Draft Environmental Assessment

Aboveground Shore Power to Ammunition Wharf at Naval Magazine Indian Island, Port Hadlock, Washington

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Department of the Navy

Action Proponent:
Naval Magazine Indian Island

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Abstract

This Environmental Assessment (EA) evaluates the potential environmental impacts associated with the United States Department of the Navy's proposed action to construct a power distribution system on Naval Magazine Indian Island to provide permanent shore power for submarines berthed at the Ammunition Wharf. Two existing diesel-powered generators and supporting equipment would be removed. This EA analyzes the environmental effects on the human environment from the implementation of three action alternatives and the No Action Alternative. The analysis addresses potential direct and indirect impacts on biological resources, cultural resources, air quality, noise, and utilities, as well as cumulative impacts. There is no cooperating agency for this document.

EXECUTIVE SUMMARY

Proposed Action

The Navy proposes to construct a power distribution system on Naval Magazine (NAVMAG) Indian Island to provide permanent shore power for submarines berthed at the Ammunition Wharf. Two existing diesel-powered generators and supporting equipment would be removed.

Purpose of and Need for the Proposed Action

The purpose of the proposed action is to supply permanent shore-based power to submarines while they are berthed at the NAVMAG Indian Island Ammunition Wharf. The proposed action is needed because the Navy's Clean Air Act permit for the two existing diesel-powered generators was conditioned on their removal as the primary source of electricity at the Ammunition Wharf by September 30, 2016.

Existing Conditions

Indian Island is a 2,716-acre island on the northeast corner of the Olympic Peninsula. The entire island is owned by the Federal Government. Components of the proposed action would occur on and near the existing Ammunition Wharf at Walan Point and along existing dirt roads through forested and developed areas on the island. Indian Island's forests, wetlands, streams, and shorelines support numerous fish and wildlife species including several bald eagle nests. The island contains historic properties and significant archaeological sites.

Alternatives Considered

Alternatives were selected based upon the following selection criteria: provide a source of primary and emergency backup power; minimize regulatory limitations on power use during ordnance handling operations (such as permit conditions restricting operating hours to reduce air emissions); reduce reliance on non-renewable energy resources during ordnance handling operations; and avoid or reduce environmental impacts. The Navy is considering three action alternatives that meet the purpose and need for the proposed action and a No Action Alternative. The No Action Alternative would not meet the purpose and need of the proposed action, but is carried forward as a baseline for the analysis in this EA.

Under Alternative 1 (Preferred Alternative), the Navy would construct a new overhead loop electrical power distribution system on NAVMAG Indian Island and remove the existing leased temporary Mobile Utilities Support Equipment (MUSE) generator systems. Under Alternative 2, the Navy would install a new underground distribution line to create a loop electrical power distribution system on NAVMAG Indian Island and remove the existing MUSE generator system. Under Alternative 3, the Navy would purchase and install new permanent generators at the Ammunition Wharf. Under the No Action Alternative, the Navy would continue to operate the existing MUSE generator to provide power to submarines using the Ammunition Wharf until September 30, 2016. After September 30, 2016, the Ammunition Wharf would no longer provide power to submarines berthed at the Ammunition Wharf.

Summary of Environmental Resources Evaluated in the EA

Council on Environmental Quality regulations, National Environmental Policy Act (NEPA), and Navy instructions for implementing NEPA, 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 have been analyzed in this EA: biological resources, cultural resources, air quality, noise, and utilities. Because potential impacts were considered to be negligible or nonexistent, the following resources were not evaluated in this EA: geologic resources, water resources, including wetlands, American Indian traditional resources, socioeconomics, environmental justice, land use and coastal zone, transportation/traffic, public health and safety, and visual resources/aesthetics.

Summary of Potential Environmental Consequences of the Action Alternatives

Biological Resources. Under Alternative 1, utility poles would be configured in accordance with Avian Protection Plan Guidelines (APLIC and USFWS 2005) to avoid bird electrocution. Installation of new utility poles and a new overhead distribution line would require vegetation clearing and maintenance along the new distribution line route. Distribution lines would parallel existing roadways and utility corridors to minimize the number of trees to be removed. Approximately 11.4 acres of third-growth forest would be converted to grasses and other low-growing species. One potential marbled murrelet nesting platform tree adjacent to the proposed distribution line would be outside of the proposed tree clearing limits and not affected by the proposed action. Under Alternative 1 or Alternative 2, a portion of the new distribution line would be located near a documented bald eagle nest territory. Construction within the secondary nest buffer zone would occur between late September and early October (outside the bald eagle nesting season), after a Navy wildlife biologist verifies that the adult pair of bald eagles is not present and the nest is inactive. Where the distribution line would cross high value habitat within a riparian wetland corridor, the distribution line would be installed underground within an existing roadbed to avoid impacts to vegetation in the wetland and its buffer. Under Alternative 2, approximately two acres of third-growth forest would be cleared to install underground distribution lines. Under Alternative 3, no vegetation or habitat would be removed. Installation and operation of four replacement generators is expected to produce more noise than the existing two generators, which could result in temporary disturbance to bird and wildlife species within the adjacent marine waters and wetlands. Under the No Action Alternative, no vegetation or habitat would be removed. Operation of the two existing MUSE generators would continue until September 30, 2016, after that date the generators would be removed and temporary noise disturbance due to generator noise would cease. By including measures to avoid impacts to birds and wetlands, there would be no significant impacts to biological resources from any of the alternatives.

Cultural Resources. The area of potential effects (APE) for Alternatives 1 and 2 is the new distribution line and 30 meters on each side. Three cultural resources have been identified within the APE: Walan Point is an archaeological site, and Buildings 69 and 84 have been determined eligible for listing on the National Register of Historic Places. Under Alternative 1, new utility poles and overhead distribution lines would result in a minimal visual intrusion to the administrative and industrial setting of Buildings 69 and 84. None of the alternatives (including the No Action Alternative) would alter Buildings 69 or 84. The Navy has determined there would be no adverse effect on these historic properties under any of the alternatives. Construction of Alternative 1 or Alternative 2 would include excavation at Walan Point. Based on a review of NAVMAG Indian Island construction plans for past projects at Walan Point, the average depth of fill over the known archaeological site is 5 feet. To avoid disturbance to any intact archaeological materials located under existing fill at Walan Point, excavation depth would not exceed 3 feet. In addition, all excavations at Walan Point would be monitored by a qualified archaeologist. Outside of Walan Point, any ground disturbing activity outside of previously surveyed areas would be monitored by a qualified archaeologist. Under Alternative 3 and the No Action Alternative, there would be no potential to effect cultural resources because no ground disturbance would occur and no new facilities would be constructed adjacent to any

historic structures. With implementation of depth restrictions and archaeological monitoring, there would be no significant impacts to cultural properties from any of the alternatives.

Air Quality. Construction equipment operation would result in short-term increases in levels of NO_2, CO, SO_2, particulate matter, and volatile organic compounds. Construction measures such as dust control and other fugitive emissions control measures would be implemented. The existing MUSE generators are the largest source of air contaminant emissions at NAVMAG Indian Island. Removal of the generators under Alternative 1 or Alternative 2 would result in a significant reduction in regulated air pollutant emissions from NAVMAG Indian Island. Under Alternative 3, the Navy would install and operate replacement generators that would comply with current requirements, which would reduce air pollutant emissions. Under the No Action Alternative, temporary air emissions from the existing generators would continue until September 30, 2016. After that date, no generator-produced air emissions would occur. There would be no significant air quality impacts from construction and operation of any of the alternatives.

Noise. Airborne noise from construction of any of the alternatives would not exceed state and local noise thresholds of 60 dBA (daytime) and 50 dBA (night) at the nearest residence 1.5 miles away. Under Alternative 1 or Alternative 2, overall noise reduction would occur with the removal of an existing source of temporary airborne noise, the two existing generators at the Ammunition Wharf. Under Alternative 3, the four replacement generators would likely produce greater noise than the existing two generators. However, noise levels at the nearest residence would not exceed state and local noise thresholds. Under the No Action Alternative, temporary noise from the existing generators would continue until September 30, 2016. After that date, no generator-produced noise would occur. Operation and maintenance of all alternatives would involve vehicles and equipment typical of existing operations at NAVMAG Indian Island and would not include any new or expanded permanent sources of airborne noise. There would be no significant noise impacts from construction and operation of any of the alternatives.

Utilities. The existing overhead distribution line from the Jefferson County Public Utility District to NAVMAG Indian Island has the capacity to support the anticipated electrical load needed to power submarines berthed at the Ammunition Wharf. Under Alternative 1 or Alternative 2, utility demand would not exceed the capacity of the existing system, and there would be no significant impact to utilities. Under Alternative 3, the Navy would remove the existing two generators and install replacement generators to power submarines berthed at the Ammunition Wharf. Under Alternative 4, the Navy would continue to operate the existing generators until September 30, 2016. After that date, the Navy would remove two existing diesel-powered generators and the Navy would no longer provide power to submarines berthed at the Ammunition Wharf. Under both Alternative 3 and the No Action Alternative, NAVMAG Indian Island would continue to receive electrical service from Jefferson County Public Utility District to support the Ammunition Wharf itself and the remainder of NAVMAG Indian Island. There would be no significant utility impacts from construction and operation of any of the alternatives.

Public Involvement

The Navy has made the Draft EA available for public review and comment. Comments received during the public review period will be considered in the preparation of the Final EA. The Final EA and decision document will be made available to the public. The Notice of Availability will be posted in the local newspaper, and the Final EA and decision document will be posted at http://go.usa.gov/tAr4.

Conclusion

Implementation of any of the alternatives would not result in significant impacts to any resource area when considered individually or cumulatively in the context of NEPA, including both direct and indirect impacts. Implementation of the proposed action would not constitute a "major Federal action significantly affecting the quality of the human environment." Therefore, this EA supports a Finding of No Significant Impact for the proposed action and the preparation of an Environmental Impact Statement is not warranted or required.

DRAFT ENVIRONMENTAL ASSESSMENT
ABOVEGROUND SHORE POWER TO AMMUNITION WHARF
AT NAVAL MAGAZINE INDIAN ISLAND, PORT HADLOCK, WASHINGTON

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Abbreviations and Acronyms

APE	area of potential effect
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2-e	CO_2-equivalent
CZMA	Coastal Zone Management Act
DAHP	Washington State Department of Archaeology and Historic Preservation
dBA	A-weighted decibels
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
GHGs	greenhouse gases
grams/hp-hour	grams per horsepower hour
HAPs	hazardous air pollutants
HDPE	high-density polyethylene
HFCs	hydrofluorocarbons
kV	kilovolt
MBTA	Migratory Bird Treaty Act
MUSE	Mobile Utilities Support Equipment
MVA	Megavolt-ampere
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAVMAG	Naval Magazine
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
N_2O	nitrous oxide
NO_2	nitrogen dioxide
NOC	Notice of Construction
NRHP	National Register of Historic Places
OPNAVINST	Chief of Naval Operations Instruction
ORCAA	Olympic Region Clean Air Agency
PFCs	perfluorocarbons
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppm	parts per million

ROI	Region of Influence
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VOCs	volatile organic compounds
WAC	Washington Administrative Code
WDOE	Washington State Department of Ecology
WSDOT	Washington State Department of Transportation

1.0 Purpose of and Need for the Proposed Action

1.1 Introduction

The United States (U.S.) Department of the Navy (Navy) has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code [USC] §4321-4370h), as implemented by the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508); Navy regulations implementing NEPA (32 CFR Part 775); and Chief of Naval Operations Instruction (OPNAVINST) 5090.1D, *Environmental Readiness Program*.

The Navy proposes to construct a power distribution system on Naval Magazine Indian Island to provide permanent shore power for submarines berthed at the Ammunition Wharf. Two existing diesel-powered generators and supporting equipment would be removed.

1.2 Location

Indian Island is a 2,716-acre island on the northeast corner of the Olympic Peninsula (Figure 1-1). The entire island is owned by the Federal Government and operates as Naval Magazine (NAVMAG) Indian Island. The island's southern border is leased to Washington State for State Route 116 and the Indian Island County Park (Figure 1-2). Nearby residential communities include Marrowstone Island to the east, Port Hadlock to the west, and the City of Port Townsend, approximately 2.5 miles to the north-northwest.

NAVMAG Indian Island's mission is to provide ordnance logistics support to the Pacific Fleet and the joint services in peace and war. In 1941, the Navy commissioned the Naval Magazine and Net Depot on Indian Island and used the facility for the storage of Navy munitions and assembly of mines and submarine nets. The island was placed in a reduced operating status in 1959 and reactivated in 1979 when munitions storage and handling facilities at Bangor were moved to Indian Island. The Ammunition Wharf at NAVMAG Indian Island was constructed on Walan Point in 1979.

After the Persian Gulf War, NAVMAG Indian Island was selected as one of two West Coast ports to be upgraded for the shipment of containerized ammunition. Several infrastructure improvements were made, including construction of a rail-to-truck transfer facility in Naval Base Kitsap Bangor, and installation of the container crane and rail system at NAVMAG Indian Island's Ammunition Wharf in 2000.

NAVMAG Indian Island includes ordnance storage magazines, a munitions handling wharf, ordnance support facilities, port operations facility, fire department, security buildings, small craft pier, administrative offices, a fitness center, and a small store. There are no housing or barracks facilities on base and no permanent residents. NAVMAG Indian Island has approximately 180 permanent employees and supports three Navy reserve detachments.

1.3 Background

The existing Ammunition Wharf at NAVMAG Indian Island includes electrical infrastructure to support buildings and lights located on the wharf, but it was not built to supply power to ships or submarines that are berthed (tied up to it). Berthed ships are powered by generators on-board each ship.

From 1997 to 2007, the Navy's submarine fleet expanded to include submarines that carry ordnance stored at NAVMAG Indian Island. These submarines are berthed at the Ammunition Wharf when ordnance is loaded and/or removed from the submarine. Although these submarines are capable of generating on-board power, Navy submarines are connected to

shore-based power systems during berthing to ensure public safety and to reduce wear on submarine systems.

Beginning in 2007, submarines using the Ammunition Wharf received power from three leased Mobile Utilities Support Equipment (MUSE) diesel-powered generators located on the shore adjacent to the Ammunition Wharf. The Navy analyzed environmental effects of these generators in *Environmental Assessment, Ammunition Wharf Electrical Upgrade and Small Craft Pier Extension (P-349)* (Navy 2005). In 2012, the Navy replaced the three original MUSE generators with the two MUSE generators that are currently in operation. The MUSE generator system includes a fuel tank and generator support trailer on shore and an electrical substation on the Ammunition Wharf (Figure 1-3).

1.4 Purpose of and Need for the Proposed Action

The purpose of the proposed action is to supply permanent shore-based power to submarines while they are berthed at the NAVMAG Indian Island Ammunition Wharf. The proposed action is needed because the Navy's Synthetic Minor Permit under Title V of the 1990 Federal Clean Air Act Amendments for the two existing diesel-powered generators was conditioned on their removal as the primary source of shore power at the Ammunition Wharf by September 30, 2016.

1.5 Scope of Environmental Analysis

This EA includes an analysis of potential environmental impacts associated with the proposed action. The environmental resource areas analyzed in this EA include: biological resources, cultural resources, air quality, noise, and utilities.

Because potential impacts were considered to be negligible or nonexistent, the following resources were not evaluated in this EA:

Geologic Resources. Under Alternative 1 or Alternative 2, the proposed action would require ground disturbance during installation of utility poles and underground portions of the new distribution line. Underground distribution lines would be installed in previously disturbed areas, in existing roads, or under an existing parking lot. Utility poles would be installed adjacent to existing roads. Erosion control measures such as diversion ditches, benches, berms, silt fences, straw bales, vegetation, and mulch would be employed to prevent impacts during excavation and trenching. All disturbed ground would be restored to existing conditions after construction. Alternative 3 and the No Action Alternative would not require ground disturbance. Therefore, impacts to geological resources would be negligible.

Water Resources, including Wetlands. Under Alternative 1, wood poles and crossarms would be pressure treated and soils around the base of new poles would be treated with a termiticide. However, poles will not be located within wetlands or marine waters. The proposed new distribution line under Alternative 1 or 2 would cross a riparian wetland corridor and buffer. Under Alternative 1 or Alternative 2, this segment of new distribution line would be buried within an existing roadbed where it crosses the riparian wetland corridor and buffer, avoiding all impacts to wetlands. Alternatives 1 and 2 would include attaching new distribution lines under the Ammunition Wharf; this work would not impact aquatic resources. Under Alternative 3 and the No Action Alternative, the Navy would continue to operate diesel-powered generators and a fuel tank on the shoreline at the Ammunition Wharf and the Navy would continue to employ spill prevention measures to prevent accidental releases into adjacent marine waters and wetlands. Therefore, impacts to water resources and wetlands would be negligible.

