FINAL
ENVIRONMENTAL ASSESSMENT
INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN FOR THE SOUTHEAST ALASKA ACOUSTIC MEASUREMENT FACILITY
At
BACK ISLAND, ALASKA

February 2020
Abstract

Designation: Environmental Assessment

Title of Proposed Action: Integrated Natural Resources Management Plan for the Southeast Alaska Acoustic Measurement Facility

Project Location: Back Island, Ketchikan Gateway Borough, Alaska

Lead Agency for the EA: Department of the Navy

Affected Region: Behm Canal and Back Island, Alaska

Action Proponent: Commanding Officer, Naval Base Kitsap

Point of Contact: SEAFAC INRMP TEAM

Naval Base Kitsap, a Command of the U.S. Navy (hereinafter, jointly referred to as the Navy), has prepared this programmatic Environmental Assessment in accordance with the National Environmental Policy Act, as implemented by the Council on Environmental Quality Regulations and Navy regulations for implementing National Environmental Policy Act. The Proposed Action would implement an Integrated Natural Resource Management Plan (INRMP) for the Southeast Alaska Acoustic Measurement Facility (SEAFAC) that is consistent with the military mission while providing for sustainable multipurpose uses and conservation of natural resources per the Conservation Programs on Military Installations ("Sikes Act"), as amended. This programmatic Environmental Assessment analyzes one Action Alternative (Preferred Alternative) and a No Action Alternative. The Preferred Alternative would implement the objectives and project recommendations of the INRMP in the following natural resource categories: water resources; terrestrial and marine biology; and threatened, endangered, and sensitive species and essential fish habitat. The INRMP would be implemented once it is approved by the Navy and regulatory agencies. The INRMP would be reviewed annually by the Navy and updated as needed. The review for operation and effect will be conducted with the agencies at least once every five years. The purpose of and need for the Proposed Action is to comply with the Sikes Act, provide management requirements for species listed under the Endangered Species Act, and meet the requirements of the U.S. Department of Defense and Department of the Navy Instructions. The Proposed Action would provide a programmatic approach to managing natural resources including procedures for reviewing projects, conducting species surveys, and implementing habitat enhancement projects. Therefore, implementation of the Proposed Action combined with past, present, and reasonably foreseeable future projects would have overall positive environmental impacts.
EXECUTIVE SUMMARY

ES.1 Proposed Action
The Navy proposes to adopt and implement the Integrated Natural Resources Management Plan (INRMP) for the Southeast Alaska Acoustic Measurement Facility (SEAFAC) located at Back Island, Alaska, consistent with the military use of the property and the goals and objectives established in the Sikes Act (as amended). The goal of the INRMP is to implement an ecosystem based conservation program that provides for conservation and rehabilitation of natural resources in a manner that is consistent with the military mission. The INRMP is being developed in cooperation with the U.S. Fish and Wildlife Service (USFWS) and Alaska Department of Fish and Game (ADF&G). The Navy will also coordinate with the National Marine Fisheries Service (NMFS) and the U.S. Department of Agriculture Forest Service, Tongass National Forest.

ES.2 Purpose of and Need for the Proposed Action
The purpose of and need for the Proposed Action is to comply with statutory requirements under the Conservation Programs on Military Installations Act (Sikes Act), 16 U.S.C. section 670 et seq., provide management requirements for species listed under the Endangered Species Act, and meet the requirements of the U.S. Department of Defense and Department of the Navy Instructions. In November 1997, the Sikes Act was amended to require the Secretary of Defense to “carry out a program to provide for the conservation and rehabilitation of natural resources on military installations.” To facilitate this program, the amendments require the Secretaries of the military departments to prepare and implement an INRMP for each military installation in the United States unless the absence of significant natural resources on a particular installation makes preparation of a plan for that installation inappropriate. The conservation program must be consistent with the mission-essential use of the installation and its lands and not cause a net loss of military land use. The Sikes Act requires the preparation of an INRMP to facilitate the conservation program and states the INRMP shall be prepared cooperatively with the appropriate federal and state agencies, which are USFWS and ADF&G.

ES.3 Alternatives Considered
The Navy is considering one action alternative (Preferred Alternative) that meets the purpose of and need for the Proposed Action, and a No Action Alternative. The Preferred Alternative would adopt and implement the INRMP. The SEAFAC INRMP would implement an ecosystem-based conservation program incorporating:

- Data collection and monitoring of natural resources;
- Special management and protection of species and critical habitat;
- Determination of effects on natural resources from routine maintenance of rain water conveyance structures, the sewage treatment plant and discharge point; and
- Implementation of sustainability and pollution prevention policies and practices.

The No Action Alternative would not adopt and implement the INRMP.
ES.4 Summary of Environmental Resources Evaluated in the EA

Council on Environmental Quality, the National Environmental Policy Act, and Navy instructions for implementing the National Environmental Policy Act, specify that an Environmental Assessment (EA) should address those resource areas potentially subject to impacts. In addition, the level of analysis should be commensurate with the anticipated level of environmental impact.

The following resource areas were addressed in this EA: water resources and biological resources.

Because potential impacts were considered to be negligible or nonexistent, the following resources were not evaluated in this EA: air quality, geologic resources, cultural resources, land use, visual resources, airspace, public health and safety, noise, infrastructure, hazardous materials and waste, transportation, socioeconomics, and environmental justice.

ES.5 Summary of Potential Environmental Consequences of the Action Alternatives

Water Resources. Stormwater and wastewater management practices were developed in the SEAFAC Operations Management Plan, updated for National Pollutant Discharge Elimination System (NPDES) permitting compliance, and reiterated in the INRMP. They are anticipated to result in beneficial effects by enhancing habitat protection, controlling erosion and runoff, and protecting water quality. Under the No Action Alternative, there would be no change to baseline water resources. The Preferred Alternative and No Action Alternative would not result in a significant adverse impact to water resources.

Biological Resources. The Preferred Alternative would improve biological resources by controlling invasive, non-native species; and improving management of biological resources. Four marine species, the fin whale, sperm whale, Steller sea lion (Western DPS), and humpback whale, are listed as threatened and endangered species potentially present near SEAFAC. Humpback whales are commonly sighted in Behm Canal. The Preferred Alternative involves no activities that would affect bird species protected under the Migratory Bird Treaty Act. Under the Preferred Alternative, the Navy would implement the INRMP, which includes recommendations to protect, or improve habitats. The Preferred Alternative and No Action Alternative would not result in a significant adverse impact to biological resources.

ES.6 Public Involvement

The Navy made the Draft INRMP and Draft EA available for public review and comment for 30 days, starting on December 10, 2019, with a notice of availability (NOA) published in Ketchikan Daily News. The documents were posted at https://navfac.navy.mil/NWNEPA for review and comment. No comments on the Draft EA were received during the public review period.
Final Environmental Assessment
Integrated Natural Resources Management Plan for the Southeast Alaska Acoustic Measurement Facility
Back Island, Alaska

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ABBREVIATIONS AND ACRONYMS</th>
<th>..........III</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES.1 Proposed Action</td>
<td>ES-1</td>
</tr>
<tr>
<td>ES.2 Purpose of and Need for the Proposed Action</td>
<td>ES-1</td>
</tr>
<tr>
<td>ES.3 Alternatives Considered</td>
<td>ES-1</td>
</tr>
<tr>
<td>ES.4 Summary of Environmental Resources Evaluated in the EA</td>
<td>ES-2</td>
</tr>
<tr>
<td>ES.5 Summary of Potential Environmental Consequences of the Action Alternatives</td>
<td>ES-2</td>
</tr>
<tr>
<td>ES.6 Public Involvement</td>
<td>ES-2</td>
</tr>
</tbody>
</table>

1 PURPOSE OF AND NEED FOR THE PROPOSED ACTION ..................................1-1
1.1 Introduction .................................................................1-1
1.2 Background .................................................................1-1
1.3 Location ..................................................................1-2
1.4 Purpose of and Need for the Proposed Action .................1-2
1.5 Scope of Environmental Analysis .....................................1-5
1.6 Key Documents .................................................................1-5
1.7 Relevant Laws and Regulations ......................................1-6
1.8 Public and Agency Participation and Intergovernmental Coordination .................1-7

2 PROPOSED ACTION AND ALTERNATIVES .............................................2-1
2.1 Proposed Action .................................................................2-1
2.2 Alternatives Carried Forward for Analysis .........................2-1
2.2.1 No Action Alternative .....................................................2-1
2.2.2 Adopt and Implement the SEAFAC INRMP (Preferred Alternative) ..........2-1
2.3 Alternatives Considered but Not Carried Forward for Detailed Analysis .................2-2

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES .......3-1
3.1 Water Resources ...............................................................3-3
3.1.1 Regulatory Setting .........................................................3-4
3.1.2 Affected Environment ...................................................3-5
3.1.3 Environmental Consequences .........................................3-7
3.2 Biological Resources .........................................................3-8
3.2.1 Regulatory Setting .........................................................3-8

Abbreviations and Acronyms
3.2.2 Affected Environment .............................................................. 3-9
3.2.3 Environmental Consequences .............................................. 3-14
3.3 Summary of Potential Impacts to Resources and Impact Avoidance and Minimization . 3-14

4 CUMULATIVE IMPACTS ........................................................................ 4-1
4.1 Definition of Cumulative Impacts .................................................. 4-1
4.2 Scope of Cumulative Impacts Analysis .......................................... 4-1
4.3 Past, Present, and Reasonably Foreseeable Actions ....................... 4-2
   4.3.1 Past Actions ........................................................................ 4-2
   4.3.2 Present and Reasonably Foreseeable Actions ......................... 4-2
4.4 Cumulative Impact Analysis ............................................................ 4-3
   4.4.1 Water Resources ................................................................ 4-3
   4.4.2 Biological Resources ............................................................ 4-3

5 OTHER CONSIDERATIONS REQUIRED BY NEPA .......................... 5-1
5.1 Consistency with Other Federal, State, and Local Laws, Plans, Policies, and Regulations . 5-1
5.2 Irreversible or Irretrievable Commitments of Resources .................... 5-2
5.3 Unavoidable Adverse Impacts ......................................................... 5-2
5.4 Relationship between Short-Term Use of the Environment and Long-Term Productivity . 5-3

6 REFERENCES ......................................................................................... 6-1

7 LIST OF PREPARERS .............................................................................. 7-1

List of Figures

Figure 1-3.1 SEAFAC Facility Location and In-water Testing Sites ....................... 1-3
Figure 1-3.2 SEAFAC Facility on Back Island ..................................................... 1-4

