64)**



June 2014

**Prepared by the
Department of the Navy
Naval Sea Systems Command**

Environmental Assessment/Overseas Environmental Assessment for Dismantling of Supercarrier ex-CONSTELLATION (CV 64)

ABSTRACT

The United States (U.S.) Department of the Navy (DON or “The Navy”) has prepared this Environmental Assessment/Overseas Environmental Assessment (EA/OEA) to evaluate the potential environmental effects of actions leading to the dismantling of the aircraft carrier (“Supercarrier”) ex-CONSTELLATION (CV 64). The EA/OEA is required as a consequence of ex-CONSTELLATION being eligible for listing in the National Register of Historic Places. The ship is currently berthed at NAVSEA Inactive Ships On-site Maintenance Office (INACTSHIPMAINTO) Bremerton, WA. The DON analyzed potential Proposed Action Alternative dismantling locations. Currently, the only qualified facilities for dismantling ex-CONSTELLATION are located in the vicinity of Brownsville, TX. Other options for the disposal of ex-CONSTELLATION were considered but ultimately rejected. The DON also analyzed the No-Action Alternative.

The Proposed Action is to award a contract to a technically acceptable domestic ship dismantling contractor which would then tow ex-CONSTELLATION to its facility in order to dismantle and recycle her in accordance with applicable Federal, state and local laws and regulations.

The purpose for the proposed dismantlement of this vessel is to execute Chief of Naval Operations (CNO) policy for inactive ships stricken from the Naval Vessel Register and designated for disposal. The Proposed Action is needed to reduce the Navy’s inactive ship inventory and eliminate costs associated with continuing to maintain the deteriorating ship in a safe stowage condition.

This EA/OEA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (U.S.C) §§4321-4370d, as implemented by the Council on Environmental Quality (CEQ) regulations, 40 *Code of Federal Regulations* (C.F.R.) Parts 1500-1508, Executive Order (E.O.) 12114-Environmental Effects Abroad of Major Federal Actions, and Policies and Responsibilities for Implementation of NEPA within the DON, 32 C.F.R. Part 775, and evaluates the potential effects of the Proposed Action on the following resource areas: cultural resources; water resources, biological resources, and air quality.

POINT OF CONTACT

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EXECUTIVE SUMMARY

Introduction

This EA/OEA evaluates the potential environmental effects of actions leading to the dismantling of the aircraft carrier ex-CONSTELLATION (CV 64), berthed at the Naval Sea Systems Command (NAVSEA) Inactive Ships On-Site Maintenance Office (INACTSHIPMAINTO) Bremerton, Washington (WA). The Department of the Navy (DON, or “the Navy”) has prepared this EA/OEA in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, 42 United States Code (U.S.C.) §§ 4321-4370d, as implemented by the Council on Environmental Quality (CEQ) regulations, 40 *Code of Federal Regulations* (C.F.R.) Parts 1500-1508, Executive Order (E.O.) 12114, Environmental Effects Abroad of Major Federal Actions, and the guidelines contained in the Chief of Naval Operations (CNO) Instruction (OPNAVINST) M-5090.1D, Environmental Readiness Program, January 10, 2014, which establishes procedures for environmental planning and compliance including implementation of the NEPA.

Purpose of and Need for the Proposed Action

The Proposed Action is to award a contract to a technically acceptable domestic ship dismantling company which would then tow ex-CONSTELLATION to its facility in order to dismantle and recycle her in accordance with applicable Federal, state and local laws and regulations.

Ex-CONSTELLATION was stricken from the Naval Vessel Register (NVR) on December 2, 2003 at which time she was also designated for dismantling. There are no Navy requirements for the ship. The Proposed Action is needed to reduce the Navy’s inactive ship inventory and eliminate costs associated with continuing to maintain the deteriorating ship in a safe stowage condition.

Description of the Proposed Action

If the Navy decides to proceed with dismantling ex-CONSTELLATION, the Navy would enter into a contract for a series of actions, including towing ex-CONSTELLATION from its current location at INACTSHIPMAINTO Bremerton to a technically acceptable domestic ship dismantling facility. The selected contractor would dispose of ex-CONSTELLATION by dismantling and recycling. Navy ship dismantling contracts include a clause that requires the contractor to comply with all applicable Federal, state and local environmental and occupational safety and health laws and regulations.

If the Navy decides to implement the Proposed Action, neither construction of new facilities nor modifications to the existing facilities would be required. Moreover, no dredging would be required. The vessel is non-operational (no propeller rotation or water intakes/discharges); therefore, due to the size of the ship, the use of one or more assist tug boats would be required to move the vessel from storage berthing to a dismantling site. The NAVSEA dismantling contract would require towing conducted by the selected contractor to meet Navy policy for safety,

navigation, environmental, and other standards. Included in these requirements are the procedures in the National Marine Fisheries Service (NMFS) “Vessel Strike Avoidance Measures and Reporting for Mariners.”

For the purposes of this EA/OEA, the Proposed Action would be implemented at a dismantling facility located in the vicinity of Brownsville, TX. Dismantling facilities located in or near Brownsville, TX, have the capability to dismantle an aircraft carrier the size of ex-CONSTELLATION without requiring construction of any new facilities or dredging. The Navy’s dismantling contract would have a clause that requires the contractor to comply with all Federal, state, and local laws and local environmental safety and health laws and regulation. The dismantling/recycling would occur at an existing industrial facility that is capable of the operation with current operational credentials and permitting that would allow them to conduct the dismantling in their normal course of business. Therefore, it is not anticipated that the contractor would need to obtain any additional regulatory permits in order to conduct the dismantling in their normal course of business. Therefore, it is not anticipated that the contractor would need to obtain any additional regulatory permits in order to perform the requirements of the contract. Should the technically acceptable dismantling contractor be in a location other than Brownsville, TX, this EA/OEA would be supplemented to evaluate potential environmental impacts of implementing the Proposed Action at the selected facility including the towing route.

This EA/OEA does not evaluate the potential environmental impacts of the Proposed Action at a location other than a dismantling location in or near Brownsville, TX. There are three facilities in or near Brownsville, TX, capable of dismantling a vessel the size of ex-CONSTELLATION. The Navy is not aware of any other qualified location within the United States where the dismantling of a vessel the size of ex-CONSTELLATION could be achieved.

No-Action Alternative

The No-Action Alternative includes continuous berthing of ex-CONSTELLATION at INACTSHIPMAINTO Bremerton. If the vessel is not removed from the inactive ship inventory, INACTSHIPMAINTO Bremerton would continue to maintain the ship in safe stowage (i.e., fire and flooding protection). If the Federal Government is unable to award a dismantling contract, the No-Action Alternative would result by default. The No-Action Alternative does not meet the Proposed Action’s purpose and need.

Alternatives Considered but Eliminated

In accordance with OPNAVINST 4770.5H, General Policy for the Inactivation, Retirement, and Disposition of U.S. Naval Vessels, there are six possible methods for the disposition of ships stricken from the NVR, one of which is dismantling. The following are five alternatives considered for ex-CONSTELLATION but ultimately eliminated from further consideration:

- **Fleet Training Exercise Requirements:**
This alternative results in the destruction of the ship during at-sea, live-fire training exercises (SINKEX). Current policy does not include the use of aircraft carriers for SINKEX, thus this alternative is not an option for ex-CONSTELLATION.
- **Foreign Military Sale Transfer:**
This alternative is not feasible as the U.S. Department of Defense (DoD) does not allow aircraft carriers to be available for Foreign Military Sale transfer, thus this alternative is not an option for ex-CONSTELLATION.
- **Title Transfer to the Maritime Administration (MARAD), Department of Transportation (DOT):**
This alternative is only applicable to merchant-type ships such as amphibious and auxiliary ships, pursuant to the Merchant Marine Act of 1936. Because ex-CONSTELLATION is an aircraft carrier, this alternative is not available.
- **Artificial Reefing:**
The Navy has determined that this alternative is not feasible due to the extensive presence of solid materials containing PCBs at levels which exceed USEPA acceptable levels; consequently, ocean disposal by means of artificial reefing would be prohibited. Removal of these materials prior to artificial reefing of this vessel would not be practicable.
- **Donation Transfer:**
Ex-CONSTELLATION was not designated for donation as a museum or memorial. There has been increased difficulty in recent years for potential donees to raise adequate funds to satisfy the donation requirements. Attempts to donate three sister ships, ex-FORRESTAL (AVT 59), ex-SARATOGA (CV 60) and ex-RANGER (CV 61), have failed. Thus, this alternative is not an option for ex-CONSTELLATION.

Summary of Environmental Impacts

Under Section 106 of the NHPA, ex-CONSTELLATION is eligible for listing on the National Register of Historic Places (NRHP). Thus, her dismantling would result in an adverse effect on a cultural resource. However, the Navy's compliance with the Navy-Advisory Council on Historic Preservation (ACHP) "Program Comment Pursuant to 36 C.F.R. § 800.14(e) Implementing Section 106 of the National Historic Preservation Act for the Evaluation of Vessels for Eligibility for Listing in the National Register of Historic Places and the Treatment of Eligible Vessels to Resolve Adverse Effects that May Result from Certain Methods of Final Disposition" ("the Program Comment") would mitigate the adverse effect (see Appendix).

On August 10, 2012, pursuant to Section 7(a)(2) of the Endangered Species Act, the Inactive Ships Program began informal consultation with the National Oceanic and Atmospheric Administration, National Marine Fisheries Service to evaluate the level of risk to biota that would be associated with towing inactive vessels, including ex-CONSTELLATION, through the waters of the United States and overseas. This initial consultation had been preceded by research conducted by the Navy's subject matter experts on towing and the potential injuries to whales and other biota that could occur during the towing of ex-CONSTELLATION, or other Navy inactive vessels. Table 3-2 presents a list of Endangered and Threatened Species developed by the Navy for the Proposed Action and presented to the NMFS as part of the Navy's consultation. These species may occur in the Pacific Ocean, or Gulf of Mexico for the Proposed Action. On October 12, 2012, NMFS agreed with the Navy's finding that the Proposed Action of this EA/OEA may affect, but is not likely to adversely affect listed threatened or endangered species or critical habitats designated under the Endangered Species Act (ESA). In addition, the Proposed Action would result in no reasonably foreseeable takes of marine mammals pursuant to the MMPA.

Thus, under NEPA the Proposed Action would not result in significant impacts to the environment, and under E.O. 12114, Environmental Effects Abroad of Major Federal Actions, the Proposed Action would not result in significant harm to the environment in international waters. The environmental consequences by resource area associated with implementation of the Proposed Action and the No-Action Alternative are presented and compared in Table ES-1.

Table ES-1. Summary of Impacts

Resource Area	Proposed Action Alternative	No-Action Alternative
Cultural Resources	Adverse effect on the vessel; compliance with the Navy-ACHP Program Comment for Navy vessels would mitigate the adverse effect (see Appendix). No effects on other cultural resources.	The No-Action Alternative results in retention of a cultural asset. No effects on other cultural resources.
Water Resources: Water Quality	No significant impacts to water quality.	No significant impacts to water quality.
Water Resources: Sediment Quality	No significant impacts to sediment quality.	No significant impacts to sediment quality.
Biological Resources: Benthic Community	No significant impacts to benthic biological resources.	No significant impacts to benthic biological resources.
Biological Resources: Fish and Essential Fish Habitat	No effects on Essential Fish Habitat No significant impacts to Essential Fish Habitat.	No significant impacts to Essential Fish Habitat.
Biological Resources: Marine Mammals	No reasonably foreseeable takes of marine mammals. No significant impacts/no significant harm to marine mammals.	No significant impacts to marine mammals.
Biological Resources: Threatened and Endangered Species	May affect, but not likely to adversely affect threatened/ endangered species during towing (see Tables 3-2 and 3-3). No effect to other threatened/endangered species No significant impacts/no significant harm to threatened/endangered species.	No significant impacts to threatened/endangered species.

Coastal Resources	No effect on any land or water use or natural resource of the state's coastal zone. No significant impacts to coastal zone resources.	No significant impacts to coastal zone resources.
Air Quality/Climate Change	No significant impacts to air quality/climate change.	No significant impacts to air quality/climate change.

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AQCR	Air Quality Control Region
CAA	Clean Air Act
CATEX	Categorical Exclusion
CCND	Coastal Consistency Negative Determination
CEQ	Council on Environmental Quality
C.F.R.	Code of Federal Regulations
CMP	Coastal Management Plan
CV	aircraft carrier
CVA	attack aircraft carrier
CVG	carrier group
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DO	Dissolved Oxygen
DOD	United States Department of Defense
DOE	Determination of Eligibility
DOI	Determination of Ineligibility
DON	United States Department of the Navy
DPS	Distinct Population Segment
EA/OEA	Environmental Assessment/Overseas Environmental Assessment
EEZ	Exclusive Economic Zone
E.O.	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FR	Federal Register
ft	feet
GHG	Greenhouse Gas
INACTSHIPMAINTO	Inactive Ship Maintenance Office
kts	knots
m	meter
MARAD	Maritime Administration
MBTA	Migratory Bird Treaty Act
MILCON	Military Construction
MMPA	Marine Mammal Protection Act
NAAQS	National Ambient Air Quality Standards
NAVSEA	Naval Sea Systems Command
NCSHPO	National Council for State Historic Preservation Officers
NEPA	National Environmental Policy Act
NHHC	Naval History and Heritage Command
NHPA	National Historic Preservation Act

NO ₂	nitrogen dioxide
NRHP	National Register of Historic Places
NVR	Naval Vessel Register
O ₃	Ozone
OPNAVINST	Chief of Naval Operations Instruction
PCBs	polychlorinated biphenyls
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
SAV	Submerged Aquatic Vegetation
SEA21I	Navy Inactive Ships Office
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO ₂	sulfur dioxide
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
WA	Washington

1.0 PURPOSE AND NEED

1.1 Introduction

This Environmental Assessment/Overseas Environmental Assessment (EA/OEA) evaluates the potential environmental effects of actions leading to the dismantling of the aircraft carrier ex-CONSTELLATION (CV 64) (Figure 1-1), currently moored at the Naval Sea Systems Command (NAVSEA) Inactive Ships On-Site Maintenance Office (INACTSHIPMAINTO) Bremerton, WA.



Figure 1.1 – Ex-CONSTELLATION (CV 64) being towed to Bremerton, WA in 2003.

The Navy decommissioned USS CONSTELLATION, a post-World War II aircraft carrier, on August 7, 2003, and struck her from the NVR on December 2, 2003, at which time she was also designated for disposal. There are no Navy requirements for the ship, as ex-CONSTELLATION is not needed for the defense of the country.

The purpose for the proposed dismantlement of this vessel is to execute Chief of Naval Operations (CNO) policy¹ for inactive ships stricken from the Naval Vessel Register and designated for disposal. The Proposed Action is needed to reduce the Navy's inactive ship inventory and eliminate costs associated with continuing to maintain the deteriorating ship in a safe stowage condition.

The Proposed Action to dismantle ex-CONSTELLATION fits NAVSEA's mission for the reduction of the Navy's inactive ship inventory.

This EA/OEA presents an analysis of the potential environmental consequences that may result from implementation of the Proposed Action. The EA/OEA identifies and analyzes potential consequences on the natural and human environment in sufficient detail to determine the significance of impacts on the affected environment.

The action proponent and lead agency for the Proposed Action is the U.S. Navy, NAVSEA, Inactive Ships Office (SEA 21I). There are no cooperating agencies for the preparation of this EA/OEA.

1.2 Ship Dismantling Program

Domestic ship dismantling and recycling contractors tow an inactive ship from the Navy's inactive ship maintenance facility to their ship dismantling facility. The contractor then accomplishes all the work associated with the removal and proper disposal of hazardous materials, dismantles the ship and recycles the resulting scrap metals and salvageable equipment. Historically, the Navy has scrapped ships within the United States for the purpose of demilitarization and has no future plans to export ships for dismantling and recycling.

Contracts are awarded to companies that have demonstrated acceptable environmental and occupational safety management plans as well as the facilities, technical processes, and trained personnel necessary to properly dismantle a Navy ship in the United States. The contracting companies must already be in possession of all regulatory permits necessary for the performance of ship recycling activities. The contracted companies dismantle each ship into smaller segments, selling a variety of components as well as scrap metals, and shipping wastes such as PCBs or asbestos to permitted disposal facilities.

The dismantling contracts include a clause that requires the contractor to comply with all applicable Federal, state, and local environmental and occupational safety and health laws and regulations. The dismantling of ex-CONSTELLATION would be overseen by Navy civilian personnel to ensure contract compliance. The dismantling/recycling would occur at an existing

¹ OPNAV Instruction 4770.5H, General Policy for the Inactivation, Retirement, and Disposition of U.S. Naval Vessels, 24 April 2014.

industrial facility that is capable of the operation with current operational credentials and permitting that would allow them to conduct the dismantling in their normal course of business. Therefore, it is not anticipated that the contractor would need to obtain any additional regulatory permits in order to perform the requirements of the contract.

1.3 Project Location

The aircraft carrier, ex-CONSTELLATION is currently moored on the west side of Pier/Mooring F of INACTSHIPMAINTO Bremerton, for berthing (Figure 1.2). INACTSHIPMAINTO Bremerton, has been in continual use for inactive ships for over sixty years. There are currently nine vessels, including four carriers, moored at this facility. INACTSHIPMAINTO Bremerton, is located in southern Bremerton, WA, on the north side of the Sinclair Inlet in southern Puget Sound and is a tenant on the western end of Naval Base Kitsap - Bremerton (Figure 1.3).

Upon award of a dismantling contract, the contractor would take possession of the vessel and tow her to its facility.