American Indian Traditional Resources. The waters adjacent to NAVMAG Indian Island are within the Usual and Accustomed fishing grounds and stations of the Port Gamble S'Klallam

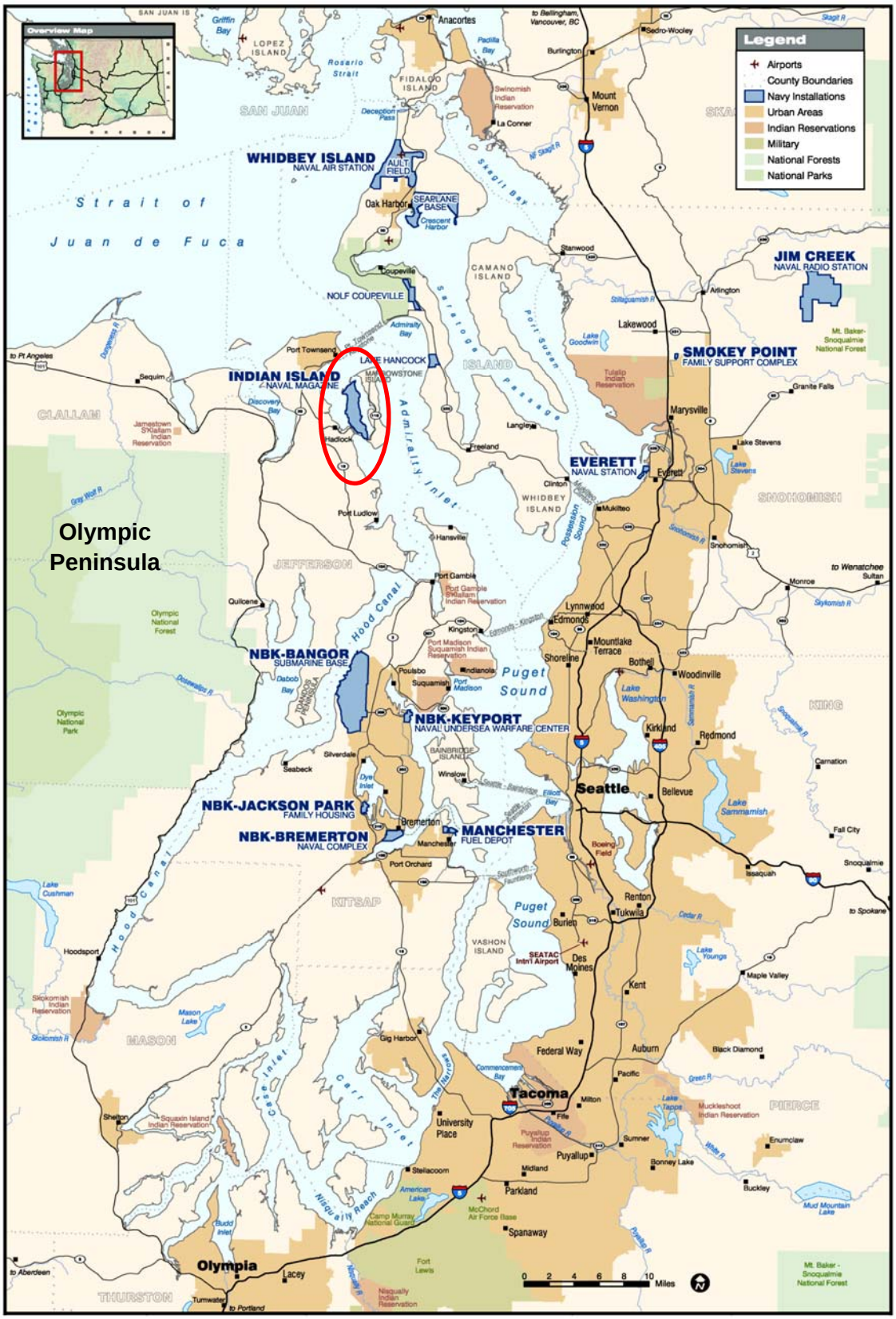

Figure 1-1. Location Map

Figure 1-2. Project location map

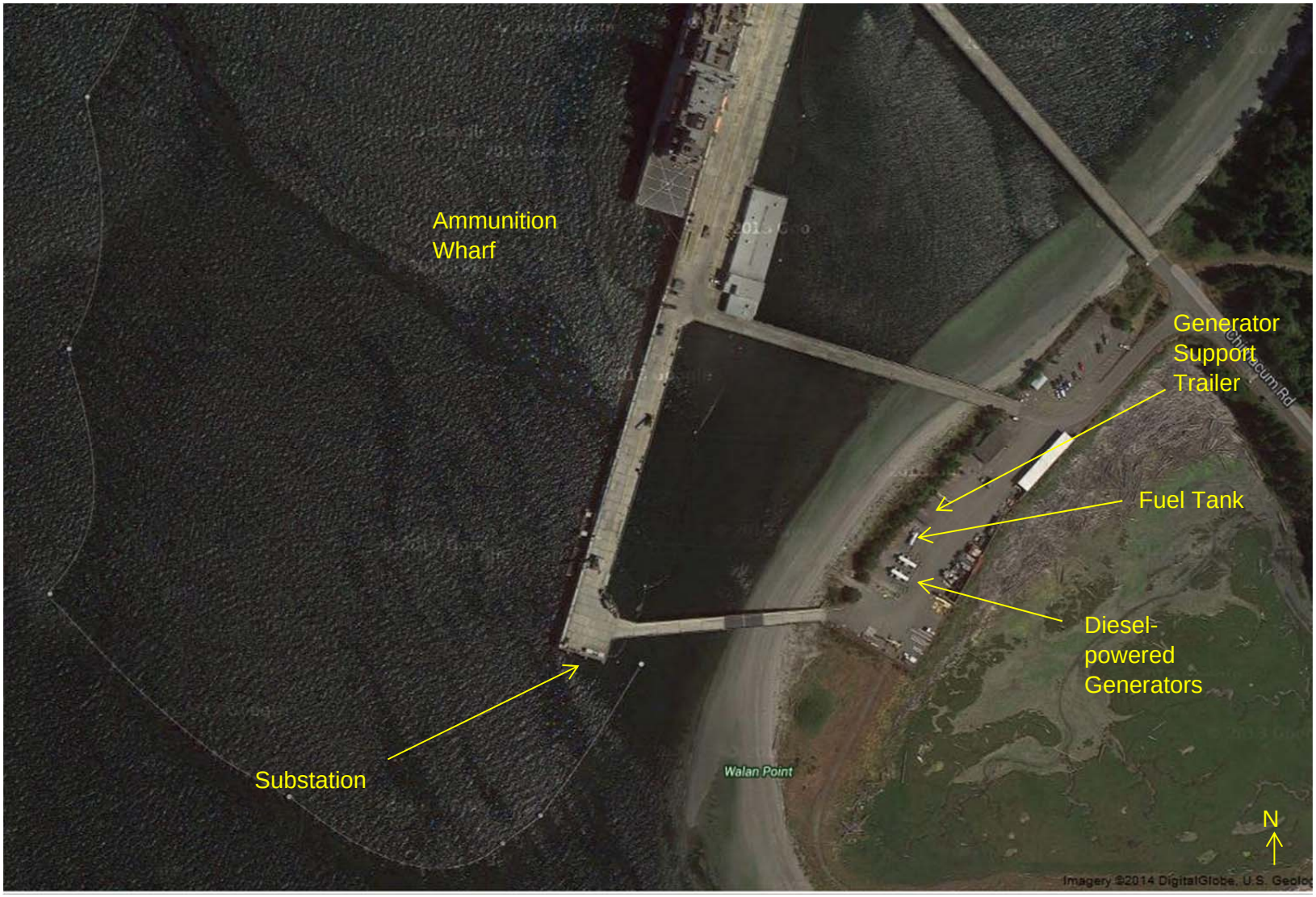

Figure 1-3. Existing MUSE System, NAVMAG Indian Island Ammunition Wharf

Tribe, Jamestown S'Klallam Tribe, Lower Elwha Klallam Tribe, and Suquamish Tribe. This action would have no effect to traditional resources because it would not change any tribe's access to exercise tribal treaty rights and it would not reduce or degrade harvestable marine resources.

Socioeconomics. The proposed action would be constructed by Navy contractors. Construction of Alternative 1 or Alternative 2 would involve a maximum of 30 office and field personnel for up to 16 months to install a new distribution line between the main gate and the Ammunition Wharf. Since neither Alternative 3 nor the No Action Alternative would include construction of a distribution line, the personnel and time required to implement either of these alternatives would be less than Alternative 1 or Alternative 2. Due to the limited scale of the proposed action and the short construction duration, implementation of any of the alternatives, including the No Action alternative,,would have a negligible impact to the economic baseline of employment at NAVMAG Indian Island and Jefferson County.

Environmental Justice. No adverse human health or environmental effects are anticipated on or off the installation and therefore there would be no disproportionately high and adverse effect on low-income or minority communities. Implementation of any of the alternatives, including the No Action alternative, would occur entirely within the boundaries of NAVMAG Indian Island. The nearest residential area to the proposed action is located approximately 1.5 miles west at Kala Point, a community in Jefferson County. Short-term construction noise and air emissions are not expected to impact any residents.

Land Use and Coastal Zone. Land use at NAVMAG Indian Island would not change with installation and operation of permanent shore power at the Ammunition Wharf under Alternative1 or Alternative 2, replacement of existing generators under Alternative 3, or removal of existing generators under the No Action Alternative. Since all of NAVMAG Indian Island is federally owned, the installation is not within the coastal zone as defined in the Coastal Zone Management Act (16 USC 1451 *et seq*) and no effects of the proposed action would extend into the coastal zone. Therefore, there would be no effect to land use or the coastal zone.

Transportation/Traffic. Construction of a new distribution line would result in additional vehicle traffic into and out of NAVMAG Indian Island during the construction period. The number of construction workers would vary depending on construction phase, but is expected to be no more than 5 office and 25 field personnel. The existing roads and main gate would accommodate construction vehicular traffic with negligible impacts. Alternative 3 and the No Action Alternative would involve periodic filling of the on-shore fuel tank using fuel trucks, similar to existing conditions. There would be no marine traffic associated with any of the alternatives. Therefore, no change and no effect to vehicle or marine traffic would occur as a result of any of the alternatives.

Public Health and Safety. Construction of a new power distribution line under Alternative 1 or Alternative 2 would occur entirely within the boundaries of NAVMAG Indian Island, which is restricted from public access. The proposed action would not change ordnance handling operations at the Ammunition Wharf. Under Alternative 3 and the No Action Alternative, the Navy would operate diesel-powered generators and a fuel tank on the shoreline at the Ammunition Wharf and the Navy would continue to employ spill prevention measures to prevent accidental releases into adjacent marine waters and wetlands. NAVMAG Indian Island contains no housing, schools, or daycare centers. The proposed action would not result in any adverse environmental health risks or safety risks to children. Therefore, no impacts to public health and safety are anticipated.

Visual Resources/Aesthetics. Although the Ammunition Wharf is visible from residences and businesses across Port Townsend Bay, the existing generator system, substation, and paved

area are inland from the Ammunition Wharf and not readily visible from locations off-base (Figure 1-3). Due to existing forest and vegetation, new utility poles and new overhead distribution lines constructed under Alternative 1 would not be visible from outside of the installation. Addition of new distribution lines under the Ammunition Wharf (Alternatives 1 or 2), replacement of the existing substation (Alternatives 1 or 2), replacement of the existing generators (Alternative 3), or removal of the existing generators (No Action Alternative) would be negligible changes to the viewscape, since these components would be under or behind the Ammunition Wharf. The existing visual character would remain a military working waterfront. Therefore, negligible effects to visual resources are anticipated with any of the alternatives.

1.6 Relevant Laws and Regulations

In addition to NEPA, CEQ, and Navy regulations, the Navy has prepared this EA integrating other federal and state laws, statutes, regulations, and policies that are relevant to the implementation of the proposed action including, but not limited to the following:

- Clean Air Act (CAA) (42 USC 7401 *et seq*.);
- 40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- WAC 173-400-110, New source review (NSR) for sources and portable sources
- Olympic Region Clean Air Agency (ORCAA) Regulation 6, Required Permits
- Coastal Zone Management Act (CZMA) (16 USC 1451 *et seq*.)
- National Historic Preservation Act (NHPA) (54 USC 306108 *et seq*.)
- Native American Graves Protection and Repatriation Act (NAGPRA)
- Endangered Species Act (ESA) (16 USC 1531 *et seq*.)
- Migratory Bird Treaty Act (MBTA) (16 USC 703-712)
- Bald and Golden Eagle Protection Act (16 USC 668-668d)
- EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-income Populations*
- EO 13045, *Protection of Children From Environmental Health Risks and Safety Risks*
- EO 13148, *Greening the Government through Leadership in Environmental Management*
- EO 13175, *Consultation and Coordination with Indian Tribal Governments*
- EO 13693, *Planning for Sustainability in the Next Decade*

A description of the proposed action's consistency with these policies and regulations, as well as regulatory agencies responsible for their implementation, is presented in Chapter 5.0 (Table 5-1).

1.7 Public Involvement

The Navy has made the Draft EA available for public review and comment. Comments received during the public review period will be considered in the preparation of the Final EA. The Final EA and decision document will be made available to the public. The Notice of Availability (NOA) will be posted in the local newspaper and the Final EA and decision document will be posted at http://go.usa.gov/tAr4.

2.0 Proposed Action and Alternatives

2.1 Proposed Action

The Navy proposes to construct a power distribution system on NAVMAG Indian Island to provide permanent shore power for submarines berthed at the Ammunition Wharf. Two existing diesel-powered generators and supporting equipment would be removed.

2.2 Selection Criteria

NEPA's implementing regulations provide guidance on the consideration of alternatives to a federally proposed action and require rigorous exploration and objective evaluation of reasonable alternatives. Only those alternatives determined to be reasonable require detailed analysis. Potential alternatives that meet the purpose and need were evaluated against the following selection criteria:

- Provide source of primary and emergency backup power
- Minimize regulatory limitations on power use during ordnance handling operations (e.g., permit conditions restricting operating times to reduce air emissions)
- Reduce reliance on non-renewable energy resources during ordnance handling operations
- Avoid or reduce environmental impacts

2.3 Alternatives Considered but Eliminated from Detailed Study

The Navy considered three alternatives that were eliminated from detailed study.

2.3.1 Perform Ordnance Handling Operations at Other Location(s)

There are four existing facilities in the Northwest region where the Navy can load and remove ordnance from submarines: the Ammunition Wharf at NAVMAG Indian Island and three facilities at Naval Base Kitsap, Bangor (Bangor): Marginal Wharf, Explosives Handling Wharf 1, and the future Explosives Handling Wharf 2. Although the wharves at Bangor may be used as backup explosives handling facilities for the submarines served by NAVMAG Indian Island's Ammunition Wharf, they cannot serve as primary ordnance handling facilities due to the TRIDENT submarine schedule at Bangor. In addition, the ordnance handled at NAVMAG Indian Island's Ammunition Wharf is stored and maintained at Indian Island, not at Bangor. Therefore, this alternative was eliminated from detailed study.

2.3.2 Use On-Board Submarine Power

Navy submarines are capable of generating on-board power while berthed. However, Navy submarines are connected to shore-based power systems during berthing at NAVMAG Indian Island to ensure public safety while handling ordnance and to reduce wear on submarine systems. Therefore, this alternative was eliminated from detailed study.

2.3.3 Alternative Distribution Alignments on NAVMAG Indian Island

The Navy considered installing a new distribution line on the opposite side of the road from the existing overhead distribution line. However, circumstances (e.g., high wind events) that would interrupt the main distribution line would likely also interrupt a distribution line located adjacent to it. Therefore, this alignment was eliminated from detailed study because it would not provide an emergency backup power source due to its proximity to the main distribution line.

The Navy considered alternative alignments on NAVMAG Indian Island for the new overhead distribution lines. These alternative alignments would have similar effects as the Preferred

Alternative. Therefore, other alternative alignments were not carried forward for analysis in this EA.

2.4 Alternatives Carried Forward for Analysis

Based on the site selection criteria, three action alternatives were found to meet the selection criteria.

2.4.1 Alternative 1: Overhead Loop Power Distribution System (Preferred Alternative)

Under Alternative 1 (Preferred Alternative), the Navy would construct an overhead loop electrical power distribution system on NAVMAG Indian Island (Figure 2-1) and remove the existing Mobile Utilities Support Equipment (MUSE) generator systems (Figure 1-3). Components of the Preferred Alternative include: installing new wood utility poles, installation of approximately 200 feet of new gravel access road, re-routing of four 60-foot segments of an existing gravel access road, installing new 12.5 kilovolt (kV) overhead distribution lines; installing up to 6 new handholes (shallow reinforced holes that provide access to underground ducts); attaching new distribution lines under the Ammunition Wharf; replacing the existing Ammunition Wharf substation; and removing two existing leased generators, a fuel tank, and a generator support trailer. Table 2-1 includes details about each component. Construction of the Overhead Loop Power Distribution System would take approximately 16 months. The majority of construction is expected to occur between 7:00 A.M. and 5:00 P.M., Monday through Friday, although some work may be performed outside these hours or on weekends if required.

After construction is completed, operation and maintenance of the distribution lines would involve periodic inspection and repair of the system as needed. To reduce outages and damage during high wind events, the Navy would periodically remove vegetation within 16 feet of the road shoulder or curb where the overhead distribution line parallels roadways, and within 20 feet on either side of overhead distribution lines through forested areas.

2.4.2 Alternative 2: Underground Loop Power Distribution System

Under Alternative 2, the Navy would install a new underground distribution line to create a loop electrical power distribution system on NAVMAG Indian Island, and remove the existing Mobile Utilities Support Equipment (MUSE) generator system. The new underground distribution line would follow the same alignment as Alternative 1 (Figure 2-2). Components of Alternative 2 include removing vegetation, trenching, and installing new underground 12.5 kV distribution lines; installing up to 6 new handholes; attaching new distribution lines under the Ammunition Wharf; replacing the existing Ammunition Wharf substation; and removing two existing leased generators, a fuel tank, and a generator support trailer. Table 2-1 shows details about each component. Construction of the Underground Loop Power Distribution System would take approximately 16 months. The majority of construction is expected to occur between 7:00 A.M. and 5:00 P.M., Monday through Friday, although some work may be performed outside these hours or on weekends if required. The cost of construction of Alternative 2 would be approximately 50 percent higher than Alternative 1.

After construction is completed, operation and maintenance of the distribution lines would involve periodic inspection and repair of the system as needed. An underground distribution line would not be susceptible to damage from high wind events and no routine vegetation removal would be required under Alternative 2.