List of Tables

Table 5-1 Principal Federal and State Laws Applicable to the Proposed Action ............ 5-1
# Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACMP</td>
<td>Alaska Coastal Management Program</td>
</tr>
<tr>
<td>ADF&amp;G</td>
<td>Alaska Department of Fish and Game</td>
</tr>
<tr>
<td>ANCSA</td>
<td>Alaska Native Claims Settlement Act</td>
</tr>
<tr>
<td>ANILCA</td>
<td>Alaska National Interest Lands Conservation Act</td>
</tr>
<tr>
<td>APDES</td>
<td>Alaska Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>BCC</td>
<td>Birds of Conservation</td>
</tr>
<tr>
<td>BMP</td>
<td>best management practice</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CCD</td>
<td>Coastal Consistency Determination</td>
</tr>
<tr>
<td>CEQ</td>
<td>Council on Environmental Quality</td>
</tr>
<tr>
<td>CERP</td>
<td>Comprehensive Emergency Response Plan</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CMP</td>
<td>Coastal Management Plan</td>
</tr>
<tr>
<td>CWA</td>
<td>Clean Water Act</td>
</tr>
<tr>
<td>CZMA</td>
<td>Coastal Zone Management Act</td>
</tr>
<tr>
<td>DoD</td>
<td>U. S. Department of Defense</td>
</tr>
<tr>
<td>DON</td>
<td>U. S. Department of the Navy</td>
</tr>
<tr>
<td>DPS</td>
<td>Distinct Population Segment</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>EFH</td>
<td>Essential Fish Habitat</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>EISA</td>
<td>Energy Independence and Security Act</td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
</tr>
<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
</tr>
<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>GHG</td>
<td>greenhouse gas</td>
</tr>
<tr>
<td>INRMP</td>
<td>Integrated Natural Resources Management Plan</td>
</tr>
<tr>
<td>LID</td>
<td>low impact development</td>
</tr>
<tr>
<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
</tr>
<tr>
<td>MFAS</td>
<td>mid-frequency active sonar</td>
</tr>
<tr>
<td>MMPA</td>
<td>Marine Mammal Protection Act</td>
</tr>
<tr>
<td>MOU</td>
<td>Marine Mammal Protection Act Memorandum of Understanding</td>
</tr>
<tr>
<td>MSFCMA</td>
<td>Magnuson-Stevens Fishery Conservation and Management Act</td>
</tr>
<tr>
<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>NHPA</td>
<td>National Historic Preservation Act</td>
</tr>
<tr>
<td>NMFS</td>
<td>National Marine Fisheries Service</td>
</tr>
<tr>
<td>NOAA</td>
<td>National Oceanic and Atmospheric Administration</td>
</tr>
<tr>
<td>NOI</td>
<td>Notice of Intent</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
</tr>
<tr>
<td>NWTT</td>
<td>Northwest Training and Testing</td>
</tr>
<tr>
<td>NRC</td>
<td>Natural Resources Conservation</td>
</tr>
<tr>
<td>NRM</td>
<td>Natural Resources Manager</td>
</tr>
<tr>
<td>OEIS</td>
<td>Overseas Environmental Impact Statement</td>
</tr>
<tr>
<td>OPNAV</td>
<td>Office of the Chief of Naval Operations</td>
</tr>
<tr>
<td>PIF</td>
<td>Partners in Flight</td>
</tr>
</tbody>
</table>
| RCRA    | Resource Conservation and
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROI</td>
<td>Region of Influence</td>
<td>TMDL</td>
<td>Total Maximum Daily Load</td>
</tr>
<tr>
<td>SEAFAC</td>
<td>Southeast Alaska Acoustic Measurement Facility</td>
<td>UFC</td>
<td>Unified Facilities Criteria</td>
</tr>
<tr>
<td>SPCC</td>
<td>Spill prevention, control, and countermeasures</td>
<td>USACE</td>
<td>U.S. Army Corps of Engineers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>USEPA</td>
<td>U.S. Environmental Protection Agency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>USFS</td>
<td>U.S. Forest Service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
</tr>
</tbody>
</table>
1 Purpose of and Need for the Proposed Action

1.1 Introduction

Naval Base Kitsap, a Command of the United States (U.S.) Navy (hereinafter, jointly referred to as the Navy) proposes to adopt and implement an Integrated Natural Resource Management Plan (INRMP) for the Southeast Alaska Acoustic Measurement Facility (SEAFAC). The INRMP would be implemented once it is approved by the Navy and regulatory agencies (early 2020) and would be reviewed annually for assessment of any new projects, resource information, and for installation changes. The INRMP is being developed in cooperation with the U.S. Fish and Wildlife Service (USFWS) and Alaska Department of Fish and Game (ADF&G). The Navy will also coordinate with the National Marine Fisheries Service (NMFS) and the U.S. Department of Agriculture Forest Service, Tongass National Forest.

The Navy has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA), of 1969 (42 U.S. Code [U.S.C.] sections 4321-4370h), as implemented by the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] parts 1500-1508); Navy regulations for implementing the NEPA (32 CFR parts); and Chief of Naval Operations Instruction (OPNAVINST) 5090.1E, Environmental Readiness Program.

1.2 Background

SEAFAC is the Navy’s only west coast facility for measuring sound generated by vessels, called “acoustic signatures,” and helps to preserve a submarine’s tactical advantage and survivability against threat sensors. SEAFAC provides the capability to determine sources of radiated acoustic noise, assess vulnerability and develop quieting measures. The Navy has been conducting testing activities at SEAFAC since 1992 (Navy, 1988; Navy, 2015). SEAFAC is comprised of in-water testing facilities within Behm Canal and a land-based support installation on Back Island within the Tongass National Forest. The Navy holds a lease under a Special Use Permit with the U.S. Forest Service (USFS) for development and operation of the onshore site.

The location of Behm Canal, an isolated glacial fjord, was selected to provide ample room for submarines to maneuver in a low ambient noise environment, ideal for navigation safety and acoustic measurements. These measurements are passive in nature with no active emissions. Hydrophones on underwater sensor arrays pick up noise in the water and transmit it to shore facilities. SEAFAC does not use tactical mid-frequency active sonar (MFAS). Active acoustic sources are used for communications, range calibration, and to provide position information for units operating submerged on the range. SEAFAC uses its sensor array and technical expertise to profile the acoustic signature and measure the effectiveness of individual systems and components. SEAFAC’s sensitive and positioned acoustic measurement equipment provides the ability to listen to and record the radiated signature of other vessels as well, including submerged manned and unmanned vehicles, cooperating National Oceanic and Atmospheric Administration (NOAA) surface vessels, and cruise ships.

SEAFAC has two sites to acquire in-water acoustic signatures: the Underway Measurement Site and the Static Site. The data acquired at both sites are relayed to the Operations Center on Back Island where scientists and engineers process the signatures, analyze the results and determine the source of the sound, all occurring in real-time. Testing equipment and personnel are supported by the Back Island Operations Center and supporting facilities. The INRMP and this EA address the land-based facilities and intertidal environment of Back Island. In-water test sites are not included within the INRMP Study Area,
but are described and assessed under NEPA in the Northwest Testing and Training (NWTT) 2015 Environmental Impact Statement and Overseas Environmental Impact Statement (EIS/OEIS) (Navy, 2015).

1.3 Location

The SEAFAC facility is located in Behm Canal and on Back Island in the Ketchikan Gateway Borough in southeast Alaska. The INRMP covers the SEAFAC federally-leased lands and tidal lands of Back Island. SEAFAC is a 15-acre developed site on the north side of the 110-acre Back Island in the southeast portion of Alaska (Figure 1-3.1). Back Island lies west of the Cleveland Peninsula and Revillagigedo Island within the boundaries of the Tongass National Forest. The City of Ketchikan is situated approximately 20 miles away to the south-southeast. The SEAFAC shore facility is configured with cleared, graded and improved lands inside a security fence with a paved drive to a 200-foot long pier with adjacent floating dock. The structures on site include work space/computer labs, office space, dormitory with a kitchen and break area, covered storage/repair shop space, a water cistern, wastewater treatment facility and a fuel tank. The majority of the site acreage does not support vegetation as it has been paved or graveled, but a small portion of intertidal area and a vegetated buffer surrounds the property fence line, and the original construction staging area outside the fence, which has reverted to native cover. The remainder of Back Island is forested, as shown in Figure 1-3.2

Established as Navy restricted areas (33 CFR part 334), the in-water test sites cover an area of 48 nm² (33 CFR section 334.1275). These assets and the operational area of SEAFAC are located in five restricted areas (Figure 1.3-1.). The in-water assets include two sites: the underway site (Area 1) and the static site (Area 2). The outlines of these areas are published in the U.S. Coast Guard (USCG) Pilot 8 and all NOAA nautical maps and charts of Behm Canal.

1.4 Purpose of and Need for the Proposed Action

The purpose of and need for the Proposed Action is to meet statutory requirements under the Sikes Act (16 U.S.C. section 670 et seq.), provide management requirements for species listed under the Endangered Species Act (ESA), and meet the requirements of the Department of Defense (DOD) and Department of the Navy instructions and regulations.

In November 1997, the Sikes Act was amended to require the Secretary of Defense to carry out a program to provide for the conservation and rehabilitation of natural resources on military installations. The Sikes Act also requires the preparation of an INRMP to facilitate the conservation program, and states the INRMP shall be prepared cooperatively with the appropriate federal and state agencies, which for SEAFAC are USFWS, NMFS, and ADF&G. The amendments require the Secretaries of the military departments to prepare and implement an INRMP for each military installation in the U.S. unless the absence of significant natural resources on a particular installation makes preparation of a plan for that installation inappropriate.
Figure 1-3.1  SEAFAC Facility Location and In-water Testing Sites
The principal use of military installations is to ensure the preparedness of the Armed Forces. The Sikes Act requires each installation to prepare an INRMP that provides for the following management activities to the extent that such activities are consistent with the use of the installation for military preparedness:

1. The conservation and rehabilitation of natural resources on the installation;
2. The sustainable multipurpose use of the resources subject to safety requirements and military security.
3. The public access to installations to facilitate such uses subject to safety requirements and military security.