**Figure 1.2 – Current Mooring Area Location, INACTSHIPMAINTO Bremerton, WA
(2010 Photograph)**

1. Purpose and Need

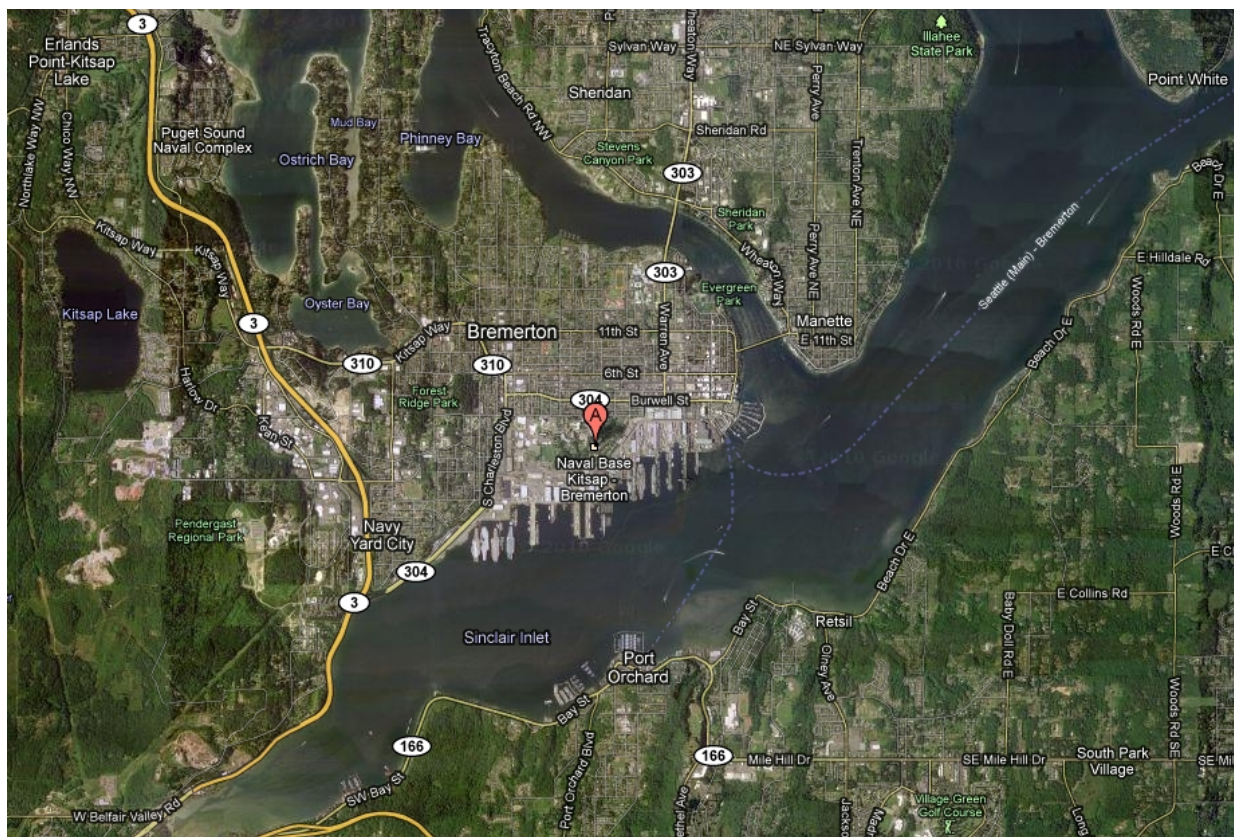


Figure 1.3 – Bremerton Area Map

1.4 Purpose of and Need for the Proposed Action

The Proposed Action is to award a contract to a technically acceptable domestic ship dismantling company which would then tow ex-CONSTELLATION to its facility in order to dismantle and recycle her in accordance with applicable Federal, state and local laws and regulations.

The purpose for the proposed dismantlement of this vessel is to execute Chief of Naval Operations (CNO) policy for inactive ships stricken from the Naval Vessel Register and designated for disposal. The Proposed Action is needed to reduce the Navy's inactive ship inventory and eliminate costs associated with continuing to maintain the deteriorating ship in a safe stowage condition.

1.5 History of ex-CONSTELLATION

USS CONSTELLATION (CV 64) was the second KITTY HAWK-class aircraft carrier (sometimes referred to as a “supercarrier”) to be built. She was laid down on September 14, 1957, at New York Naval Shipyard in Brooklyn, New York, and was the last U. S. aircraft carrier to be built at a yard outside of Newport News Shipbuilding and Drydock Company. The

ship was launched on October 8, 1960, sponsored by Mary Herter, wife of Secretary of State Christian Herter, and commissioned on October 27, 1961, with Capt. T. J. Walker in command. The other carriers of her class were USS KITTY HAWK (CV-63), USS AMERICA (CV-66), and USS JOHN F. KENNEDY (CV-67), all of which are decommissioned.

The design was an incremental change from the FORRESTAL Class U.S. Navy carrier design with longer length and a different placement of the elevators, which was useful for improved aircraft movement.

Following fitting out and acceptance trials, USS CONSTELLATION departed her home port of Norfolk, Virginia, on February 7, 1962, for initial air operations off the Virginia Capes. She conducted her first catapult launch and arrested landing the same day with Commander George C. Watkins, air group (CVG) 13 commander, at the controls of an A4D-2 Skyhawk of Attack Squadron 34. After a month of operating locally, "Connie" (as the carrier became known) conducted a two-month cruise in the Caribbean to test the ship's performance.

In summer 1962, USS CONSTELLATION was transferred to the Pacific Fleet and CVG-13 was disestablished. In November, USS CONSTELLATION, with CVG-14 on board, commenced workup exercises for her upcoming maiden deployment to the western Pacific as a component of the U.S. Seventh Fleet. The cruise took place from February to September 1963. USS CONSTELLATION's second deployment began on 5 May 1964. She relieved USS KITTY HAWK (CVA-63) on station in the Gulf of Tonkin off Vietnam on 8 June 1964. In August 1964, along with USS TICONDEROGA (CV-14), USS CONSTELLATION launched the first air strikes of the Vietnam War. After returning in 1965, her crew was awarded the Navy Unit Commendation and the Armed Forces Expeditionary Medal for actions in the Gulf of Tonkin.

On October 1, 1971, USS CONSTELLATION sailed from San Diego to begin her sixth combat deployment to Vietnam. Seven months later, Lieutenant Randy Cunningham and Lieutenant (junior grade) Willie Driscoll of VF-96 were awarded the Navy Cross and became America's first aces of the war by downing three MiG fighters during vicious dog-fighting over North Vietnam, bringing their total to five enemy aircraft in four months.

USS CONSTELLATION returned from her sixth combat deployment to Vietnam on June 30, 1972. For her service during this deployment, as well as her participation in Operation Freedom Train, and Operation Linebacker I, she received a Presidential Unit Citation from then-President Nixon in 1973.

USS CONSTELLATION had twenty-one deployments to the Western Pacific including tours in the Indian Ocean and Arabian Gulf. She received numerous awards during her service, some of which are: Navy Unit Commendations, Navy Battle Efficiency Awards, Navy Expeditionary Service Medals, National Defense Service Medals, Vietnam Service Medals, Humanitarian Service Medals, and Republic of Vietnam Gallantry Cross Meritorious Unit Citation Medals.

After 41 years of commissioned service, USS CONSTELLATION was decommissioned at the Naval Air Station North Island in San Diego on August 7, 2003. In September 2003, she was towed to INACTSHIPMAINTO Bremerton. On December 2, 2003, ex-CONSTELLATION was stricken from the Naval Vessel Register and subsequently designated for disposal.

Ex-CONSTELLATION meets the criteria to be eligible for listing in the National Register of Historic Places (NRHP) according to an evaluation prepared by the Naval History and Heritage Command (NHHC) ships history division (see Appendix). Support for eligibility includes: ex-CONSTELLATION is credited with a Presidential Unit Citation, and two of the officers flying from her assigned air group won Navy Crosses and became the first Aces of the Vietnam War.

1.6 Applicability of NEPA and Executive Order 12114

The NEPA, as amended, requires Federal agencies to assess any reasonably foreseeable direct and indirect effects of major Federal actions on human health and the environment (42 U.S.C. §§ 4321-4370f). The potential dismantlement of ex-CONSTELLATION is considered a “major Federal action” under NEPA. There is no applicable Categorical Exclusion (CATEX) for this action; the CATEX for decommissioning, disposal, or transfer of naval vessels (Number 22, “Decommissioning, disposal or transfer of Navy vessels, aircraft, vehicles and equipment when conducted in accordance with applicable regulations, including those regulations applying to removal of hazardous materials”) does not apply to the Proposed Action because of the ship’s eligibility for listing in the NRHP. To satisfy NEPA requirements, the Navy must evaluate the interrelated environmental and cultural resource impacts of the Proposed Action, identify reasonable alternatives, analyze potential direct, indirect, and cumulative impacts that may result, and determine whether the Proposed Action will have a significant impact on the human environment. The potential towing of ex-CONSTELLATION to any dismantling facility would bring the vessel outside 12 nm from shore; therefore, E.O. 12114 applies to this Proposed Action.

This EA/OEA documents the Navy’s evaluation and assessment of the potential environmental impacts associated with the decision to dismantle ex-CONSTELLATION.

This EA/OEA has been prepared by the Navy in accordance with the following laws, regulations and policy:

- The NEPA of 1969, as amended (42 United States Code (U.S.C.) §§ 4321-4370d);
- E.O. 12114, Environmental Effects Abroad of Major Federal Actions;
- The Council on Environmental Quality (CEQ) regulations implementing NEPA (40 C.F.R. §§ 1501-1508);
- Policies and Responsibilities for Implementation of NEPA within the DON, 32 C.F.R. Part 775; and

- CNO Instruction (OPNAVINST) 5090.1D, The Navy Environmental Readiness Program Manual, January 10, 2014.

This EA/OEA also draws upon information in the possession of and obtained by the Navy, and other readily available public sources of information.

The NEPA, CEQ regulations, E.O. 12114 and the Navy's procedures for implementing the NEPA specify that an EA should only address those resource areas potentially subject to impacts. In addition, the level of analysis should be commensurate with the anticipated level of environmental impact. For this Proposed Action, no construction activities would be required. Only one area of qualified dismantling facilities, based on the Navy's knowledge of existing domestic dismantlers nationwide, has been preliminarily identified as the location where the decision to dismantle ex-CONSTELLATION could be accomplished; i.e., in or near Brownsville, TX.

Environmental resources potentially affected by the Proposed Action and all reasonably foreseeable actions to be evaluated in this EA/OEA include:

- Cultural Resources
- Water Resources
- Biological Resources
- Air Quality/Climate Change

The vessel would be towed to a dismantling facility that is closed to public access. The dismantling facility has existing capacity to undertake the dismantling project without any construction or modifications to facilities. Moreover, the Navy's dismantling contracts require that the dismantling facility obtain all applicable environmental and occupational health and safety permits prior to commencing the dismantling project. The resources that are not evaluated in this EA/OEA are:

- Land Use (there will be no change in land use as a result of the Proposed Action);
- Geology, Soils (including wetlands) and Seismicity (there would be no effects to these resources and conditions);
- Socioeconomics (the project would not have an effect on the state, local and regional economies, nearby housing, or community services);
- Environmental Justice (the project is not expected to affect environmental and human health conditions in minority and/or low-income communities because none are located within a half-mile of the potential dismantling facilities in or near Brownsville, TX, which are restricted from public access and operate in compliance with all regulated environmental statutes);

- Transportation (the Proposed Action would not result in increased traffic or number of personnel at the vessel's current location or the dismantling facilities' locations);
- Noise (towing is a routine vessel movement; the facility in which the dismantling would be conducted would be in compliance with applicable environmental statutes related to noise; the Navy is not conducting the dismantling);
- Utilities (there is no need for additional utilities for the Proposed Action);
- Public Health and Safety (the facilities are closed to public access); and
- Aesthetics and Visual Resources (The vessel has not been recognized as having a significant aesthetic value that would be affected by its elimination from INACTSHIPMAINTO Bremerton. Removal of ex-CONSTELLATION from INACTSHIPMAINTO Bremerton would not significantly alter the visual character of INACTSHIPMAINTO as INACTSHIPMAINTO will continue to be used for storage of inactive ships. In addition, the Proposed Action would not affect the existing visual character or quality of the possible dismantling sites and their surroundings).

1.7 Intergovernmental Coordination

In order to identify permits, certifications, and/or determinations that may be required for the Proposed Action and all reasonably foreseeable, related actions, the EA/OEA intergovernmental coordination process included consideration of the following statutes and their respective implementing regulations. The statutes pertaining to the Proposed Action and all reasonably foreseeable, related actions included, but were not limited to:

- The National Historic Preservation Act (NHPA);
- The Coastal Zone Management Act (CZMA) of 1972, as amended (16 U.S.C. § 1451 et seq.);
- The Clean Air Act (CAA) as amended (42 U.S.C. § 7401 (1994), including the 1990 General Conformity Rule;
- The Clean Water Act (CWA), Section 404 (33 U.S.C. § 1344);
- The CWA, 401 Water Quality Certification (33 U.S.C. § 1341);
- The Marine Mammal Protection Act of 1972 (16 U.S.C. §§ 1361-1407), as amended;
- Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544), as amended;
- E.O. 12114, Environmental Effects Abroad of Major Federal Actions; and
- E.O. 12372, Intergovernmental Review of Federal Programs.

As part of the NEPA compliance process, coordination with regulatory agencies was initiated to obtain regulatory input related to all Proposed Action alternatives and to clearly define their regulatory requirements. The Navy consulted with the following regulatory agencies: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS), the State of Washington Department of Ecology, and the State of Texas Coastal Commission. The letter correspondence with these agencies is included in the Appendix. The Navy notified the National Conference of State Historic Preservation Officers

(NCSHPO) in accordance with the Program Comment that ex-CONSTELLATION is eligible for listing in the National Register of Historic Places. A Determination of Eligibility (DoE) developed by a Navy historian was provided to the NCSHPO, the Historic Naval Ships Association, and the USS Constellation CVA/CV 64 Association, Inc., by NAVSEA SEA 21I letter Series 333/123 of June 30, 2010. The Navy also posted the DoE on the inactive ships website, www.navsea.navy.mil/teamships/inactiveships/historic, for a 60-day public comment period that ended on August 28, 2010. No comments were received by any stakeholder or member of the public. The letter correspondence to the NCSHPO is included in the Appendix.

The towing route for the Proposed Action would take the vessel into the coastal zone of Texas. The vessel would be towed through an existing shipping channel, the Brownsville Ship Channel, where no dredging or excavation would be required to complete the tow to a facility in the vicinity of Brownsville, TX.

This EA/OEA has been prepared using a systematic, interdisciplinary assessment process designed to provide decision makers with an organized analysis of the potential environmental consequences of implementing the Proposed Action and all reasonably foreseeable related actions. Section 1 provides a discussion of the Purpose and Need for the Proposed Action. Section 2 discusses the Proposed Action in greater detail and provides a discussion of reasonable alternatives to the Proposed Action. Section 3 provides a description of the affected environment, and Section 4 provides an analysis of potential environmental impacts. Section 5 discusses the cumulative impacts on the environment resulting from past, present and reasonably foreseeable future actions. Section 6 discusses other NEPA considerations. Section 7 presents the conclusion. Section 8 provides a list of preparers, Section 9 provides persons and agencies contacted, and Section 10 lists references used in the preparation of this EA/OEA.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The Proposed Action is the decision to award a contract to a technically acceptable domestic ship dismantling company which would then tow ex-CONSTELLATION to its facility in order to dismantle and recycle her in accordance with applicable Federal, state, and local laws and regulations. Ex-CONSTELLATION is currently moored at INACTSHIPMAINTO Bremerton, WA. Currently, the only qualified domestic dismantling facilities capable of dismantling and recycling an aircraft carrier are located in the vicinity of Brownsville, TX, where three dismantling facilities capable of dismantling ex-CONSTELLATION are in operation.

If the Navy decides to implement the Proposed Action, neither construction of new facilities nor modifications to the existing facilities would be required. Moreover, no dredging would be required. The Navy's ship dismantling contracts include a clause that requires the contractor to comply with all applicable Federal, state and local environmental and occupational safety and health laws and regulations.

The Proposed Action would include the following:

Towing

Ex-CONSTELLATION would be towed from her present location at INACTSHIPMAINTO Bremerton, WA, to the dismantling contractor's facility. The contractor would be responsible for the tow. Ex-CONSTELLATION would be towed through the shipping channels of Puget Sound and into the open ocean. It would then travel south in international waters and pass Cape Horn probably through the Strait of Magellan. During this period of the tow, ex-CONSTELLATION would be situated within the Exclusive Economic Zone (EEZ) and territorial seas of the Governments of Chile and Argentina. It would then continue being towed in international waters of the South Atlantic Ocean and into the Gulf of Mexico. The tow would reach the territorial waters of the United States within the Gulf of Mexico en route to a dismantling location.

The vessel is non-operational (no propeller rotation or water intakes/discharges); therefore, due to the size of the ship, the use of several tug boats would be required. The tug and tow would travel at 10 kts. or less. Towing would be conducted in accordance with the requirements of the Appendix H of the U.S. Navy Towing Manual, SI746-AA-MAM-010, Rev. 3, July 2002. The Navy contractor would be responsible for making all applicable notifications with the towing activity and would adhere to all applicable safety and marine mammal/endangered species requirements for towing the inactive ship. If necessary, the ballast tanks would be trimmed at

INACTSHIPMATINTO Bremerton in preparation for towing. Commercial pilots would be utilized for departures from and entries into ports.

Navigation

The characteristics of the tugs used for the towing of vessels to be disposed of by dismantling would depend on the contractor ultimately hired to perform the task, the route chosen, and the size of the tow. Within harbors where the ships are berthed, smaller harbor tugs would be used to move the inactive ship away from the piers and into position where the cable could be passed from the towing tug and attached to the vessel.

The size of the tug employed for the inactive vessel depends on factors previously mentioned. However, the minimum requirement is a tug with 80,000 lbs, bollard pull capability.

A map showing the probable towing route from Bremerton, WA, to a dismantling facility in or near Brownsville, TX, is shown in Figure 2.1.



Figure 2.1 –Tow Route from Bremerton, WA, to Brownsville, TX

Dismantling Process

The dismantling actions would take place at a private-sector facility. Exact dismantling procedures vary somewhat among recycling facilities. However, for the purpose of this analysis, a general description of the dismantling process is provided below.