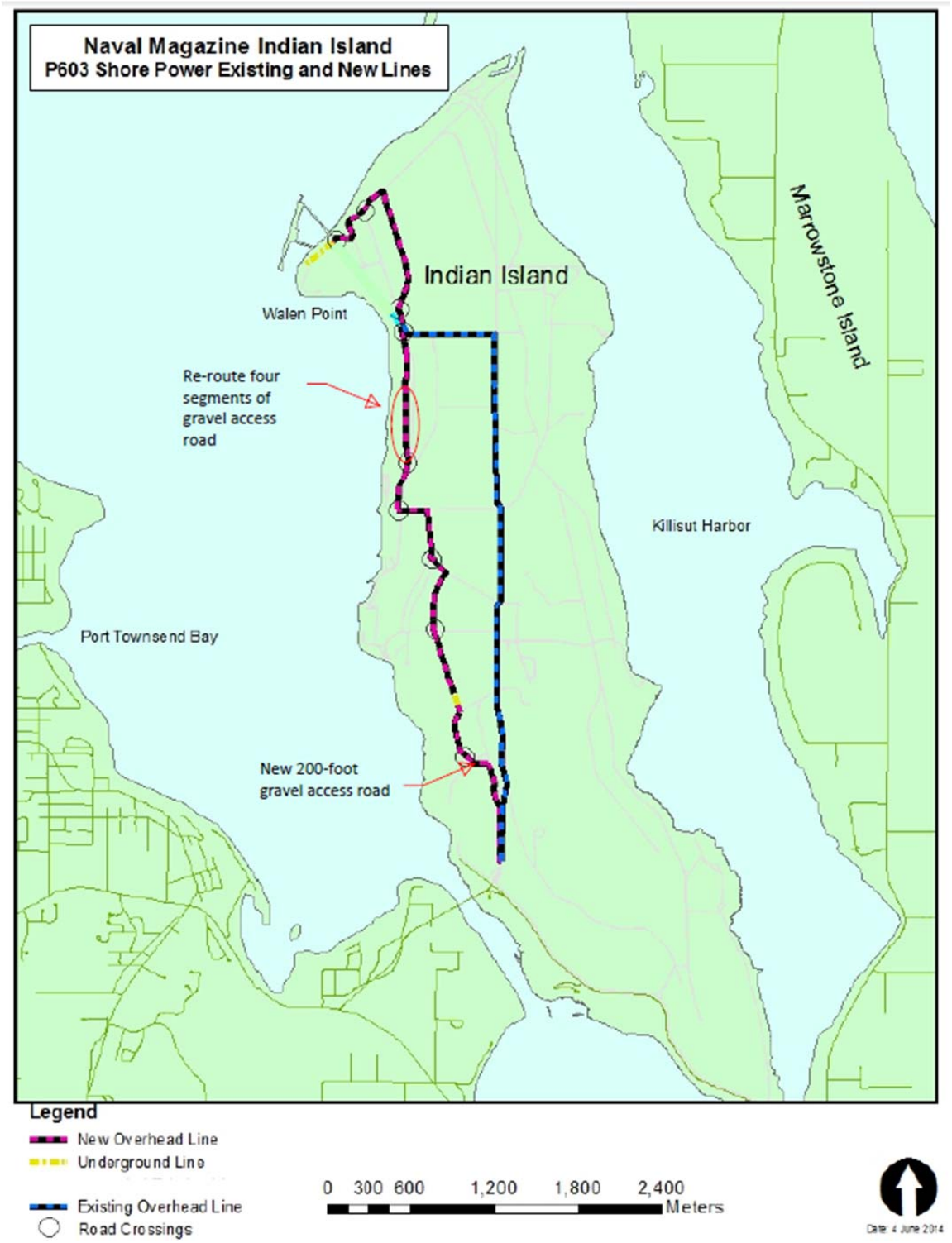

Figure 2-1. Alternative 1, Overhead Loop Power Distribution System

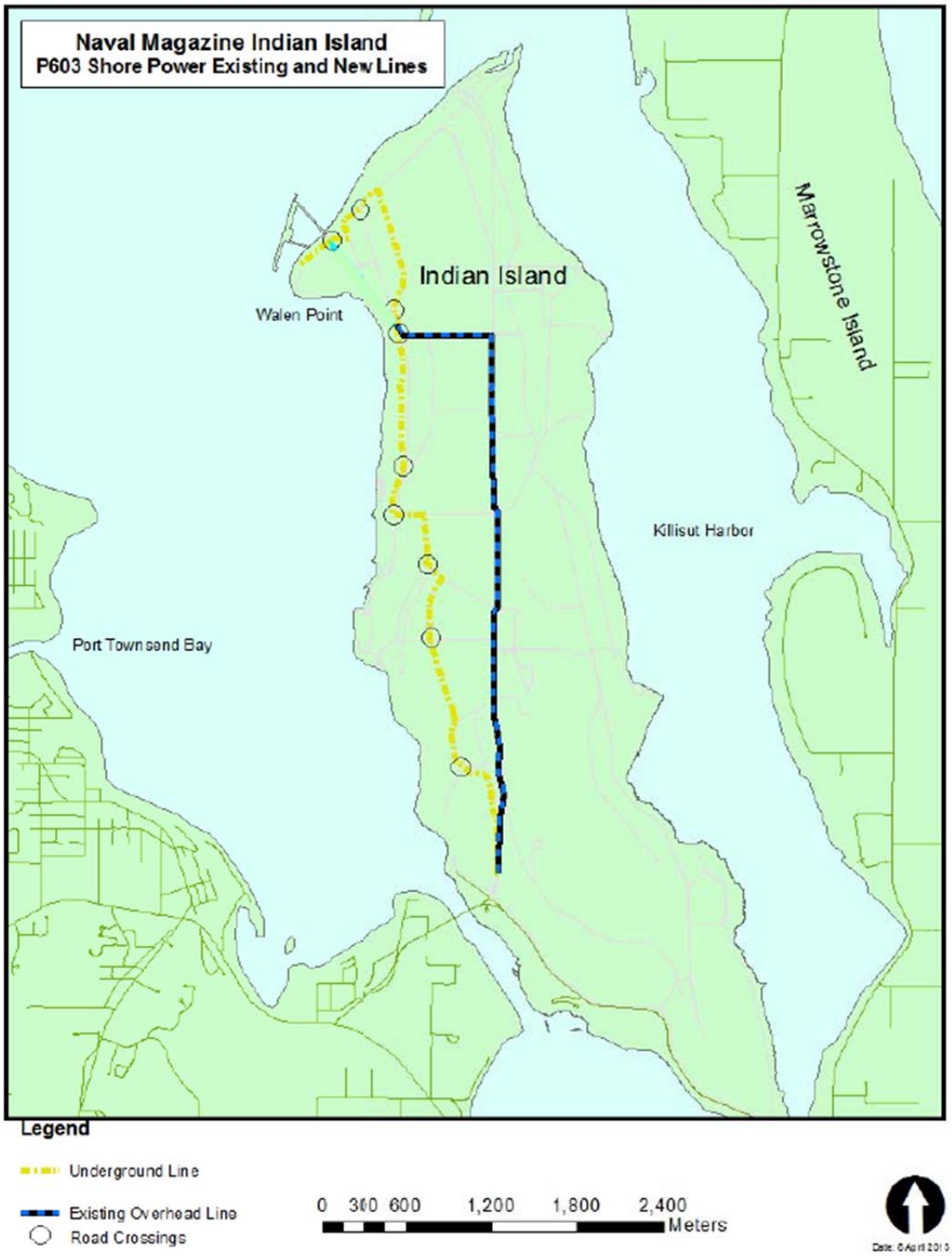

Figure 2-2. Alternative 2, Underground Loop Power Distribution System

Table 2-1. Components of Alternatives 1 and 2

Component	Alternative 1, Overhead Loop Power Distribution System (Preferred Alternative)	Alternative 2, Underground Loop Power Distribution System
New overhead distribution line from main gate to utility pole #97	Install approximately 18,000 linear feet of new 12.5 kV distribution lines along existing roads and trails (Figure 2-1). The new distribution line would be installed overhead, except: • At the Fort Road riparian wetland corridor crossing, install approximately 350 feet of distribution line underground within the existing roadbed. Install distribution line in a 5" high-density polyethylene (HDPE) conduit above the existing culvert by trenching within the road prism. Construct a handhole at each end of buried line. Restore road surface to existing conditions after construction. • Where distribution line crosses roads, install new distribution line at least 37 feet above road surface.	Trench and install approximately 18,000 linear feet of new underground 12.5 kV distribution lines along existing roads and trails (Figure 2-2). • At Fort Road stream crossing, install approximately 350 feet of distribution line in a 5" high-density polyethylene (HDPE) conduit above the existing culvert by trenching within the road prism. • Restore road surfaces to existing conditions after construction.
New wood utility poles	• Install approximately 130 new utility poles, 35-50 foot tall, buried up to 7 feet. • Wood poles would be pressure treated. Soil within 6 inches of the base of the pole would be treated with a termiticide solution. • Utility poles spaced between 50 and 200 feet apart, depending on topography and line of sight. • Where power distribution line changes direction, utility poles would be attached to guy wires anchored into the ground using steel screw anchors. • Where needed, approximately 20 additional support poles would be installed and guy wires attached between the utility poles to straighten and maintain the utility pole in a vertical position.	No new utility poles proposed.

Component	Alternative 1, Overhead Loop Power Distribution System (Preferred Alternative)	Alternative 2, Underground Loop Power Distribution System
Gravel Access Roads	• Approximately 200 feet of new 10-foot wide gravel access road would be constructed for pole installation and future maintenance. • Four 60-foot segments of existing 10-foot wide gravel access road will be re-routed around new utility poles.	• No change to existing gravel access roads.
Vegetation removal	• In forested areas, remove vegetation by cutting and removing trees, shrubs, and limbs within 20 feet of overhead distribution lines on both sides and below. • Trees and shrubs would be cut at ground level; roots would remain. • Where overhead distribution lines parallel roadways, remove vegetation within 16 feet of the road. • After construction is complete, annually remove trees, shrubs, and limbs within 20 feet of centerline where overhead distribution lines are located in forested areas and within 16 feet of the road where overhead distribution lines parallel roadways.	• Remove vegetation prior to trenching and installation of underground lines. • Once underground lines are installed, recurring vegetation removal would not be required.
New power distribution line, utility pole #97 to new substation at the Ammunition Wharf	• Install new underground 12.5 kV distribution line under paved area at Ammunition Wharf. New distribution lines to be located as close as possible to existing utilities, at no deeper than 36 inches. • Cut pavement, trench, and install conduit with concrete encasement at maximum 36 inch depth. • Repave trenched areas after construction.	Same as Alternative 1
New handholes	• Install up to six new underground holes in paved area at the Ammunition Wharf for access to ductwork. • Cut pavement, trench, and install handholes at maximum 36 inch depth. • Repave after construction.	Same as Alternative 1

Component	Alternative 1, Overhead Loop Power Distribution System (Preferred Alternative)	Alternative 2, Underground Loop Power Distribution System
New voltage regulator	• Install bermed concrete pad (approximately 200 square feet) in paved area at the Ammunition Wharf to support a new voltage regulator. • Install new voltage regulator in metal cabinet on concrete pad.	Same as Alternative 1
Add new distribution lines under the Ammunition Wharf	• Attach new distribution lines under the Ammunition Wharf to connect to substation. • Would use existing conduit if feasible. Otherwise, will install new conduit under the Ammunition Wharf to convey new distribution lines.	Same as Alternative 1
Replace existing substation	• Remove existing substation (11 metal cabinets) on the Ammunition Wharf (Figure 1-3). • Remove and replace any damaged concrete deck panels under the substation. • Install new substation (metal cabinets) in the same location on the Ammunition Wharf.	Same as Alternative 1
Remove generators, fuel tank, and generator support trailer	• Remove and return two leased diesel-powered generators. • After generator removal, remove concrete equipment pads and patch asphalt to match existing grade. • Empty, clean, and remove existing above-ground 10,000 gallon diesel fuel tank and fuel piping. • Remove generator support trailer. • After removal of generators, fuel tank, and generator support trailer, the vacant paved area would be used for general staging.	Same as Alternative 1

2.4.3 Alternative 3: New Generators

Under Alternative 3, the Navy would remove the existing two generators and install replacement generators that comply with current 40 CFR 60 Subpart IIII requirements for non-emergency stationary engines. The new generator engines would be installed within the same general area as the existing generators. However, the equipment would be larger than the existing system and would cover a larger area of the existing pavement adjacent to the Ammunition Wharf. For this analysis, the Navy is assuming that four generators would be required for the replacement system. The existing aboveground 10,000-gallon diesel storage tank, substation, and generator support trailer would remain.

The Navy would submit a Notice of Construction Application and obtain a new Order of Approval from ORCAA to operate the new generators. The new Order of Approval would specify maximum air pollutant emission rates and could include limitations on power use such as administrative and work practices required to minimize pollution.

2.4.4 No Action Alternative

Under the No Action Alternative, the Navy would continue to operate the two diesel-powered existing generators to provide power to submarines berthed at the Ammunition Wharf until September 30, 2016. The generators operate under a 2011 Order of Approval from ORCAA, which specifies that both generators combined cannot exceed 2,970,000 kW-hr for any consecutive 12-month period. This corresponds to approximately 60 days per year based on submarine requirements. ORCAA's Order of Approval was conditioned on removal of both generators as the primary source of electricity at the Ammunition Wharf by September 30, 2016. Ongoing operation would include regular inspections and maintenance of the generators and fuel tank. The aboveground diesel fuel tank would continue to be refilled by tanker trucks, and fuel would continue to feed to the generators through double-walled piping.

After September 30, 2016, the Navy would remove two existing diesel-powered generators and the Navy would no longer provide power to submarines berthed at the Ammunition Wharf. After generator removal, concrete equipment pads would be removed and asphalt patched to match existing grades. The above-ground 10,000 gallon diesel fuel tank and fuel piping would be cleaned and removed. The generator support trailer would be removed. After removal of generators, fuel tank, and generator support trailer, the vacant paved area would be used for general staging. The No Action Alternative would not meet the purpose and need of the proposed action. As required by CEQ guidelines, the No Action Alternative is carried forward as a baseline for the analysis in this EA.

2.5 Design Measures, Current Practices, and Best Management Practices

Integrated into the project are design features and measures to avoid environmental impacts. Where avoidance is not possible, the design has been modified to minimize those impacts. Design features include the following:

- To avoid any existing buried cultural resources at the Ammunition Wharf parking lot, the new underground distribution line for Alternative 1 or Alternative 2 would be installed no deeper than 3 feet below the surface. Based on a review of NAVMAG Indian Island construction plans for past projects at Walan Point, the average depth of fill over the known archaeological site is 5 feet.
- Where the new distribution line would cross an existing stream and stream buffer on Kingfisher Trail for Alternative 1 or Alternative 2, approximately 350 feet of new distribution line would be buried within the existing road bed to avoid impacts to the stream and buffer.

Current practices are physical, structural, or managerial practices that decrease the potential for impacts, particularly related to water quality. Best Management Practices (BMPs) are required to ensure compliance with the USEPA general permit for stormwater discharges from construction sites. To minimize environmental impacts, the following current practices and BMPs will be implemented as part of the selected alternative:

- Stormwater BMPs would be employed to prevent erosion during excavation and trenching.
- Upon completion, areas subject to excavation and trenching would be restored to existing conditions.

3.0 Affected Environment and Environmental Consequences

This chapter presents baseline data for the affected environment and an assessment of the potential environmental impacts or consequences that could result from implementation of the proposed action. The following resources are evaluated in this chapter: biological resources, cultural resources, air quality, noise, and utilities.

3.1 Biological Resources

This biological resources section is divided into three categories: vegetation, terrestrial wildlife, and special-status species. Special-status species are those species listed as threatened or endangered under the Endangered Species Act (ESA) and those species afforded federal protection under the Migratory Bird Treaty Act (MBTA) or Bald and Golden Eagle Protection Act.

3.1.1 Regulatory Setting

The Endangered Species Act (ESA) of 1973, as amended, requires that an action authorized by a federal agency not jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. Section 7 of the Act requires that the responsible federal agency consult with United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) concerning endangered and threatened species under their jurisdiction. Documentation and determinations regarding ESA-listed species are included in Appendix C.

The Migratory Bird Treaty Act (MBTA) protects migratory birds from harm, except as permitted by USFWS for purposes such as banding, scientific collecting, taxidermy, falconry, depredation control, and other regulated activities such as game bird hunting. Bald eagles are protected under both the MBTA and the Bald and Golden Eagle Protection Act, which prohibits the taking of bald eagles through pursuit, shooting, poison, killing, trapping, collecting, disturbance, or transportation.

3.1.2 Affected Environment

3.1.2.1 Vegetation

The proposed action would occur in developed and forested sections of NAVMAG Indian Island. In the vicinity of the Ammunition Wharf, the project area is covered by asphalt. Edges of the paved area are vegetated with grasses. Along existing paved roads with overhead distribution lines, vegetation is regularly mowed within 20 feet of the distribution line.

Forests within the project area consist primarily of third growth conifer stands mixed with deciduous trees. NAVMAG Indian Island is within the Tsuga heterophylla Zone (Western Hemlock Zone), a vegetative zone that occupies extensive areas of western Washington (Franklin and Dyrness 1988). Dirt roads and trails pass through existing forested lands with mature trees, the majority of which are 80 to 130 years old. While stands are dominated by Douglas-fir (*Psuedotsuga menziesii*), shade tolerant species such as western redcedar (*Thuja plicata*), grand fir and western hemlock (*Tsuga heterophylla*) are also present. Common broadleaved tree species are big leaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), willow, Pacific madrone (*Arbutus menziesii*), bitter cherry (*Prunus emarginata*), quaking aspen (*Populus tremuloides*) and black cottonwood (*Populus balsamifera*). Common understory species include sword fern (*Polystichum munitum*), vine maple (*Acer circinatum*), salmonberry (*Rubus spectabilis*), salal (*Gaultheria shallon*), oceanspray (*Holodiscus discolor*), Oregon-grape

(*Berberis nervosa*), Pacific rhododendron (*Rhododendron macrophyllum*) and Nootka rose (*Rosa nutkana*).