As required by the Sikes Act, the plan must, to the extent appropriate and applicable, provide for:

1. Fish and wildlife management, land management, forest management, and fish-and wildlife-oriented recreation;
2. Fish and wildlife habitat enhancement or modification;

Figure 1-3.2  SEAFAC Facility on Back Island

SEAFAC Facility Area per existing Special Use Permit
3. Wetland protection, enhancement, and restoration, where necessary for support of fish, wildlife, or plants;
4. Integration of, and consistency among, the various activities conducted under the plan;
5. Establishment of specific, natural resource management goals and objectives and time frames for proposed actions;
6. Sustainable use of natural resources, subject to requirements necessary to ensure safety and military security;
7. Public access to the military installation that is necessary or appropriate for the sustainable use of natural resources, subject to requirements necessary to ensure safety and military security;
8. Enforcement of applicable natural resource laws (including regulations);
9. No net loss in the capability of the installation’s lands to support the military mission of the installation; and
10. Such other activities as the Navy has determined are appropriate.

1.5 Scope of Environmental Analysis

This EA includes an analysis of potential environmental impacts associated with the Proposed Action (Preferred Alternative) and the No Action Alternative. The resource areas analyzed in this EA are water resources and biological resources.

1.6 Key Documents

Key documents are sources of information incorporated into this EA. Documents are considered to be key because of similar actions, analyses, or impacts that may apply to this Proposed Action. CEQ guidance encourages incorporating documents by reference. Documents incorporated by reference in part or in whole include:

- Navy. 2019a. Southeast Alaska Acoustic Measurement Facility Integrated Natural Resource Management Plan, Ketchikan Alaska. This is a long term planning document to guide SEAFAC natural resources management to support its military mission while protecting and enhancing natural resources, consistent with legal and stewardship requirements.
Purpose of and Need for the Proposed Action

1.7 Relevant Laws and Regulations

The Navy has prepared this EA based upon federal and state laws, statutes, regulations, and policies pertinent to the implementation of the Proposed Action, including the following:

- National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] sections 4321–4370h), which requires an environmental analysis for major federal actions that have the potential to significantly impact the quality of the human environment
- Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500–1508)
- Navy regulations for implementing NEPA (32 CFR part 775), which provides Navy policy for implementing Council on Environmental Quality regulations and NEPA
- Clean Air Act (42 U.S.C. section 7401 et seq.)
- Clean Water Act (CWA) (33 U.S.C. section 1251 et seq.)
- Rivers and Harbors Act (33 U.S.C. section 407)
- Coastal Zone Management Act (CZMA) (16 U.S.C. section 1451 et seq.)
- National Historic Preservation Act (NHPA) (54 U.S.C. section 306108 et seq.)
- Endangered Species Act (ESA) (16 U.S.C. section 1531 et seq.)
- Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (16 U.S.C. section 1801 et seq.)
- Marine Mammal Protection Act (MMPA) (16 U.S.C. section 1361 et seq.)
• Bald and Golden Eagle Protection Act (16 U.S.C. sections 668–668d)
• Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. section 136 et seq.)
• EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low income Populations
• EO 12088, Federal Compliance with Pollution Control Standards
• EO 13175, Consultation and Coordination with Indian Tribal Governments
• Alaska Hazardous Waste Regulations (Alaska Administrative Code Title 18, Chapter 62)

A description of the Proposed Action’s consistency with these laws, policies and regulations, as well as the names of regulatory agencies responsible for their implementation, is presented in Chapter 5 (Table 5-1).

1.8 Public and Agency Participation and Intergovernmental Coordination

Regulations from CEQ direct agencies to involve the public in preparing and implementing their NEPA procedures. The Navy has prepared the INRMP in cooperation with USFWS and ADF&G. The Navy made the Draft INRMP and Draft EA available for public review and comment for 30 days, starting on December 10, 2019, with a notice of availability (NOA) published in Ketchikan Daily News. The Draft INRMP and Draft EA were posted on a Navy website at https://navfac.navy.mil/NWNEPA for review and comment. No comments on the Draft EA were received during the public review period.

This page intentionally left blank.
2 Proposed Action and Alternatives

2.1 Proposed Action
The Proposed Action would adopt and implement the INRMP for SEAFAC, prepared in 2019. The INRMP would implement an ecosystem-based conservation program to support the sustainability and resiliency of ecosystems that encompass the installation and ensure no net loss in the capability of installation leased lands to support the military mission at SEAFAC.

2.2 Alternatives Carried Forward for Analysis
The purpose of the SEAFAC INRMP is to meet statutory requirements under the Sikes Act, provide management requirements for species listed under ESA, and comply with DoD and Navy instructions and regulations. This EA analyzes two alternatives: A No Action Alternative and the Preferred Alternative, which would adopt and implement the INRMP.

2.2.1 No Action Alternative
Under the No Action Alternative, the Proposed Action would not occur. The SEAFAC INRMP would not be adopted and implemented, and the installation would not be managed in compliance with the Sikes Act. The No Action Alternative would not meet the purpose and need for the Proposed Action. As required by NEPA, the No Action Alternative is carried forward for analysis in this EA and provides a baseline for measuring the environmental consequences of the action alternatives.

2.2.2 Adopt and Implement the SEAFAC INRMP (Preferred Alternative)
The SEAFAC INRMP would implement an ecosystem-based conservation program that would support the sustainability and resiliency of ecosystems that encompass the facility and ensure no net loss in the capability of leased facility lands to support the military mission. Under the Preferred Alternative, the Navy would comply with the Sikes Act, and resource coordination would continue with USFWS and ADF&G along with other agencies including USFS and NMFS. The INRMP would be evaluated every five years, and reviewed and updated as appropriate.

In accordance with OPNAV M-5090.1, a successfully implemented installation Natural Resources Conservation (NRC) program will meet the following three closely related, but not mutually exclusive, goals:

- Integrate NRC responsibilities with military activities, installation planning and programming, and other activities as appropriate to ensure no net loss to the Navy mission;
- Ensure sustainable multipurpose use of the resources and public access when consistent with the mission, and safety and security requirements; and
- Ensure NRC program requirements are implemented by or coordinated with professionally training natural resources managers.

Program elements identified for management in the INRMP include:

- Vegetation. Evaluate current and future projects, and conduct studies, collect data and monitor to update baseline vegetation knowledge, control invasive non-native plants, and manage site wetlands and muskegs. Vegetation management would be conducted through mowing the
security buffer around the perimeter fence and maintenance of vegetation around buildings that grows through gravelled areas.

- **Control of Invasive Species and Aquatic Nuisance Species.** Removal of invasive species to promote natural diversity and native plant species. Hand removal and/or a combination of mowing/cutting back the plant and a direct herbicide application are recommended to eradicate Japanese knotweed, the primary invasive plant species on the installation.

- **Threatened and Endangered Species. Species of Concern and Candidate Species.** Evaluate current and future projects and monitor local populations to ensure compliance with ESA. Evaluate and monitor current and future project effects to ensure sustainability of populations and resiliency of habitat. Conduct surveys of pinnipeds, humpback whales, and federal candidate species.

- **Migratory Birds.** Evaluate current and future projects to ensure compliance with the Migratory Bird Treaty Act (MBTA) using the Partners in Flight (PIF) Strategic Plan for Bird Conservation and Management on Department of Defense Lands.

- **Bald Eagles.** Evaluate current and future projects, and monitor bald eagle nests to ensure disturbance from installation activities is not occurring and compliance with the Bald and Golden Eagle Protection Act is achieved.

- **Wildlife.** Evaluate current and future projects for potential effects on wildlife habitat. Survey and monitor wildlife to identify species use and assess any issues.

- **Forestry.** Adopts USFS plans and recommendations for forest management. Comply with recommendations.

- **Coastal, Marine and Intertidal Resources.** Protect, preserve, and restore associated portions of coastal ecosystems through existing federal capabilities and authorities; prevent loss of function or resiliency of the rocky intertidal habitat. Manage point and non-point discharges from the facility to minimize pollution and comply with the Navy’s discharge permit and ADF&G requirements. Collaborate and cooperate in the stewardship of coastal living resources by working together and in partnership with other federal programs.

- **Water Quality.** The SEAFAC Site Director will maintain SEAFAC’s spill prevention, control, and countermeasures (SPCC) plan which is part of SEAFAC’s larger Comprehensive Emergency Response Plan (CERP). The Site Director will insure that these plans are implemented to prevent accidental contaminant releases to marine waters.

- **Stormwater and Erosion.** Evaluate erosion problems and implementation of projects to address stormwater runoff and bluff erosion through facilities maintenance actions. The Natural Resources Manager (NRM) will identify operations and infrastructure that could affect water quality (storm drains that release directly to the water body; pesticide applications near the shore, new construction, etc.) and coordinate with appropriate staff and agencies to minimize or eliminate releases to fresh or marine waters. The INRMP reiterates the stormwater management practices developed in the SEAFAC Operations Management Plan (Navy, 2007).

### 2.3 Alternatives Considered but Not Carried Forward for Detailed Analysis

Additional alternatives were not considered or carried forward for detailed analysis in this EA as they did not meet the purpose and need.
3 Affected Environment and Environmental Consequences

This chapter presents a description of the environmental resources and baseline conditions that could be affected from implementing any of the alternatives and an analysis of the potential direct and indirect effects of each alternative.

All potentially relevant environmental resource areas were initially considered for analysis in this EA. In compliance with NEPA, the CEQ, and Department of Navy guidelines; the discussion of the affected environment (e.g., existing conditions) focuses only on those resource areas potentially subject to impacts. Additionally, the level of detail used in describing a resource is commensurate with the anticipated level of potential environmental impact.

In the case of a site-specific action, significance would usually depend on the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant. Intensity refers to the severity or extent of the potential environmental impact, which can be thought of in terms of the potential amount of the likely change. In general, the more sensitive the context, the less intense a potential impact needs to be in order to be considered significant. Likewise, the less sensitive the context, the more intense a potential impact would be if expected to be significant.

This chapter includes Water Resources and Biological Resources.

The potential impacts to the following resource areas are considered to be negligible or non-existent so they were not analyzed in detail in this EA:

**Air Quality:** Air pollutant emissions were largely reduced at the onset of SEAFAC facility construction with the installation of a power transmission cable from Ketchikan for electrical needs instead of onsite diesel generation. Diesel-fired boilers are used for primary heat and water heating. Effects on air quality from implementation of the Preferred Alternative and No Action alternative would be limited to mobile sources. As described in 40 CFR section 51.851, Determining Conformity of General Federal Actions to State or Federal Implementation Plans (the “General Conformity Rule”), all federal actions occurring in air basins designated in nonattainment or in a maintenance area must conform to an applicable implementation plan. Ketchikan Gateway Borough, where SEAFAC is located, is not classified as a nonattainment or maintenance area for any criteria pollutants. As a result, the Conformity Rule is not applicable and conformity determination is not required at SEAFAC. National Ambient Air Quality Standards would be negligibly affected by the No Action and Preferred Alternatives. The U.S. Environmental Protection Agency (USEPA) recommends that agencies consider 25,000 metric tons of carbon dioxide equivalent (CO2e) emissions on an annual basis as a reference point below which a quantitative analysis of greenhouse gas is not recommended unless it is easily accomplished based on available tools and data. Minimal or no greenhouse gas (GHG) increase would result from the Preferred or No Action Alternatives. Therefore, air quality and GHG require no further analysis.