Dismantling, also called ship breaking and ship scrapping, is any breaking down of a vessel's structure to dismantle the vessel. Two methods of dismantling a ship are the afloat (moored) method and the dry-dock method. Recycling a ship while in the water is more difficult because of the need to strip the inside of the ship before dismantling can begin. As material is removed from the ship it becomes lighter and is pulled ashore, a little more each day. For the dry-dock method, workers can immediately begin separating the vessel into large sections, and then move the large sections to other areas to be cut into smaller sections.

Most moored ship dismantling using the dry-dock method is performed in slips, which are dredged openings in the bank of the ship channel. Slips are generally 400 to 900 feet long and 100 to 120 feet wide at the entrance. A large winch at the head of the slip is used to drag the hull farther into the slip as work progresses. Booms are placed around the ship as a precaution to help contain any debris.

Dismantling consists of removing mechanical, hydraulic and/or electronic components that have potential market value for resale or reuse and then physically cutting the remainder of the hull to allow the recycling of metals and other material by sale to salvage yards or smelters. Fixtures, anchors, chains, and small equipment are removed initially. Machinery components are typically removed throughout the recycling process. During the preparation phase of recycling, small articles and the propellers are removed, which allows the hull to be pulled into shallow water where cutting usually takes place. As layers of the ship are cut, large reusable or recyclable components are removed as they become accessible (MARAD, 2009). Dismantling is a very labor-intensive, manual process.

The ship may contain or be contaminated with hazardous materials, including asbestos, polychlorinated biphenyls (PCBs), oils, and fuels. Asbestos-containing material (ACM) is removed from cut lines and compartments so that large sections of the ship can be removed. The engine rooms usually contain the most asbestos and, therefore, take the longest for asbestos removal to be complete. Any PCB-containing materials that are accessible are removed, as well as any PCB-containing paint coatings from areas to be cut. Some PCB-containing materials may be left in place on the room-sized pieces, only to be removed after the large piece is moved to shore. Following asbestos and PCB removal, paint is removed, if required, from surfaces to be cut.

After their removal from the ship, ship machinery components are typically handled in the yard, or what is commonly called the scrap yard. Scrap metals, including steel, aluminum, copper, copper nickel alloy, and lesser amounts of other metals, are sorted by grade and composition and sold to re-melting firms or to scrap metal brokers. Other materials that are not recycled, including hazardous materials and other wastes, are disposed of according to applicable Federal, state, and local laws and regulations. The Navy and the MARAD work closely and cooperatively with the EPA and OSHA to ensure that domestic ship recycling facilities have the capability of dismantling ships in a manner that protects the environment, worker safety and health.

Contractors are required to have a Technical Operational Plan, an Environmental Management Plan, and a Safety and Health Management Plan in place for their work. Two applicable guides, EPA Ship Scrappers Guide and Occupational Safety and Health Administration (OSHA) Safe Work Practices for Shipbreaking, can be found on the SEA21I website: http://www.navsea.navy.mil/teamships/Inactive_ships.

2.2 Proposed Action Alternatives

This Environmental Assessment does not evaluate the potential environmental impacts of the Proposed Action at a location other than a dismantling location in or near Brownsville, TX². There are three facilities in or near Brownsville, TX, capable of dismantling a vessel the size of ex-CONSTELLATION. The Navy is not aware of any other qualified location within the United States where the dismantling of a vessel the size of ex-CONSTELLATION could be achieved. No new recycling facilities would be needed to fulfill the Proposed Action.

The No-Action Alternative for this Proposed Action is to keep and maintain the vessel at INACTSHIPMAINTO Bremerton. The No-Action Alternative for this Proposed Action is described in Section 2.4.

Alternatives Screening Analysis

Ex-CONSTELLATION has the following characteristics:

Length Overall: 1,088 feet (ft)
Beam: 130 ft
Flight Deck Width: 282 ft
Draft: 22.67 ft fwd, 35.44 ft aft
Air draft: 172.4 ft
Current Displacement: 61,993 tons

Screening criteria were developed to identify reasonable alternatives based on the purpose and need of the Proposed Action and to eliminate those that did not meet the criteria. For an alternative to be considered reasonable, it must:

- Be an approved domestic dismantling facility large enough to support a vessel of this size.
- Have waterways leading up to the facility that are currently deep enough to allow ex-CONSTELLATION to be towed to the site without dredging.

² If the future contract is awarded to a facilitydismantling location in an area other than one located nearby Brownville, TX, this EA/OEA can be amended by a Supplemental EA/OEA.

Alternatives Considered but Eliminated

In accordance with OPNAVINST 4770.5H, General Policy for the Inactivation, Retirement, and Disposition of U.S. Naval Vessels, there are six possible methods for the disposition of ships stricken from the NVR, one of which is dismantling. The following are five alternatives considered for ex-CONSTELLATION but ultimately eliminated from further review:

- **Fleet Training Exercise Requirements:**
This alternative results in the destruction of the ship during at-sea, live-fire training exercises (SINKEX). Current policy does not include the use of aircraft carriers for SINKEX, thus this alternative is not an option for ex-CONSTELLATION.
- **Foreign Military Sale Transfer:**
This alternative is not feasible as the U.S. Department of Defense (DoD) does not allow aircraft carriers to be available for Foreign Military Sale transfer, thus this alternative is not an option for ex-CONSTELLATION.
- **Title Transfer to the Maritime Administration (MARAD), Department of Transportation (DOT):**
This alternative is only applicable to merchant-type ships such as amphibious and auxiliary ships, pursuant to the Merchant Marine Act of 1936. Because ex-CONSTELLATION is an aircraft carrier, this alternative is not available.
- **Artificial Reefing:**
The Navy has determined that this alternative is not feasible due to the extensive presence of solid materials containing PCBs at levels which exceed USEPA acceptable levels; consequently, ocean disposal by means of artificial reefing would be prohibited. Removal of these materials prior to artificial reefing of this vessel would not be practicable.
- **Donation Transfer:**
Ex-CONSTELLATION was not designated for donation as a museum or memorial. There has been increased difficulty in recent years for potential donees to raise adequate funds to satisfy the donation requirements. Attempts to donate three other sister ships, ex-FORRESTAL (AVT 59), ex-SARATOGA (CV 60) and ex-RANGER (CV 61), have failed. Thus, this alternative is not an option for ex-CONSTELLATION.

2.3 Brownsville, TX, Alternative

This alternative would dismantle ex-CONSTELLATION at a facility in or nearby Brownsville, TX (Figure 2.2). The selected dismantling facility would have the capability of dismantling a carrier of this size and would not require construction of any new facilities.

The navigational concerns of entering the Port of Brownsville are minimal. The Port of Brownsville is located three miles from Mexico, and two miles from Brownsville, the southernmost city in Texas. A seventeen-mile shipping channel connects the Port from the Gulf of Mexico through the Laguna Madre, adjacent to South Padre Island.

Two mile-long rock jetties protect the channel entrance. Navigationally, the ship channel has no bridges or other obstructions for the entire length of this virtually straight waterway. The shallowest part of the transit is the turning basin at 36 ft. The rest of the transit uses a deep water channel that has controlling depths at mean low water of 42 to 44 ft, depending on location.



Figure 2.2 – Facilities Along Brownsville, TX, Ship Channel

2.4 No-Action Alternative

If the Federal Government is unable to award a dismantling contract, the No-Action Alternative would result by default. The No-Action Alternative includes continued berthing of ex-CONSTELLATION at INACTSHIPMAINTO Bremerton.

Ex-CONSTELLATION is in poor condition with extensive surface corrosion and deterioration. If the vessel is not removed from the inactive ship inventory, the ship would continue to be maintained in safe stowage (i.e., fire and flood protection).

The No-Action Alternative does not meet the Navy's operational need to reduce the Navy's inactive ship inventory and eliminate costs associated with continuing to maintain ex-CONSTELLATION in a safe stowage condition.

2.5 Summary of Impacts

The environmental consequences associated with implementation of these alternatives are presented and compared in Table 2-1. For a detailed description and analysis, refer to Chapter 4, Environmental Consequences.

Table 2-1. Summary of Impacts

Resource Area	Proposed Action Alternative (Brownsville, TX)	No-Action Alternative
Cultural Resources	• Adverse effect on the vessel; compliance with the ACHP's Program Comment for Navy vessels would mitigate the adverse effect (see Appendix) • No effects on other cultural resources	• The No-Action Alternative results in retention of a cultural asset • No effects on other cultural resources
Water Resources: Water Quality	• No significant impacts to water quality	• No significant impacts to water quality
Water Resources: Sediment Quality	• No significant impacts to sediment quality	• No significant impacts to sediment quality
Biological Resources: Benthic Community	• No significant impacts to benthic biological resources	• No significant impacts to benthic biological resources
Biological Resources: Fish and Essential Fish Habitat	• No effect on Essential Fish Habitat • No significant impacts to Essential Fish Habitat	• No significant impacts to Essential Fish Habitat
Biological Resources: Marine Mammals	• No reasonably foreseeable takes of marine mammals • No significant impacts/no significant harm to marine mammals	• No significant impacts to marine mammals
Biological Resources: Threatened and Endangered Species	• May affect, but not likely to adversely affect threatened/endangered species during towing (see Tables 3-2 and 3-3) • No effect to other threatened/endangered species • No significant impacts/no significant harm to threatened/endangered species	• No significant impacts to threatened/endangered species
Coastal Resources	• No effect on any land or water use or natural resource of the state's coastal zone • No significant impacts to coastal zone resources	• No significant impacts to coastal zone resources
Air Quality/Climate Change	• No significant impacts to air quality/climate change	• No significant impacts to air quality/climate change

3.0 AFFECTED ENVIRONMENT

This chapter discusses the resources that are present during the phases of operation for the Proposed Action Alternative and the No-Action Alternative. The Proposed Action Alternative has three phases which have separate environmental analysis considerations. The first phase begins at the removal of the vessel from INACTSHIPMAINTO Bremerton and continues with towing through the shipping channels of Puget Sound. The second phase is the transit from Puget Sound into the open ocean. The third phase is towing leading to the destination port. For this EA/OEA, the only qualified domestic facilities capable of dismantling ex-CONSTELLATION are located in the vicinity of Brownsville, TX. Thus, it is to this location for which potential environmental effects from the towing phases of the Proposed Action Alternative are analyzed.

Beginning with the first phase of the Proposed Action Alternative, the removal of ex-CONSTELLATION from her berth at INACTSHIPMAINTO Bremerton, the potentially affected resources that are evaluated include cultural resources, water (water quality and sediments), biological resources (benthic community, fish and essential fish habitat, marine mammals, threatened or endangered species), and air quality. During the second phase, towing in the open ocean, there would be no effects to sediments or benthic habitats. Other than the ship itself, the only potentially affected cultural resources which may occur at sea are ship or airplane wreck sites, which are avoided using standard navigational practices. Transiting the open ocean could potentially affect water quality, marine mammals, and protected species. At the third phase, the approach of the tow to a dismantling facility near Brownsville, TX, the potentially affected resources would include cultural resources, water (water quality and sediments), biological resources (benthic community, fish and essential fish habitat, marine mammals, threatened or endangered species), and air quality.

3.1 Cultural Resources

3.1.1 Regulatory Setting

Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties. The lead Federal agency must also allow the ACHP an opportunity to participate in Section 106 consultation whenever it determines that the proposed undertaking will adversely affect historic properties or resources that are listed or are eligible for listing in the NRHP. The Federal agency, in consultation with the relevant State Historic Preservation Office (SHPO), the ACHP, and other consulting parties, must consider methods that would minimize, mitigate, or avoid any adverse effects that such undertaking would have on properties that are listed in the NRHP, or that are determined to be eligible for listing. Sections 106 and 110 of the NHPA require Federal agencies to identify, evaluate, inventory, and protect historic properties that are under their jurisdiction and control. The NHPA imposes no absolute preservation requirements; however, the Navy must follow and document mandated procedures for any Navy decision regarding undertakings that may affect cultural resources.

The Department of the Interior (DOI), through the National Park Service (NPS), established four criteria for determining whether a property is eligible for listing in the NRHP. The four evaluation criteria are codified in 36 C.F.R. § 60.4 and are as follows:

- a. are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. are associated with the lives of persons significant in our past; or
- c. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. have yielded, or may be likely to yield, information important in prehistory or history

Navy vessels that meet one or more of these criteria, and that continue to possess integrity of (as appropriate) design, materials, workmanship, feeling and/or association are eligible for listing in the NRHP.

The Navy, in considering listing a historic vessel in the NRHP, would prepare a Determination of Eligibility (DOE) or Determination of Ineligibility (DOI) document for listing in the NRHP, and consult with the National Conference of State Historic Preservation Officers (NCSHPO) and the appropriate SHPO.

Requirements regarding consultation with consulting parties such as the ACHP, SHPO, Tribal Historic Preservation Office (THPO), Indian tribes, and interested public vary on a case by case basis. In general, Federal agencies should initiate consultation at the earliest stage in the planning process to allow consideration of all possible alternatives that would minimize, mitigate, or avoid adverse effects to an historic property.

3.1.2 History and Requirements

Ex-CONSTELLATION meets the criteria to be eligible for listing in the NRHP according to an initial evaluation prepared by the NHHHC ships history division. Support for eligibility includes: ex-CONSTELLATION is credited with a Presidential Unit Citation and two of the officers flying from her assigned air group received Navy Crosses and became the first Aces of the Vietnam War.

In accordance with the ACHP Program Comment procedures of March 15, 2010, the NCSHPO and other historic preservation stakeholders were notified on June 30, 2010, of the Navy's determination that ex-CONSTELLATION is eligible for listing in the NRHP. The Navy solicited public comments for a sixty-day period in accordance with the Program Comment procedures and received no responses.

The Navy has annotated the vessel's entry in the NVR to reflect listing eligibility (the public can access the NVR at <http://www.nvr.navy.mil>). Documentation consisting of historically significant records pertaining to ex-CONSTELLATION is available for viewing at the Naval

History and Heritage Command offices. The Navy will assemble an information package of historically significant records for ex-CONSTELLATION which will be turned over to the National Archives for preservation.

There are steps the Navy shall take under the ACHP Program Comment for vessels eligible for listing in the NRHP: (1) give priority to compiling histories of these eligible vessels when preparing entries in the Dictionary of American Naval Fighting Ships; (2) retain and provide public access to historical documentation from NRHP eligible vessels such as command operation reports, war diaries, and ship deck logs at the NHHHC; (3) in addition to the standard curatorial items removed from the vessel upon decommissioning in accordance with required Navy policy, the Navy would make the vessel available to the Navy Curator and eligible non-profit organizations for removal of additional equipment, parts of the vessel, etc., that contribute to the historical significance of the vessel; (4) within three years of designating a NRHP-eligible vessel for final disposition, deposit with the National Archives and Records Administration documentation consisting of archive-stable media including the Booklet of General Plans and the last report of the Board of Inspection and Survey describing the material condition of the vessel.

By following this ACHP Program Comment, the Navy would meet its responsibilities for compliance with Section 106 of the NHPA concerning the evaluation of vessels for eligibility for listing in the NRHP and the final disposition of eligible vessels.

3.1.3 INACTSHIPMAINTO Bremerton

INACTSHIPMAINTO Bremerton, is located on the north side of the Sinclair Inlet on the Kitsap Peninsula. The Suquamish Indian Tribe's aboriginal land extended along the eastern shore of the Kitsap Peninsula; thus, the facility is in the tribe's territory. However, there is low to no probability for archaeological value at INACTSHIPMAINTO Bremerton, given the level of development at the site. Four National Historic Districts and one National Historic Landmark have been established at Naval Base Kitsap at Bremerton (Officer's Row, Old Puget Sound Radio Station District, Old Marine Reservation District, and Old Naval Hospital); the ship's mooring is located outside the Puget Sound Naval Shipyard National Historic Districts. All the vessels at INACTSHIPMAINTO Bremerton, are berthed at piers which are within the Naval Restricted Area 2.

3.1.4 Brownsville, TX

The Port of Brownsville has been in operation since 1936 when the Brownsville Shipping Channel (BSC) was originally dredged. It has undergone vast growth since then and can support large vessels. It is not listed in the NRHP.

None of the three dismantling facilities in or near Brownsville, TX, that are capable of dismantling ex-CONSTELLATION are listed in the NRHP.

3.2 Water Resources Including Coastal Zone Resources

This section describes the existing water resource conditions, including sediment quality in the project area. Surface water includes oceans, bays and estuaries, lakes and ponds, rivers and creeks, and overland precipitation runoff. Sediment quality describes the chemical and physical composition of water and sediment in bodies of water. For the purposes of this analysis, water and sediment quality is evaluated with respect to possible disturbances of existing conditions associated with the proposed project activities. This project is entirely in-water and all considered alternatives are at hard shorelines developed with piers and other facilities; thus, no groundwater would be impacted.

3.2.1 Water Resource Regulations

Water resource regulations focus on the protection of beneficial uses of water within the vicinity of the project area. The principal Federal law protecting water quality is the Clean Water Act (CWA), as amended (33 U.S.C. § 1251 et seq.), which is enforced by the EPA. Section 303(d) of the CWA and EPA's Water Quality Planning and Management Regulations (40 C.F.R. Part 130), States are required to develop total maximum daily loads (TMDLs) for impaired water bodies unable to meet their designated uses. A TMDL "establishes the amount of a pollutant that a water body can assimilate without exceeding its water quality standard for that pollutant."

Washington State jurisdiction over its waters extends out to 3 nm from its coast. Federal jurisdiction regarding water quality extends from 3 to 200 nm along the west coast of the United States and begins 9 nm from shore and extends out to 200 nm for Texas within the Gulf of Mexico. These standards and guidelines are mainly the responsibility of the EPA specifically ocean discharge provisions of the Clean Water Act (33 U.S.C. §11343 et seq.) Ocean discharges may not result in "unreasonable degradation of the marine environment." Specifically, disposal may not result in (1) unacceptable negative effects on human health; (2) unacceptable negative effects on the marine ecosystem; (3) unacceptable negative persistent or permanent effects due to the particular volumes or concentrations of the dumped materials; and (4) unacceptable negative effects on the ocean for other uses as a result of direct environmental impact (40 C.F.R. §125.122.)