3.1.2.2 Terrestrial Wildlife

Terrestrial wildlife may be present within the vicinity of the project area. Large mammals include Columbian black-tailed deer (*Odocoileus hemionus columbianus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), bobcat (*Felis rufus*), cougar (*Puma concolor*), raccoon (*Procyon lotor*), river otter (*Lutra canadensis*), and black bear (*Ursus americanus*). Smaller mammals include raccoon (*Procyon lotor*), brush rabbit (*Sylvilagus bachmani*), short-tailed weasel (*Mustela erminea*), long-tailed weasel (*Mustela frenata*), mountain beaver (*Aplodontia rufa*), Douglas squirrel (*Tamiasciurus douglasii*), and numerous rodent species.

3.1.2.3 Special-Status Species

Marbled murrelet (*Brachyramphus marmoratus*), a marine bird listed as threatened under the ESA, could occur within the vicinity of the project area. Although there have been no documented marbled murrelets nests on NAVMAG Indian Island, recent USFWS boat surveys have found a high population density of marbled murrelets foraging in the marine waters of Port Townsend Bay adjacent to the island's western shoreline. The Navy conducted a ground survey (December 2014 thru April 2015) to assess potential nest platform trees within the project area in accordance with “Guidance for Identifying Marbled Murrelet Nest Trees in Washington State" (USFWS 2012). Preliminary survey results indicate one potential nest platform tree in the project area, a single Douglas fir located on Fort Road approximately 22-feet away from the proposed overhead distribution line clearing limits. No nesting marbled murrelets were observed at the site.

Bald eagles (*Haliaeetus leucocephalus*) are known to occur on NAVMAG Indian Island. A segment of the proposed overhead distribution line west of Chase Street is located within the secondary nest buffer of a documented bald eagle nest site. A bald eagle pair has been observed occupying the nest from early November through late August during a typical year (Appendix C).

Migratory birds occur on site, including hawks and owls, crows and ravens, thrushes, jays, wrens, sparrows, chickadees, finches, kinglets, woodpeckers, doves, and blackbirds. The proposed distribution line would cross a riparian wetland corridor that supports numerous avian species.

3.1.3 Environmental Consequences

Impacts to biological resources would be considered significant if there was substantial removal of vegetation that reduced high value habitat areas for wildlife and if there were direct adverse impacts to protected or endangered species.

3.1.3.1 Alternative 1: Overhead Loop Power Distribution System (Preferred Alternative)

Alternative 1 would result in ground disturbance and vegetation removal during utility pole installation, installation of approximately 200 feet of new 10-foot wide gravel access road, and re-routing of four 60-foot segments of an existing 10-foot wide gravel access road. Trees and brush would be removed along the power corridor within 16 feet of the road shoulder or curb where the overhead distribution line parallels roadways, and within 20 feet on either side of overhead distribution lines through forested areas. These areas would be mowed on an annual basis to remove vegetation within 20 feet of overhead distribution lines. Where possible, the distribution line route would parallel existing roadways and utility corridors to minimize the number of trees to be removed. The total area of forest affected would be a linear area of 11.4 acres, where third-growth forest would be converted to grasses and other low-growing species.

In the project footprint, the habitat with highest wildlife value is a riparian wetland corridor. Where the distribution line would cross the riparian wetland corridor, it would be buried within the road prism and no vegetation removal would be required within the wetland and its adjoining buffer zone.

Other components of Alternative 1 would occur on existing developed and/or paved areas where no habitat or species would be impacted. Replacement of the existing Ammunition Wharf substation would occur on the existing Ammunition Wharf and would not require any in-water work. Within the parking area at the Ammunition Wharf, 876 -feet of trenching would occur under the existing pavement to install an underground duct bank. The existing two diesel-powered generators, fuel tank, and generator support trailer to be removed are located on a paved parking area that would remain after equipment removal.

Using decibel addition rules (Washington State Department of Transportation [WSDOT] 2015), the maximum noise level during construction is expected to be 91 dBA at a distance of 50 feet, based on combined noise levels associated with a jackhammer, chainsaw, and dozer (Table 3-2 in Section 3.4.3.1). Wildlife adjacent to the work area would be subject to temporary disturbance. To avoid noise disturbance within the secondary buffer zone of the bald eagle nest territory, construction within the secondary buffer zone would occur between late September and early October. Prior to construction, a Navy wildlife biologist would verify that the adult pair of bald eagles is not present and the nest is inactive.

Utility poles with energized hardware, such as transformers, can electrocute birds, as they contain numerous, closely-spaced energized parts. “Avian-safe” structures provide adequate clearances to accommodate a large bird between energized and/or grounded parts. Design of Alternative 1 would incorporate elements to conform with "Avian Protection Plan (APP) Guidelines," a document prepared by the Edison Electric Institute’s Avian Power Line Interaction Committee (APLIC) and USFWS (APLIC and USFWS 2005). On most utility poles, a minimum clearance of 60 inches would be maintained between all overhead distribution line conductors. On utility poles that cannot achieve a 60-inch minimum conductor clearance, insulator covers and bushing caps would be used to prevent bird electrocution.

The addition of approximately 18,000 linear feet of new overhead distribution lines throughout NAVMAG Indian Island would result in an increased risk of birds striking distribution lines. The new distribution line would cross a riparian wetland corridor which is heavily used by numerous avian species. In this segment, underground duct bank would be installed by trenching within an existing road bed prism for a linear distance of approximately 350 feet. Underground installation in this area would eliminate potential bird injury and mortality from overhead distribution line strikes in the riparian wetland corridor .

A potential marbled murrelet platform tree is located adjacent to the proposed distribution line on Kingfisher Trail, approximately 22 feet outside of the proposed tree clearing limits. No nesting marbled murrelets were observed at the site during a recent survey. Based on its location, it is extremely unlikely that this individual tree surrounded by younger forest would be used by marbled murrelets for nesting. The tree itself would not be affected by Alternative 1, however, construction noise could result in temporary disturbance if nesting marbled murrelets were present. The Navy has determined that Alternative 1 "may affect, not likely to adversely affect” the ESA-listed marbled murrelet. In a June 4, 2015 letter, USFWS concurred with the Navy’s determination.

By restricting construction within the bald eagle nesting territory during nesting season, including avian protection features in utility poles, paralleling existing roadways and utility corridors to minimize the number of trees to be removed, avoiding impacts to high value habitat areas by installing underground distribution lines where the route crosses a riparian wetland

corridor, and avoiding impacts to a potential marbled murrelet nesting platform tree, there would be no significant impacts to biological resources.

3.1.3.2 Alternative 2: Underground Loop Power Distribution System

Alternative 2 would result in ground disturbance during construction of underground distribution lines. No utility poles would be installed. Approximately two acres of trees and shrubs would be removed along the distribution line route during trenching, installation, and burial of underground lines. Once underground distribution lines were installed, no recurring vegetation removal would be required. Where the power distribution line would cross the riparian wetland corridor, it would be buried within the road prism and no vegetation removal would be required within the riparian wetland corridor and its adjoining buffer zone.

Other components would be the same as Alternative 1: replacement of the existing Ammunition Wharf substation, 876 -feet of an underground duct bank, and removal of the existing two diesel-powered generators, fuel tank, and generator support trailer.

Similar to Alternative 1, the maximum noise level created by typical trenching equipment is expected to be 91 dBA at a distance of 50 feet, which would result in temporary disturbance to wildlife along the distribution line route. To avoid noise disturbance within the secondary buffer zone of the bald eagle nest territory, construction within the secondary buffer zone would occur between late September and early October. Prior to construction, a Navy wildlife biologist would verify that the adult pair of bald eagles is not present and the nest is inactive.

The potential marbled murrelet platform tree is located adjacent to the proposed distribution line route on Kingfisher Trail, approximately 45 feet from the center line of the proposed underground distribution line route. As stated under Alternative 1, it is extremely unlikely that this individual tree would be used by marbled murrelets for nesting. The tree itself would not be affected by Alternative 2, however, construction noise could result in temporary disturbance if nesting marbled murrelets were present. Alternative 2 "may affect, not likely to adversely affect" the ESA-listed marbled murrelet.

By restricting construction within the bald eagle nesting territory during nesting season, minimizing the number of trees to be removed, avoiding impacts to high value habitat areas by installing underground distribution lines where the route crosses a riparian wetland corridor, and avoiding impacts to a potential marbled murrelet nesting platform tree, there would be no significant impacts to biological resources.

3.1.3.3 Alternative 3: New Generators

Under Alternative 3, the Navy would remove the existing two generators and install four replacement generators. The additional equipment or replacement generators would be installed in the same general location as the two existing MUSE generators. The site is a paved parking and staging area; no vegetation or habitat would be removed. The existing distribution line and fuel tank would remain unchanged, and no additional vegetation removal would be required. Generator removal and installation would generate some short-term construction noise. Noise from operating four replacement generators is expected to average 87 dBA at 50 feet based upon WSDOT (2015) decibel addition rules. Based on typical noise attenuation of 6 dBA per doubling of distance, a noise level of 79 dBA is expected at the edge of adjacent marine waters and wetlands (approximately 150 feet from the generators). Noise from the generators could result in temporary disturbance to bird and wildlife species within the adjacent marine waters and wetlands. Alternative 3 would have no significant impacts to biological resources.

3.1.3.4 No Action Alternative

Under the No Action Alternative, the Navy would continue to operate the two existing MUSE generators until September 30, 2016. The site is a paved parking and staging area; no vegetation or habitat would be removed. The combined noise from two generators averages 84 dBA at 50 feet, based upon WSDOT decibel addition rules (2015). Based on typical noise attenuation of 6 dBA per doubling of distance, a noise level of 75 dBA is expected at the edge of adjacent marine waters and wetlands. Generator noise could temporarily disturb any wildlife species using the adjacent marine waters and wetlands. Once the generators, fuel tank, and generator support trailer are removed, the vacant paved area would be used for general staging. The No Action Alternative would have no significant impacts to biological resources.

3.1.3.5 Mitigation

For Alternative 1 or Alternative 2, construction within the secondary nest buffer zone would occur between late September and early October, after a Navy wildlife biologist verifies that the adult pair of bald eagles is not present and the nest is inactive.

3.2 Cultural Resources

This cultural resources section is divided into three categories: archeological resources, architectural resources, and Traditional Cultural Properties.

3.2.1 Regulatory Setting

Under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, federal agencies must consider impacts to historic properties associated with all proposed undertakings. Procedures for assessing adverse effects to cultural resources are set forth in 36 CFR Part 800 and OPNAVINST 5090.1D. Architectural resources generally must be more than 50 years old to be considered under the NHPA. However, more recent properties, such as Cold War era buildings less than 50 years of age, may warrant protection if they are "exceptionally important." To be considered as an historic property, architectural resources must meet one or more criteria as defined in 36 CFR 60.4, National Register of Historic Places, Criteria for Evaluation, for inclusion on the National Register of Historic Places (NRHP). Criteria for evaluation include: (A) properties associated with an important event, (B) properties associated with a famous person, (C) properties that embody the distinctive characteristics of a type, period, or method of construction, or (D). properties that have yielded, or are likely to yield information important in prehistory or history on the local, state, or national level. Resources must also possess integrity (i.e., their important historic features must still be present and recognizable). Additionally, the primary NRHP criteria consideration for properties less than 50 years of age is Criteria Consideration G: properties that have achieved exceptional significance within the past 50 years.

3.2.2 Affected Environment

The area of potential effect (APE) for cultural resources is the geographic area or areas within which an undertaking (project, activity, program, or practice) may cause changes in the character or use of any historic properties present. The APE is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking. For Alternatives 1 and 2, the Navy determined that the APE includes the area of direct impact by the new distribution line plus a 30-meter buffer on each side. The linear APE crosses through the western half of Indian Island, beginning just north of NAVMAG Indian Island's main gate and ending at Walan Point. The APE also includes a number of buildings and structures that fall within the viewscape of the proposed distribution line. In a letter dated July 14, 2014, the State Historic Preservation Officer (SHPO) concurred with the Navy's

determination of the APE for Alternatives 1 and 2. Under Alternative 3 and the No Action Alternative, there would be no potential to effect cultural resources.

3.2.2.1 Archeological Resources

Two surveys were conducted to determine whether historic properties eligible for listing in the NRHP were present within the APE. Walan Point is a recorded archaeological site 45JE16 (Blukis Onat 1976, Blukis Onat and Haversat 1977, Daugherty and Rice 1975, Dugas and Moore 1997, Dugas et al. 1997). In the winter of 2012 and 2013, the Navy conducted a pedestrian survey and shovel testing along an earlier alignment of the distribution line adjacent to existing roadways (Stell Environmental Enterprises, Inc. 2013). A total of 196 shovel tests were excavated, ranging in depth from 1.2 to 27.5 inches. No cultural materials were encountered and the entire corridor was found to have some level of disturbance. After that survey, the Navy modified the project alignment at two inland segments and added a buried segment across Walan Point. In August 2014, the Navy performed additional shovel testing on Walan Spit and areas of the bluff not surveyed by Stell Environmental Enterprises, Inc., considered to have a high probability for cultural resources. Six shovel tests on Walan Point revealed intact shell midden under five feet of fill. The ten shovel tests on the bluff above Walan Point encountered no cultural materials. These shovel tests ranged in depth from 43 to 106 inches and revealed a shallow topsoil overlying glacial till (Hughes and Quirke 2014).

3.2.2.2 Architectural Resources

There are numerous structures 50 years of age within the APE. The Navy determined 9 of these structures are not eligible for listing on the NRHP based on a previous survey and evaluations (Hardlines Design Company 2010, EDAW, Inc. 1999). Buildings 69 and 84 (Figure 3-1) have been determined eligible for listing on the NRHP. Building 69 was constructed in 1942 as the installation's first barracks. Constructed in the Art Moderne style, this concrete building currently functions as the installation's administrative building and contains a small store. Much of the interior has been remodeled, but the exterior retains its World War II (WWII) historic integrity under Criterion A. Building 84 was also constructed in 1942 as an Industrial Vernacular building with Art Moderne details. This one-story building appears to be significant for its role in the maintenance of the Mark 18 torpedo, and the building retains a high level of integrity under Criteria A and C.

Building 127 (Figure 3-1) is an underground cylindrical concrete storage tank with a small one-story above-ground structure. The structure was constructed in 1943 for water storage and distribution, and is similar to approximately 40 other underground pre-stressed concrete storage tanks built at Naval Air Station Whidbey Island and the Manchester Fuel Department around the same time. In a letter dated December 31, 2014, the Navy determined that the structure is not eligible for listing in the NRHP due to its minor role as a water storage facility during World War II and its typical construction for underground tanks during that time. In a letter dated March 5, 2015, SHPO disagreed with the Navy, finding that this structure is eligible for listing on the NRHP for its role supporting the past and present mission of NAVMAG Indian Island. The Navy intends to request a final determination of eligibility from the Keeper of the National Register of Historic Places at a future date.

3.2.2.3 Traditional Cultural Properties

No traditional cultural properties have been identified on NAVMAG Indian Island, although Walan Point is the site of a known post-contact native village (Lewarch et al. 1999)..

3.2.3 Environmental Consequences

In accordance with 36 CFR 800.5, an action results in an effect to an NRHP-eligible resource when it alters the resource characteristics that qualify the resource for inclusion in the register. An adverse effect occurs when the undertaking directly or indirectly alters any of these characteristics in a manner that would diminish the property's integrity. Examples of direct impacts include: physical destruction, damage, or alteration of a resource; alteration of the character of the surrounding environment that contributes to the resource's eligibility; introduction of visual, audible, or atmospheric intrusions out of character with the resource or its setting; neglect of the resource resulting in its deterioration or destruction; and sale of the property.

Impacts to cultural resources would be considered significant if the action would have an adverse effect to archeological or cultural resources identified as eligible for listing on the NRHP. An adverse effect under the NHPA is considered to be an adverse impact under NEPA. Consultation and the execution of a Memorandum of Agreement under Section 106 of the NHPA can resolve an adverse effect to a less than significant impact under NEPA.

3.2.3.1 Alternative 1: Overhead Loop Power Distribution System (Preferred Alternative)

The proposed action includes installing a new power distribution line under the existing pavement at Walan Point. To avoid disturbance to any intact archaeological materials located under existing fill at Walan Point, excavation depth would not exceed 3 feet. Excavation at Walan Point would be monitored by an archaeologist meeting the Secretary of the Interior's (SOI) Standards for Archaeology (62 FR 33708). In the event of an inadvertent discovery of cultural resources or human remains, work would be temporarily re-directed until the site was examined by an SOI qualified archaeologist and any required consultations were completed.

Outside of Walan Point, additional ground disturbance would occur along the corridor during installation of utility poles, installation of approximately 200 feet of new 10-foot wide gravel access road, re-routing of four 60-foot segments of an existing 10-foot wide gravel access road, and installation of underground distribution line in the vicinity of the stream crossing Fort Road. Portions of the area were surveyed by the Navy as discussed in Section 3.2.2.1. In areas where no prior surveys were performed, any ground disturbing activity would be monitored by an SOI qualified archaeologist.

Alternative 1 would not alter any features or characteristics of Building 69, Building 84, or Building 127. New utility poles and distribution lines would be installed in the vicinity of these structures (Figure 3-1). The distribution line would be across the street from Building 69, approximately 370 feet from Building 84, and approximately 150 feet from Building 127. However, the change to the administrative and industrial viewscape would be minimal.

Operation and maintenance of the poles and distribution lines after construction would involve inspection and repair of the system as needed and would involve periodic removal of surface vegetation along the overhead distribution lines. These activities are not anticipated to result in ground disturbance beyond the disturbance assessed above.

With implementation of archaeological monitoring as described above, the Navy has determined there would be no adverse effect to historic properties from Alternative 1. SHPO concurred with the Navy's determinations regarding effects to cultural resources in letters dated March 5, 2015 and June 17, 2015. Therefore, there would be no significant impacts to cultural resources.