**Geological Resources:** Geological resources include the topography, geology and soils of a given area. Effects from the Preferred or No Action Alternative upon geological resources are expected to be negligible or non-existent and therefore require no further analysis. Improvements to soil stability may occur with routine maintenance in conjunction with Best Management Practices (BMPs).

**Cultural Resources:** Cultural resources are the physical evidence or place of past human activity, either a site, object, landscape, or structure; or a place that has traditional cultural or religious significance to a group of people. Alaska Native groups are represented by Regional Corporations established in 1971 under the Alaska Native Claims Settlement Act (ANCSA). ANCSA settled land and financial claims made
by Alaska Natives and provided for the establishment of Regional Corporations to administer those claims and foster economic development. Sealaska is the Regional Corporation for this area. In addition, distinct from the Regional Corporation, there are four federally recognized Native entities in the SEAFAC region: the Central Council of the Tlingit and Haida Indian Tribes of Alaska, the Ketchikan Indian Community, the Metlakatla Indian Community, and the Organized Village of Saxman.

Alaska Native entities have use of state fisheries for commercial, subsistence, and ceremonial activities. However, the Western Behm Canal is located within the Ketchikan Nonsubsistence Use Area (ADF&G, 2015), which precludes subsistence uses of resources in Western Behm Canal by both Alaska Native and non-Native fishermen. As the land manager for Back Island, the USFS is responsible for compliance with the requirements set forth by the Alaska National Interest Lands Conservation Act of 1980 (ANILCA), including Section 1316, which allows the taking of fish and wildlife on all public lands and the establishment and use of temporary campsites, tent platforms, shelter, and other temporary facilities and equipment directly and necessarily related to such activities. There are no common land claims on the island, nor have any Alaska Native entities expressed interest in maintaining island access. Meetings between the facility and Alaska Native entities have been limited. Communication will continue with the Alaska Native entities as it has in the past when SEAFAC contacted them over a proposal to fell a spruce tree. The Navy invited local Native Alaska entities to initiate Government-to-Government consultation for the Proposed Action. No local Native Alaska entities initiated Government-to-Government consultation; therefore, Government-to-Government consultation is complete.

The INRMP does not propose actions to affect historic properties, buildings, structures, landscape, or land use patterns. Therefore as a result, no further analysis is needed.

**Land Use:** The Preferred Alternative and No Action Alternative would result in no change to or inconsistencies with existing land use designations. Therefore, no further analysis is needed.

**Visual Resources:** The Preferred Alternative and No Action alternative would have no impact on visual resources. The INRMP does not propose activities that could affect natural vistas and view sheds. Therefore, no further analysis is needed.

**Airspace:** The Preferred Alternative and No Action Alternative would have no impact on airspace and therefore, no further analysis is needed.

**Noise:** Noise disturbances in the area come from watercraft traffic from commercial and recreational fishing and cruise ship activities. The mission at SEAFAC requires low ambient noise to conduct measurement of acoustic signatures. The Preferred Alternative and No Action Alternative are not expected to affect noise. Therefore, no further analysis is needed.

**Infrastructure:** The Preferred Alternative and No Action Alternative would result in no change to or inconsistencies with existing infrastructure and therefore, no further analysis is needed.

**Transportation:** The Preferred Alternative and No Action Alternative is not expected to involve activities that affect traffic patterns or alter or create new transportation routes in the air, land or sea, therefore, no further analysis is needed.

**Public Health and Safety:** The Preferred Alternative and No Action Alternative involve no activities or operations with the potential to affect the safety, well-being or health of members of the public, therefore, no further analysis is needed.
Hazardous Materials and Wastes: SEAFAC is a conditionally exempt small quantity generator, per the Resource Conservation and Recovery Act (RCRA). SEAFAC maintains hazardous waste accumulation areas outfitted with secondary containment, and materials are recycled or disposed of using the City of Ketchikan RCRA permitted small quantity generator disposal program. Because the Preferred Alternative and No Action Alternative would not change current hazardous materials or hazardous waste conditions and management, no further analysis is needed.

Socioeconomics: The Preferred Alternative and No Action Alternative involve no activities that could affect population, income, or housing of populations, and therefore socioeconomics requires no further analysis.

Environmental Justice: The Preferred Alternative and No Action Alternative would have no adverse human health or environmental effects and therefore would have no disproportionately high and adverse human health or environmental effects on minority and low-income populations. As a result, no further analysis is needed for environmental justice.

3.1 Water Resources

This discussion of water resources includes groundwater, surface water, marine waters, wetlands, floodplains, and shorelines. This section also discusses the physical characteristics of marine waters, wetlands, etc.; wildlife and vegetation are addressed in Section 3.2, Biological Resources.

Groundwater is water that flows or seeps downward and saturates soil or rock, supplying springs and wells. Groundwater is used for water consumption, agricultural irrigation, and industrial applications. Groundwater properties are often described in terms of depth to aquifer, aquifer or well capacity, water quality, and surrounding geologic composition. Sole source aquifer designation provides limited protection of groundwater resources, which serve as drinking water supplies.

Surface water resources generally consist of wetlands, lakes, rivers, and streams. Surface water is important for its contributions to the economic, ecological, recreational, and human health of a community or locale. A Total Maximum Daily Load (TMDL) is the maximum amount of a substance that can be assimilated by a water body without causing impairment. A water body can be deemed impaired if water quality analyses conclude that exceedances of water quality standards occur.

Marine waters would typically include estuaries, waters seaward of the historic height of tidal influence, and offshore high salinity waters. Marine water quality would be described as the chemical and physical composition of the water as affected by natural conditions and human activities. Additionally, marine waters may include an area within a National Marine Sanctuary requiring an action proponent to avoid adverse water quality impacts in order to prevent damage to resources within the sanctuary.

Wetlands are jointly defined by USEPA and U.S. Army Corps of Engineers (USACE) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas” (33 CFR section 328.3(b), effective 23 December 2019).

Floodplains are areas of low-level ground present along rivers, stream channels, large wetlands, or coastal waters. Floodplain ecosystem functions include natural moderation of floods, flood storage and conveyance, groundwater recharge, and nutrient cycling. Floodplains also help to maintain water quality and are often home to a diverse array of plants and animals. In their natural vegetated state, floodplains
slow the rate at which the incoming overland flow reaches the main water body. Floodplain boundaries are most often defined in terms of frequency of inundation, that is, the 100-year and 500-year flood. Floodplain delineation maps are produced by the Federal Emergency Management Agency (FEMA) and provide a basis for comparing the locale of the Proposed Action to the floodplains.

Shorelines can be located along marine (oceans), brackish (estuaries), or fresh (lakes) bodies of water. Physical dynamics of shorelines include tidal influences, channel movement and hydrological systems, flooding or storm surge areas, erosion and sedimentation, water quality and temperature, presence of nutrients and pathogens, and sites with potential for protection or restoration. Shoreline ecosystems are vital habitat for multiple life states of many fish, birds, reptiles, amphibians, and invertebrates. Different shore zones provide different kinds and levels of habitat, and when aggregated, can significantly influence life. Organic matter that is washed onto the shore, or “wrack,” is an important component of shoreline ecosystems, providing habitat for invertebrates, soil and organic matter, and nutrients to both the upland terrestrial communities and aquatic ecosystems.

### 3.1.1 Regulatory Setting

The CWA establishes federal limits, through the National Pollutant Discharge Elimination System (NPDES) program, on the amounts of specific pollutants that can be discharged into surface waters to restore and maintain the chemical, physical, and biological integrity of the water. The NPDES program regulates the discharge of point (e.g., end of pipe) and nonpoint sources (e.g., stormwater) of water pollution.

The Alaska National Pollutant Discharge Elimination System (APDES) stormwater program requires construction site operators engaged in clearing, grading, and excavating activities that disturb one acre or more to obtain coverage under the APDES Construction General Permit for stormwater discharges (2016 Construction General Permit, Permit Number AKR1000). Construction or demolition that necessitates an individual permit also requires preparation of a Notice of Intent to discharge stormwater and a Stormwater Pollution Prevention Plan that is implemented during construction. As part of the 2010 Final Rule for the CWA, titled *Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category* (40 CFR part 450), activities covered by this permit must implement non-numeric erosion and sediment controls and pollution prevention measures.

Wetlands are currently regulated by the USACE under Section 404 of the CWA as a subset of all “ Waters of the United States.” Waters of the United States are generally defined as (1) traditional navigable waters, (2) wetlands adjacent to navigable waters, (3) non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow perennially or have continuous flow at least seasonally (e.g., typically 3 months), and (4) wetlands that directly abut such tributaries (33 CFR section 328.3(a), effective 23 December 2019). The CWA requires that Alaska establish a Section 303(d) list to identify impaired waters and establish TMDLs for the sources causing the impairment.

Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredge or fill into wetlands and other Waters of the United States. Any discharge of dredge or fill into Waters of the United States requires a permit from the USACE.

Section 438 of the Energy Independence and Security Act (EISA) establishes stormwater design requirements for development and redevelopment projects. Under these requirements, federal facility projects larger than 5,000 ft² must “maintain or restore, to the maximum extent technically feasible, the
predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow."

Section 10 of the Rivers and Harbors Act provides for USACE permit requirements for any in-water construction. USACE and some states require a permit for any in-water construction. Permits are required for construction of piers, wharfs, bulkheads, pilings, marinas, docks, ramps, floats, moorings, and like structures; construction of wires and cables over the water, and pipes, cables, or tunnels under the water; dredging and excavation; any obstruction or alteration of navigable waters; depositing fill and dredged material; filling of wetlands adjacent or contiguous to waters of the U.S.; construction of riprap, revetments, groins, breakwaters, and levees; and transportation of dredged material for dumping into ocean waters.

The Coastal Zone Management Act of 1972 (CZMA) provides assistance to states, in cooperation with federal and local agencies, for developing land and water use programs in coastal zones. Actions occurring within the coastal zone commonly have several resource areas that may be relevant to the CZMA. The state of Alaska does not have a Coastal Management Program.