Section 307(c) of the Coastal Zone Management Act (CZMA) requires that any Federal action that would directly or indirectly affect any land or water use or natural resource of the coastal zone must be consistent to the maximum extent practicable with the applicable state coastal zone management program. The states of Washington and Texas have prepared federally-approved Coastal Management Programs (CMPs).

The tow route for ex-CONSTELLATION would exit the Strait of Juan de Fuca and enter into the U.S. Exclusive Economic Zone (EEZ) when the towing operation reaches 3 nm from the coast of Washington State. An area to be avoided during towing is the Olympic Coast National Marine Sanctuary, designated in 1994, which spans 3,310 square miles of marine waters off the Northern Washington State coast. Federal regulations for this sanctuary are provided at 15 C.F.R. §

922.150.154. See Figure 3.1 which shows the location of the National Marine Sanctuary relative to the Strait of Juan de Fuca, and the offshore border between the United States and Canada.

3.2.2 Water Resources – Affected Environment (Ocean)

The following sections discuss existing marine conditions along the anticipated towing route from INACTSHIPMAINTO Bremerton to a destination in the vicinity of Brownsville, TX.

3. Affected Environment

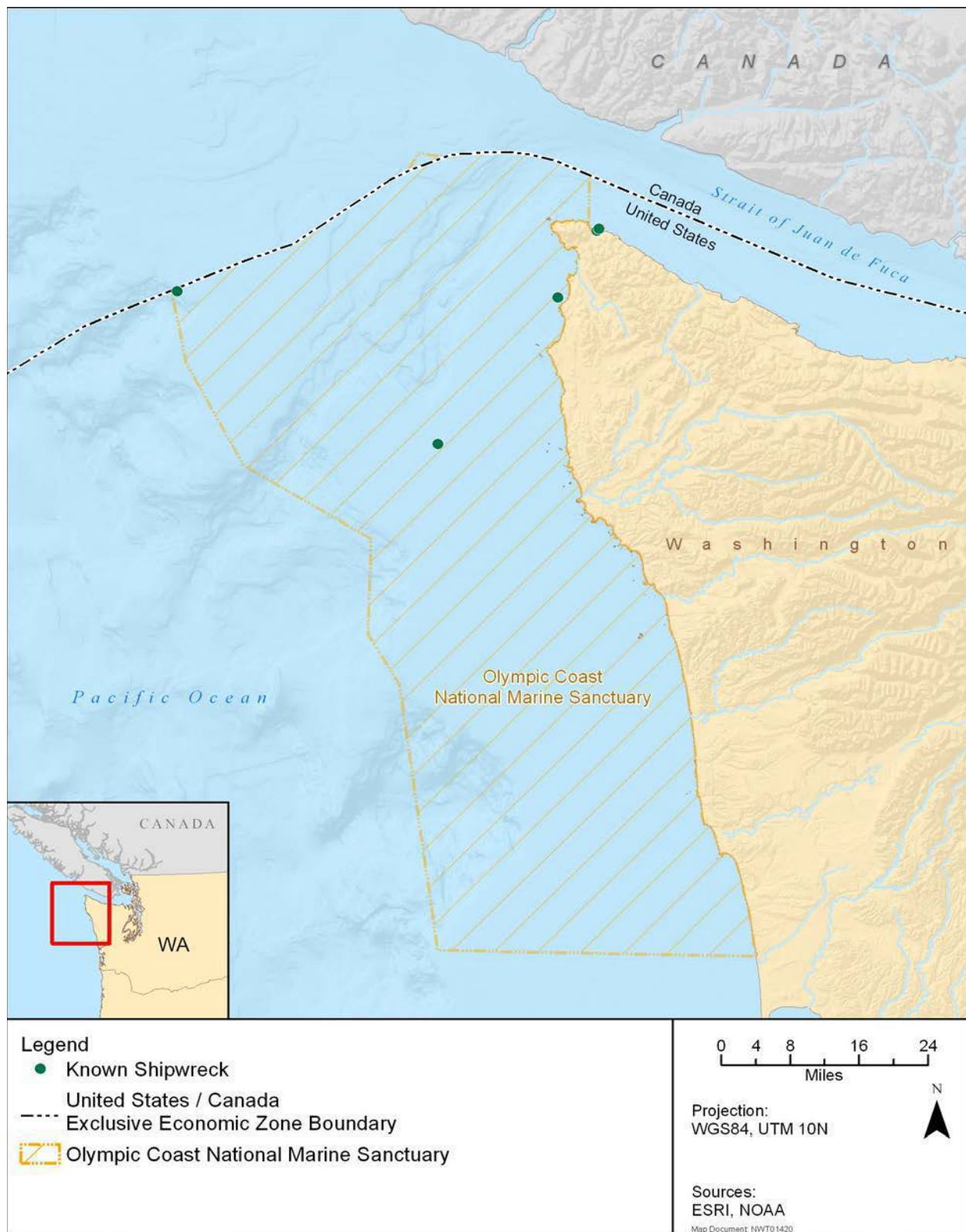


Figure 3.1 – Location of Olympic Coast National Marine Sanctuary (U.S. Navy, 2014)

Water Quality Near Bremerton, WA, Puget Sound and Pacific Ocean, Offshore of Washington State

The towing route would take ex-CONSTELLATION into the normal shipping lanes in Sinclair Inlet, through Rich Passage, past Restoration Point, and northerly through the Puget Sound. Nearest to INACTSHIPMAINTO Bremerton, Sinclair Inlet is a 3.5-mile-long shallow, poorly flushing estuary with freshwater input from nearby creeks. While water quality in Sinclair Inlet is considered high enough to support many different recreational uses, it has been detrimentally affected by runoff and sediment contamination from the surrounding watersheds including such land uses as forest land, highways, urban development, commercial development, and industrial development. The State of Washington has assessed the water quality of Sinclair Inlet and has found certain areas to have evidence of low dissolved oxygen (DO) or elevated levels of fecal coliform. The inlet experiences isolated events of low DO with elevated nutrient concentrations and phytoplankton blooms (WDOE, 2008; in Navy, 2013).

The waters of the Pacific Ocean off the coast of Washington State are largely controlled by (1) Pacific Ocean-wide circulation of water, especially the California Current; (2) major inputs of fresh water and sediment from the Columbia River; (3) formation of large eddies such as is found at the mouth of the Strait of Juan de Fuca; and (4) seasonal prevailing winds (Navy, 2014). The nearby Olympic Coast National Marine Sanctuary's waters have been well studied and provide a baseline for the water quality conditions along the tow route after exiting the Strait of Juan de Fuca. Water quality in the Sanctuary is similar to natural ocean conditions with relatively minor influences from human activities (Office of National Marine Sanctuaries, 2008; in Navy, 2014). There are few point sources of pollution in the sanctuary, and the sparse population of the region has limited nonpoint source pollutants. Potential water quality contaminants for the Sanctuary include petroleum products, pathogens, and other chemicals.

Water Quality in the Western Gulf of Mexico and Nearby Brownsville, TX

The towing route for ex-CONSTELLATION would reenter the United States in the Gulf of Mexico off the coast of Brownsville, TX. Waters offshore of the western Gulf of Mexico are considered pristine in comparison to inshore waters, though natural hydrocarbon seeps do account for concentrations of volatile organic carbons found in some deep-water areas. DO is highest at the water surface due to photosynthesis and atmospheric exchange. The City of Brownsville is located near the U.S.-Mexico border, where the Rio Grande River flows into the Gulf of Mexico. Ship recycling facilities in the vicinity are located within the Port of Brownsville, which is in a man-made inlet south of South Padre Island. The Port connects to the Gulf via Brazos Santiago Pass. The Brownsville Ship Channel (five mile section of the navigation channel) extends from the Port to the Laguna Madre. The remaining twelve mile section of the channel was dredged through coastal prairie and passes adjacent to or through three salt marsh areas (Vadia Ancha, Bahia Grande, and San Martin Lake).

The Laguna Madre, which is a shallow productive lagoon, lies between the mainland and the barrier islands. The Laguna Madre drains most of the Nueces-Rio Grande Coastal Basin (10,442 square miles) and is one of only five hypersaline or negative estuaries in the world. The Laguna Madre is a shallow, bar-built coastal lagoon with limited freshwater inflow and a surface area at

mean high tide of 729 square miles. Freshwater inflows to lower Laguna Madre average less than 530,000 acre-feet per year and, an important conduit of freshwater to the lagoon is the Brownsville Shipping Channel. Tides in the Laguna Madre are minimal. Ecologically, the Laguna is characterized as exhibiting hypersaline conditions, barren shorelines with extensive wind-tidal flats, extensive submerged seagrass meadows, and a highly productive fin fishery (TCEQ, 2008).

The Brownsville Ship Channel (BSC) is listed as having impairment for bacteria in a 2010 assessment. This impairment may be related to the numerous wastewater treatment plants that discharge to the segment. The ship channel also exhibits depressed DO based on screening levels (TCEQ, 2010). TMDLs have not been established for this water body.

Historical data from the U.S. Army Corps of Engineers (USACE) regarding metals, several pesticides, and polycyclic aromatic hydrocarbons, indicate that the water quality in the entrance channel is generally good. Recent data on samples collected in April 2004, also indicate that water quality is good (USACE, 2004). None of the contaminants of concern exceeded applicable EPA Water Quality Criteria or Texas Surface Water Quality Standards (WQS). For example, arsenic was detected at 2.33 ug/L as compared to the WQS acute level of 149 ug/L and chronic level of 78 ug/L. However, since 1998, the Gulf of Mexico along the entire Texas coast has been listed by the Department of State Health Services as being impaired for mercury contamination. Health advisories concerning the consumption of large king mackerel (over 43 inches in total length) taken from the Gulf of Mexico were issued due to high level of mercury found in fish tissue.

3.2.3 Water Resources – Affected Environment – Sediments

Sediment quality near Bremerton, WA

[The information in this section on Sediment Quality has been adapted from the Environmental Assessment for Pier 6 Pile Replacement Naval Base Kitsap, September 2013 (U.S. Navy, 2013)] The waterfront area at Bremerton has been significantly altered by industrial development and dredging including the construction of 6 drydocks, 13 piers or wharves, and acres of former tidelands filled and paved to enlarge the installation. Sinclair Inlet exhibits a weak estuarine flushing (i.e. water and sediments stay within Sinclair Inlet instead of being flushed out quickly to other parts of the Puget Sound) along with clockwise current pattern and sediment deposition along the northern shoreline. Weak tide currents move water in and out of the inlet with a maximum velocity of 0.2 to 0.3 knots. This effect and the generally weak nature of these currents make the inlet more depositional than erosional for both mud (silt and clay) and sand-sized particles. Currents are generally not capable of re-suspending bottom sediments.

In 1998, a Sediment Trend Analysis (STA) was performed on samples taken from Sinclair Inlet and the adjacent Port Orchard waterway. This study has been the basis for determination of areas of erosion, stability of sediments (dynamic equilibrium), and deposition of sediments in Sinclair Inlet. In general, muddy sediments show a dominant clockwise pattern with flood-directed transport on the south side of the Inlet and ebb-directed transport on the north side of the Inlet.

The STA study demonstrates the sediments throughout Sinclair Inlet do not move with great speed, but do accumulate in certain areas. This is especially true on the northside of the inlet, where the movement of sediments terminates inside the docks and piers of the shipyard (McLaren, 1998).

Sediment contamination within Sinclair Inlet has been well documented and includes a variety of metals and organic chemicals originating from human sources. The marine sediments have been affected by past shipyard operations, leaching from creosote-treated piles, and other activities in Sinclair Inlet.

Sediment Quality Near Brownsville, TX

The sediments at the navigation channel consist of deposited sands transported by littoral currents. Sediments in the jettied segment of the Entrance Channel have been regularly sampled for size characteristics between dredging cycles since the early-1990s. The sediment in this channel reach is primarily sand with silt and a small clay fraction. Historical USACE data of this deposited material in the navigation channel indicate that the sediment quality is good. Elutriate data showed that none of the contaminants of concern exceeded the Texas Surface WQS. Although currently there is no EPA quality criteria for sediments, sediment samples were compared with the sediment quality screening guidelines from the National Oceanic and Atmospheric Administration (NOAA) Environmental Research Laboratories (ERL). Results indicate that none of the contaminants of concern exceeded the screening levels. For example, the maximum concentration of arsenic in sediment samples was detected at 5.05 mg/kg, which is below the NOAA ERL screening level of 8.2 mg/kg (USACE, 2004).

3.3 Biological Resources

Biological resources consist of native and nonnative plant and animal species and the habitats in which they occur. This project would take place entirely in water, and the Proposed Action alternative would occur at hard shorelines developed with piers and other industrial facilities. Thus, the biological resources analysis will only focus on riverine and marine resources that may have contact with the vessel during the Proposed Action.

3.3.1 Regulatory Requirements

The Marine Mammal Protection Act (MMPA) protects marine mammals from “take” (harm or harassment). The Federal Endangered Species Act (ESA) protects federally-listed threatened and endangered (T&E) plant and animal species. Threatened and endangered species are defined as those plant and animal species in danger of extinction throughout all or a significant portion of its range, by the United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or appropriate state agency. The Magnuson-Stevens Fishery Conservation and Management Act (MSA) defines “Essential Fish Habitat,” as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.

3.3.2 Affected Environment

The potential effects on biological resources at the berthing location, INACTSHIPMAINTO Bremerton, towing in the open ocean, and the representative dismantling location in Brownsville, TX, are presented in subsequent sections that address, for each location, as appropriate: benthic communities, fish and Essential Fish Habitat (EFH), marine mammals and threatened and endangered species.

3.3.2.1 Benthic Communities

Benthic organisms dwell on mudflats, on the bottom of tidal marshes and open water areas, and on hard surfaces below the intertidal zone. Benthic invertebrates are an important component of the food chain as they are an important food source for demersal (bottom dwelling) fish, crabs, as well as shorebirds.

Bremerton

Due to poor sediment and water quality, benthic habitat within the project area has very low biodiversity, and is limited to organisms that are tolerant of poor environmental conditions. The benthic community in the vicinity of the ex-CONSTELLATION berth would include various invertebrates such as marine worms, snails and bivalves, crustaceans, and sea stars. None of these species are threatened or endangered.

Brownsville

Benthic communities near ship recycling facilities along the Brownsville Ship Channel (BSC) will be similar to those found in other parts of the Lower Laguna Madre, which is found between the mainland of South Texas and Padre Island. Salinity is a dominant factor controlling the distribution of estuarine organisms and community composition. The National Oceanic and Atmospheric Administration's (NOAA) Estuarine Living Marine Resources (ELMR) program categorizes faunal distribution in Gulf of Mexico estuaries based on the following three salinity zones: tidal fresh (0.0 to 0.5 ppt), mixing (0.5 to 25 ppt), and seawater (>25 ppt) (Nelson, 1992). . In comparison to other Gulf of Mexico estuaries, the Lower Laguna Madre receives minimal freshwater input, with average annual evaporation exceeding mean annual input. The Laguna Madre Estuary was characterized by the ELMR program as having only a seawater (salinity >25 ppt) zone (Nelson, 1992).

NOAA's ELMR program compiled data on ecologically or economically important fauna in Gulf of Mexico estuaries. Several species of shrimp were reported among the dominant invertebrate taxa in the Laguna Madre Estuary. The grass shrimp (*Palaemonetes pugio*) was considered highly abundant, and was frequently found to be among the numerical dominants in the estuary. Pink shrimp (*Penaeus duorarum*), white shrimp (*Penaeus setiferus*), and brown shrimp (*Penaeus aztecus*) were identified as sub-dominants, considered to be abundant in the Laguna Madre (Nelson, 1992). Shrimp have also been reported as dominant invertebrate taxa in surveys conducted within the BSC; white shrimp and brown shrimp were identified as the dominant

invertebrate taxa in the BSC. Grass shrimp use the Laguna Madre during all life stages, while the penaeid shrimp (pink, white, and brown) use the estuary as a nursery (Nelson, 1992). Blue crab (*Callinectes sapidus*) is also considered abundant in the Laguna Madre, using the estuary during all life stages. Bay squid (*Lolligunculla brevis*), though not found in large numbers, is considered common. Bay scallop (*Argopecten irradians*), American oyster (*Crassostrea virginica*), Gulf stone crab (*Menippe adina*), and Spiny lobster (*Panulirus argus*) are all present in the estuary, but considered rare (Nelson, 1992). Many of these taxa inhabit estuaries throughout the Gulf of Mexico. Several of these invertebrates are targeted by commercial fisheries in the Gulf of Mexico. EFH for any managed invertebrate species is discussed below.

Submerged Aquatic Vegetation (SAV) refers to vascular, rooted, flowering plants that live and grow mostly underwater. The prevalence and health of SAV is largely dependent on water quality and salinity. All five genera of salt-tolerant SAV (*Halodule*, *Thalassia*, *Syringodium*, *Halophila*, and *Ruppia*) that occur in Texas waters are found in the Lower Laguna Madre (TPWD, 1999). The Texas Parks and Wildlife Department (1999) reports that the Lower Laguna Madre supports 118,600 acres of seagrass, the largest acreage of seagrass meadows in any Texas bay system. The dominant seagrass species in the Lower Laguna Madre are turtlegrass (*Thalassia testudinum*) and manateegrass (*Syringodium filiforme*). The annual widgeongrass (*Ruppia maritima*) and perennial shoalgrass (*Halodule wrightii*) often occur in mixed beds. Small amounts of clovergrass (*Halophila*), a minor, understory species, are also found in the estuary (TPWD, 1999).

The benthos in the BSC is likely to be influenced by human activities. As a highly industrialized man-made navigational corridor, the BSC is subject to impacts from heavy ship traffic, industrial facilities, and dredging. Sections of the channel have been dredged at least every two years, and the entrance to the BSC is now scheduled for annual maintenance.

3.3.2.2 Fish and Essential Fish Habitat

Bremerton

The Pacific Fishery Management Council (PFMC) designated Puget Sound “riverine, estuarine, and marine areas used by life stages of managed salmon species and riverine areas found within watershed of documented occurrence” as EFH for the Pacific salmon fishery. The Pacific salmon management unit includes Chinook, coho, and pink salmon. All three species use the marine nearshore environment for rearing as juveniles and migration for both adults and juveniles. The EFH designation for the Pacific salmon fishery in estuarine and marine environments in the state of Washington extends from nearshore and tidal submerged environments within state territorial waters out to the full extent of the exclusive economic zone (200 nm) offshore (PFMC, 2003; in Navy 2013).