3.2.3.2 Alternative 2: Underground Loop Power Distribution System

Alternative 2 would follow the same alignment as Alternative 1 but would require greater ground disturbance to install distribution lines underground. Excavation at Walan Point would be the

same as Alternative 1 and would be monitored by an SOI qualified archaeologist. If any archaeological materials are discovered during excavation, work would be temporarily redirected until the materials are examined by an SOI qualified archaeologist. Work would not resume until the Navy determines that compliance with federal laws is complete**.** Outside of Walan Point, previous surveys have not identified archaeological resources along the distribution lines. In areas where no prior surveys were performed, all ground disturbing activity would be monitored by an SOI qualified archaeologist.

There would be no adverse effect on Buildings 69, 84, or 127 from construction of an underground distribution line.

Operation and maintenance of distribution lines after construction are not anticipated to result in ground disturbance beyond the area disturbed during installation.

With implementation of archaeological monitoring as described above, the Navy has determined there would be no adverse effect to historic properties from Alternative 2. SHPO concurred with the Navy's determinations regarding effects to cultural resources in letters dated March 5, 2015 and June 17, 2015. Therefore, there would be no significant impacts to cultural resources.

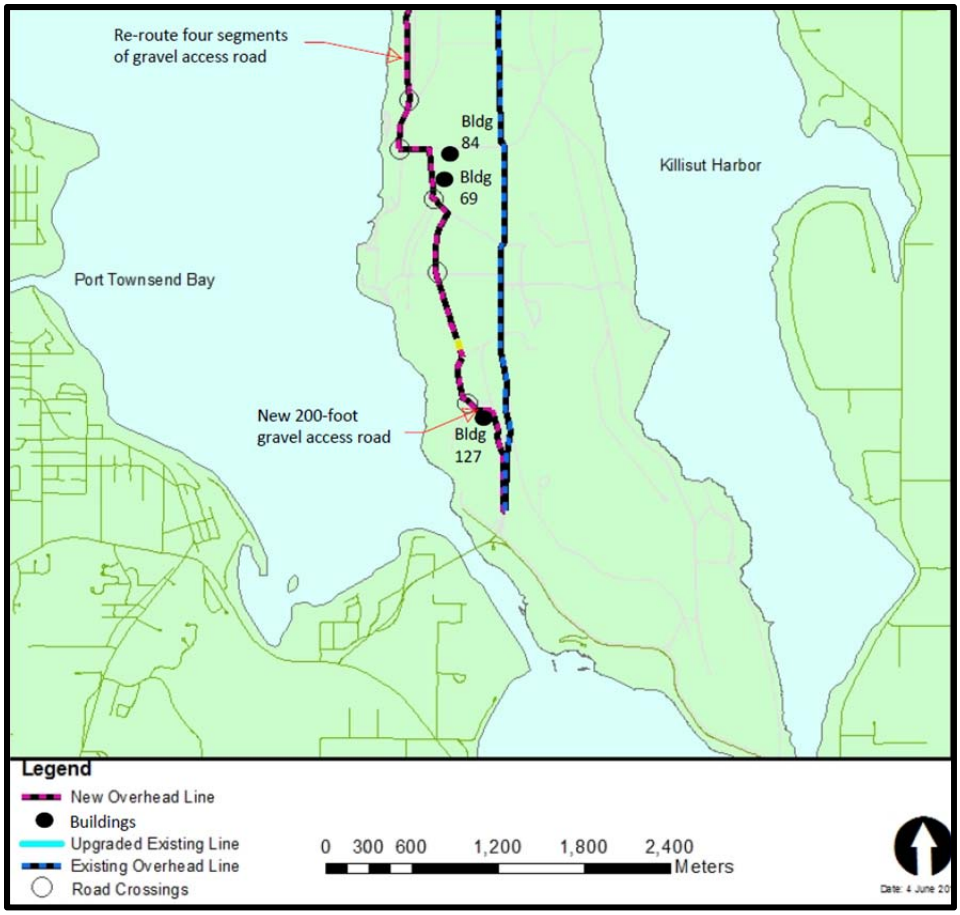

Figure 3-1. Buildings 69, 84, and 127

3.2.3.3 Alternative 3: New Generators

Under Alternative 3, the Navy would not construct a new distribution line, but would remove the existing two generators and purchase and install four replacement equipment in the same general location as the two existing MUSE generators. Alternative 3 would not include any

ground-disturbing activities, nor would it be within the viewshed of Buildings 69, 84, or 127**.** Therefore, Alternative 3 would have no impact to cultural resources.

3.2.3.4 No Action Alternative

Under the No Action Alternative, the Navy would remove the existing two generators, fuel tank, and generator support trailer after September 30, 2016 from an existing paved area. The No Action Alternative would not include any ground-disturbing activities, nor would the project be within the viewshed of Buildings 69, 84, or 127. Therefore, the No Action Alternative would have no impact to cultural resources.

3.2.3.5 Mitigation

Excavation and ground disturbing activity at Walan Point and in areas outside Walen Point which have not been previously surveyed would be monitored by an SOI qualified archaeologist. If any archaeological materials are discovered during excavation, work would be temporarily redirected until the materials are examined by an SOI qualified archaeologist. If further impacts to an NRHP-eligible site cannot be avoided, the Navy would consult with SHPO, affected tribes, and other interested parties. Work would not resume until the Navy determines that compliance with federal laws is complete.

3.3 Air Quality

Air quality is defined by the ambient air concentrations of specific pollutants determined by the U.S. Environmental Protection Agency (USEPA) and state regulations administered by Washington State Department of Ecology (WDOE) and the Olympic Region Clean Air Agency (ORCAA) to be of concern to the health and welfare of the general public.

3.3.1 Regulatory Setting

Clean Air Act. The federal Clean Air Act (CAA) protects public health and welfare from different types of air pollution caused by a diverse array of pollution sources. The purpose of the CAA is "to protect and enhance the quality of the nation's air resources so as to promote public health and welfare and the productive capacity of its population." CAA requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment, and requires states to institute controls with established air quality control regions to achieve the NAAQS. CAA requires EPA to establish necessary air quality control where states fail to do so. CAA also requires federal agencies to comply with federal, state, interstate, and local air pollution requirements in the same manner, and to the same extent as any nongovernmental entity.

The EPA (2015) established NAAQS for six principal pollutants, known as “criteria” pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and lead. Washington State has adopted the NAAQS for all criteria pollutants except SO_2, for which the state has adopted slightly more stringent requirements (Washington Administrative Code 173-474). Table 3-1 lists the NAAQS as well as applicable state air quality standards. Depending on the type of pollutant, these maximum concentrations may not be exceeded at any time or may not be exceeded more than once per year.

The NAAQS provide definitions of the maximum concentrations of the criteria pollutants that are considered safe, with an additional adequate margin of safety, to protect human health and welfare. Short-term standards (1-, 8-, and 24-hour periods) are established for pollutants contributing to acute health effects. Long-term standards (quarterly and annual averages) are established for pollutants contributing to chronic health effects. Air Quality Control Regions

assist in planning and monitoring to prevent air quality deterioration and achieve attainment status with all NAAQS.

Table 3-1. National and Washington State Ambient Air Quality Standards

Pollutant	Averaging Time	Washington Standards	National Standards	
			Primary	Secondary
Carbon Monoxide (CO)	8-hour	9 ppm	9 ppm	None
	1-hour	35 ppm	35 ppm	None
Lead	Quarterly Average	None	1.5 µg/m^3	1.5 µg/m^3
	Rolling 3-month Average	None	0.15 µg/m^3	0.15 µg/m^3
Nitrogen Dioxide (NO_2)	Annual Average	0.05 ppm	0.053 ppm	0.053 ppm
	1-hour	None	0.100 ppm	0.053 ppm
Particulate matter less than 10 microns in diameter (PM_{10})	Annual Arithmetic Mean	50 µg/m^3	None	None
	24-hour	150 µg/m^3	150 µg/m^3	150 µg/m^3
Particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)	Annual Arithmetic Average	None	12.0 µg/m^3	15.0 µg/m^3
	24-hour	None	35 µg/m^3	35 µg/m^3
Ozone	1-hour	0.12 ppm	0.12 ppm	0.12 ppm
	8-hour (2008 standard)[(a)]	None	0.075 ppm	0.075 ppm
	8-hour (1997 standard)[(a)]	None	0.08 ppm	0.08 ppm
Sulfur dioxide (SO_2)	Annual Average	0.02 ppm	0.03 ppm	None
	24-hour	0.10 ppm	0.14 ppm	None
	3-hour	None	None	0.50 ppm
	1-hour	0.40 ppm[(b)]	0.075 ppm[(c)]	None
Total Suspended Particulates	Annual Geometric Mean	60 µg/m^3	None	None
	24-hour average	150 µg/m^3	None	None

Notes: µg/m$^{3=}$ micrograms per cubic meter; ppm = parts per million

[(a)] 8-hour ozone standard went into effect on September 16, 1997, but implementation is limited. The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as USEPA undertakes rulemaking to address the transition from the 1997 to the 2008 ozone standard.+

[(b)] Volume average for 1-hour period more than once per 1-year period. 0.25 ppm not to be exceeded more than two times in any 7 consecutive days.

[(c)] Final rule issued June 22, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitoring station within an area must not exceed 75 parts per billion. USEPA also revoked the annual and 24-hour primary standards when enacting the 1-hour standard.

Sources: USEPA 2015, WDOE 2015.

40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. These regulations require that all non-emergency diesel-powered generators be certified by the engine manufacturer to achieve specified air pollution emission standards. The applicable air pollutant emission certification standard depends upon the size and type of the engine and the year in which the engine was manufactured. 40 CFR 60 Subpart IIII addresses Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. 40 CFR 63 Subpart ZZZZ addresses

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

ORCAA Regulation 4. ORCAA Regulation 4 requires that all stationary sources within the jurisdiction of the Agency, except for any stationary sources required to obtain an air operating permit under WAC 173-401, shall be registered with the Agency. All sources requiring registration shall be classified in one of five Registration Classes (RC) based on the annual amount of regulated pollutants emitted.

ORCAA Regulation 6. ORCAA Regulation 6 requires ORCAA approval to operate a non-emergency stationary diesel-powered generator greater than 50 horsepower. Non-emergency engines are defined as engines that operate greater than 50 hours in a calendar year for reasons other than loss of utility power or maintenance and testing. To obtain ORCAA approval for operation of non-emergency stationary diesel-powered engines, an applicant submits a Notice of Construction (NOC) application and receives an Order of Approval, which specifies maximum air pollutant emission rates for the air pollution source as well as administrative and work practices to minimize pollution.

General Conformity Rule. As described in 40 CFR Part 51, *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 State Implementation Plan (SIP). Jefferson County is not designated as a non-attainment or maintenance area by the USEPA. Therefore, a General Conformity Rule review is not required for the proposed action (USEPA 2013).

***Greenhouse Gas Emissions and Climate Change*.** Greenhouse gases (GHGs) are gases that trap heat in the atmosphere. These emissions occur from natural processes and human activities. Scientific evidence indicates a trend of increasing global temperature over the past century due to an increase in GHG emissions from human activities. The most common GHGs emitted from natural processes and human activities include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Combustive emission sources are a prime source of these GHG emissions. Other GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These GHGs are emitted primarily through human activities.

The CEQ issued draft guidance for considering GHG in the NEPA process. The guidance suggests that analyses of direct and indirect GHG emissions from proposed actions will be evaluated, and if alternatives would be reasonably anticipated to annually emit greater than 25,000 metric tons of CO_2-equivalent (CO_2-e), further evaluation should be considered (CEQ 2014; USEPA 2014b).

3.3.2 Affected Environment

3.3.2.1 Emission Sources

NAVMAG Indian Island is registered under ORCAA Regulation 4, Registration Class RC-2 as a source having a potential to emit of 30 or more tons per year of regulated pollutants. NAVMAG Indian Island is subject to seven active Orders of Approval from ORCAA for regulated air pollutant sources and currently contains 28 registered air pollution emission units. The existing two MUSE generators, the largest source of air contaminant emissions at NAVMAG Indian Island, are operated in accordance with ORCAA Order of Approval 11NOC0818, issued July 5, 2011.

3.3.3 Environmental Consequences

Effects on air quality are based on estimated direct and indirect emissions. Estimated emissions from a proposed federal action are typically compared with the relevant national and

state standards to assess the potential for increases in pollutant concentrations. Air quality impacts would be considered significant if the action alternatives directly or indirectly produce significant levels of emissions (e.g., more than 25,000 metric tons of CO_2 a year) that would be the primary cause of, or would significantly contribute to, a violation of state or federal ambient air quality standards.

3.3.3.1 Alternative 1: Overhead Loop Power Distribution System (Preferred Alternative)

Construction equipment operation would result in short-term increases in levels of NO_2, CO, SO_2, PM, and volatile organic compounds (VOCs). The Navy would develop and implement an Environmental Protection Plan that identifies dust control and other fugitive emissions control measures for each construction component. Such measures could include the use of acceptable dust suppressants or water during trenching and excavation activities.

Removal of the existing MUSE generators under Alternative 1 would result in a significant reduction in regulated air pollutant emissions from NAVMAG Indian Island by removing the installation's largest air contaminant source. Without the existing MUSE generators, the facility's ORCAA Registration Class would change from RC-2 (potential to emit 30 tons or more of regulated pollutants per year) to RC-3 (potential to emit 10 tons or more per year). This would result in an overall reduction of NAVMAG Indian Island's potential to emit regulated pollutants.

Operation and maintenance of Alternative 1 would involve vehicles and equipment to inspect utility poles and overhead distribution lines and conduct repairs as needed. On an annual basis, vegetation taller than 4 feet would be removed within 16 feet of the road shoulder or curb and within 20 feet on either side of overhead distribution lines through forested areas. Vegetation removal would typically be done by a 2-person crew operating equipment such as a tractor and a brush mower. The use of vehicles and equipment used for operation and maintenance would be a negligible increase over existing operations at NAVMAG Indian Island.

Based on this analysis, there would be no significant impacts to air quality impacts from construction and operation of Alternative 1.

3.3.3.2 Alternative 2: Underground Loop Power Distribution System

Construction of Alternative 2 would include a greater amount of trenching and ground disturbance than Alternative 1 when installing a new underground distribution line. Similar to Alternative 1, equipment emissions would result in short-term increases in levels of NO2, CO, SO2, PM, and VOCs. Construction equipment would be subject to the same requirements as described for Alternative 1.

Like Alternative 1, removal of the existing MUSE generators under Alternative 2 would result in an overall reduction of NAVMAG Indian Island's potential to emit regulated pollutants.

Operation and maintenance of Alternative 2 would involve vehicles and equipment to inspect distribution lines and conduct repairs as needed. No recurring vegetation clearing would be required under this alternative. The use of vehicles and equipment used for operation and maintenance would be a negligible increase over existing operations at NAVMAG Indian Island.

Therefore, there would be no significant impacts to air quality impacts from construction and operation of Alternative 2.

3.3.3.3 Alternative 3: New Generators

Under Alternative 3, the Navy would remove the existing two generators and install four replacement generators that comply with current 40 CFR 60 Subpart IIII requirements for non-emergency stationary engines. The replacement generator engines would be installed in the same location as the existing generators. The existing aboveground 10,000-gallon diesel storage tank and substation would remain. The Navy would submit a Notice of Construction Application and obtain a new Order of Approval from ORCAA to operate the replacement generators. The new Order of Approval would specify maximum air pollutant emission rates and may include limitations on power use such as administrative and work practices required to minimize pollution. Under Alternative 3, there would be a reduction in air quality emissions compared to existing conditions, and there would be no significant impacts to air quality.

3.3.3.4 No Action Alternative

Under the No Action Alternative, two existing generators powered by Cummins QSK60-G6 NR2 diesel-powered engines would supply shore power for berthed submarines through September 30, 2016. The generators currently operate under a 2011 Order of Approval from ORCAA, which specifies that both generators combined cannot exceed 2,970,000 kW-hr for any consecutive 12-month period. The Order of Approval includes the following conditions for each of the diesel-powered engines for any consecutive 12-month period:

- Each engine shall emit less than 4.03 grams per horsepower hour (grams/hp-hour) of NO_x, 0.37 grams/hp-hour of CO, and 0.067 grams /hp-hour of PM_{10}.
- Each engine shall combust only diesel fuel qualifying as ultra-low diesel with less than 15 parts per million (ppm) sulfur.
- Visible emissions shall not exceed 10% opacity.

Based on annual inventories submitted to ORCAA, the generators have not exceeded the conditions of ORCAA Order of Approval 11NOC0818. Average annual emissions during 2013 and 2014 were 7,400 pounds of NO_x, 680 pounds of CO, and 125 pounds of PM_{10}.

Under the No Action Alternative, the Navy would continue to operate the two existing generators in compliance with the 2011 Order of Approval through September 30, 2016. After that date, the Navy would remove two leased diesel-powered generators and the Navy would no longer provide power to submarines berthed at the Ammunition Wharf. Therefore, under the No Action Alternative, there would be a reduction in air quality emissions after September 30, 2016, and there would be no significant impacts to air quality.

3.3.3.5 Mitigation

Under Alternatives 1 and 2, no mitigation is required or proposed. Under Alternative 3, the Navy would obtain a new ORCAA Order of Approval and comply with all conditions and limitations. Under the No Action Alternative, the Navy would comply with conditions and limitations contained in the ORCAA Order of Approval 11NOC0818 until September 30, 2016. After September 20, 2016, generators would no longer supply power to submarines berthed at the Ammunition Wharf.

3.4 Noise

3.4.1 Regulatory Setting

Washington Administrative Code (WAC) Chapter 173-60 establishes maximum allowable noise levels. Per WAC 173-60-040, noise levels produced by an industrial noise source (such as the Ammunition Wharf at NAVMAG Indian Island) cannot exceed 60 A-weighted decibels (dBA) (daytime) and 50 dBA (nighttime) in a residential zone. Nighttime hours are 10:00 PM to 7:00

AM. Jefferson County and the City of Port Townsend have adopted the State's maximum permissible environmental noise levels.