Executive Order 11990, Protection of Wetlands, requires that federal agencies adopt a policy to avoid, to the extent possible, long- and short-term adverse impacts associated with destruction and modification of wetlands and to avoid the direct and indirect support of new construction in wetlands whenever there is a practicable alternative.

Executive Order 11988, Floodplain Management, requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development unless it is the only practicable alternative. Flood potential of a site is usually determined by the 100-year floodplain, which is defined as the area that has a one percent chance of inundation by a flood event in a given year.

Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, amends Executive Order 11988 and establishes the Federal Flood Risk Management Standard to improve the nation's resilience to current and future flood risks, which are anticipated to increase over time due to the effects of climate change and other threats.

### 3.1.2 Affected Environment

The following discussions provide a description of the existing conditions for each of the categories of water quality resources at SEAFAC.

#### 3.1.2.1 Groundwater

Specific groundwater characteristics are largely unstudied on Back Island due to the lack of groundwater utilization by SEAFAC. Paved surfaces on the installation currently produce run-off to graveded areas and vegetated borders and from there into shallow forested peat soils sitting on glacially scoured bedrock. The shingle/soil matrix is poorly drained with small freshwater pools and channels. The high annual precipitation feeds groundwater inputs into peatlands, bogs and fens, and groundwater movement into marine waters.
3.1.2.2 Surface Water

There are no surface waters (lakes, streams, or creeks) on Back Island or flooding associated with over-bank runoff. Surface water will be minimal and only occurs when associated with poor soil drainage. Snowmelt and storm runoff evaporates or feeds into Behm Canal (Young et al, 1986).

Industrial facilities such as SEAFAC, that have "no exposure" of industrial activities or materials to stormwater are exempted from industrial stormwater permitting requirements. SEAFAC is not required by regulations to prepare an industrial stormwater pollution prevention plan because the facility is not subject to industrial stormwater NPDES permitting (Leidos, 2015).

3.1.2.3 Marine Waters

The SEAFAC facility is in the western portion of Behm Canal, about 13 miles (mi.) (20.9 kilometers [km]) north-northwest of Ketchikan, Alaska. Behm Canal is a large, deep, protected fjord, with some areas exceeding depths of 2,000 ft. (609.6 m). The western portion is about 60 mi. (96.6 km) long and has a mean width of 3 mi. (4.8 km). The water quality index rating for Behm Canal is good, due in part to a watershed consisting of undeveloped lands in Tongass National Forest (USEPA, 2012).

Marine water quality in the area can be affected by seafood processing activities, timber industry activities, shipyard or other industrial activity, discharges from treated sewer systems, cruise ships or other vessels. The nearest impaired site on Alaska’s impaired waterbodies list (CWA Section 303(d) list) is Ward Cove, located approximately 10 miles south of SEAFAC near Ketchikan. Ward Cove was placed on the 303(d) list in 1990 because of non-attainment due to wood debris, low dissolved oxygen, and other residues associated with activities from the Ketchikan Pulp Company mill operations in the immediate vicinity. Ward Cove is also part of the EPA’s Superfund cleanup program. Investigations and remedial actions addressed impairments and established a TMDL for biochemical oxygen demand. As of 2015, the remedies in place were found to be protective of human health and the environment (ADEC, 2019).

Domestic wastewater generated at the SEAFAC shore facility on Back Island is treated by a secondary treatment system and is discharged to Behm Canal in accordance with a NPDES permit (EPA NPDES Permit Number AKG572040). The permitted maximum daily flow is 3,900 gallons, (14,763 liters) per day. The permit contains treatment requirements, effluent limitations, and monitoring requirements. Furthermore, the SEAFAC facility has an SPCC plan implemented to prevent accidental contaminant releases to marine waters. The NRM and Facility Director identify operations and infrastructure that could affect water quality and coordinate with appropriate staff and agencies to minimize or eliminated releases to marine waters.

3.1.2.4 Wetlands

In southeast Alaska, wetlands are found from sea level to alpine elevations and in marine estuarine and riparian settings. No freshwater wetlands, as defined by USACE and the USEPA, are known to exist within the fence line at the SEAFAC facility, as it was cleared of vegetation for installation of roads, parking areas and buildings. National Wetland Inventory maps show estuarine and marine wetlands but delineate no freshwater emergent wetlands. However, many wetland delineations were conducted from air photos for Alaska and field visits have not been conducted to delineate whether palustrine emergent wetlands may be present throughout the remainder of the island. Palustrine wetlands include all non-tidal wetlands traditionally referred to as bogs, swamps and fens, and are referred to as peatlands or muskeg. Emergent wetlands can be dominated by trees, shrubs, persistent emergent plants, mosses or
lichens and all such wetlands where salinity due to ocean-derived salts is below 0.5 percent. Lacustrine and riverine wetlands are not present on the island due to lack of associated water bodies.

Estuarine wetlands are those areas that are predominantly intertidal having an unimpaired connection to open marine waters where seawater is diluted freshwater derived from land drainage. USFWS National Wetland Inventory mapped areas on Back Island identified estuarine and marine wetlands on the perimeter of the island with deep water tidal habitats and adjacent tidal wetlands (as depicted on Figure 3-3 of the INRMP). This deep water tidal habitat and adjacent tidal wetlands are influenced by water runoff from adjacent land. There are no tidal wetlands at the SEAFAC site, but the rocky intertidal area is regulated by the Alaska Department of Natural Resources as State-owned tideland.

3.1.2.5 Floodplains
Flood hazard areas on Back Island are unmapped by FEMA; however, coastal flood zones may be present.

3.1.2.6 Shorelines
The shoreline at SEAFAC consists of rocky intertidal habitat, lacking tidal marshes or tidally-influenced wetlands at the location.

3.1.3 Environmental Consequences
In this EA, the analysis of water resources looks at the potential impacts on groundwater, surface water, marine waters, wetlands, floodplains and shorelines. Groundwater analysis focuses on the potential for impacts to the quality, quantity, and accessibility of the water. The analysis of surface water quality considers the potential for impacts that may change the water quality, including both improvements and degradation of current water quality. Marine waters analysis includes potential changes to physical and chemical characteristics. The impact assessment of wetlands considers the potential for impacts that may change the local hydrology, soils, or vegetation that support a wetland. The analysis of floodplains considers if any new construction is proposed within a floodplain or may impede the functions of floodplains in conveying floodwaters. The analysis of shorelines considers if the Proposed Action will affect shoreline ecological functions such as channel movement and hydrological systems; flooding or storm surge areas, areas of erosion and sedimentation, water quality and temperature, presence of nutrients and pathogens, and sites with the potential for protection or restoration.

3.1.3.1 No Action Alternative
Under the No Action Alternative, the Proposed Action would not occur and there would be no change to baseline water resources. Therefore, no significant impacts would occur with implementation of the No Action Alternative.

3.1.3.2 Preferred Alternative
The study area for the analysis of effects to water resources associated with the Preferred Alternative includes the 15 acres of the base installation and intertidal habitat.

Implementation of the Preferred Alternative is anticipated to result in long-term beneficial effects to water resources at SEAFAC. Specific programs identified in the SEAFAC INRMP that would have beneficial effects to water resources include:
• Coastal, Marine and Intertidal Resources. Ensure that no loss of function or resiliency occurs to the rocky intertidal habitat. Point and non-point discharges from the facility are managed to minimize pollution and comply with the Navy’s discharge permit and ADF&G requirements. Collaborate and cooperate in the stewardship of coastal living resources by working together and in partnership with other federal programs.

• Water Quality. The SEAFAC Site Director will maintain and implement SEAFAC’s spill prevention, control, and countermeasures (SPCC) plan which is part of SEAFAC’s larger Comprehensive Emergency Response Plan (CERP). The Site Director will ensure that these plans are implemented to prevent accidental contaminant releases to marine waters.

• Stormwater and Erosion. Stormwater management objectives for infrastructure maintenance identified in the SEAFAC Operations Management Plan (Navy, 2007), updated for National Pollutant Discharge Elimination System (NPDES) permitting compliance, and reiterated in the INRMP are anticipated to directly and indirectly result in beneficial effects to water resources by improving stormwater management infrastructure. The Natural Resources Manager (NRM) will identify operations and infrastructure that could affect water quality (storm drains that release directly to the water body; pesticide applications near the shore, new construction, etc.) and coordinate with appropriate staff and agencies to minimize or eliminate releases to fresh or marine waters.

Therefore, implementation of the Preferred Alternative would have beneficial, but not significant impacts to water resources.

3.2 Biological Resources

Biological resources include living, native, or naturalized plant and animal species and the habitats within which they occur. Plant associations are referred to generally as vegetation, and animal species are referred to generally as wildlife. Habitat can be defined as the resources and conditions present in an area that support a plant or animal.

Within this EA, biological resources are divided into four major categories: (1) terrestrial vegetation, (2) terrestrial wildlife, (3) marine vegetation, and (4) marine wildlife. Threatened, endangered, and other special status species are discussed in their respective categories.

3.2.1 Regulatory Setting

Special-status species, for the purposes of this assessment, are those species listed as threatened or endangered under ESA and species afforded federal protection under the MMPA or MBTA.

The purpose of the ESA is to conserve the ecosystems upon which threatened and endangered species depend and to conserve and recover listed species. Section 7 of the ESA requires action proponents to consult with the USFWS or NMFS to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat. Critical habitat cannot be designated on any areas owned, controlled, or designated for use by the DoD where an INRMP has been developed that, as determined by the Department of Interior or Department of Commerce Secretary, provides a benefit to the species subject to critical habitat designation.

All marine mammals are protected under the provisions of the MMPA. The MMPA prohibits any person or vessel from “taking” marine mammals in the U.S. or the high seas without authorization. The MMPA
defines “take” to mean “to harass, hunt, capture, or kill or attempt to harass, hunt, capture, or kill any marine mammal.”

Birds, both migratory and most native-resident bird species, are protected under the MBTA, and their conservation by federal agencies is mandated by EO 13186 (Migratory Bird Conservation). Under the MBTA it is unlawful by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, [or] possess migratory birds or their nests or eggs at any time, unless permitted by regulation. The 2003 National Defense Authorization Act gave the Secretary of the Interior authority to prescribe regulations to exempt the Armed Forces from the incidental taking of migratory birds during authorized military readiness activities. The final rule authorizing the DoD to take migratory birds in such cases includes a requirement that the Armed Forces must confer with the USFWS to develop and implement appropriate conservation measures to minimize or mitigate adverse effects of the proposed action if the action will have a significant negative effect on the sustainability of a population of a migratory bird species.