While EFH for the above species does exist in Sinclair Inlet, the industrial nature of INACTSHIPMAINTO Bremerton, would reduce the quality of the habitat in this area of Sinclair Inlet.

Brownsville

Near Brownsville, TX, the relatively high salinities of the Laguna Madre estuary, which separates the Gulf of Mexico from the BSC, play an important role in determining the composition of the fish community. Fishes identified as highly abundant in the Laguna Madre were bay anchovy (*Anchoa mitchilli*), hardhead catfish (*Arius felis*), sheepshead minnow (*Cyprinodon variegatus*), silversides (*Menidia* species), pinfish (*Lagodon rhomboides*), and spot (*Leiostomus xanthurus*) (Nelson, 1992). Atlantic croaker (*Micropogonias undulatus*) is considered abundant, but not typically among the numerical dominants (Nelson, 1992). Gulf menhaden (*Brevoortia patronus*), Gulf killifish (*Fundulus grandis*), Crevalle jack (*Caranx hippos*), Florida pompano (*Trachinotus carolinus*), sheepshead (*Archosargus probatocephalus*), silver perch (*Bairdiella chrysoura*), striped mullet (*Mugil cephalus*), code goby (*Gobiosoma robustum*), and southern flounder (*Paralichthys lethostigma*) were also considered abundant in the estuary (Nelson, 1992). Common fish that are not typically found in high numbers include snook (*Centropomus undecimalis*), gray snapper (*Lutjanus griseus*), spotted seatrout (*Cynoscion nebulosus*), black drum (*Pogonias cromis*), and red drum (*Sciaenops ocellatus*). Bull shark (*Carcharhinus leucas*), tarpon (*Megalops atlanticus*), gizzard shad (*Dorosoma cepedianum*), sand seatrout (*Cynoscion arenarius*), Spanish mackerel (*Scomberomorus maculatus*), and Gulf flounder (*Paralichthys albigutta*) are all occasionally found in the Laguna Madre, but are considered to be rare (Nelson, 1992).

The Gulf of Mexico Fisheries Management Council (GMFMC) is responsible for designating EFH in Texas. The GMFMC has designated the entire Gulf of Mexico, which is the nearest major body of water where EFH is designated, as EFH for white shrimp, pink shrimp, brown shrimp, spiny lobster, gulf stone crab, stone crab, gray snapper, red drum, and Spanish mackerel (GMFMC, 2008). It is reasonable to assume that habitat for most of these species occurs in Lower Laguna Madre. All except for stone crab have been reported from the Laguna Madre (Nelson, 1992). No EFH has been identified for the BSC itself.

3.3.2.3 Biological Resources Along the Towing Routes

The primary issue regarding the effects of towing on biological resources is vessel movement that could result in collision between the tug, the tow cable or towed vessel, and marine mammals or sea turtles, particularly those that are threatened or endangered. Preventing collision would depend on detecting the animal in time to take effective action. The NOAA “Vessel Strike Avoidance Measures” are based upon sighting animals and taking action to avoid them, including maneuvering and shifting engines into neutral. In the case of a tug and tow, the ability to take such actions is considerably constrained. Additionally, it is difficult to sight whales or sea turtles during periods of poor visibility especially at night.

3.3.2.4 Threatened and Endangered Species

Table 3-1 contains the list of federally listed threatened and endangered species that may occur in the region of the Puget Naval Shipyard and outbound from Puget Sound into the open ocean. Table 3-2 contains the list of federally listed species that may occur in the Pacific Region of the

towing route within the waters of the United States. Table 3-3 contains the list of federally listed species that may occur in the Atlantic and the Gulf of Mexico, and Table 3-4 contains the list of federally listed species in the vicinity of Brownsville, TX. Table 3-5 contains a list of the known protected species (threatened or endangered) that inhabit the Strait of Magellan.

Table 3-1
Federally Listed Species in the Region of Bremerton, WA: Puget Sound Shipyard and Outbound from Puget Sound into the Pacific Ocean

Species	Regulatory Agency	Status
Puget Sound Chinook	NMFS	Threatened
Puget Sound Steelhead	NMFS	Threatened
Southern Resident Killer Whale	NMFS	Endangered
Humpback Whale	NMFS	Endangered
Georgia Basin/Puget Sound Bocaccio DPS	NMFS	Threatened
Georgia Basin/Puget Sound Yelloweye Rockfish DPS	NMFS	Threatened
Georgia Basin/Puget Sound Canary Rockfish DPS	USFWS	Threatened
Coastal/Puget Sound Bull Trout	USFWS	Threatened

Table 3-2. Endangered and Threatened Species That May Occur in the Open Ocean (Pacific and/or Atlantic Oceans)

Common name	Scientific name	Status
Blue whale	<i>Balaenoptera musculus</i>	Endangered
Fin whale	<i>Balaenoptera physalus</i>	Endangered
Humpback whale	<i>Megaptera novaeangliae</i>	Endangered
Killer whale	<i>Orcinus orca</i>	Endangered ¹
North Pacific right whale	<i>Eubalaena japonica</i>	Endangered
Sei whale	<i>Balaenoptera borealis</i>	Endangered
Sperm whale	<i>Physeter macrocephalus</i>	Endangered
Green turtle	<i>Chelonia mydas</i>	Endangered/ Threatened ³
Hawksbill turtle	<i>Eretmochelys imbricata</i>	Endangered ²
Kemp's ridley turtle	<i>Lepidochelys kempii</i>	Endangered
Leatherback turtle	<i>Dermochelys coriacea</i>	Endangered
Loggerhead turtle	<i>Caretta caretta</i>	Endangered/ Threatened ⁴
Olive ridley turtle	<i>Lepidochelys olivacea</i>	Endangered/ Threatened ⁵

¹ Only the southern resident population in Puget Sound is listed as endangered.

² Occurs in the Southwest Region.

³ As a species, the green turtle is listed as threatened, but the Florida and Mexican Pacific coast nesting populations are listed as endangered.

⁴ Nine distinct population segments exist for loggerhead sea turtles. The North Pacific Ocean, South Pacific Ocean, North Indian Ocean, Northeast Atlantic Ocean, and Mediterranean Sea distinct population segments of the loggerhead sea turtle are listed as endangered. The Southeast Indo-Pacific Ocean, Southwest Indian Ocean, Northwest Atlantic Ocean, and South Atlantic Ocean distinct population segments are listed as threatened.

⁵ Occurs south of Florida.

Table 3-3 Threatened and Endangered Species That May Occur in Gulf of Mexico

Common name	Scientific name	Status
Blue whale	<i>Balaenoptera musculus</i>	Endangered
Fin whale	<i>Balaenoptera physalus</i>	Endangered
Humpback whale	<i>Megaptera novaeangliae</i>	Endangered
Sei whale	<i>Balaenoptera borealis</i>	Endangered
Sperm whale	<i>Physeter macrocephalus</i>	Endangered
Sea Turtles		
Green turtle	<i>Chelonia mydas</i>	Endangered/ Threatened ¹
Hawksbill turtle	<i>Eretmochelys imbricate</i>	Endangered
Kemp's ridley turtle	<i>Lepidochelys kempii</i>	Endangered
Leatherback turtle	<i>Dermochelys coriacea</i>	Endangered
Loggerhead turtle	<i>Caretta caretta</i>	Endangered/ Threatened ²
Olive ridley turtle	<i>Lepidochelys olivacea</i>	Threatened ³

¹ As a species, the green turtle is listed as threatened, but the Florida and Mexican Pacific coast nesting populations are listed as endangered.

² Nine distinct population segments exist for loggerhead sea turtles. The North Pacific Ocean, South Pacific Ocean, North Indian Ocean, Northeast Atlantic Ocean, and Mediterranean Sea distinct population segments of the loggerhead sea turtle are listed as endangered. The Southeast Indo-Pacific Ocean, Southwest Indian Ocean, Northwest Atlantic Ocean, and South Atlantic Ocean distinct population segments are listed as threatened.

³ Occurs south of Florida.

Table 3-4. Threatened and Endangered Species List for Brownsville, TX, Location

Common Name	Scientific Name	Status
Mammals		
West Indian Manatee	<i>Trichechus manatus</i>	Endangered
REPTILES		
Loggerhead sea turtle	<i>Caretta caretta</i>	Threatened
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	Endangered
Green sea turtle	<i>Chelonia mydas</i>	Threatened
Leatherback sea turtle	<i>Dermochelys coricea</i>	Endangered
Hawksbill sea turtle	<i>Eretmochelys imbricate</i>	Endangered

Table 3-5. Protected Species in the Vicinity of the Strait of Magellan

Common Name	Scientific Name
Magellanic penguin	<i>Spheniscus magellanicus</i>
Humpback whale	<i>Megaptera novaeangliae</i>
Sei whale	<i>Balaenoptera borealis</i>
Minke whale	<i>Balaenoptera bonaerensis</i>
Orca whale	<i>Orcinus orca</i>
Commerson's dolphin	<i>Cephalorhynchus commersonii</i>
Peale dolphin	<i>Lagenorhynchus australis</i>
Chilean dolphin	<i>Cephalorhynchus eutropia</i>

3.3.2.4.1 Threatened/Endangered Species Near Bremerton

Puget Sound chinook salmon in Sinclair Inlet are predominantly of hatchery origin from the Gorst Creek hatchery. Naturally spawning chinook salmon may occur in Sinclair Inlet on occasion during migration or other movements.

Puget Sound steelhead are found in very small numbers in Sinclair Inlet, as a wild (non-hatchery) population.

Humpback whale sightings were infrequent in Puget Sound and the Georgia Basin through the late 1990s; in 2003-2004, 13 individual humpback whales were sighted in the inside waters of Washington State. The occurrence of humpback whales in the Puget Sound area is considered rare as is the appearance of Southern resident killer whales.

Georgia Basin/Puget Sound bocaccio have always been rare in the north Puget Sound surveys of the recreational fishery. It is possible that bocaccio can occur within Puget Sound. Yelloweye rockfish have been observed infrequently in Puget Sound. NMFS has concluded that canary rockfish occur in low and decreasing abundances in Puget Sound.

Puget Sound bull trout do not have any core populations that occur in any of the streams that empty into Sinclair Inlet.

3.3.2.4.2 Threatened/Endangered Species and Marine Mammals Within Open Ocean Towing Route

The open ocean tow of ex-CONSTELLATION would pass through the Pacific Ocean, the South Atlantic Ocean, and into the Gulf of Mexico, without entering the North Atlantic.

Blue whales may occur in the Pacific Ocean and Gulf of Mexico. The blue whale inhabits all oceans and typically occurs near the coast, over the continental shelf, though it is also found in oceanic waters. On the Pacific coast their range includes the California Current System and the open ocean. Their occurrence in the Gulf of Mexico is unlikely.

In the Pacific Ocean, fin whales have been documented in waters off the California coast and are likely to occur with all the Atlantic and Pacific Oceans.

Humpback whales occur in the Pacific and Atlantic Oceans and Gulf of Mexico, and are distributed worldwide in all major oceans and most seas. Their occurrence will be associated with the nearshore waters of the continental shelf and not in the waters of the high seas.

Killer whales occur in the Pacific and Atlantic Oceans and the Gulf of Mexico. Only the distinct population segment of southern resident population in Puget Sound (as described in 3.3.2.4.1) is listed as endangered. Killer whales are found in all marine habitats, from the coastal zone to deep oceanic basins and from equatorial regions to the polar pack ice zones of both hemispheres.

There will be a relatively short amount of time during which the tow would transit southern resident killer whale habitat as it travels out of Puget Sound, remaining within the U.S. EEZ as it parallels the coast before moving further offshore.

The North Pacific right whale occurs in the Pacific Ocean; however, the likelihood of a North Pacific right whale being present along the Pacific Ocean portion of the tow route is extremely unlikely based on this species having been observed extremely rarely in recent years. The species would not be expected within the Atlantic Ocean or Gulf of Mexico portion of the tow route.

Sei whales occur in the Pacific Ocean, Atlantic Ocean, and Gulf of Mexico; however, they are most often found in deep oceanic waters of the cool temperate zone and are rarely observed near the coast. In the eastern Pacific, their range extends to the area off of Baja California. Their occurrence in the Gulf of Mexico is uncommon, although they are likely to occur along the Atlantic and Pacific Ocean portions of the tow route.

Sperm whales occur in the Pacific and Atlantic Oceans and the Gulf of Mexico. They are found in polar to tropical waters in all oceans and are therefore likely to occur with all sections of the tow route especially along the portions of the transit along the continental shelf and slope.

The Green sea turtle occurs in the Pacific and Atlantic Oceans and the Gulf of Mexico and is distributed worldwide across tropical and subtropical coastal waters. However, they are more likely to occur in the continental shelf and warm shallow waters throughout the towing route but are not likely to occur in the high seas.

Hawksbill sea turtles occur in the Pacific and Atlantic Oceans and the Gulf of Mexico. While hawksbills are known to occasionally migrate long distances in the open ocean, they are primarily found in coastal habitats and use nearshore areas more exclusively than other sea turtles. Although they may occur in the open ocean throughout the towing route, their highest density is expected within the Gulf of Mexico.

Kemp's ridley sea turtles occur in the Atlantic Ocean and Gulf of Mexico; however, they are not expected along the Pacific Ocean portion of the towing route.

Leatherback sea turtles occur in the Atlantic and Pacific Oceans and the Gulf of Mexico. The leatherback turtle is the most widely distributed of all sea turtles, found from tropical to subpolar oceans. In the eastern North Pacific Ocean, leatherback turtles are broadly distributed from the tropics to as far north as Alaska, and are present in the California current system. Leatherback sea turtles are likely to occur throughout the towing route; however, their highest density is expected over the continental shelf and shallower coastal waters.

Loggerhead sea turtles occur in the Pacific and Atlantic Oceans and Gulf of Mexico. Their habitats range from coastal estuaries to waters beyond the continental shelf. Pacific Ocean loggerheads are known to use the entire North Pacific Ocean during development, and they embark on transoceanic migrations, having been reported as far north as Alaska and as far south

as Chile. Thus, although they are primarily concentrated in warmer waters, their known open ocean migrations suggest that they would cross the proposed transit route once in the high seas.

Olive ridley sea turtles occur south of Florida in the Atlantic Ocean, Gulf of Mexico, and Pacific Ocean. Most olive ridley turtles lead a primarily open ocean existence. In the open ocean of the eastern Pacific Ocean, olive ridley turtles are often seen near floating debris. Thus, they are likely to occur along the tow routes in the open ocean with densities being higher in warm waters.

3.3.2.4.3 Threatened/Endangered Species and Marine Mammals Near Brownsville, TX

West Indian manatees are found in rivers, estuaries, and coastal areas of the tropical and subtropical New World from the southeastern U.S. coast, along Central America and the West Indies, to the northern coastline of South America. Manatees are extremely rare in Texas and are thought to be wanderers from the Florida or Mexican populations. Although the possibility exists that manatees could be found in the Brownsville Ship Canal, it is especially unlikely that manatees would occur in this developed area with limited food resources.

Loggerheads are capable of living in a variety of environments, such as in brackish waters of coastal lagoons, river mouths, and tropical and temperate waters above 50 degrees Fahrenheit. In Texas, they are found in the Gulf of Mexico and are occasional visitors to the Texas coast. Only minor and solitary nesting has been recorded along the coasts of the Gulf of Mexico (TPWD, 2009).

Kemp's Ridley sea turtles are found in the coastal waters and bays of the Gulf of Mexico and Atlantic Ocean. Adults essentially are restricted to the Gulf of Mexico, but immature turtles inhabit the Gulf and also the U.S. Atlantic coast. A nesting beach at Rancho Nuevo, Tamaulipas, Mexico is the primary nesting site for these turtles. It is the only known major nesting beach for this species in the world. A secondary nesting population has been established on Padre Island National Seashore and has had limited success.

Green sea turtles feed in shallow water areas with abundant seagrasses or algae. The major nesting beaches are always found in places where the seawater temperature is greater than 77 degrees Fahrenheit. In Texas, green sea turtles are found in the Gulf of Mexico. They occasionally visit the Texas coast (TPWD, 2009).

Leatherback sea turtles prefer the open ocean and move into coastal waters only during the reproductive season. Leatherbacks inhabit primarily the upper reaches of the open ocean, but they also frequently descend into deep waters from 650 to 1650 feet in depth. The leatherback sea turtle occurs in the Gulf of Mexico, but is a rare visitor to the Texas Gulf Coast.

Hawksbill sea turtles are found primarily in warmer waters of the Atlantic, Pacific, and Indian Oceans from Japan to Australia and the British Isles to southern Brazil. They are also found in the southern waters of Florida, the Gulf of Mexico, and the Caribbean. In Texas, the hawksbill is found in the Gulf of Mexico and occasionally on the Texas coast (TPWD, 2009).

Sea turtles may be found along the transit route, but are not expected in the vicinity of the dismantling facility.

3.4 Air Quality/Climate Change

The air pollutants that are considered in this analysis include volatile organic compound (VOCs) and NO_x, which are precursors to ozone formation, as well as particulate matter less than 2.5 microns in diameter (PM_{2.5}).

3.4.1 Regulatory Setting

According to 40 C.F.R. § 93.153(c), the Proposed Action qualifies as an action which would result in no emissions increase or an increase in emission that is clearly *de minimis*: “(viii) Routine Movement of mobile assets, such as ships and aircraft, in homeport assignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul.” This *de minimis* standard is applicable to the removal of ex-CONSTELLATION from her berth at INACTSHIPMAINTO Bremerton.

Air quality in a given location is defined by pollutant concentrations in the atmosphere and is generally expressed in units of parts per million (ppm) or micrograms per cubic meter (µg/m³). One aspect of significance is the concentration of a pollutant in comparison with the national and/or state ambient air quality standard. These standards represent the maximum allowable atmospheric concentrations that may occur and still protect public health and welfare with a reasonable margin of safety. The national standards, established by the EPA, are termed the National Ambient Air Quality Standards (NAAQS). The NAAQS represent maximum acceptable concentrations that generally may not be exceeded more than once per year, except the annual standards, which may never be exceeded. The six criteria pollutants are ozone (O₃), CO, NO₂, particulate matter (PM), SO₂, and lead (Pb).