Both WAC 173-60-040 and Jefferson County Title 18, section 18.30.190, exempt noise generated by construction activities when not occurring between 10:00 p.m. and 7:00 a.m. The City of Port Townsend Municipal Code 9.09.040.(B) also exempts noise generated by construction when not occurring between 7:00 p.m. and 7:00 a.m. on weekdays and 7:00 p.m. and 9:00 a.m. on weekends and holidays.

3.4.2 Affected Environment

The sound environment at the Ammunition Wharf includes movement of marine vessels and shore-based vehicles, operation of equipment (generators, cranes, and forklifts), and natural sources such as wind and surf.

A sensitive noise receptor is defined as a land use where people involved in indoor or outdoor activities may be subject to stress or considerable interference from noise. Such locations include residences, hospitals, nursing homes, educational facilities, and libraries. Sensitive receptors may also include noise-sensitive cultural practices, some domestic animals, or certain wildlife species. There are no residences on NAVMAG Indian Island. The nearest private residences are approximately 1.5 miles to the west at Kala Point. Potential noise impacts to wildlife species are discussed in Section 3.1.3.

3.4.3 Environmental Consequences

Noise would be considered significant if it caused an exceedance of the state and local noise thresholds at a sensitive receptor (e.g. residential land uses or community uses). This noise impact analysis considers the peak noise generated at the source and how it propagates or travels to the sensitive noise receptor. The received sound level at a sensitive noise receptor is compared to the noise thresholds to determine effects.

3.4.3.1 Alternative 1: Overhead Loop Power Distribution System (Preferred Alternative)

Construction activities would create localized, temporary noise over the 16-month construction period during installation of utility poles, installation of approximately 200 feet of new 10-foot wide gravel access road, re-routing of four 60-foot segments of an existing 10-foot wide gravel access road, installation of new overhead distribution lines, trenching and restoring surfaces, and removing vegetation. Potential construction equipment and noise levels are shown in Table 3-2. Based on decibel addition rules (WSDOT 2015), the maximum combined noise level during construction is expected to be 94 dBA at a distance of 50 feet from the activity based on noise levels associated with pavement removal equipment.

Table 3-2. Maximum Noise Levels at 50 feet for Common Construction Equipment

Equipment Type	Maximum Noise Level (dBA at 50 feet)
Concrete Saw	90
Pavement Scarifier	90
Chain saw	84
Dozer	82
Backhoe	78
Dump truck	76
Pickup Truck	75
Flat Bed Truck	74

Source: WSDOT 2015

Sound generated by a stationary point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor at acoustically "hard" sites and at a rate of 7.5 dBA at acoustically "soft" sites (WSDOT 2015). A "hard" or reflective site is typically asphalt, concrete, open water, or very hard packed soils. An acoustically "soft" or absorptive site is normal earth and most ground with vegetation. Based on the maximum construction noise anticipated and typical noise attenuation of 6 dBA, noise received at the nearest residences 1.5 miles (8,730 feet) away would be below 50 dBA (Table 3-3), which would not exceed the state and local maximum allowable daytime noise level of 60 dBA or the nighttime maximum noise level of 50 dBA.

Table 3-3. Maximum Construction Noise Levels

Distance from Source (feet)	Construction Noise (dBA)
50	94
100	88
200	82
400	76
800	70
1,600 (0.3 mile)	64
3,200 (0.6 mile)	58
6,400 (1.2 miles)	52
12,800 (2.4 miles)	46

Operation and maintenance of Alternative 1 would involve vehicles and equipment typical of existing operations at NAVMAG Indian Island. Annual removal of vegetation along new distribution lines would cause short-term noise. Based on typical chainsaw noise (Table 3-2) and distance from the nearest residences, vegetation removal would not exceed noise thresholds at the closest sensitive receptor. Alternative 1 would remove an existing source of temporary airborne noise, the two existing generators at the Ammunition Wharf. The combined noise from two generators is calculated to be 84 dBA at 50 feet (see Section 3.4.3.4 for further discussion of noise from existing generators) and below 42 dBA at the nearest residence. Alternative 1 would not include any new or expanded permanent sources of airborne noise. Based on the analysis above, there would be no significant noise impacts from construction and operation of Alternative 1.

3.4.3.2 Alternative 2: Underground Loop Power Distribution System

Construction activities would create localized, temporary noise impacts over the 16-month construction period during trenching and restoring surfaces, installation of underground distribution lines, and removing vegetation. Types of construction equipment would be the same as discussed under Alternative 1 at the same locations. Construction noise of Alternative 2 would be similar to Alternative 1.

Operation and maintenance of Alternative 2 would involve vehicles and equipment typical of existing operations at NAVMAG Indian Island and would not include any new or expanded permanent sources of airborne noise. Similar to Alternative 1, Alternative 2 would result in an overall reduction in airborne noise through the removal of the two existing generators. Therefore, there would be no significant noise impacts from construction and operation of Alternative 1.

3.4.3.3 Alternative 3: New Generators

Under Alternative 3, the Navy would remove the existing two generators and install four replacement generators. Generators have average maximum noise levels of 81 dBA at 50 feet (WSDOT 2015). The combined noise from four generators is expected to average 87 dBA at 50 feet based upon WSDOT (2015) decibel addition rules. With the combined generator noise and typical noise attenuation of 6 dBA, attenuated noise from four generators received at the nearest residences 1.5 miles away would be below 45 dBA (Table 3-4).

Based on the analysis above, noise from generators would not exceed state and local noise thresholds of 60 dBA (daytime) and 50 dBA (night). Therefore, there would be no significant noise impacts from Alternative 3.

3.4.3.4 No Action Alternative

Under the No Action Alternative, the two existing MUSE generators would continue to operate through September 30, 2016. The combined noise from two generators would average 84 dBA at 50 feet, based upon the decibel addition rules (WSDOT 2015). Based on the combined noise of two generators and typical noise attenuation of 6 dBA, generator noise received at the nearest residences 1.5 miles away would be below 42 dBA (Table 3-4).

Based on the analysis above, noise from generators would not exceed state and local noise thresholds of 60 dBA (daytime) and 50 dBA (night). After September 30, 2016, no generator-produced noise would occur. There would be no significant noise impacts from the No Action Alternative.

Table 3-4. Maximum Operational Noise Levels for Generators

Distance from Source (feet)	Noise (dBA)	
	Four Replacement Generators	Two Existing Generators
50	87	84
100	81	78
200	75	72
400	69	66
800	63	60
1,600 (0.3 mile)	57	54
3,200 (0.6 mile)	51	48
6,400 (1.2 miles)	45	42
12,800 (2.4 miles)	39	36

3.4.3.5 Mitigation

No significant noise impacts are anticipated, and no mitigation is required or proposed.

3.5 Utilities

This section discusses electrical service on NAVMAG Indian Island. Since the proposed action would not involve or affect water or sewer service and there is no natural gas service on NAVMAG Indian Island, water, sewer, and natural gas are not discussed.

3.5.1 Regulatory Setting

Although not a regulation, Executive Order (EO) 13693 (March 2015) *Planning for Sustainability in the Next Decade* states federal policy that requires federal agencies to increase efficiency and improve environmental performance. The EO places first priority on reducing energy use and cost, then on finding renewable or alternative energy solutions. Goals and objectives

include reducing greenhouse gas emissions across federal operations and the federal supply chain.

In order to reduce environmental impacts and address limited resources, the Navy has adopted guidance and policies that promote sustainable planning, design, development, and operations. These guidelines direct the Navy to decrease energy use, minimize reliance on traditional fossil fuels, protect and conserve water, and reduce the environmental impact of materials use and disposal.

3.5.2 Affected Environment

The Navy has a contract with the Jefferson County Public Utility District to supply electrical service to the Ammunition Wharf itself and the remainder of NAVMAG Indian Island. Two 12.47 kilovolt (KV) distribution lines enter the southern portion of the installation via a transmission line from a substation at Chimacum, WA. Power is distributed across the base by a single overhead distribution line that is tapped and routed underground at multiple locations to base facilities (Navy 2009). Currently, submarines using the Ammunition Wharf receive power from diesel-powered generators located on the shore adjacent to the Ammunition Wharf.

3.5.3 Environmental Consequences

Impacts to utilities would be considered significant if the proposed action would result in increased demand for utilities that would exceed the capacity of the existing delivery system.

3.5.3.1 Alternative 1: Overhead Loop Power Distribution System (Preferred Alternative)

The anticipated electrical demand through 2025 is 3.38 Megavolt-ampere (MVA) for NAVMAG Indian Island, including shore power for submarines at the Ammunition Wharf (Navy 2009). The existing overhead distribution line from the Jefferson County Public Utility District line has the capacity to support the anticipated load (Navy 2009). Therefore, there would be no significant impact to utilities as a result of Alternative 1.

Alternative 1 would comply with EO 13693 by reducing energy-related costs associated with leasing, permitting, and fueling the existing generators. The existing generators have used approximately 70,000 gallons of diesel fuel per year. Replacing the existing generators with an overhead loop power distribution system would also reduce greenhouse gas emissions, air pollution, and reliance on traditional fossil fuels.

3.5.3.2 Alternative 2: Underground Loop Power Distribution System

Electrical demand would be the same as discussed under Alternative 1. The existing overhead distribution line from the Jefferson County Public Utility District line has the capacity to support the anticipated electrical load at NAVMAG Indian Island. Therefore, there would be no significant impact to utilities as a result of Alternative 2.

Similar to Alternative 1, Alternative 2 would comply with EO 13693 by reducing energy-related costs and reducing greenhouse gas emissions. Alternative 2 would also reduce reliance on traditional fossil fuels.

3.5.3.3 Alternative 3: New Generators

Under Alternative 3, the Navy would remove the existing two generators and install four replacement generators. NAVMAG Indian Island would continue to receive electrical service from Jefferson County Public Utility District to support the Ammunition Wharf and the remainder of NAVMAG Indian Island. There would be no change to existing electrical use, and electrical demand would not exceed the capacity of the existing system. However, operation of four

generators is expected to use approximately 140,000 gallons of diesel fuel per year. Under Alternative 3, there would be no significant impact to utilities.

3.5.3.4 No Action Alternative

Under the No Action Alternative, the Navy would not construct a new loop power distribution line and would continue to operate the two existing MUSE generators for berthed submarines through September 30, 2016. The two generators would use approximately 70,000 gallons of diesel fuel per year through September 30, 2016. After September 30, 2016, the Navy would remove two existing diesel-powered generators and the Navy would no longer provide power to submarines berthed at the Ammunition Wharf. NAVMAG Indian Island would continue to receive electrical service from Jefferson County Public Utility District to support the Ammunition Wharf itself and the remainder of NAVMAG Indian Island. There would be no change to existing electrical use, and electrical demand would not exceed the capacity of the existing system. Therefore, under the No Action Alternative, there would be no significant impact to utilities.

3.5.3.5 Mitigation

No significant impacts to utilities are anticipated and no mitigation is required or proposed.

Table 3-5. Summary of Potential Direct and Indirect Environmental Consequences by Resource

Resource	Alternative 1: Overhead Loop Power Distribution System Preferred Alternative	Alternative 2: Underground Loop Power Distribution System	Alternative 3: New Generators	No Action Alternative
Biological Resources	Vegetation adjacent to overhead distribution lines would be removed; approximately 11.4 acres of third-growth forest would be converted to grasses and other low-growing species. A portion of the distribution line would be installed underground within an existing road to avoid impacts to riparian wetland corridor vegetation. To avoid bird electrocution, utility poles would be configured in accordance with Avian Protection Plan Guidelines (APLIC and USFWS 2005). Construction within the bald eagle nest buffer zone would occur between late September and early October. Tree clearing would avoid a potential marbled murrelet platform tree. With implementation of avoidance and minimization measures, there would be no significant impacts to biological resources.	Vegetation clearing would be required to install underground distribution lines. Construction within the bald eagle nest buffer zone would occur between late September and early October. Tree clearing would avoid a potential marbled murrelet platform tree. With implementation of avoidance and minimization measures, there would be no significant impacts to biological resources.	Equipment would be installed on existing pavement. No vegetation or habitat would be removed. Generator-produced noise levels at the edge of adjacent marine waters and wetlands would be 79 dBA, which could result in temporary disturbance to bird and wildlife species. There would be no significant impacts to biological resources.	No vegetation or habitat would be removed. Temporary noise from two generators (75 dBA at the edge of adjacent marine waters and wetlands) would occur until September 30, 2016 and could result in temporary disturbance to bird and wildlife species. There would be no significant impacts to biological resources.
Cultural Resources	To avoid disturbance to any intact archaeological materials located under existing fill at Walan Point, excavation depth would not exceed 3 feet. In additional, all excavations at Walan Point would be monitored by an SOI qualified archaeologist. Outside of Walan Point, any ground disturbing activity outside of previously surveyed areas would be monitored by an SOI qualified archaeologist. The proposed action would not alter the characteristics of Building 69 or Building 84 that qualify these buildings for inclusion in the NRHP, nor would it alter Building 127. The new utility poles and distribution lines would be a minimal visual intrusion to the administrative and industrial setting. With implementation of depth restrictions and archaeological monitoring, there would be no significant impacts to cultural properties.	To avoid disturbance to any intact archaeological materials located under existing fill at Walan Point, excavation depth would not exceed 3 feet. In additional, all excavations at Walan Point would be monitored by an SOI qualified archaeologist. Outside of Walan Point, any ground disturbing activity outside of previously surveyed areas would be monitored by an SOI qualified archaeologist. There would be no adverse effect on Buildings 69, 84, or 127 from construction of an underground distribution line. With implementation of depth restrictions and archaeological monitoring, there would be no significant impacts to cultural properties.	No ground disturbance proposed and no impact to cultural resources.	No ground disturbance proposed and no impact to cultural resources.

Resource	Alternative 1: Overhead Loop Power Distribution System Preferred Alternative	Alternative 2: Underground Loop Power Distribution System	Alternative 3: New Generators	No Action Alternative
Air Quality	Construction equipment operation would result in short-term increases in levels of NO_2, CO, SO_2, particulate matter, and VOCs. Construction measures such as dust control and other fugitive emissions control measures would be implemented. Removal of the existing MUSE generators would reduce regulated air pollutant emissions. There would be no significant impacts to air quality from construction and operation.	Construction equipment operation would result in short-term increases in levels of NO_2, CO, SO_2, particulate matter, and VOCs. Construction measures such as dust control and other fugitive emissions control measures would be implemented. Removal of the existing MUSE generators would reduce regulated air pollutant emissions. There would be no significant impacts to air quality impacts from construction and operation.	Air emissions expected to be reduced due to installation of replacement generators. There would be no significant impacts to air quality.	Temporary air emissions from existing generators would continue until September 20, 2016. After that date, no generator-produced air emissions would occur. There would be no significant impacts to air quality.
Noise	Construction noise would not exceed state and local noise thresholds at the closest sensitive receptor. Overall noise reduction would occur with the removal of the two existing generators. There would be no significant noise impacts from construction and operation.	Construction noise would not exceed state and local noise thresholds at the closest sensitive receptor. Overall noise reduction would occur with the removal of the two existing generators. There would be no significant noise impacts from construction and operation.	Temporary noise expected to increase due to installation of four replacement generators, but would not exceed state and local noise thresholds. There would be no significant noise impacts from construction and operation.	Temporary noise from existing generators would continue until September 30, 2016. After that date, no generator-produced noise would occur. There would be no significant noise impacts.
Utilities	Would not exceed the capacity of the existing power delivery system. There would be no significant impacts to utilities.	Would not exceed the capacity of the existing power delivery system. There would be no significant impacts to utilities.	No change to existing utility use. There would be no significant impacts to utilities.	No change to existing utility use. There would be no significant impacts to utilities

4.0 Cumulative Impacts

CEQ regulations implementing the procedural provisions of NEPA define cumulative impacts as:

"…the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *(40 CFR 1508.7).*

Each resource, ecosystem, and human community must be analyzed in terms of its ability to accommodate additional effects, based on its own time and space parameters. Therefore, cumulative effects analysis normally will encompass a Region of Influence (ROI) or geographic boundaries beyond the immediate area of the proposed action, and the analysis will encompass a time frame including past actions and foreseeable future actions to capture these additional effects.

For the proposed action to have a cumulatively significant impact to an environmental resource, two conditions must be met. First, the combined effects of all identified past, present, and reasonably foreseeable projects, activities, and processes on a resource, including the effects of the proposed action, must be significant. Second, the proposed action must make a substantial contribution to that significant cumulative impact. In order to analyze cumulative effects, a cumulative effects region must be identified for which effects of the proposed action and other past, present, and reasonably foreseeable actions would occur.

4.1 Past, Present, and Reasonably Foreseeable Projects

For purposes of this cumulative effects analysis, the ROI is the northeast corner of Jefferson County including the City of Port Townsend and the community of Port Hadlock.

This analysis depends on the availability of data and the relevance of effects of past, present, and future actions. Although certain data (e.g., extend of forest cover) may be available for extensive periods in the past (i.e., decades), other data (e.g., water quality) may be available for much shorter periods. Because specific information and data on past projects and action are usually scarce, the analysis of past effects is often qualitative (CEQ 1997).

Table 4-1 lists the past, present, and reasonably foreseeable future actions within the ROI that have had, continue to have, or would be expected to have some impact to the natural and human environment. The projects in this table are limited to those implemented in the last 5 years or those with ongoing contributions to environmental effects. Projects with measureable contributions to impacts within the ROI for a resource area were included in the cumulative analysis.