Bald and golden eagles are protected by the Bald and Golden Eagle Protection Act. This act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald eagles, including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

The Magnuson-Stevens Fishery Conservation and Management Act provides for the conservation and management of the fisheries. Under the Act, essential fish habitat (EFH) consists of the waters and substrate needed by fish to spawn, breed, feed, or grow to maturity.

### 3.2.2 Affected Environment

The following discussions provide a description of the existing conditions for each of the categories under biological resources at SEAFAC. Threatened and endangered species are discussed in each respective section below.

#### 3.2.2.1 Terrestrial Vegetation

Vegetation includes terrestrial plants as well as freshwater aquatic communities and constituent plant species.

Minimal terrestrial vegetation exists within the SEAFAC fenceline, as the site has been developed. Outside of the installation fence, Back Island contains dense forest upland. The dominant tree species on Back Island are western red cedar (Thuja plicata), western hemlock (Tsuga heterophylla), and sitka spruce (Picea sitchensis). Dense alder second growth has grown in the area northeast of the fence line, which was the lay down site during the original construction of SEAFAC, completed in 1991. The understory consists of huckleberries and blueberries (Vaccinium sp.), devil’s club (Oplopanax horridus), ground dogwood (Cornus canadensis), false lily of the valley (Majianthemum dilatatum), and skunk cabbage (Lysichitum americanum) (Strand et al, 1986). The surrounding property outside of the Special Use Permit boundary, as described above, is managed by USFS.

The western shoreline of Back Island is dominated by a mixed stand of sedges, rushes, grasses, and scattered forbs (Young et al, 1987). Lyngbye’s sedge (Carex lyngbyei) is common on the lower beach and is replaced by arctic rush (Juncus arcticus) in areas of drainage. Sea plantain (Plantago maritima) is also common to the lower beach in niches on rocks above the high-water mark. At higher and drier elevations, sedge and rush are replaced by wild rye (Elymus mollis), which is the dominant species on
Affected Environment and Environmental Consequences

the upper shoreline in early June. Buttercup (*Ranunculus orthorynchus*), plantain (*Plantago sp.*), yarrow (*Achillea millifolium*), Pacific cinquefoil (*Potentilla pacifica*), few-flowered shooting star (*Dodecatheon pulchellum*), and sea coast angelica (*Angelica lucida*) are also found at higher elevations along the shoreline and tree line (Strand et al, 1986).

### 3.2.2.2 Terrestrial Wildlife

Wildlife includes all animal species (i.e. insects and other invertebrates, freshwater fish, amphibians, reptiles, birds, and mammals). The discussion here focuses on the species and habitat features of greatest importance or interest.

#### Mammals

The predominant big game species on the island is the Sitka black-tailed deer (*Odocoileus hemionus sitkensis*); however, the estimated deer population is low because of the small size of the island (Stand et al, 1986; Navy, 2015). Resident populations of American black bear (*Ursus americanus*) and gray wolves (*Canis lupus*) are present on the larger neighboring Revillagigedo Island and could be found on Back Island at any time of the year. An Alexander Archipelago wolf (subspecies of gray wolf) has been seen at SEAFAC and was photographed eating a harbor seal on the beach (Harney, 2016). Due to the small size of the island, all large mammals found at any time on the island are theorized to be transient and utilize the island for short durations.

Other fur bearers including mink (*Mustela vison*), marten (*Martes americana*), and river otter (*Lutra canadensis*) are expected on Back Island. These smaller mammals may have established populations or regularly utilize the island. Smaller mammals including rodents and bats have the potential to be found on the island, either as transients or residents. A list of species potentially found at Back Island, with citations, is presented in Appendix C of the INRMP (Navy, 2019a).

Many non-native wildlife species have been introduced in Alaska. Norway rats (*Rattus norvegicus*) are thought to be causing substantial ecological harm in coastal ecosystems (USFS, 2015) and are present on Back Island.

#### Birds

There are over 264 species of birds representing 52 families, documented to have occurred in the Ketchikan Gateway Borough (Juneau Audubon Society, 2009). Species of birds potentially present in the vicinity of SEAFAC include loons, grebes, cormorants, sea ducks, eagles, gulls, crows, ravens and alcids, among others. Common species that occur year round include bald eagle (*Haliaeetus leucocephalus*), Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), surf scooter (*Melanitta perspicillata*), common merganser (*Mergus merganser*), common loon (*Gavia immer*), mew gull (*Larus canus*), glaucous-winged gull (*Larus glaucescens*), common murre (*Uria aalge*), and marbled murrelet (*Brachyramphus marmoratus*) (eBird 2016). Birds occur within the Ketchikan Gateway and the timing of their occurrences are listed in Appendix C of the INRMP (Navy, 2019a).

USFS conducted aerial surveys from 1986 through 1990 to determine nest location and activity status of the bald eagle on Back Island (Canterbury, 2008). During they surveys, five nests were identified on Back Island, but none were located within the Navy’s SEAFAC property (Canterbury, 2008).

Migratory birds are protected under the MBTA. The MBTA prohibits the taking of most birds, nests, and eggs, except as permitted by the USFWS. In addition, a Memorandum of Understanding (MOU) among USFWS, DoD, and ADF&G (2014) identifies specific activities where cooperation among the three
Agencies will contribute to the conservation of migratory birds and their habitats. The MOU describes actions that should be taken by DoD to advance migratory bird conservation, avoid or minimize the take of migratory birds, and ensure DoD activities (other than military readiness activities) are consistent with the MBTA. The MOU describes how the three agencies will work together to further the conservation of migratory birds. The 2008 Birds of Conservation Concern (BCC) list (USFWS, 2008) identifies 32 species in the Northern Pacific Forest Region. Migratory birds and specifically those on the BCC list may fly over or be occasional visitors to the installation.

**Reptiles and Amphibians**

No specific surveys for amphibians or terrestrial reptiles have been conducted at SEAFAC. Amphibians and reptiles are considered rare at Back Island, but have the potential to be found on the island. Species that can be found within the region include the rough-skinned newt (Taricha granulosa) and the western toad (Bufo boreas) (ADF&G, 2016a).

Two invasive amphibian species are present in coastal Alaska; the northern red-legged frog (Rana aurora) and the Northern Pacific tree frog (which is also known as Pacific chorus frog in some areas) (Pseudacris regilla). Red-legged frogs are native to the Pacific Northwest, and have established populations on Chichagof Island and in the Juneau area, with surveys suggesting that its range is expanding (MacDonald, 2003). The North Pacific tree frog has an established breeding population on Revillagigedo Island, where it is currently thought to have little effect on native amphibian species (MacDonald, 2003).

**Pollinators**

President Obama’s June 2014 memorandum, creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators, directs Federal agencies to take steps to protect and restore domestic populations of pollinators. Alaska pollinators including honey bees, andrenid bees, native bumble bees, wasps, moths, birds, bats, and butterflies, all of which contribute substantially to the health of the environment and to the economic vitality of the agriculture sector.

### 3.2.2.3 Marine Vegetation

Marine vegetation found in approximately 70 acres of intertidal zones between the lowest low tide and the highest tide lines is dominated by algae (Young et al, 1987). Brown alga (Fucus distichus) and a red algae (Rhodomela larx) were prominent in the high and middle intertidal zone. Green alga (Blidingia minima, Monostroma sp) and an unidentified green filamentous species were observed in the middle to lower intertidal zone. The brown algal species (Alaria marginata and Costaria costata) were conspicuous at the seaward limit of the intertidal zone (Young et al, 1987). A subsequent site visit in 2016 confirmed many of these same species (Navy, 2016).

### 3.2.2.4 Marine Wildlife

**Marine Invertebrates**

Benthic invertebrate species in the marine waters surrounding Back Island are not well documented, but are likely to be similar to those present throughout Behm Canal and Ketchikan Gateway Borough. Marine invertebrates include red sea cucumber (Parastichopus californicus), sunflower sea star (Pycnopodia helianthoides), purple urchin (Strongylocentrotus purpuratus), red urchin (S. franciscanus), purple and orange starfish (Pisaster spp.), white plumed anemone (Metidium giganteum), and other anemone species (family Actiniidae) (Navy, 2016). Dungeness crab (Cancer magister), tanner crab
(Chionoecetes bairdi), spot shrimp (Pandalus platyceros), and coonstripe shrimp (Pandalus hynsinotus) are common marine invertebrates of the region (NRC, 1996). Tanner crabs are preyed on by spiny dogfish (Squalus acanthis) and Pacific halibut (Hippoglossus stenolepis) (Navy, 1991).

Spot shrimp and coonstripe shrimp are the two commercially harvested shrimp species in the region. These invertebrates feed on detritus and provide forage for a number of fish species. High concentrations of these shrimp species are found along the sides of fjord basins (USFS, 1984). Other less abundant shrimp in the SEAFAC area include sidestriped shrimp (Pandalopsis dispar) and pink shrimp (Pandalus borealis). Neither of these species are commercially harvested (Navy, 1991).

Shellfish

The gradual slope of the tidal zone at Back Island supports a diverse ecosystem of shellfish, including several scallops, clam, and mussel. The scallops present on shore are rock scallop (Hinnites multirugosus) and spiny pink scallop (Chlamys hastata hericia), along with the Alaska jingle clam (Pododesmus macrochisma) and the common blue mussel (Mytilus edulis) (Young et al, 1987; Navy, 2016). These shellfish are biological filters, cleaning nutrients and other impurities from local waters. Additionally, native shellfish beds increase water column clarity and facilitate nutrient cycling.

Forage Fish

Forage fish are species of fish that provide a food source for a wide array of other species. Pacific herring (Clupea pallasi), sand lance (Ammodites hexapterus), capelin (Mallotus villosus), eulachon (Thaleichthys pacificus), walleye pollock (Theragra chalcogramma), and surf smelt (Hypomesus pretiosus) are considered forage fish. Surf smelt and sand lance tend to spawn in sediment depositional beaches. As the name implies, the significance of forage fish is related to the critical part they play as the prey base for a large variety of other marine organisms, their popularity as recreational fishing bait, and their significance to commercial and subsistence fisheries. ADF&G documented that most beaches along Back Island are herring spawning grounds in early April to early May (Strand et al, 1986).