The EPA designates all areas in the country as nonattainment, attainment, maintenance, or unclassifiable with respect to the NAAQS for each criteria pollutant:

- Areas that violate ambient air quality standards are designated as nonattainment areas;
- Areas that comply with Federal air quality standards are designated as attainment areas;
- Areas that have improved air quality from nonattainment to attainment are designated as maintenance areas;
- Areas that lack monitoring data to demonstrate attainment or nonattainment status are designated as unclassified and are considered to be in attainment for regulatory purposes.

Varying levels of nonattainment have been established for ozone, CO, and PM₁₀ to indicate the severity of the air quality problem (i.e. the classifications runs from marginal to extreme for ozone; moderate to serious for CO).

The CAA requires each state to develop, adopt and implement a State Implementation Plan (SIP) to achieve, maintain, and enforce Federal air quality standards throughout the state. SIPs are

developed on a pollutant-by-pollutant basis whenever one or more air quality standards are being violated (nonattainment). Under the EPA's General Conformity Rule (40 C.F.R. § 93), Federal agencies must determine whether the action either is exempt from a Conformity Determination or conforms to the applicable SIP. Actions are exempt when the total of all reasonable foreseeable direct and indirect emission would be: 1) less than the *de minimis* emission threshold, and 2) less than ten percent of the area's annual emission budget. If these conditions are met, the requirement for conformity determination is not applicable. In addition, the Conformity Determination Rule contains a number of specific Federal activities that are exempted from Conformity Determination because they will either result in no or *de minimis* increases in emissions (40 C.F.R. § 93(c)(2)).

3.4.2 Bremerton, WA

The Puget Sound Clean Air Agency (PSCAA) has jurisdiction over air quality in King, Kitsap, Pierce, and Snohomish counties. PSCAA monitors and regulates levels of criteria air pollutants along with the Washington State Department of Ecology to assure the region meets federal air quality standards. Kitsap County, in which Bremerton is located, is in attainment of the NAAQS for all seven criteria pollutants. The Conformity Rule does not apply.

3.4.3 Brownsville, Texas

Ship recycling facilities are located in Cameron County within the EPA's Brownsville-Laredo AQCR. This region is one of a nationwide system of Air Quality Control Regions (AQCR) established by the EPA for air quality planning purposes (40 C.F.R. Part 81) and is designated as AQCR No 213. The Brownsville-Laredo Intrastate AQCR includes the counties of Cameron, Hidalgo, Jim Hogg, Starr, Webb, Willacy, and Zapata. The entire AQCR 213 is designated by the EPA as being in attainment for all criteria pollutants, meeting all NAAQS standards, and the Conformity Rule does not apply.

3.4.4 Offshore Towing Routes

The CAA does not extend beyond 12 nm for territorial waters. For the purpose of this analysis, compliance with air quality regulations is a consideration only within the 12 nm limit of Washington or Texas.

4.0 ENVIRONMENTAL CONSEQUENCES

This chapter evaluates the potential for the proposed action to result in environmental consequences to cultural resources, water resources, biological resource, and air resources.

4.1 Cultural Resources

According to 36 C.F.R. § 800.5(a)(1), an adverse effect results “when an undertaking may alter directly or indirectly any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.”

Artifacts were removed from ex-CONSTELLATION upon decommissioning by the Navy Curator in accordance with OPNAVINST 4770.5H; this is a standard procedure for every decommissioned ship. Prior to dismantling the vessel, the Navy shall follow the ACHP Program Comment procedures discussed in Section 3.1.2 to mitigate the adverse effect resulting from the Federal undertaking. The Navy completed the Program Comment process and, therefore, satisfied its obligation under Section 106 of the NHPA.

The removal of the vessel would not impact any historic districts at or near INACTSHIPMAINTO Bremerton, as the removal of this vessel would not affect the context or integrity features of any properties and is not a contributing element of the historic districts. Furthermore, there would be no effect on Indian fishing rights that are farther out in Sinclair Inlet. The Proposed Action does not require dredging, so there would be no impact on any submerged maritime archaeological sites.

Therefore, pursuant to NHPA, the Navy has concluded that the Proposed Action would have an adverse effect on ex-CONSTELLATION; however, the Navy will implement measures as described in the Program Comment to mitigate this adverse effect. In accordance with NEPA, the Proposed Action would have no significant impact on other cultural resources at INACTSHIPMAINTO Bremerton.

4.1.1 Brownsville, TX

The relocation of ex-CONSTELLATION to a dismantling facility does not require dredging, so there would be no impact on any submerged maritime archaeological sites. Therefore, pursuant to NHPA, the Navy has determined that implementing the Proposed Alternative at a facility near Brownsville, TX, would have no effect on cultural resources. In accordance with NEPA, the Navy has determined that this alternative would have no significant impact on cultural resources at the dismantling facility.

4.1.2 No-Action Alternative

Under the No-Action Alternative, the ship would remain in INACTSHIPMAINTO Bremerton, and the cultural resource would be retained. The ship would remain in a safe stowage condition (i.e., fire and flooding protection).

4.2 Water Resources Including Coastal Zone Resources

4.2.1 INACTSHIPMAINTO Bremerton and Towing in Open Ocean

The Proposed Action does not require dredging or a discharge permit, thus the impact on water resources would be minor and temporary from towing within the vicinity of INACTSHIPMAINTO Bremerton. Potential impacts include bottom sediment disturbance and surface water turbidity resulting from towing operations. In general, vessel operation may cause sediment resuspension through the generation of surface wakes and propeller wash.

The removal of the ship was discussed with the Washington Department of Ecology and concurrence was reached (via email on July 14, 2011) that the Proposed Action would not have an impact on any coastal use or natural resources of the coastal zone. The email correspondence is included in the Appendix.

Towing ex-CONSTELLATION in the open ocean will not affect open ocean conditions and will not cause any significant impact thereof. As the towing operations will generally be conducted in deep water and in compliance with applicable wake and speed limits, the impact on sediment re-suspension will be minor. Towing can pose a risk to water quality if toxic levels of contamination from exfoliating paint chips on vessel hulls are released into the environment. However, the ship will be towed according to the U.S. Navy Towing Manual. In accordance with the manual, low towing speeds would help reduce scouring of the hull by the water, which would help minimize impacts to water quality from paint chips and other pollutants alike.

4.2.2 Brownsville, TX

Potential impacts to water resources from towing the vessel to Brownsville, TX, are similar to those described under INACTSHIPMAINTO Bremerton.

While there is the potential for bottom sediment disturbance and surface water turbidity, the Proposed Action is not expected to significantly impact water and sediment quality. Any impacts are expected to be minor and temporary.

Further, the Navy's dismantling contract has a clause that requires the contractor to comply with all applicable Federal, state, and local environmental and safety and health laws and regulations, which would include ascertaining all of the necessary regulatory permits associated with protecting the environment. The dismantling/recycling would occur at an existing industrial facility that is capable of the operations. Therefore, it is not anticipated that the contractor would

need to obtain any additional regulatory permits in order to perform the requirements of the contract.

The towing route would take the vessel into the coastal zone of Texas; however, no dredging or construction would be required for the Proposed Action, including the towing in the Brownsville Ship Channel. The Navy informally consulted with the State of Texas and determined that no coastal zone management consistency review would be required by the State of Texas (State of Texas, 2014)(See Appendix).

Therefore, in accordance with the CZMA, the Navy has determined that the Proposed Action would have no effect on any land or water use or natural resource of Texas' coastal zone. Furthermore, in accordance with NEPA, the Proposed Action would not have a significant impact on water resources at the Brownsville, TX, alternative location.

4.2.3 No-Action Alternative

Under the No-Action Alternative, ex-CONSTELLATION would not be contracted to be dismantled and would not be removed from INACTSHIPMAINTO Bremerton. The ship would continue to be maintained in safe stowage (fire and flooding protection). Under NEPA, no significant impacts to water resources would occur.

4.3 Biological Resources

Table 4-1 provides a summary of the impacts of the Proposed Action and the No-Action Alternative to biological resources by location; i.e., INACTSHIPMAINTO Bremerton, the towing in the waters of the open ocean, and a potential dismantling facility located in or near Brownsville, TX. More detailed information on the environmental consequences of the Proposed Action to biological resources is presented in the following sections.

Table 4-1. SUMMARY OF IMPACTS BY LOCATION

Resource Area	Brownsville, TX	INACTSHIP- MAINTO Bremerton	Open Ocean
Benthic Community	Temporary impacts; no significant impacts	Temporary impacts, no significant impacts	N/A
Fish and Essential Fish Habitat	Temporary impacts to fish; no effect on EFH; no significant impacts	Temporary impacts to fish, no effect on EFH; no significant impacts	Temporary impacts to fish; no effect on EFH; no significant impacts; no significant harm
Threatened & Endangered Species/Marine Mammals	May affect, but not likely to adversely affect threatened and endangered species; no reasonably foreseeable takes of marine mammals; no significant impacts	No reasonably foreseeable takes of marine mammals; no significant impacts	May affect, but not likely to adversely affect threatened and endangered species; no reasonably foreseeable takes of marine mammals; no significant impacts; no significant harm

4.3.1 INACTSHIPMAINTO Bremerton

Benthic communities

Potential direct impacts to benthic communities may result from effects of propeller wash and exposure to contaminants. Turbidity and siltation associated with propeller wash would be minor, local and transient and minimized by the very slow speeds of the towed vessels near shore.

Due to poor sediment and water quality, benthic habitat within the project area has very low biodiversity, and is limited to organisms that are tolerant of poor environmental conditions. The larger, more mobile benthic megainvertebrates, would be able to flee the area during towing. Benthic organisms are generally very resilient to habitat disturbance and will quickly recover to pre-disturbance levels. There may be indirect beneficial impacts on marine vegetation by opening up the substrate to sunlight and promoting the establishment of vegetation and algae.

The towing of the vessel would result in minor to no impacts; the approvals, inspections, and special procedures associated with maintaining a license to tow, as well as compliance with U. S. Coast Guard requirements, would further reduce the potential for impacts.

There are no known threatened or endangered species associated with the benthic community near INACTSHIPMAINTO Bremerton. In accordance with NEPA, the Navy has determined that the Proposed Action would have no significant impact on benthic communities at this location.

Fish and Essential Fish Habitat

Contaminant exposures and re-suspended sediments are potential impacts to fish including, at Bremerton, salmon EFH. Minor to no impact is anticipated for mobile fish species that can readily avoid the temporary disturbance and potentially increased turbidity in the water column that may occur because of towing activities.

The removal of ex-CONSTELLATION would temporarily open up a small area at this berth to become EFH until the berth is reoccupied. Overall, the Navy has determined that the Proposed Action would have no significant impact on Essential Fish Habitat.

Threatened and Endangered Species and Marine Mammals

Pursuant to Section 7 of the ESA, the NMFS determined that the Proposed Action may affect but will not adversely affect threatened and endangered species including certain whale, sea turtle, sturgeon species; however, none of the species discussed in the biological opinion are expected to occur in the vicinity of INACTSHIPMAINTO Bremerton (NMFS, 2013).

Moreover, in accordance with the MMPA, the Navy has determined that the Proposed Action would not result in any reasonably foreseeable takes of marine mammals. Thus, pursuant to NEPA, the Navy has determined that the Proposed Action would have no significant impact on

threatened or endangered species and marine mammals in the vicinity of INACTSHIPMAINTO Bremerton.

4.3.2 Towing in the Open Ocean

Fish and Essential Fish Habitat

Minor to no impact is anticipated for mobile fish species that can readily avoid the temporary disturbance and that may occur because of towing activities. The vessel is not expected to come into contact with EFH during the tow in the open ocean as planned. Therefore, in accordance with the Magnuson-Stevens Act (MSA), the Navy has determined that the Proposed Action would have no effect on EFH in the open ocean.

Threatened and Endangered Species and Marine Mammals

Towing ex-CONSTELLATION to a dismantling facility does include the risk of vessel strikes to, whales, and sea turtles. Small whales and delphinids are much less vulnerable to vessel strikes because of their behaviors and agility; on the other hand, large whales basking at the surface and sea turtles are most vulnerable to vessel strikes in the open ocean.

As manatees spend most of their time near shore and the Proposed Action would occur offshore or in designated shipping channels, under the ESA, the Proposed Action would have no effect on manatees and under the MMPA there would be no reasonably foreseeable takes. Thus, the discussion on environmental consequences to biota from towing in the open ocean focuses mainly on potential impacts to large whales and sea turtles.

Vessel speed, size, and mass are all important factors in determining potential impacts of a vessel strike to marine mammals. Preventing vessel strikes would depend on detecting an animal on collision course in time to effective action. Effective actions recommended in the NOAA/NMFS *Vessel Strike Avoidance Measures for Mariners* include maneuvering and shifting engines into neutral. In the case of a tug and tow, the ability to take such actions is considerably constrained. Additionally, it is difficult to sight whales or sea turtles during periods of poor visibility especially at night. Sighting sea turtles may be difficult even under ideal circumstances, but secondary indicators such as floating mats of vegetation or debris are useful substitutes.

Despite the practical difficulty of implementing vessel strike avoidance measures at a moment's notice, the slow speed of a large tug and tow operation significantly reduces the chance of an encounter along the proposed tow routes resulting in serious injury. (NUWC, 2012; Wilson, 2014). The most susceptible species during the tow of ex-CONSTELLATION are sperm whales which may be present at the surface. Further, all species of sea turtles are considered vulnerable.

On August 10, 2012, the Inactive Ships Program began informal consultation with the National Marine Fisheries Service, National Oceanic and Atmospheric Administration, pursuant to Section 7(a)(2) of the Endangered Species Act to evaluate the level of risk to biota that would be

associated with towing inactive vessels, including ex-CONSTELLATION through the waters of the United States and overseas.³ This initial consultation had been preceded by research conducted by the Navy's subject matter experts on towing and the potential injuries to whales and other biota that could be encountered during the towing of ex-CONSTELLATION.

The letter of concurrence from NMFS, responding to the Navy's initiation of informal consultation was obtained on October 10, 2012. The NMFS concluded that:

...while ESA-listed species are present in the action area, the low speed of the tugs and tows along with the relatively short periods they will be transiting habitats, and the low density of listed species, reduce the likelihood for vessel strike or encounter with the tow cable such that the risk is *discountable* [emphasis added]...NMFS concurs with the NAVSEA determination that towing of the two decommissioned ships* from berthing locations to dismantling locations along the proposed routes are not likely to adversely affect ESA-listed species. Additionally, designated critical habitat would not be adversely affected or modified (*referring to ex-CONSTELLATION) (see Tables 3-1 to 3-4)

Pursuant to informal consultation held between the Navy and NMFS under Section 7 of the ESA, to reduce the potential for a vessel strike to protected species, the Navy would employ the following mitigation measures as part of the Proposed Action:

- Whenever marine mammals or sea turtles are sighted, the tug's crew will increase vigilance and take reasonable and prudent actions to avoid collisions and other activities that might result in close interactions between the vessels and animals. Actions may include changing speed and/or direction as dictated by environmental and other conditions (e.g., safety, weather).
- The tug and tow would be conducted at a relatively low speed (less than 10 kts) which would reduce the chance that a fatal strike would occur (Vanderlaan and Taggart, 2007, in NUWC, 2012). Tugboat operators would be required to follow the NOAA/NMFS *Vessel Strike Avoidance Measures and Reporting for Mariners* to reduce the potential of vessel strikes to marine species. Navigational lookouts would be alert for marine mammals entering the line of travel for the vessel.

The letter of concurrence from NMFS also requested that, should it be determined during towing that unanticipated behavioral harassment or injury of threatened or endangered species has occurred, NAVSEA shall re-initiate consultation with the NMFS Office of Protected Resources,

³ The research paper on endangered species conducted by the Navy Undersea Warfare Center Division, Newport, RI, for the Inactive Ships Program, "Biological Analysis for Species Listed Under the Endangered Species Act in the Atlantic Ocean, Gulf of Mexico, and Pacific Ocean," September 2012 as well as the official correspondence between the Navy and the NMFS is included in the Appendix.

Endangered Species Act Interagency Cooperation Division, to develop and implement mitigation to avoid additional take or initiated formal consultation in accordance with ESA Section 7(a)(2). In the open ocean, pursuant to Section 7 of the ESA, towing may affect, but is not likely to adversely affect whales (Blue whale, *Balaenoptera musculus*; Fin whale, *Balaenoptera physalus*; Humpback whale, *Megaptera novaeangliae*; Sei whale, *Balaenoptera borealis*, Sperm whale, *Physteter macrocephalus*) sea turtles (Green turtle, *Chelonia mydas*; Hawksbill turtle, *Eretmochelys imbricate*; Kemp's ridley turtle, *Lepidochelys kempii*; Leatherback turtle, *Demochelys coriacea*; Loggerhead turtle, *Caretta caretta*; and Olive ridley turtle, *Lepidochelys olivacea*) as listed in Tables 3-2 and 3-3. The tow route in the open ocean as planned is not expected to come into contact with EFH.

For all other threatened or endangered species that may be present along the towing routes, there would be no effect under Section 7 of the ESA (See Tables 3-1, 3-2, 3-3, and 3-4). Under the MSA, the towing portion of the Proposed Action would have no effect on EFH in the open ocean of the Pacific, and Gulf of Mexico. Under MMPA, there would be no foreseeable takes of marine mammals. Pursuant to NEPA and E.O. 12114, the Proposed Action, subject to the mitigation actions described above, would have no significant impact to, and would not result in significant harm to marine mammals and sea turtles during towing in the open ocean of the Pacific, the South Atlantic, the Caribbean Sea, or the Gulf of Mexico.

See Table 4-1 which presents a summary of the biological resource impact conclusions under NEPA, MMPA, MSA and ESA from the removal location at Bremerton, WA, towing in the open ocean, and the Proposed Action representative dismantling location in Brownsville, TX.