Table 4-1. Past, Present, and Reasonably Foreseeable Future Actions within the ROI

Action	Description	Project Timeframe		
		Past	Present	Future
NAVMAG Indian Island Integrated Natural Resource Management Plan	Development and implementation of a natural resource management plan on NAVMAG Indian Island in a manner consistent with the property's military use.	X	X	X
NAVMAG Indian Island Ammunition Wharf Piling Replacement	Removal and replacement of deteriorated concrete piles under the Ammunition Wharf.	X	X	X

Action	Description	Project Timeframe		
		Past	Present	Future
Selective Forest Thinning	Selective removal of trees to enhance the quality of wildlife habitat.	X	X	X
Ammunition Wharf Electrical Upgrade and Small Craft Pier Extension (P-349)	Installation of generators to provide power for submarines during ordnance loading operations, and extension of the Small Craft Pier to provide sufficient mooring for two tugboats required to maneuver submarines into the Pier.	X		
Upgrade and Replace Mobile Utilities Support Equipment (MUSE) Generators at the Ammunition Wharf (Bldg. 832)	Replacement of three Cummins 1750 KW Diesel Electric Generators with two upgraded/replacement Cummins 2000 KW Diesel Electric Generators in the same footprint.	X		
Fort Road Restoration Project	Restoration of a riparian wetland corridor consisting of a stream channel, riparian area, and jurisdictional wetland located in the vicinity of Fort Road, NAVMAG Indian Island, and re-establishment of forest on adjacent upland areas.	X		
Installation and Operation of a Force Protection Barrier	Installation of a floating security barrier at NAVMAG Indian Island to clearly mark waterfront restricted areas and to improve security operations.	X		
Building 833 Heat Pump	Install water source heat pump for Building 833 on the Ammunition Wharf at NAVMAG Indian Island			X
Missile Magazines, NAVMAG Indian Island	Construction of three new missile magazines at NAVMAG Indian Island. Demolition and removal of several existing WWII-era missile magazines.			X
Convert 2400 V System	Remove and relocate transformer and switchgear from an existing substation to a new outdoor enclosure. Replace existing underground 2400 V system with new 12.46 KV underground system. Replace three pole-mounted switches.		X	X

4.2 Assessment of Cumulative Impacts by Resource

The actions contributing to cumulative impacts for all relevant resources are evaluated in detail below. Please refer to Table 4-2 for a summary of cumulative impacts by resource.

4.2.1 Biological Resources

The ROI for biological resources includes NAVMAG Indian Island. Past and present development on NAVMAG Indian Island has resulted in the conversion of forest areas to developed areas and disturbance to species. However, NAVMAG Indian Island remains relatively undeveloped, with approximately 77% forested land. Several actions listed in Table 4-1 could affect biological resources. The Integrated Natural Resources Management Plan would benefit biological resources by sustainably managing resources while ensuring no net loss in the capability of the lands to support the military mission. Management includes actions including, but not limited to: monitoring and controlling invasive non-native plants, surveys for habitat and species, and forest treatments. Forest thinning would have a beneficial impact on the quality of wildlife habitat. Future in-water projects such as the future Ammunition Wharf Piling Replacement would temporarily disturb marine species. The Fort Road restoration project re-established a riparian wetland corridor and its adjacent buffer. The future Missile Magazine project would likely remove some forest habitat. Although some of these future

projects would impact vegetation/habitat, other Navy activities such as implementatation of the Integrated Natural Resources Management Plan would benefit those resources. As described in Section 3.1.3, there would be no significant impacts to biological resources under Alternative 1, Alternative 2, Alternative 3, or the No Action Alternative. Therefore, implementation of the proposed action combined with the past, present, and reasonably foreseeable future projects, would not result in significant adverse impacts to biological resources.

4.2.2 Cultural Resources

The ROI for cultural resources includes NAVMAG Indian Island. Actions listed in Table 4-1 that could affect cultural resources include natural resources management actions, the future Missile Magazine project, and the future conversion of a 2400 V system. Ground-disturbing activities conducted for natural resources management could affect subsurface resources. As resource management projects are developed, the Navy would consult with SHPO to address any potential adverse impacts. The future Missile Magazine project would affect ammunition storage facilities. Demolition of Ammunition Storage Facilities constructed during the World War II and Cold War eras (1939-1974) is addressed under the Advisory Council on Historic Preservation's 2006 Program Comment; therefore, no adverse effects to historic resources are anticipated. Conversion of an existing 2400 V system would not affect any cultural resources. Components of Alternative 1 would be a minimal intrusion into the viewscape of Buildings 69, 84, and 127. With implementation of archaeological monitoring as described in Section 3.2.3.4, there would be no significant impacts to architectural resources or archaeological resources under Alternative 1 or Alternative 2. There would be no impact to cultural resources under Alternative 3 or the No Action Alternative. Therefore, implementation of the proposed action combined with the past, present, and reasonably foreseeable future projects, would not result in significant adverse impacts to cultural resources.

4.2.3 Air Quality

As discussed in Section 3.3, Jefferson County is in attainment for all NAAQS. Past development and subsequent operation of emission sources in Jefferson County has not contributed to exceedances of the NAAQS, and the region is in attainment for all applicable air quality standards. Likewise, planned future development in Jefferson County (Navy and non-Navy) is expected to be consistent with or below the emissions estimates contained in the SIP. The proposed action in combination with other past, present, and future actions would not be expected to cause or contribute to an exceedance of applicable air quality regulations.

Federal actions with long-term annual direct emissions less than 25,000 metric tons are not reasonably anticipated to contribute to the cumulatively considerable impacts. According to CEQ's Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, "For long-term actions that have annual direct emissions of less than 25,000 metric tons of CO2-e, CEQ encourages federal agencies to consider whether the action's long-term emissions should receive similar analysis" (CEQ 2014). Under all alternatives, long-term air emissions would be reduced from current conditions through either removal of the existing generators (Alternatives 1 and 2), replacement with equipment that produces less air emissions (Alternative 3), or removal of existing generators (No Action Alternative). Therefore, the proposed action would not contribute to cumulative impacts to air quality.

4.2.4 Noise

The ROI for noise includes NAVMAG Indian Island and surrounding communities within the line of sight from the Ammunition Wharf. Past and present actions listed in Table 4-1 have resulted in Navy-generated noise from Ammunition Wharf activities, including operation of the existing diesel-powered generators. Piling replacement activities produce temporary noise associated with pile driving equipment. Ongoing Navy activities at NAVMAG Indian Island, including natural resource management and forest thinning, would generate noise on a temporary basis in the upland environment. Two future projects, Building 833 heat pump and missile magazines, would generate temporary noise during construction. Noise from construction of the proposed action is unlikely to overlap with construction noise from present or future actions due to location and timing. Under Alternatives 1 and 2, long-term noise would be reduced from current conditions by eliminating the existing generators. Under Alternative 3, operation of the replacement generators could produce more noise than the existing equipment but would remain below state and local noise thresholds. Under the No Action Alternative, generator produced noise would not occur after September 30, 2016. Therefore, implementation of the proposed action combined with the past, present, and reasonably foreseeable future projects would not result in significant noise impacts within the ROI.

4.2.5 Utilities

The ROI for utilities includes NAVMAG Indian Island. Actions listed in Table 4-1 that could contribute to utility impacts include the past installation and upgrade of existing generators at the Ammunition Wharf, current and future conversion of a 2400V system, and the future installation of a heat pump in Building 833. Combining Alternative 1, Alternative 2, Alternative 3, or the No Action Alternative with the future conversion of the 2400V system and installation of a heat pump at Building 833 would not exceed the capacity of the existing system. Therefore, implementation of the proposed action combined with the past, present, and reasonably foreseeable future projects would not result in significant utility impacts within the ROI.

4.3 Summary of Potential Environmental Consequences

Implementation of the proposed action would not constitute a "major federal action significantly affecting the quality of the human environment" when considered individually or cumulatively in the context of NEPA, including both direct and indirect impacts (Table 3-5). Therefore, this EA supports a Finding of No Significant Impact (FONSI) for the Preferred Alternative and the preparation of an Environmental Impact Statement (EIS) is not required.

5.0 Other Considerations Required by NEPA

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, regulations, and policies that are applicable to the proposed action; and Table 5-1 describes briefly how compliance would be accomplished.

Table 5-1. Principal Federal and State Laws, Regulations, and Policies Applicable to the Proposed Action

Law, Regulation, Policy	Status of Compliance
National Environmental Policy Act (NEPA) (42 USC 4321 et seq.); CEQ NEPA implementing regulations (40 CFR 1500-1508; Navy procedures for Implementing NEPA (32 CFR Part 775 and OPNAV M-5090.1, Chapter 10)	Preparation of this EA has been conducted in compliance with NEPA and in accordance with CEQ regulations and the Navy's NEPA procedures.
Clean Air Act (42 USC 7401 *et seq*.)	Jefferson County is in attainment for all NAAQS. The proposed action would not change air quality attainment status or conflict with attainment and maintenance goals established in the SIP. Therefore, a CAA conformity determination is not required.
Clean Water Act (Sections 401 and 404, 33 USC 1251 *et seq*.)	No wetlands or waters of the U.S. would be impacted by the proposed action. Therefore, no permits or authorizations under the Clean Water Act are required.
Rivers and Harbors Act (33 USC 407 *et seq*.)	Alternatives 1 and 2 would involve work on an existing over-water structure. This work would qualify for a U.S. Army Corps of Engineers (USACE) Nationwide Permit 3 for Maintenance. Pre-construction notification is not required because the work would not impact aquatic resources requiring special protection; would not affect any ESA-listed species, critical habitat, or essential fish habitat; would not affect a listed historic properties; and would not impact designated critical resource waters.
Coastal Zone Management Act (16 USC 1451 *et seq*.)	Since all of NAVMAG Indian Island is federally-owned, the installation is not within the coastal zone as defined in 16 USC 1453. Any effects of the proposed action would not extend beyond the federally-owned facility. The Proposed Action is expected to qualify for USACE Nationwide Permit 3 for Maintenance, which has been certified by WDOE as consistent with Washington's Coastal Zone Management Program's Enforceable Policies (USACE 2012).
National Historic Preservation Act (Section 106, 54 USC 306108 *et seq*.)	In accordance with Section 106 of the NHPA, the Navy determined and SHPO concurred that the proposed action would have no adverse effect on historic properties in letters dated March 5, 2015 and June 17, 2015.
Native American Graves Protection and Repatriation Act (25 U.S.C. 3001-3013 *et seq*.)	Under Alternative 1 or Alternative 2, excavation at Walan Point would be monitored by an SOI qualified archaeologist. If the Navy were to encounter human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined by NAGPRA, the Navy would comply with NAGPRA and Navy instructions and consult with the SHPO, affected American Indian tribes, and other interested parties. No ground disturbance would occur under Alternative 3 or the No Action Alternative.

Table 5-1. Principal Federal and State Laws, Regulations, and Policies Applicable to the Proposed Action

Law, Regulation, Policy	Status of Compliance
Endangered Species Act (16 USC 1531 *et seq*.)	In a June 4, 2015 letter, USFWS concurred with the Navy's determination of "may affect, not likely to adversely affect" the ESA-listed marbled murrelet.
Migratory Bird Treaty Act (16 USC 703-712)	The proposed action would not adversely affect migratory birds. USFWS concurred with project design elements to prevent bird electrocution in a letter dated June 4, 2015.
Bald and Golden Eagle Protection Act (16 USC 668-668d)	Construction within proximity to a known bald eagle nest will be restricted to avoid impacts to nesting bald eagles. USFWS concurred with breeding season restrictions and project design to prevent bird electrocution in a letter dated June 4, 2015.
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-income Populations	No adverse human health or environmental effects are anticipated on or off the installation and therefore there would be no disproportionately high and adverse effect on low-income communities or minority communities. Construction and operation would occur entirely within the boundaries of NAVMAG Indian Island. Short-term construction noise and air emissions are not expected to impact residents of nearby communities.
Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks	Access to NAVMAG Indian Island is restricted, and the facility contains no housing, schools, or daycare centers. The proposed action would not result in any adverse environmental health risks or safety risks to children.
Executive Order 13148, Greening the Government through Leadership in Environmental Management	Alternative 1 or Alternative 2 would eliminate air emissions from the existing diesel-powered generators. Alternative 3 would reduce air emissions through operation of lower-emission equipment. The No Action Alternative would eliminate air emissions from the existing diesel-powered generators after September 30, 2016.
Executive Order 13175, Consultation and Coordination with Indian Tribal Governments	In a letter dated Jun 12, 2014, the Navy invited the Port Gamble S'Klallam Tribe, Jamestown S'Klallam Tribe, Lower Elwha Klallam Tribe, and Suquamish Tribe to initiate consultation on the proposed action. The tribes did not initiate consultation on this action.
Executive Order 13693 *Planning for Sustainability in the Next Decade*	Sustainable design principles will be included in the design and construction of the project in accordance with Executive Order 13963 and other laws and Executive Orders. Facilities will meet Leadership in Energy and Environmental Design ratings and comply with the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. Low Impact Development shall be incorporated in the design and construction of this project as appropriate. Alternatives 1 and 2 would reduce energy-related costs associated with leasing and permitting the existing generators.

5.1 Irreversible or Irretrievable Commitment of Natural or Depletable Resources (40 CFR Section 1502.16)

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 wood, metal, 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, the consumption of fuel, oil, and lubricants for construction vehicles and conversion of 11.4 acres of third-growth forest into mowed grasslands. Alternatives 1 and 2 would eliminate the use of approximately 70,000 gallons of diesel fuel per year to operate the existing generators. Implementation of the proposed action would not result in significant irreversible or irretrievable commitment of resources.

5.2 Relationship between Local Short-Term Use of the Human Environment and Maintenance and Enhancement of Long-Term Natural Resource Productivity (40 CFR Section 1502.16)

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 short-term, effects to the human environment with implementation of the proposed action would primarily relate to the construction activity itself. Vegetation, air quality and noise would be impacted in the short-term. In the long-term, the Navy would manage vegetation along the overhead distribution lines. The construction and operation of the electrical power distribution system would not significantly impact the long-term natural resource productivity of the area. The proposed action would not result in any impacts that would significantly reduce environmental productivity or permanently narrow the range of beneficial uses of the environment.

5.3 Means to Mitigate and/or Monitor Adverse Environmental Impacts (40 CFR Section 1502.16(h))

The proposed action would not result in any significant adverse environmental impacts with implementation of the following measures to mitigate impacts:

- Construction within the secondary nest buffer zone would occur between late September and early October, after a Navy wildlife biologist verifies that the adult pair of bald eagles is not present and the nest is inactive.
- At Walan Point an SOI qualified archaeologist shall monitor all excavations.
- Outside Walan Point, an SOI qualified archaeologist shall monitor ground-disturbing activity where no prior surveys have been performed.

5.4 Any Probable Adverse Environmental Effects That Cannot Be Avoided and Are Not Amenable To Mitigation

This EA has determined that the proposed action would not result in any significant impacts; therefore, there are no probable adverse environmental effects that cannot be avoided or are not amenable to mitigation.

6.0 References

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Appendix A
Mitigation and Monitoring

Mitigation Measure *Title and Description*	Origin of measure	Anticipated Benefit	Criteria for Evaluating Effectiveness	Responsible Party	Estimated Completion Date
Avian Protection Measures. Configure utility poles in accordance with Avian Protection Plan Guidelines (APLIC and USFWS 2005)	June 4, 2015 USFWS letter	Avoid bird electrocution		Navy	Completion of construction
Bald Eagle Nest Buffer. Construction within the secondary nest buffer zone would occur between late September and early October, after a Navy wildlife biologist verifies that the adult pair of bald eagles is not present and the nest is inactive	June 4, 2015 USFWS letter	Avoid impacts to nesting bald eagles.		Navy	Completion of construction
At Walan Point an SOI qualified archaeologist shall monitor all excavations.	Hughes and Quirke 2014 March 5, 2015 letter from SHPO.	Avoidance of adverse effects to archaeological resources.	Monitoring report submitted to SHPO.	Navy	Completion of construction
Outside Walan Point, an SOI qualified archaeologist shall monitor ground-disturbing activity where no prior surveys have been performed.	Hughes and Quirke 2014 March 5, 2015 letter from SHPO.	Avoidance of adverse effects to archaeological resources.	Monitoring report submitted to SHPO.	Navy	Completion of construction

Appendix B

National Historic Preservation Act Section 106 Documentation

DATE	CORRESPONDENCE	NOTES
06/17/15	Letter, SHPO to Navy	SHPO recognized that the NRHP eligibility status of Building 127 is unclear and concurred with Navy finding of no effect / no adverse effect.
06/10/15	Letter, Navy to SHPO	Navy maintains that Building 127 is not historic and determined proposed action would have no effect / no adverse effect on Building 127.
03/05/15	Letter, SHPO to Navy	Requested further information on Buildings 127 and 187. Previous archaeological issues were addressed through informal consultation.
02/05/15	Letter, SHPO to Navy	Requested further information about Advisory Council's Programmatic Comment on Ammunition Storage Facilities, CD copy of report, and professional monitoring plan.
01/06/15	Letters, Navy to Port Gamble S'Klallam Tribe and Jamestown S'Klallam Tribe	Cultural Resources Review of the Navy's Proposed Shore Power Project P-603, Naval Magazine Indian Island, WA
12/31/14	Letter, Navy to SHPO	Request for Concurrence on Determinations of Eligibility for Buildings and Finding of Effect for the Proposed Shore Power Project P-603, Naval Magazine Indian Island, WA
11/24/14	Letter, SHPO to Navy	Request for site visit.
10/17/14	Letter, Navy to SHPO	Request for Concurrence on Determinations of Eligibility for Buildings and Finding of Effect for the Proposed Shore Power Project, Naval Magazine Indian Island, WA
7/14/14	Letter, SHPO to Navy	Concur with determination of Area of Potential Effect.
6/24/14	Letter, Navy to State Historic Preservation Officer (SHPO)	Request for Concurrence on Definition of the Area of Potential Effects (APE) for the Proposed Shore Power Project, Naval Magazine Indian Island, Port Hadlock, WA
6/24/14	Letters, Navy to Port Gamble S'Klallam Tribe, Jamestown S'Klallam Tribe, and Lower Elwha Klallam Tribe	Request for Comments on Definition of the APE for the Proposed Shore Power Project, Naval Magazine Indian Island, Port Hadlock, WA

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

June 17, 2015

M.B. Yesunas, Commanding Officer
U.S. Navy
Naval Magazine Indian Island
100 Indian Island Road
Port Hadlock, Washington 98339-9723

In future correspondence please refer to:
Log: 071414-03-USN
Property: Building 127 Million Gallon Water Reservoir
Re: Indian Island Magazine Shore Power Project

Dear Commanding Officer Yesunas:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP) regarding the above referenced proposal. Your communication of June 10, 2015 has been reviewed on behalf of the State Historic Preservation Officer under provisions of Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800. My review is based upon information contained in your communication.