ADF&G manages Pacific herring on a long-term, sustainable yield basis and monitors the southeast Alaska Distinct Population Segment (DPS) as nine spawning habitats including: Sitka; Hoona Sound; Seymour Canal; Hobart-Houghton; Tenakee Inlet; Ernest Sound; West Behm Canal; Craig; and Lyn Canal.

Pelagic, Demersal, and Anadromous Fish

The marine waters of the Ketchikan area support all five Pacific salmon species—Chinook (Oncorhynchus tshawytscha), coho (O. kisutch), sockeye (O. nerka), pink (O. gorbuscha), and chum (O. keta) - all of which may utilize Behm Canal as a migratory pathway as juveniles (Navy, 2015). Enhancement efforts by several nearby hatcheries release coho fry into adjacent waterways, and fry released from Neets Bay are most likely to utilize Behm Canal for migratory passage. Neets Bay Hatchery produces summer and fall chum, and fall coho and Chinook salmon (Southern Southeast Regional Aquaculture Association, 2015). No spawning sites for these species have been reported in the vicinity of Back Island (Navy, 1987).

Other species of importance occurring in the western Behm Canal study area include additional salmonids, such as steelhead trout (O. mykiss), cutthroat trout (O. clarkii), and Dolly Varden (Salvelinus malma), Pacific halibut, lingcod, Pacific cod, greenling, herring, and several common species of rockfish (ADF&G, 2016b; ADF&G, 2016c).
Marine Mammals

The marine mammals most likely to be in the vicinity of Back Island and Behm Canal are harbor seals (*Phoca vitulina*), eastern stock Steller sea lion (*Eumetopias jubatus*), Alaska resident and west coast transient killer whale (*Orcinus Orca*), humpback whale (*Megaptera novaeangliae*), harbor porpoise (*Phocoena phocena*), and Dall’s porpoise (*Phocoenoides dalli*). The pinnipeds are year-round residents, while the killer whale and humpback whale are migratory and tend to be present from spring to fall, but can occur in the area year round. Dall’s porpoises do not truly migrate, but may have seasonal onshore-offshore movements. Researchers found Dall’s porpoises to be distributed through a southeast study area in Alaska with more sightings in spring and summer than in fall. (Dahlheim et al., 2009) Harbor porpoises do not make long migration trips, but occasionally travel to deeper water in the winter. Researchers found their distribution to be clumped in several southeast Alaska study areas with no evidence of seasonality. Other marine mammal species, such as northern fur seal, western DPS Steller sea lion, sperm whale and fin whale, have ranges that include Southeast Alaska but are rarely seen in the inland waters near Back Island (Navy, 2015).

Four federally-listed species could potentially occur in Behm Canal: fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*), sperm whale (*Physeter macrocephalus*), and Steller sea lion (*Eumetopias jubatus*). The fin whale is listed as depleted under the MMPA and endangered under the ESA. The Alaska/Northeast Pacific stock would be the most likely stock to be found in Behm Canal, but occurrence would be considered to be rare as deeper pelagic waters are typically utilized for preferred prey such as copepods, squid and small schooling fish. There is no critical habitat listing for fin whales.

In summer, relatively high densities of humpback whales occur throughout much of Southeast Alaska (Allen & Angliss, 2013; Allen & Angliss, 2014). This species makes extensive use of inland coastal waters and humpback whales are commonly sighted and heard within Behm Canal. Fourteen groups of humpback whales have been identified as distinct population segments, which are also considered depleted populations by NMFS. Only the Mexico and Hawaii populations have potential to occur within Behm Canal. The Mexico DPS is listed as threatened and the Hawaii DPS has been delisted. Though the majority of whales identified in Behm Canal are from the delisted Hawaii population, the Navy continues to manage all humpback whales within the area as a threatened species due to difficulty in differentiating between the two populations. Critical habitat has been proposed for humpback whales within Behm Canal, but the SEAFAC area has been excluded from proposed critical habitat based on an exclusion for national security (84 FR 54654).

Sea Turtles

Of the six sea turtle species that are found in U.S. waters or that nest on U.S. beaches, all are designated as either threatened or endangered under the ESA. Sea turtles are highly migratory and may utilize the waters of more than one country. USFWS and NOAA Fisheries share federal jurisdiction for sea turtles, with USFWS having lead responsibility on the nesting beaches and NOAA Fisheries, the marine environment. It would be unlikely to find sea turtles, such as the loggerhead sea turtles (*Caretta caretta*), leatherback turtles (*Dermochelys coriacea*), and olive ridley turtles (*Lepidochelys olivacea*), on Back Island and at the SEAFAC installation. Occurrence of marine turtles in inland waters is considered extralimital, that is, as visitors from outside of their normal ranges (Seminoff, 2016).
3.2.3 Environmental Consequences
This analysis focuses on wildlife or vegetation types that are important to the function of the ecosystem or are protected under federal or state law or statute.

3.2.3.1 No Action Alternative
Under the No Action Alternative, the Proposed Action would not occur and there would be no change to biological resources. Therefore, no significant impacts to biological resources would occur with implementation of the No Action Alternative.

3.2.3.2 Preferred Alternative
The Preferred Alternative would result in improvements to biological resources from more intensive invasive species control, enhanced data collection from surveys and biological resource management, and identifying potential mitigation sites. Three federal endangered whale species potentially occur in Behm Canal. Humpback whales are commonly sighted in Behm Canal. The general range for fin whales and sperm whales includes Behm Canal; however, their preferred foraging habitat is not present and they have not been recorded in Behm Canal. Critical habitat has been proposed for humpback whales within Behm Canal, but the SEAFAC area has been excluded from proposed critical habitat based on an exclusion for national security. Installation personnel would continue to manage habitats according to the INRMP, which is designed to protect and benefit threatened and endangered species. No significant impacts are expected to threatened and endangered species, or to other biological resources such as bird species protected under the MBTA, from the Preferred Alternative. Therefore, the analysis concludes that implementation of the Preferred Alternative would not result in a significant adverse impact to biological resources.

3.3 Summary of Potential Impacts to Resources and Impact Avoidance and Minimization
The Preferred Alternative and No Action Alternative would not adversely affect natural resources. Therefore, there would be no mitigation or impact avoidance and minimization measures under either alternative.
4 Cumulative Impacts

This section (1) defines cumulative impacts, (2) describes past, present, and reasonably foreseeable future actions relevant to cumulative impacts, (3) analyzes the incremental interaction the proposed action may have with other actions, and (4) evaluates cumulative impacts potentially resulting from these interactions.

4.1 Definition of Cumulative Impacts

The approach taken in the analysis of cumulative impacts follows the objectives of NEPA, CEQ regulations, and CEQ guidance. Cumulative impacts are defined in 40 CFR section 1508.7 as “the impact on the environment that results from the incremental impact of the action when added to the other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

To determine the scope of environmental impact analyses, agencies shall consider cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact analysis document.

In addition, CEQ and USEPA have published guidance addressing implementation of cumulative impact analyses—Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (CEQ 2005) and Consideration of Cumulative Impacts in EPA Review of NEPA Documents (USEPA 1999). CEQ guidance entitled Considering Cumulative Impacts Under NEPA (1997) states that cumulative impact analyses should

“...determine the magnitude and significance of the environmental consequences of the proposed action in the context of the cumulative impacts of other past, present, and future actions...identify significant cumulative impacts...[and]...focus on truly meaningful impacts.”

Cumulative impacts are most likely to arise when a relationship or synergism exists between a proposed action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in close proximity to the proposed action would be expected to have more potential for a relationship than those more geographically separated. Similarly, relatively concurrent actions would tend to offer a higher potential for cumulative impacts. To identify cumulative impacts, the analysis needs to address the following three fundamental questions.

- Does a relationship exist such that affected resource areas of the proposed action might interact with the affected resource areas of past, present, or reasonably foreseeable actions?
- If one or more of the affected resource areas of the proposed action and another action could be expected to interact, would the proposed action affect or be affected by impacts of the other action?
- If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

4.2 Scope of Cumulative Impacts Analysis

The scope of the cumulative impacts analysis involves both the geographic extent of the effects and the time frame in which the effects could be expected to occur. For this EA, the study area delimits the
geographic extent of the cumulative impacts analysis. In general, the study area will include those areas previously identified in Chapter 3 for the respective resource areas. The time frame for cumulative impacts centers on the timing of the proposed action.

Another factor influencing the scope of cumulative impacts analysis involves identifying other actions to consider. Beyond determining that the geographic scope and time frame for the actions interrelate to the proposed action, the analysis employs the measure of “reasonably foreseeable” to include or exclude other actions. For the purposes of this analysis, public documents prepared by federal, state, and local government agencies form the primary sources of information regarding reasonably foreseeable actions. Documents used to identify other actions include notices of intent for EISs and EAs, management plans, land use plans, and other planning related studies.

4.3 Past, Present, and Reasonably Foreseeable Actions

This section will focus on past, present, and reasonably foreseeable future projects at and near the Proposed Action locale. In determining which projects to include in the cumulative impacts analysis, a preliminary determination was made regarding the past, present, or reasonably foreseeable action. Specifically, using the first fundamental question included in Section 4.1, it was determined if a relationship exists such that the affected resource areas of the Proposed Action (included in this EA) might interact with the affected resource area of a past, present, or reasonably foreseeable action. If no such potential relationship exists, the project was not carried forward into the cumulative impacts analysis. In accordance with CEQ guidance (CEQ, 2005), these actions considered but excluded from further cumulative effects analysis are not catalogued here as the intent is to focus the analysis on the meaningful actions relevant to informed decision-making. Projects included in this cumulative impacts analysis are briefly described in the following subsections.

4.3.1 Past Actions

*Tongass National Forest Land and Resource Management.* Tongass National Forest extends over 16.7 million acres in Southeast Alaska and includes Back Island. Past actions within Tongass National Forest land and water areas include timber harvest and processing, commercial fishing and processing, recreation, tourism, and mining. USFS manages forest resources by administering a Forest Plan. An EIS was prepared to analyze the effects of Forest Plan projects and activities prior to implementation (USFS, 2016).

*SEAFAC Facility.* The Navy identified the need for an in-water acoustic measurement facility suitable for testing of submarines. That analysis identified Behm Canal as a suitable location, and an EIS was prepared to analyze the effects of construction, permitting, and operation of such a facility (Navy 1989). The SEAFAC Facility was constructed in 1991.

4.3.2 Present and Reasonably Foreseeable Actions

*SEAFAC Facility.* Ongoing operation of in-water acoustic measurement facility was evaluated in the 1989 EIS (Navy, 1989). Operation of the facility is ongoing.