4.3.3 Brownsville, Texas, Alternative

Benthic communities

Potential direct impacts to benthic communities may result from effects of propeller wash of towing vessels and exposure to contaminants. Turbidity and siltation associated with propeller wash would be minor, local and transient and minimized by the very slow speeds of the towed vessels near shore. Moreover, approvals, inspections, licenses and other procedures required for towing would minimize the risk of the towboat or another vessel from being involved in a collision during towing to the facility. Further, the Navy's dismantling contracts require that the dismantling facility obtain all applicable environmental and occupational health and safety permits prior to commencing the dismantling project. Thus, the Navy has determined that implementing the Proposed Action at a facility located near Brownsville, TX, would have no significant impact to benthic communities under NEPA.

Fish and Essential Fish Habitat

Contaminant exposures and re-suspended sediments are potential impacts to fish. Minor to no impact is anticipated for mobile fish species that can readily avoid the temporary disturbance and potentially increased turbidity in the water column that may occur because of towing activities.

Potential impacts to EFH would be as described above for benthic communities; however, the closest EFH-designated water body to the dismantling facility is the Gulf of Mexico, seventeen miles away at the other end of the BSC. Enroute to Brownsville, the vessel is not expected to come in contact with the EFH during the tow.

Further, the Navy's dismantling contracts require that the dismantling facility obtain all applicable environmental and occupational health and safety permits prior to commencing the dismantling project. The dismantling facility does not require new construction and it would have sufficient capacity to undertake the dismantling project.

Therefore, the Navy has determined that implementing the Proposed Action at a facility located near Brownsville, TX, would have no effect on EFH as defined by the MSA and no significant impact on EFH under NEPA.

Threatened and Endangered Species and Marine Mammals

There is a low possibility that the West Indian manatee, an endangered species known occasionally to inhabit the Texas Gulf Coast near Brownsville (see Table 3-3) could be impacted by towing the ship in the direction of the BSC. It would be especially unusual for manatees to occur in the BSC due to its high level of development and limited food resources (vegetation) for the manatees. Thus, with the low probability the manatees would occur near the Brownville, TX, recycling facility, pursuant to the ESA, there would be no effect on West Indian manatee and under the MMPA no reasonably foreseeable takes.

Pursuant to informal consultation held between the Navy and NMFS under Section 7 of the ESA, to reduce the potential for a vessel strike to protected species, the Navy would employ the following mitigation measures as part of the Proposed Action:

- Whenever marine mammals or sea turtles are sighted, the tug's crew will increase vigilance and take reasonable and prudent actions to avoid collisions and other activities that might result in close interactions between the vessels and animals. Actions may include changing speed and/or direction as dictated by environmental and other conditions (e.g., safety, weather).
- The tug and tow would be conducted at a relatively low speed (less than 10 kts) which would reduce the chance that a fatal strike would occur (Vanderlaan and Taggart, 2007, in NUWC, 2012). Tugboat operators would be required to follow the NOAA/NMFS *Vessel Strike Avoidance Measures and Reporting for Mariners* to reduce the potential of vessel strikes to marine species. Navigational lookouts would be alert for marine mammals entering the line of travel for the vessel.

The letter of concurrence from NMFS also requested that, should it be determined during towing that unanticipated behavioral harassment or injury of threatened or endangered species has occurred, NAVSEA shall re-initiate consultation with the NMFS Office of Protected Resources,

Endangered Species Act Interagency Cooperation Division, to develop and implement mitigation to avoid additional take or initiated formal consultation in accordance with ESA Section 7(a)(2).

Therefore, pursuant to its informal consultation with NMFS under section 7 of the ESA, the Navy has determined that the Proposed Action may affect but will not adversely certain species of whales (Blue whale, *Balaenoptera musculus*; Fin whale, *Balaenoptera physalus*; Humpback whale, *Megaptera novaeangliae*; Sei whale, *Balaenoptera borealis*; Sperm whale, *Physteter macrocephalus*); and sea turtles (Green turtle, *Chelonia mydas*; Hawksbill turtle, *Eretmochelys imbricate*; Kemp's ridley turtle, *Lepidochelys kempii*; Leatherback turtle, *Demochelys coriacea*; Loggerhead turtle, *Caretta caretta*; and Olive ridley turtle, *Lepidochelys olivacea*) in the vicinity of a disposal facility located near Brownsville, TX. .

Furthermore, under the MMPA, the Navy has determined that the Proposed Action would not result in reasonably foreseeable takes of marine mammals in this location. Pursuant to NEPA, the Proposed Action, would have no significant impact to marine mammals or sea turtles in the vicinity of Brownsville, TX.

4.3.4 No-Action Alternative

Under the No-Action Alternative, ex-CONSTELLATION would not be removed from INACTSHIPMAINTO Bremerton. The vessel would continue to be maintained in a safe stowage condition (i.e., fire and flooding protection). There would be no significant impacts to biological resources under NEPA.

4.4 Air Resources/Climate Change

Estimated emissions from a proposed Federal action are typically compared with the relevant national and state standards to assess the potential for increases in pollutant concentrations. Impacts would occur if the action alternatives directly or indirectly produce emissions that would be the primary cause of, or would significantly contribute to, a violation of state or Federal ambient air quality standards. Emission thresholds associated with CAA conformity requirements are another means of assessing the significance of air quality impacts. A formal conformity determination is required for Federal actions occurring in nonattainment or maintenance areas when the total direct and indirect stationary and mobile source emissions of nonattainment pollutants or their precursors exceed thresholds or *de minimis* values. However, both the Bremerton, WA, and Brownsville, TX, areas are in compliance with NAAQS. Thus, the Conformity Rule does not apply to either location.

4.4.1 INACTSHIPMAINTO Bremerton

Ongoing operations at INACTSHIPMAINTO Bremerton would not increase since the vessel would be removed from this location. There would be no increase in the air quality impacts at the site.

According to 40 C.F.R. § 93.153(c), the Proposed Action qualifies as an action which would result in no emissions increase or an increase in emission that is clearly *de minimis*: “(viii) Routine Movement of mobile assets, such as ships and aircraft, in homeport assignments and stations (when no new support facilities or personnel are required) to perform as operational groups and/or for repair or overhaul.”

The towing operation would result in a minor but temporary increase of marine vessel emissions. Therefore, in accordance with NEPA, the Proposed Action would have no significant impact on air quality in the Bremerton, WA, area.

4.4.2 Towing in the Open Ocean

The tugboats used during towing operation would cause minor but temporary increases of marine vessel air emissions. These increases would be expected to quickly dissipate. Therefore, in accordance with NEPA, the Proposed Action would have no significant impact on air quality in the open ocean.

4.4.3 Brownsville, TX

In general, ship recycling activities at a facility near Brownsville, TX, could result in temporary minor, localized impacts to air quality. However, ship dismantling activities that comply with applicable rules and regulations would not significantly affect air quality. The Proposed Action does not require construction activities. Moreover, The Navy’s dismantling contract has a clause that requires the contractor to comply with all applicable Federal, state and local environmental and safety and health laws and regulations. The dismantling/recycling would occur at an existing industrial facility that is capable of the operation with current operational credentials and permitting that would allow them to conduct the dismantling in their normal course of business. Therefore, it is not anticipated that the contractor would need to obtain any additional air quality related permits in order to perform the requirements of the contract. Relevant air emissions, including greenhouse gas emissions, would be localized and of short duration.

No long-term increases in emission would occur as no new stationary sources are required for the Proposed Action. Therefore, the Navy has concluded that under NEPA, the Proposed Action would have no significant impact on air quality at the proposed dismantling location.

4.4.4 No-Action Alternative

Under the No-Action Alternative, ex-CONSTELLATION would not be removed from INACTSHIPMAINTO Bremerton. The vessel would continue to be maintained in a safe stowage condition (i.e., fire and flooding protection) which would not affect air quality conditions. There would be no significant impacts to air quality under NEPA.

4.4.5 Climate Change

Climate change is not expected to be affected by the Proposed Action because (1) emissions from the proposed action are expected to be *de minimis* for the removal of the vessel from her berth at INACTSHIPMAINTO Bremerton; towing in the open ocean is expected to produce minor but temporary increases in marine vehicle emissions; and (2) the selected facility would be conducting the dismantling as part of normal operations and would be expected to be operating under existing Federal, state, and local permits for air quality. No significant increases to air emissions are expected overall; therefore, there would be no induced effects to climate change. No changes in air emissions and therefore no effect on climate change would occur under the No-Action Alternative.

5.0 CUMULATIVE IMPACTS

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 C.F.R. § 1508.7). To be considered cumulative impacts, the effects must meet the following criteria: the effects would occur in a common locale or region; the effects would not be localized (i.e., they would contribute to effects of other actions); the effects would impact a particular resource in a similar manner; and the effects would be long term (short-term impacts would be temporary and would not typically contribute to significant cumulative impacts).

Federal regulations implementing the NEPA (42 U.S.C. § 4321 et seq.) and Navy Procedures for Implementing the NEPA (32 C.F.R. Part 775), as described in OPNAVINST 5090.1D, require that the cumulative impacts of a Proposed Action be assessed. The CEQ regulations implementing the procedural provisions of the NEPA define cumulative impacts as:

“The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.” (40 C.F.R. § 1508.7)

To analyze cumulative impacts, a cumulative impacts region must be identified for which the Proposed Action and other past, proposed, and reasonably foreseeable actions would be cumulatively recorded or experienced. Consequently, the region where cumulative impacts may occur includes INACTSHIPMAINTO Bremerton, and the surrounding area. Therefore, this analysis considers impacts arising from the Proposed Action combined with the impacts of other known past, present, and reasonably foreseeable future actions within the regions.

The decision to dismantle ex-CONSTELLATION would require that the vessel be towed and dismantled at a commercial facility closed to public access with no requirement for new construction. Under NEPA, the Proposed Action would have no impacts on land use, geology, soils and seismicity, socioeconomics and environmental justice, transportation, noise, utilities, public health and safety, aesthetics and visual resources. Therefore, the decision to dismantle would have no cumulative impacts on these resources when considered with other projects.

5.1 Projects near INACTSHIPMAINTO Bremerton

The following sections provide general information regarding other projects located at INACTSHIPMAINTO Bremerton, and in the nearby area including Military Construction (MILCON) projects and other special projects funded by the Navy.

During the past 15 years, the Navy has replaced one pier, deepened berths, turning basins and channels and conducted other miscellaneous in-water structural repairs and upgrades in this industrial complex. Work (the Pier D project) conducted in 2000-2002 included piling removal

and dredging for three piers' berthing and a turning basin for NIMITZ-Class Aircraft Carrier homeporting.

Piers 5 and 6 fender pile replacement work was completed in 2010; this was covered by a CATEX.

Mooring G fender and structural pile repairs was covered under a CATEX. The work was completed in 2011.

The Port of Bremerton's Bremerton Marina Expansion Project was executed in 2008 and included a breakwater and float for 300 new boat slips.

Pier B replacement was completed in 2012. The EA and FONSI for this project were completed in 2008.

The Navy is not aware of any other proposed Federal or non-Federal projects in the vicinity of INACTSHIPMAINTO Bremerton that could contribute to cumulative effects. Past dredging projects at INACTSHIPMAINTO Bremerton, were found not to have a significant effect on the human environment individually or cumulatively.

5.2 Projects near Brownsville, TX, facilities

There have been hundreds of vessels, including Navy, MARAD and commercial, dismantled along the BSC in the 7 slips that can dismantle up to 20 vessels at one time. There are current dismantling and recycling activities occurring under Navy and MARAD contracts, and the proposed dismantling of ex-CONSTELLATION would be part of ongoing operations at the contracted dismantling facility. There is periodic dredging of the BSC. There is no known construction project planned at the potential dismantling facilities, nor in the nearby area which would result in a significant cumulative impact in the project area.

5.3 Cultural Resources

The cumulative consequences of other projects together with the Proposed Action would not significantly affect cultural resources. Ex-CONSTELLATION is eligible for listing in the NRHP. The Navy has fulfilled its Section 106 obligations by complying with the ACHP Program Comment. In addition, there are no planned projects that would impact the Puget Sound Naval Shipyard Historic Districts or the Four National Historic Districts and one National Historic Landmark at Naval Base Kitsap at Bremerton. Ex-CONSTELLATION is not a contributing element of these districts.. As a result, the Proposed Action would not combine with impacts from other past and future projects in a manner that would create a cumulative cultural resource impact.

5.4 No-Action Alternative

Under the No-Action Alternative, ex-CONSTELLATION would not be removed from INACTSHIPMAINTO Bremerton. The vessel would continue to be maintained in a safe stowage condition (i.e., fire and flooding protection) which would not result in a cumulative impact.

5.5 Cumulative Impacts by Environmental Resource

Ex-CONSTELLATION would be towed and dismantled at a commercial facility with no construction required and the vessel would be closed to public access, the project would have no impact on land use, geology, soils and seismicity, socioeconomics and environmental justice, transportation, noise, utilities, public health and safety, aesthetics and visual resources. Therefore, it would have no cumulative impacts on these resources when considered with other projects. The sections below evaluate potential cumulative impacts for the resources analyzed in this EA: Cultural, water, biological, and air resources.

5.5.1 Cultural Resources

The cumulative consequences of other projects together with the Proposed Action would not affect cultural resources.. Ex-CONSTELLATION was found eligible for listing in the NRHP. See Section 3.1.2 for a description of ex-CONSTELLATION's eligibility status under the NRHP and the mitigation actions the Navy will undertake to preserve the history of this vessel.

Ex-CONSTELLATION is not a contributing element to the historic districts in Bremerton near INACTSHIPMAINTO, and there would be no impacts on cultural resources at any of the representative dismantling facilities. As a result, the Proposed Action would not combine with impacts from other past and future projects in a manner that would create a cumulative cultural resource impact.

5.5.2 Water Resources

The Proposed Action would cause temporary impacts to water quality in shipping channels and the open ocean as a result of increased turbidity. However, when compared with typical marine dredging projects, the Proposed Action would not significantly impact sediment or water quality. The towing procedures would be implemented to avoid sediment disturbance. Therefore, the Proposed Action would not have any cumulative impact to water resources when considered with these projects.

Other projects in the vicinity of INACTSHIPMAINTO Bremerton or, Brownsville, TX, could produce minor discharges that would flow into surface drainages and eventually to the marine environment. However, these projects would also be required to comply with applicable federal, state, and local regulations, as well as general and construction storm water permits. These mandated requirements would reduce potential impacts on water quality to less than significant

levels. Therefore, the cumulative impact on water resources would result from several actions whose individual effects would have been reduced to levels that are not significant. The Proposed Action and reasonably foreseeable projects would not likely be occurring at the same time in the same area. Therefore, the Proposed Action would not have any cumulative impact when considered with these projects.

5.5.3 Biological Resources

The Proposed Action would not adversely affect marine biological resources. Due to the limited scope and local area of the impacts associated with the other identified projects there would be no significant cumulative impacts on biological resources. The Proposed Action and other projects would have the potential to temporarily affect marine species and their habitat including sea turtles and marine mammals, but there would be no significant impact on these species because they are mobile and able to avoid the disturbance area. Threatened or endangered species habitat would not be significantly impacted by the Proposed Action. Moreover, these projects would not likely be occurring at the same time in the same area. No significant in-water work is planned in the vicinity of ex-CONSTELLATION's berth nor at dismantling facilities. No cumulative effects to endangered species due to towing are anticipated because the Proposed Action, pursuant to the Navy's consultation with NMFS, would utilize mitigation practices to avoid a take or otherwise cause harm to marine mammals. While EFH for salmon species does exist in Sinclair Inlet, the industrial nature of INACTSHIPMAINTO Bremerton, would reduce the quality of the habitat in this area of Sinclair Inlet, and no significant impacts to EFH are anticipated. In Brownsville, the dismantling facilities are near, but not within, EFH designated areas; therefore, there would be no impact to EFH at this location. No cumulative impacts to biological resources are anticipated.

5.5.4 Air Quality

Impacts resulting from project emission sources, in combination with impacts from any past and reasonably foreseeable future projects, would not have any cumulative impacts on air quality nor would global climate change be affected. Temporary and minimum impact to air quality would occur during towing activities. However, the Proposed Action and reasonably foreseeable projects would not likely be occurring at the same time in the same area, so potential impacts would be moderated over time and space. Additionally, ambient air quality is expected to return to the original condition upon the completion of each project. As a result, the Proposed Action would not have cumulative impacts to air quality when considered with other activities in the project area.

6.0 OTHER CONSIDERATIONS REQUIRED BY NEPA

6.1 Possible Conflicts between the Proposed Action and the Objectives of Federal, State, Local, and Regional Land Use Plans, Policies, and Controls

Implementation of the Proposed Action would comply with existing Federal regulations state, regional, and local policies and programs. The Federal acts, Executive Orders, policies, and plans that apply include the following: NEPA; Clean Air Act (CAA) and Federal General Conformity Rule; Clean Water Act (CWA); CZMA; Endangered Species Act (ESA); Migratory Bird Treaty Act (MBTA) and .E.O 13186; Marine Mammal Protection Act (MMPA); NHPA; and E.O. 12372, Coordination with State and Regional Agencies. Applicable state, local, and regional plans, policies, and controls include: state Coastal Zone Management Programs; state ESAs; and the relevant Air Quality Control Region (AQCR) rules and regulations.

6.2 Federal Acts, Executive Orders, Policies, and Plans

National Environmental Policy Act

This EA/OEA has been prepared in accordance with the NEPA of 1969, 42 U.S.C. §§ 4321-4370d, as implemented by the Council on Environmental Quality (CEQ) regulations, 40 C.F.R. §§1500-1508, and the Department of the Navy regulations for implementing NEPA (32 C.F.R. Part 775), and Chief of Naval Operations Instruction (OPNAVINST) 5090.1D, Procedures for Implementing the National Environmental Policy Act, E.O. 11991 of 24 May 1977, directed the CEQ to issue regulations for procedural provisions of the NEPA; these are binding for all Federal agencies.

The NEPA, and the implementing regulations promulgated by the CEQ, requires that environmental information is made available to decision makers and citizens before making decisions and taking major Federal actions, and that the NEPA process should identify and assess reasonable alternatives to Proposed Actions to avoid or minimize adverse environmental effects.