*Northwest Training and Testing.* The Navy identified the need to support and conduct current, emerging, and future training and testing activities in the Northwest and has analyzed these activities in EISs (Navy, 2010; Navy, 2016). The action includes mission-related training and testing activities at SEAFAC. A supplemental EIS is currently in preparation to authorize this training to continue through the year 2027.
**Tongass National Forest Land and Resource Management.** The USFS implements a Forest Plan for management of the Tongass National Forest lands and resources (USFS, 2016). The plan provides for management of a sustainable timber program and allows timber harvest within designated portions of the National Forest and protects watersheds identified due to habitat value and conservation of fish species.

### 4.4 Cumulative Impact Analysis

Where feasible, the cumulative impacts were assessed using quantifiable data; however, for many of the resources included for analysis, quantifiable data is not available and a qualitative analysis was undertaken. In addition, where an analysis of potential environmental effects for future actions has not been completed, assumptions were made regarding cumulative impacts related to this EA where possible. The analytical methodology presented in Chapter 3, which was used to determine potential impacts to the various resources analyzed in this document, was also used to determine cumulative impacts. The following section describes the cumulative impacts to water and biological resources anticipated to result from the Preferred Alternative in combination with past, present, and reasonably foreseeable future actions.

#### 4.4.1 Water Resources

**4.4.1.1 Description of Geographic Study Area**

The Region of Influence (ROI) for water resources consists of the SEAFAC installation and in-water restricted use areas.

**4.4.1.2 Relevant Past, Present, and Future Actions**

Past, present and foreseeable actions that might interact with the affected resource areas of the Preferred Alternative consist of ongoing stormwater and sewage treatment operations at SEAFAC.

**4.4.1.3 Cumulative Impact Analysis**

Past stormwater modifications implemented at the time of facility construction have improved surface drainage, and channeled and directed water downslope. Mitigation measures, where appropriate, were taken at the time of the past actions. No future projects have been identified in the area that are likely to affect water resources. Therefore, implementation of the Proposed Action combined with past, present, and reasonably foreseeable future projects, would not result in significant impacts to water resources within the ROI.

#### 4.4.2 Biological Resources

**4.4.2.1 Description of Geographic Study Area**

The ROI for biological resources consists of the SEAFAC installation and in-water restricted use areas.

**4.4.2.2 Relevant Past, Present, and Future Actions**

Present and reasonably foreseeable actions that might interact with the affected resource areas of the Preferred Alternative consist of NWTT operations. No applicable past actions were identified.
4.4.2.3 Cumulative Impact Analysis

The Preferred Alternative, in combination with past, present, and future actions within the ROI is expected to result in a beneficial cumulative effect to biological resources. Present and reasonably foreseeable actions identified above may affect, but are not likely to adversely affect humpback whales (refer also to Navy, 2019b). Data collection from bald eagle nest surveys, pinniped and whale surveys would be expected to results in improved management capabilities for these species. No adverse effects from the Preferred Alternative would occur. Therefore, implementation of the Proposed Action combined with past, present, and reasonably foreseeable future projects, would not result in significant impacts to biological resources within the ROI.
5 Other Considerations Required by NEPA

5.1 Consistency with Other Federal, State, and Local Laws, Plans, Policies, and Regulations

In accordance with 40 CFR section 1502.16(c), analysis of environmental consequences shall include discussion of possible conflicts between the Proposed Action and the objectives of federal, regional, state and local land use plans, policies, and controls. Table 5-1 identifies the principal federal and state laws and regulations that are applicable to the Proposed Action, and describes briefly how compliance with these laws and regulations would be accomplished.

Table 5-1 Principal Federal and State Laws Applicable to the Proposed Action

<table>
<thead>
<tr>
<th>Federal, State, Local, and Regional Land Use Plans, Policies, and Controls</th>
<th>Status of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Environmental Policy Act (NEPA); CEQ NEPA implementing regulations; Navy procedures for Implementing NEPA</td>
<td>Preparation of this EA has been conducted in compliance with NEPA and in accordance with CEQ regulations and the Navy’s NEPA procedures.</td>
</tr>
<tr>
<td>Clean Air Act (CAA)</td>
<td>Back Island is in attainment of National Ambient Air Quality Standards. Adoption and implementation of the SEAFAC INRMP would not change air quality attainment status or conflict with attainment goals established by the State of Alaska. A CAA conformity determination is not required.</td>
</tr>
<tr>
<td>Clean Water Act (CWA); Rivers and Harbors Act</td>
<td>Adoption and implementation of the SEAFAC INRMP as a management tool under the Preferred Alternative would not require permits/authorizations under the CWA. If management actions may affect navigable waters and waters of the United States, the Navy would obtain any required CWA permits/authorizations, as applicable.</td>
</tr>
<tr>
<td>Coastal Zone Management Act (CZMA)</td>
<td>The Alaska Coastal Management Program ended in 2011 per state legislative action (AS 44.66.030). Alaska currently does not have an approved Coastal Management Program, and the Navy has no requirements to prepare and submit a consistency determination under the CZMA.</td>
</tr>
<tr>
<td>National Historic Preservation Act (NHPA)</td>
<td>Adoption and implementation of the SEAFAC INRMP would not constitute an undertaking under NHPA that would have an adverse effect on historic properties since it does not designate any specific activities at specific locations that can be evaluated or consulted for impacts. Thus consultation with the SHPO under the NHPA for the adoption of the INRMP is not required. As management decisions are made and project designs developed, the Navy would conduct any required consultations under the NHPA.</td>
</tr>
<tr>
<td>Endangered Species Act (ESA)</td>
<td>The Navy developed the INRMP cooperatively with USFWS and ADF&amp;G and determined the Proposed Action would not adversely affect any federally threatened, sensitive, or endangered species.</td>
</tr>
<tr>
<td>Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (MSFCMA)</td>
<td>Adoption and implementation of the SEAFAC INRMP would not adversely affect marine fisheries and may provide benefit under the MSFCMAs. As management decisions are made and project designs developed the Navy would conduct any required consultations under the MSFCMA.</td>
</tr>
<tr>
<td>Migratory Bird Treaty Act (MBTA)</td>
<td>Adoption and implementation of the SEAFAC INRMP would not adversely affect migratory birds and may provide benefit to migratory species.</td>
</tr>
</tbody>
</table>
Table 5-1  Principal Federal and State Laws Applicable to the Proposed Action

<table>
<thead>
<tr>
<th>Federal, State, Local, and Regional Land Use Plans, Policies, and Controls</th>
<th>Status of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bald and Golden Eagle Protection Act</td>
<td>Adoption and implementation of the SEAFAC INRMP would not adversely affect bald and golden eagles under the Bald and golden Eagle Protection Act. Additional monitoring afforded by the INRMP may provide a benefit.</td>
</tr>
<tr>
<td>Federal Insecticide, Fungicide, and Rodenticide Act</td>
<td>Adoption and implementation of the SEAFAC INRMP would benefit compliance and not adversely affect species or application of the Federal Insecticide, Fungicide and Rodenticide Act.</td>
</tr>
<tr>
<td>Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low income Populations</td>
<td>No disproportionately high or adverse impacts to minority and low income communities would be expected from adoption and implementation of the SEAFAC INRMP.</td>
</tr>
<tr>
<td>Executive Order 12088, Federal Compliance with Pollution Control Standards</td>
<td>EO 12088 requires federal facilities to comply with all applicable pollution control standards. Adoption and implementation of the SEAFAC INRMP would not adversely affect compliance with pollution control standards.</td>
</tr>
<tr>
<td>Executive Order 13175, Consultation and Coordination with Indian Tribal Governments</td>
<td>Adoption and implementation of the SEAFAC INRMP would not adversely affect sacred sites, burial sites, or other rights to natural resources. The Navy will provide the SEAFAC INRMP for review and comment to the Alaska Native entities identified above in the discussion of Cultural Resources in Section 3. The Navy invited local Native Alaska entities to initiate Government-to-Government consultation for the Proposed Action. No local Native Alaska entities initiated Government-to-Government consultation; therefore, Government-to-Government consultation is complete.</td>
</tr>
<tr>
<td>Alaska Hazardous Waste Regulations</td>
<td>Adoption and implementation of the SEAFAC INRMP would not adversely affect compliance with Alaska hazardous waste regulations.</td>
</tr>
</tbody>
</table>

5.2 Irreversible or Irretrievable Commitments of Resources

Resources that are irreversibly or irretrievably committed to a project are those that are used on a long-term or permanent basis. This includes the use of non-renewable resources such as metal and fuel, and natural or cultural resources. These resources are irretrievable in that they would be used for this project when they could have been used for other purposes. Human labor is also considered an irretrievable resource. Another impact that falls under this category is the unavoidable destruction of natural resources that could limit the range of potential uses of that particular environment.

Implementation of the Proposed Action would involve human labor; consumption of pesticides; and the consumption of fuel, oil, and lubricants for vehicles. Implementing the Proposed Action would not result in significant irreversible or irretrievable commitment of resources.

5.3 Unavoidable Adverse Impacts

This EA has determined that the alternatives considered would not result in any significant impacts.
5.4 Relationship between Short-Term Use of the Environment and Long-Term Productivity

NEPA requires an analysis of the relationship between a project’s short-term impacts on the environment and the effects that these impacts may have on the maintenance and enhancement of the long-term productivity of the affected environment. Impacts that narrow the range of beneficial uses of the environment are of particular concern. This refers to the possibility that choosing one development site reduces future flexibility in pursuing other options, or that using a parcel of land or other resources often eliminates the possibility of other uses at that site.

In the relationship between short-term use and long-term productivity, the Proposed Action would be beneficial. It would not adversely affect the long-term natural resource productivity of the area, significantly reduce environmental productivity, or permanently narrow the range of beneficial uses of the environment. Implementing the INRMP would enhance natural resource management at the SEAFAC installation, in keeping with the intent of the Sikes Act, and maintain the healthy condition of the SEAFAC environment over the long term.
This page intentionally left blank.
6 References


Harney, William. 2016. Interview with SEAFAC Site Director, Bill Harney with Stephanie Sleeman, NAVFAC NW Marine Biologist June 23, 2016 regarding the occurrence of humpback whales at the SEAFAC facility throughout the year.


References


This page intentionally left blank.
7 List of Preparers

U.S. Department of the Navy

Jessica Faragalli (Naval Facilities Engineering Command)
M.S. Geology
B.S. Geology
Years of Experience: 16

Benjamin Keasler (Naval Facilities Engineering Command)
B.S. Natural Resources Management
Years of Experience: 20+
This page intentionally left blank.