National Historic Preservation Act

The NHPA was passed in 1966 to provide for the protection, enhancement, and preservation of those properties that possess significant architectural, archaeological, historical, or cultural characteristics. 36 C.F.R. Part 800 further defined the obligations of Federal agencies concerning this act.

Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties qualifying for inclusion in or eligible for listing in the NRHP and affords the ACHP a reasonable opportunity to comment on such undertakings. An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out on behalf of a

Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license, or approval. The governor of each state or territory appoints a SHPO who is responsible for administering cultural resources programs within a given jurisdiction, and the Navy initiates consultation procedures with the respective SHPO in accordance with the NHPA. The Proposed Action would not adversely affect any cultural resources besides the vessel itself, which has already gone through the Program Comment process.

Clean Water Act

The Federal CWA was enacted as an amendment to the Federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the U.S. The CWA includes programs addressing both point source and nonpoint source pollution, and empowers the states to set state-specific water quality standards and to issue permits containing effluent limitations for point source discharges. Washington is the delegated permit authority in the project area. The states administer point source discharges of pollutants through an EPA-approved Program. Indirect industrial discharges of effluent to publicly owned treatment works are subject to pretreatment standards promulgated by the EPA and the State. The Navy has concluded that the Proposed Action would have no effect on water quality.

Clean Air Act and General Conformity Rule

The CAA of 1955 and subsequent amendments specify regulations for control of the nation's air quality. National Ambient Air Quality Standards (NAAQS) have been established for each criteria pollutant: SO₂, CO, PM₁₀ and PM_{2.5}, NO₂, lead, and O₃. National emissions standards were set for individual sources of hazardous air pollutants as well as regulation of mobile sources of air emissions and a permit program for stationary sources.

Achieving CAA standards is the responsibility of the States. Each State must develop State Implementation Plans (SIPs) that outline to the EPA how it will achieve and maintain the standards. SIPs implement CAA programs such as the Title V operating permit, new source performance standards (NSPS), new source review, and national emission standards for hazardous air pollutants (NESHAPs) at the state and local level. States may require pollution control and prevention standards that are more stringent than those mandated by the EPA, but may not allow measures that are less stringent. Federal agencies must comply with the requirements of Federal, state, interstate, and local air pollution regulations.

The CAA requires Federal actions to conform to the goals of the applicable SIP before proceeding with the action. Bremerton, Washington is in attainment for criteria pollutants, meeting all NAAQS, and is not subject to conformity determination.

Coastal Zone Management Act

The CZMA of 1972 requires that Federal actions that affect any land or water use or natural resource of the coastal zone must be consistent to the maximum extent practicable with the State program. State CZMA programs include point and non-point source pollution control, flood

control, sediment control, grading control, and stormwater runoff control. Through informal consultation with the States of Washington and the State of Texas, it was determined that no coastal zone consistency review would be required in either state. The Proposed Action would not have an impact on any coastal use or natural resource of the coastal zone of Washington or Texas (See Appendix).

Endangered Species Act

The ESA of 1973 and subsequent amendments provide for the protection of threatened and endangered species of fish, wildlife, and plants and their habitats. The act requires Federal agencies to ensure that no agency action is likely to jeopardize the continued existence of endangered or threatened species. The ESA prohibits Federal agencies from taking any action that would adversely affect any endangered or threatened species, or critical habitat. The ESA prohibits all persons subject to U.S. jurisdiction, including Federal agencies, from “taking” endangered species. The taking prohibition includes any harm or harassment, and applies within the U.S. and on the high seas. Although the Navy is not required by law to protect State listed rare and endangered species, Navy policy encourages cooperation with States and territories to protect such species.

On August 10, 2012, pursuant to Section 7(a)(2) of the Endangered Species Act, the Inactive Ships Program began informal consultation with the National Oceanic and Atmospheric Administration, National Marine Fisheries Service to evaluate the level of risk to biota that would be associated with towing inactive vessels, including ex-CONSTELLATION, through the waters of the United States and overseas. This initial consultation had been preceded by research conducted by the Navy’s subject matter experts on towing and the potential injuries to whales and other biota that could occur during the towing of ex-CONSTELLATION, or other Navy inactive vessels. On October 12, 2012, NMFS concluded that “the low speed of the tugs and tows along with the relatively short period they will be transiting habitats, and the low density of listed species, reduce the likelihood for vessel strike or encounter with the tow cable such that the risk is discountable.” NMFS therefore agreed with the Navy’s finding that the Proposed Action of this EA/OEA may affect, but is not likely to adversely affect listed threatened or endangered species or critical habitats designated under the Endangered Species Act (ESA).

Marine Mammal Protection Act

The 1972 MMPA established a Federal responsibility to conserve marine mammals with management vested in the Department of the Interior for sea otter, walrus, polar bear, dugong, and manatee. The Department of Commerce is responsible for cetaceans and pinnipeds, other than the walrus. With certain specified exceptions, the Act establishes a moratorium on the taking and importation of marine mammals as well as products taken from them, and establishes procedures for waiving the moratorium and transferring management responsibility to the states. The law authorized the establishment of a Marine Mammal Commission with specific advisory and research duties.

The Proposed Action would have no reasonably foreseeable takes of marine mammals (i.e., cause harm or harassment, of any marine mammals). Mitigation measures to protect threatened and endangered species would help protect against takes of species protected by the MMPA. The Proposed Action would comply with the MMPA.

Executive Order 12114

E.O. 12114, *Environmental Effects Abroad of Major Federal Actions*, was issued in 1979. Requirements include different levels of analysis and documentation for evaluating potential environmental impacts that may result from a proposed Federal action occurring outside the United States and its territories program activities. E.O. 12114 documentation may include: an Overseas Environmental Assessment (OEA), an Overseas Environmental Impact Statement (OEIS), an Environmental Review and/or an Environmental Study. An OEA, in content, is similar to an Environmental Assessment under NEPA minus the requirements for addressing alternatives, cumulative impacts, and public involvement. However, this concise analysis is conducted to determine whether the proposed action has a potential to cause significant harm to the environment. If the analysis concludes that no significant harm is posed, the decision is documented as a Negative Decision. If the conclusion determines that significant harm may occur, an OEIS is required. The OEIS is similar to the Environmental Impact Statement (EIS) in the level and complexity of the environmental analysis. As with other E.O. 12114 documents, the OEIS is a concise discussion of environmental effects; however, required public coordination timelines associated with an EIS do not apply. An Overseas Record of Decision is used to document decisions made from the alternatives examined in the OEIS. An Environmental Review is a concise survey or assessment of key environmental issues involved in a proposed action that may significantly harm the environment of which a nation is not participating with the United States and is not involved with the action. This is an internal analytical review of the environmental issues and findings used by decision makers.

Together, NEPA and E.O. 12114 provide for an integrated global approach to Federal environmental decision making. The Navy has concluded that the Proposed Action will not cause a significant harm of the environment in the open ocean and/or EEZ of those nations through which the tow of ex-CONSTELLATION will pass.

Executive Order 12372

EO 12372, *Intergovernmental Review of Federal Programs*, was issued in 1982 in order to foster an intergovernmental partnership and a strengthened federalism by relying on state and local processes for the state and local government coordination and review of proposed Federal financial assistance and direct Federal development.

The Navy pursues close and harmonious planning relations with local and regional agencies and planning commissions of adjacent cities, counties, and states for cooperation and resolution of mutual land use and environment related problems. In preparing this EA, relevant data from state, regional, and local agencies were reviewed in order to determine regional and local

conditions associated with the Proposed Action. With respect to the Proposed Action, no mutual land use or environmental issues require resolution.

6.2.1 State, Local, and Regional Plans, Policies, and Controls

Texas Coastal Management Program

The Navy has determined that the State of Texas does not require any coastal consistency for the towing ex-CONSTELLATION.

Washington Coastal Zone Management Program The Navy has determined that Washington State does not require any coastal consistency for vessel movements. Thus, the project is consistent with the State CMP.

State Endangered Species Act

The Navy has concluded that there would be no effect from the Proposed Action on species covered under the state ESAs.

Air Quality Management District Rules and Regulations

The Proposed Action air emissions would comply with all applicable AQCR rules and regulations.

6.3 Energy Requirements and Conservation Potential of Alternatives Including the Proposed Action and All Mitigation Measures Being Considered

The Proposed Action would not result in any additional energy requirements above the current routine operations of the dismantling facilities. Therefore, no mitigation and/or monitoring measures will be implemented.

6.4 Irreversible or Irretrievable Commitment of Natural or Depletable Resources

The NEPA requires an analysis of significant, irreversible effects resulting from implementation of a Proposed Action. Resources that are irreversibly or irretrievably committed to a project are those that are typically used on a long-term or permanent basis; however, those used on a short-term basis that cannot be recovered (e.g., non-renewable resources such as metal, wood, fuel, paper, and other natural or cultural resources) are also irretrievable. Human labor is also considered an irretrievable resource. All such resources are irretrievable in that they are used for one project and thus become unavailable for other purposes. An impact that falls under the category of the irreversible or irretrievable commitment of resources is the destruction of natural resources that could limit the range of potential uses of that resource.

Implementation of the Proposed Action would result in an irreversible commitment of fuel, human labor, and other resources for towing and dismantling of the vessel. These commitments of resources are neither unusual nor unexpected, given the nature of the action.

The Proposed Action would not result in the destruction of environmental resources such that the range of potential uses of the environment would be limited nor affect the biodiversity of the region.

6.5 Relationship between Local Short-Term Use of the Human Environment and Maintenance and Enhancement of Long-Term Natural Resource Productivity

The NEPA requires consideration of the relationship between short-term use of the environment and the impacts that such use could have on the maintenance and enhancement of long-term productivity of the affected environment. Impacts that narrow the range of beneficial uses of the environment are of particular concern. Such impacts include the possibility that choosing one option could reduce future flexibility to pursue other options, or that choosing a certain use could eliminate the possibility of other uses at the site.

Implementation of the Proposed Action would not result in any such environmental impacts because it would not pose long-term risks to health, safety, or the general welfare of the communities surrounding the project area that would significantly narrow the range of future beneficial uses.

6.6 Means to Mitigate and/or Monitor Adverse Environmental Impacts

The Proposed Action would result in only one potentially significant environmental impact: the dismantling of a vessel which is eligible for listing in the NRHP. To mitigate the dismantling of ex-CONSTELLATION, the Navy will follow the ACHP Program Comment's requirements including preservation of important vessel records.

The 10 October 2012 letter from the NMFS to the Navy regarding measures to protect endangered species during the towing portion of the Proposed Action contained the following specific actions:

“To reduce the potential for vessel strike, NAVSEA will employ the following minimization measures as part of the Proposed Action:

“Whenever marine mammals or sea turtles are sighted, the tug's crew will increase vigilance and take reasonable and prudent actions to avoid collisions and other activities that might result in close interactions between the vessels and animals. Actions may include changing speed and/or direction as dictated by environmental and other conditions (e.g., safety, weather).”

The tug and tow would travel at less than 10 knots, typically in the range of 6 to 8 knots. Towing would be conducted in accordance with the requirements of Appendix H of the U.S. Navy Towing Manual, SI746-AA-MAM-010, Rev. 3, July 2002. The Navy contractor would be

responsible for making all applicable notifications with the towing activity and would adhere to all applicable safety and marine mammal/endangered species protection requirements for towing the inactive ship. Commercial pilots would be utilized for departures from and entries into ports.

The letter of concurrence from NMFS also requested that, should it be determined during towing that unanticipated behavioral harassment or injury of threatened or endangered species has occurred, NAVSEA shall re-initiate consultation with the NMFS Office of Protected Resources, Endangered Species Act Interagency Cooperation Division, to develop and implement mitigation to avoid additional take or initiated formal consultation in accordance with ESA Section 7(a)(2).

6.7 Any Probable Adverse Environmental Effects that cannot be Avoided and are not Amenable to Mitigation

This EA has determined that the Proposed Action would not result in any significant immitigable impacts to the human environment; therefore, there are no probable adverse environmental effects that cannot be avoided or are not amenable to mitigate.

7.0 CONCLUSION

The towing portion of the Proposed Action may affect, but is not likely to adversely affect, animals protected under the ESA and the MMPA; however, no significant impacts to any other resource area are expected to occur as a result of the Proposed Action with implementation of mitigation actions.

Ex-CONSTELLATION is eligible for listing in the NRHP, and dismantling her would have an adverse effect on her cultural value. In accordance with the ACHP Program Comment for vessels eligible for listing in the NRHP, the Navy will meet its responsibilities for compliance with Section 106 of the NHPA concerning the evaluation of vessels for eligibility for listing in the NRHP and the final disposition of eligible vessels.

The Proposed Action would comply with all Federal and state regulations, guidelines, and consultation agreements. Based on the findings from this EA/OEA, preparation of a Finding of No Significant Impact/Finding of No Significant Harm (FONSI/FONSH) is recommended.

8.0 PREPARERS

This EA has been prepared by the United States (U.S.) Department of the Navy (DON), under the direction of the Naval Sea Systems Command, NAVSEA 21, SEA 21I, Inactive Ships Office. The professional staff who contributed to the preparation of this document are listed below:

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10.0 REFERENCES

Advisory Council on Historic Preservation, *Program Comment for the Department of the Navy for the Disposition of Historic Vessels*, Federal Register Vol. 75, No. 49, March 15, 2010.

Agency for Toxic Substances and Disease Registry (ATSDR), *Public Health Assessment for Bremerton Naval Complex including Puget Sound Naval Shipyard Bremerton, Kitsap County*, Washington EPA Facility ID: WA2170023418, September 16, 2005.

Department of Defense, Department of the Navy, *A Report to Congress on Scrapping Naval Ships Under the Ship Disposal Project*, 2000.

Dictionary of American Naval Fighting Ships,
<http://www.history.navy.mil/danfs/c13/constellation-iii.htm>.

EPA. EPA Green Book Nonattainment Areas for Criteria Pollutants, Accessed March 2011 at:
<http://www.epa.gov/oaqps001/greenbk/>.

EPA, 2000. U.S. Environmental Protection Agency, *A Guide to Ship Scrappers: Tips for Regulatory Compliance*, EPA-315-B-00-001, Office of Enforcement and Compliance Assurance, Washington, D.C. 20460.

Federal Register: September 2, 2005 (Volume 70, Number 170), Rules and Regulations, Pages 52629-52678, 52621. From the Federal Register Online via GPO Access:
<http://www.gpoaccess.gov/fr/>.

Fresh, K.L.; Small, D.J.; Kim H.; Waldbilling, C.; Mizell, M.; Carr, M.I.; Stamatiou, L. 2006. Juvenile Salmon Use of Sinclair Inlet, Washington in 2001 and 2002. Washington Department of Fish and Wildlife.

Marine Mammal Commission. 2010. Annual Report to Congress: 2009.
<http://www.mmc.gov/reports/annual/welcome.shtml>.

McLaren, Patrick. 1998. A Sediment Trend Analysis (STA) of Sinclair Inlet/Port Orchard, .GeoSea Consulting (Canada) Ltd., Brentwood Bay, BC, in U.S. Navy, 2013, *Final Environmental Assessment, Pier 6 Pile Replacement, Naval Base Kitsap*. September 2013.

Naval History and Heritage Command, 2008. *Ex-Constellation Evaluation of Eligibility for Listing in the NRHP*.

Naval Facilities Engineering Command, Second Five-Year Review Bremerton Naval Complex, October 2007.

- NMFS, 2012. National Marine Fisheries Service, Office of Protected Species. Letter Correspondence from NMFS to the Navy, Response to request for informal consultation under section 7(a) of the Endangered Species Act regarding proposed towing and dismantling of inactive U.S. Navy vessels. October 2012.
- Pentec Environmental. 1999. Letter Report. PSNS CAD Site – Alltm Video Survey. Edmonds, Washington.
- Puget Sound Clean Air Agency, Fine Particulate Matter the Next Ten Year Fact Sheet, <http://www.pscleanair.org/airq/basics/criteria/particulate.aspx>.
- Puget Sound Clean Air Agency, 2008 Air Quality Data Summary, 2008. <http://www.pscleanair.org/airq/reports.aspx>.
- Roni, P.R. and L.A . Weitkamp. 1996. *Environmental Monitoring of the Manchester Naval Fuel Pier Replacement, Puget Sound, Washington, 1991-1994*. Report for the Department of the Navy and the Coastal Zone and Estuarine Studies Division, Northwest Fisheries Science Center, National Marine Fisheries Service, January 1996.
- U.S. Department of Transportation Maritime Administration, *Removal and Disposal of No-Retention Vessels from the National Defense Reserve Fleet Final Programmatic Environmental Assessment*, August 2009.
- U.S. Navy, 2005. PSNS & IMF Comments on ATSDR Public Health Assessment Report for Public Comment. May 2005.
- U.S. Navy, 2008. *Environmental Assessment CVN Maintenance Wharf Puget Sound Naval Shipyard & Intermediate Maintenance Facility*, April 2008.
- U.S. Navy, 2012a. *Final Environmental Assessment on the Disposal of Decommissioned, Defueled Naval Reactor Plants from USS ENTERPRISE (CVN 65)*, August 2012.
- U.S. Navy, 2012b. *Biological Analysis for Species Listed Under the Endangered Species Act in the Atlantic Ocean, Gulf of Mexico, and Pacific Ocean*. Naval Undersea Warfare Center Division, Newport, RI. September 2012.
- U.S. Navy, 2014. *Training and Testing EIS/OEIS*. Project Website www.nwtteis.com, Section 3.3, Marine Habitats
- U.S. Navy, 2013. *Final Environmental Assessment, Pier 6 Pile Replacement, Naval Base Kitsap*. September 2013.
- Washington State Department of Fish and Wildlife. 2000. Atlas of Seal and Sea Lion Haul-out Sites in Washington. Wildlife Science Division. Olympia, Washington.

10. References

WDOE, 2008. Washington State's Water Quality Assessment: 303(d) and 305(b) Report.

Wilson, 2014. Letter from W. Wilson, Navy Region Southwest N40 to J. Poles, SEA21I, June 2014.

APPENDIX