In response and also while recognizing that the National Register of Historic Places eligibility status of Building 127 is unclear as of this writing, I concur with your finding that this proposed action will have “no adverse effect” on the character defining features that qualify the structure for the National Register, or the determination of “no potential to effect historic properties” if the structure is found to be not eligible for the National Register after the date of this writing. Regardless of the eligibility outcome, should the project scope of work change significantly, please contact our office. Or, if any archaeological resources are uncovered during construction, please halt work in the area of discovery and contact the appropriate Native American Tribes and DAHP for further consultation.

Thank you for the opportunity to review and comment. If you have any questions, please contact me at 369-586-3073 or greg.griffith@dahp.wa.gov.

Sincerely,

Gregory Griffith
Deputy State Historic Preservation Officer

C: Amanda Bennett

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO
5090
Ser N39/110
June 10, 2015

Allyson Brooks, PHD
State Historic Preservation Officer
Washington Department of Archaeology and Historic Preservation
1063 South Capitol Way Ste 106
PO Box 48343
Olympia, WA 98504

Dear Dr. Brooks:

SUBJECT: DAHP Log #071414-03-USN: REQUEST FOR CONCURRENCE ON FINDING OF EFFECT FOR THE PROPOSED SHORE POWER PROJECT P-603, NAVAL MAGAZINE INDIAN ISLAND, WASHINGTON

Following a phone conversation with Russell Holter and Greg Griffith on 03/19/2015, the Navy would like to continue consultation on the effects of the proposed Shore Power project P-603 at Indian Island with regard to architectural resources.

The Navy appreciates your reconsideration and verbal concurrence with our finding that Building 187, the Inert Operations building, is not eligible for the National Register of Historic Places (NRHP). However, the Navy maintains the finding that the Building 127 Million Gallon Water Reservoir is not eligible for the NRHP, in disagreement with the SHPO's determination of eligible. As such, the Navy will be pursuing a formal determination from the Keeper of the National Register of Historic Places.

Despite the unclear status of Building 127, the Navy must continue consultation for the proposed Shore Power project. The proposed poles and associated power lines will be located in the same clearing, just south and west of the underground tank and pump house. The poles will not physically alter either structure. Because the Reservoir is primarily underground and not noteworthy for its viewshed, the poles will not have a negative visual effect on the structures.

If the Water Reservoir is determined not eligible, then the Navy proposes a finding of No Potential to Effect Historic Properties for the proposed project. Should the Water Reservoir be determined eligible, then the Navy finds that the proposed project will have No Adverse Effect on Historic Properties.

5090
Ser N39/110
June 10, 2015

The Navy requests your concurrence on the determination of No Adverse Effect on Building 127 for the proposed undertaking. If you require any further information or have any questions, please contact Ms. Amanda Bennett at (360) 476-6613 or e-mail: amanda.j.bennett@navy.mil

Sincerely,

M. B. YESUNAS
Commander, U.S. Navy
Commanding Officer

Enclosures: 1. Area of Potential Effect and Building Map

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

March 5, 2015

Mr. Bill Kalina
USN
100 Indian Island Road
Port Hadlock, Washington 98339-9723

In future correspondence please refer to:
Log: 071414-03-USN
Property: Indian Island Magazine Shore Power Project
Re: Determined Eligible

Dear Mr. Kalina:

Thank you for contacting our office. We have reviewed the materials you provided to our office and we concur with your professional opinion that the following historic properties are eligible to the National Register of Historic Places:

- Building 69 Administration Building
- Building 84 Maintenance Shop

We concur that the following historic properties are not eligible:

- Building 70 Ordnance Operations Building
- Building 89 Armory
- Building 151 Gymnasium
- Building 154 Public Works Maintenance
- Building 184 Guard Station

We cannot concur with the findings of the following structures that were determined not eligible:

- Building 127 Water Reservoir
- Building 187 Inert Operations Building

The reservoir structure despite having neither architectural significance, nor a direct role in the Second World War was integral to the support mission that Indian Island Magazine played and continues to play to this day. The reservoir should be considered for its importance in this supporting role and would either be individually eligible or, at the very least, a contributing element to larger historic district. The magazine could not possibly function without it.

Building 187, although a later addition to Indian Island Magazine, it is our opinion that Inert Operations Building retains sufficient integrity and is significant for the role it played in subsequent Magazine operations that arose in the Korean Conflict, the Vietnam War, and the Cold War. We understand that a more comprehensive survey of the Magazine is forth-coming.

We look forward to further consultation regarding these two structures and your determination of effect. We also look forward to seeing the comprehensive survey of the Magazine when it is available. The archaeological issues mentioned in our previous letter have been addressed by US Navy Staff Archaeologist David Grant through informal consultation.

I would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4) and the survey report when it is available. These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800.

Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me.

Sincerely,

Russell Holter
Project Compliance Reviewer
(360) 586-3533
russell.holter@dahp.wa.gov

DEPARTMENT OF
ARCHAEOLOGY &
HISTORIC PRESERVATION
Protect the Past, Shape the Future

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

February 5, 2015

Mr. Bill Kalina
US Navy
100 Indian Island Road
Port Hadlock, Washington 98339-9723

In future correspondence please refer to:
Log: 071414-03-USN
Property: Shore Power Project
Re: More Information Needed

Dear Mr. Kalina:

Thank you for contacting our office. Dr. Rob Whitlam and I have reviewed the materials you provided for this project. We have a few concerns with the report that need be addressed prior to issuing a letter of concurrence for this undertaking.

- The report included the Advisory Council's Programmatic Comment (PC) on Ammunition Storage Facilities. According to the PC, the agreement between the US Navy and the Council expired seven years after its implementation in 2006. Is the PC still valid? If so, the PC states that the Navy is responsible for documenting ammunition storage facilities in accordance with the Secretary of the Interior Standards. That documentation was to be shared electronically. How was this accomplished at Indian Island and where can we find the documentation? If not valid, Section 106 still applies and the ammunition storage facilities in the Area of Potential Effect should be inventoried on HPI forms.
- The Department of Archaeology and Historic Preservation (DAHP) requires that all Cultural Resource Report submittals include an electronic copy of the final report on CD (or other media). This was not included in the submittal.
- Due to the extent and nature of the ground altering activities at Walan Point, (an area of high probability and prior discovery of human remains) we are recommending a professional monitoring plan be submitted to DAHP for review and comment.

I would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4) and the revised survey report when it is available. These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Please contact me should you have any specific questions about our request and we look forward to receiving this material.

Sincerely,

Russell Holter
Project Compliance Reviewer
(360) 586-3533
russell.holter@dahp.wa.gov

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO:
5090
Ser N39/004
January 6, 2013

The Jamestown S'Klallam Tribe
Mr. Gideon Cauffman, Tribal Historic Preservation Officer
1033 Old Blyn Highway
Sequim, WA 98382

Dear Mr. Cauffman:

SUBJECT: CULTURAL RESOURCES REVIEW OF THE NAVY'S PROPOSED SHORE POWER PROJECT P-603, NAVAL MAGAZINE INDIAN ISLAND, WASHINGTON

The Navy is providing the enclosed cultural resources review report entitled Cultural Resources Review of the Navy's Proposed Shore Power Project P-603, Naval Magazine Indian Island, Washington for your review. We are also providing the subject report to the Washington State Historic Preservation Officer.

The Navy consulted with the Port Gamble S'Klallam Tribe and Jamestown S'Klallam Tribe on the definition of the Area of Potential Effect and the Finding of Effect for this project. A buried portion of the power line will cross the Walan Point sand spit, a potentially eligible archaeological site. Stell Environmental Enterprises, Inc. conducted shovel testing of inland portions of the power line route and did not encounter cultural resources. NAVFAC NW archaeologists conducted shovel testing on Walan Point and the bluff above. No cultural resources were found on the bluff, however, testing on Walan Point revealed intact shell midden under approximately five feet of fill in the project area.

The cultural review recommends that the Shore Power project will have No Adverse Effect on 45JE16 if excavations do not exceed three feet in depth as proposed, and a qualified archaeologist is present to monitor the work. The report also recommends that archaeological monitoring is conducted along the Shore Power corridor where no shovel testing was performed by either Stell or NAVFAC archaeologists. A Monitoring Plan is appended to the report.

5090
Ser N39/004
January 6, 2013

If you require any further information or have any questions, please contact Mr. David M. Grant at (360) 396-0919 or via e-mail: dave.grant@navy.mil.

Sincerely,

M. B. YESUNAS
Commander, U.S. Navy
Commanding Officer

Enclosure: 1. Cultural Resources Review of the Navy's Proposed Shore Power Project, Naval Magazine Indian Island

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO:
5090
Ser 39/258
December 31, 2014

Allyson Brooks, PHD
State Historic Preservation Officer
Washington Department of Archaeology and Historic Preservation
1063 South Capitol Way Ste 106
PO Box 48343
Olympia, WA 98504

Dear Dr. Brooks:

SUBJECT: DAHP LOG #071414-03-USN: REQUEST FOR CONCURRENCE ON DETERMINATIONS OF ELIGIBILITY FOR BUILDINGS AND FINDING OF EFFECT FOR THE PROPOSED SHORE POWER PROJECT P-603, NAVAL MAGAZINE INDIAN ISLAND, WASHINGTON

Following a site visit with Mr. Russell Holter and Mr. Lance Wollwage on 12/9/2014, the Navy would like to continue consultation on the effects of the proposed Shore Power project P-603 at Indian Island with regard to both archeological and architectural resources (Enclosure 1).

The Navy is providing the enclosed cultural resources review report entitled Cultural Resources Review of the Navy's Proposed Shore Power Project P-603, Naval Magazine Indian Island, Washington for your review (Enclosure 2). We are also providing the subject report to Dr. Josh Wisniewski of the Port Gamble S'Klallam Tribe and Mr. Gideon Cauffman of the Jamestown S'Klallam Tribe.

The Navy consulted with your office, the Port Gamble S'Klallam, and the Jamestown S'Klallam on the definition of the Area of Potential Effect and the Finding of Effect for this project. A buried portion of the power line will cross the Walan Point sand spit, a potentially eligible archaeological site. Stell Environmental Enterprises, Inc. conducted shovel testing of inland portions of the power line route and did not encounter cultural resources. NAVFAC NW archaeologists conducted shovel

testing on Walan Point and the bluff above. No cultural resources were found on the bluff, however, testing on Walan Point revealed intact shell midden under approximately five feet of fill in the project area.

The cultural review recommends that the Shore Power project will have No Adverse Effect on 45JE16 if excavations do not exceed three feet in depth as proposed, and a qualified archaeologist is present to monitor the work. The report also recommends that archaeological monitoring is conducted along the Shore Power corridor where no shovel testing was performed by either Stell or NAVFAC archaeologists. A Draft Monitoring Plan is appended to the report.

The Navy is also providing additional Historic Property Inventory forms for the buildings and structures within the APE that were not included in our letter from October 17, 2014 (Enclosures 3-9). These seven additional structures are all over 50 years of age and are recommended as Not Eligible for the National Register of Historic Places (NRHP), based upon a survey and evaluation by Hardlines Design Company in 2010, as well as the previous evaluations in 1999 and 2002 by EDAW. They all lack a direct connection to the mission of the installation during WWII, as an ammunition depot, mostly serving as support facilities. Some have been altered enough to compromise their integrity. The remaining structures within the APE are over 50 years in age or are covered by the program comment for ammunition storage facilities. The Navy recommended two buildings as Eligible for the NRHP in our previous letter, Building 69 within the APE and Building 84, outside the APE.

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December 31, 2014

Building Number	Building Name	Build Date	2014 Determination of Eligibility
*69	Administrative Office/NEX	1942	Eligible
70	Ordnance Operations	1942	Not Eligible
*84	Maintenance Shop	1942	Eligible
89	Armory	1943	Not Eligible
127	Million Gallon Water Reservoir	1943	Not Eligible
151	Recreation Building	1944	Not Eligible
154	Public Works Maintenance Storage	1943	Not Eligible
184	Security Office	1954	Not Eligible
187	Inert Operations Building	1952	Not Eligible
* - covered in Oct. 17, 2014 letter			

The Navy requests your concurrence on the determinations of eligibility and findings of No Adverse Effect on 45JE16, Building 69 and Building 84 for the proposed undertaking. If you require any further information or have any questions, please contact Ms. Amanda J. Bennett at (360) 476-6613 or at amanda.j.bennett@navy.mil.

Sincerely,

M. B. YESUNAS
Commander, U.S. Navy
Commanding Officer

5090
Ser 39/258
December 31, 2014

Enclosures:
1. Area of Potential Effect and Building Map
2. Cultural Resources Review of the Navy's Proposed Shore Power Project P-603, Naval Magazine Indian Island, Washington
3. Historic Inventory Report - Building 70
4. Historic Inventory Report - Building 89
5. Historic Inventory Report - Building 127
6. Historic Inventory Report - Building 151
7. Historic Inventory Report - Building 154
8. Historic Inventory Report - Building 184
9. Historic Inventory Report - Building 187

DEPARTMENT OF
ARCHAEOLOGY &
HISTORIC PRESERVATION
Protect the Past, Shape the Future

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

November 24, 2014

Commander M. B. Yesunas
US Naval Magazine Indian Island
100 Indian Island Road
Port Hadlock, Washington 98339-9723

In future correspondence please refer to:
Log: 071414-03-USN
Property: Shore Power Project
Re: More Information Needed

Dear Cmdr. Yesunas:

Thank you for contacting our office. I have reviewed the materials your staff provided for this project. However, we would like to discuss with your staff the survey methods for this project since a cursory review of the area of potential effect (APE) would seem to indicate that some historic-era structures and potential effects to archaeological resources in the vicinity of the APE that may have been overlooked. I have asked your staff for a site visit of your facility to discuss the potential cultural impacts.

I would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4) and the site visit if that is feasible. These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800.

Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me.

Sincerely,

Russell Holter
Project Compliance Reviewer
(360) 586-3533
russell.holter@dahp.wa.gov

Cc: Amanda Bennett (USN)

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO
5090
Ser N39/217
17 Oct 14

Allyson Brooks, PhD
State Historic Preservation Officer
Washington Department of Archaeology and Historic Preservation
1063 South Capital Way Ste 106
PO Box 48343
Olympia, WA 98504-8343

Dear Dr. Brooks:

SUBJECT: DAHP Log #071414-03-USN: REQUEST FOR CONCURRENCE ON DETERMINATIONS OF ELIGIBILITY FOR BUILDINGS AND FINDING OF EFFECT FOR THE PROPOSED SHORE POWER PROJECT, NAVAL MAGAZINE INDIAN ISLAND, WASHINGTON

Pursuant to Section 106 of the National Historic Preservation Act, the Navy would like to continue consultation regarding the proposed undertaking to improve shore power at Naval Magazine (NAVMAG) Indian Island (Enclosures 1 & 2). The area of potential effects for this undertaking was previously defined with Washington State Historic Preservation Officer's (SHPO) concurrence dated July 14, 2014 (DAHP Log #071414-03-USN).

The proposed project, as described in our letter dated June 24, 2014, is to construct a loop electrical power distribution system from the main gate at the southwest end of the island to the Ammunition Wharf at the northwest end (Enclosure 3). The new electrical lines will primarily be strung on traditional log poles, with small segments of buried line northwest of Clallam Road and along the waterfront at the Ammunition Wharf. The route generally follows road corridors, with the exception of the segment between Clallam Road and Ferry Street.

New electrical poles with power lines will be constructed within close proximity of two buildings that have been determined eligible for the National Register of Historic Places (NRHP), Building 69 and Building 84. The proposed poles will pass in front of Building 69, the Administration Building, along the west side of Chase Street and turn left on the south side of Hoogewerff Street. The former WWII era Torpedo Storage and

Workshop, Building 84, is located approximately 400 feet east of that intersection. The proposed route is also in close proximity to numerous ordnance magazines on the island. However, the 2006 Program Comment for World War and Cold War Era (1939-1974) Ammunition Storage Facilities removes these magazines from further Section 106 consideration as a result of their determination of eligibility for the NRHP under Criteria A and C.

Building 69 is a concrete building constructed in the Art Moderne style with flat roof, smooth wall finish, stainless steel trim, and lack of exterior ornamentation. Constructed in 1942, it was the installations first barracks, but currently serves as the administrative building and NEX. Much of the interior has been remodeled, but the exterior retains its WWII historic integrity. Building 69 has been recommended as eligible for the NRHP multiple times since 1991, though SHPO concurrence remains unclear. As such, the Navy finds that Building 69 continues to remain eligible for the NRHP under Criteria A for its association with World War II mobilization (Enclosure 4).

Building 84 is an Industrial Vernacular building with Art Moderne details. This one-story building features a central high bay, a rectangular plan, a poured-concrete foundation, a flat roof with a clerestory, and a smooth concrete exterior wall finish. Constructed in 1942, the building retains a high level of integrity. Like Building 69, Building 84's NRHP eligibility status is unclear. Therefore the Navy finds that Building 84 is eligible for the NRHP under Criterion A and C for being the region's best example of an Industrial Vernacular high-bay torpedo shop with Art Moderne details and appears to be significant for its role in the maintenance of the Mark 18 torpedo (Enclosure 5).

The proposed project will not alter the characteristics of Building 69 or Building 84 that qualify it for inclusion in the NRHP. The new power poles and lines are a minimal visual intrusion to the administrative and industrial setting of the historic buildings. As such, the Navy has determined that no historic properties are adversely affected by the proposed undertaking.

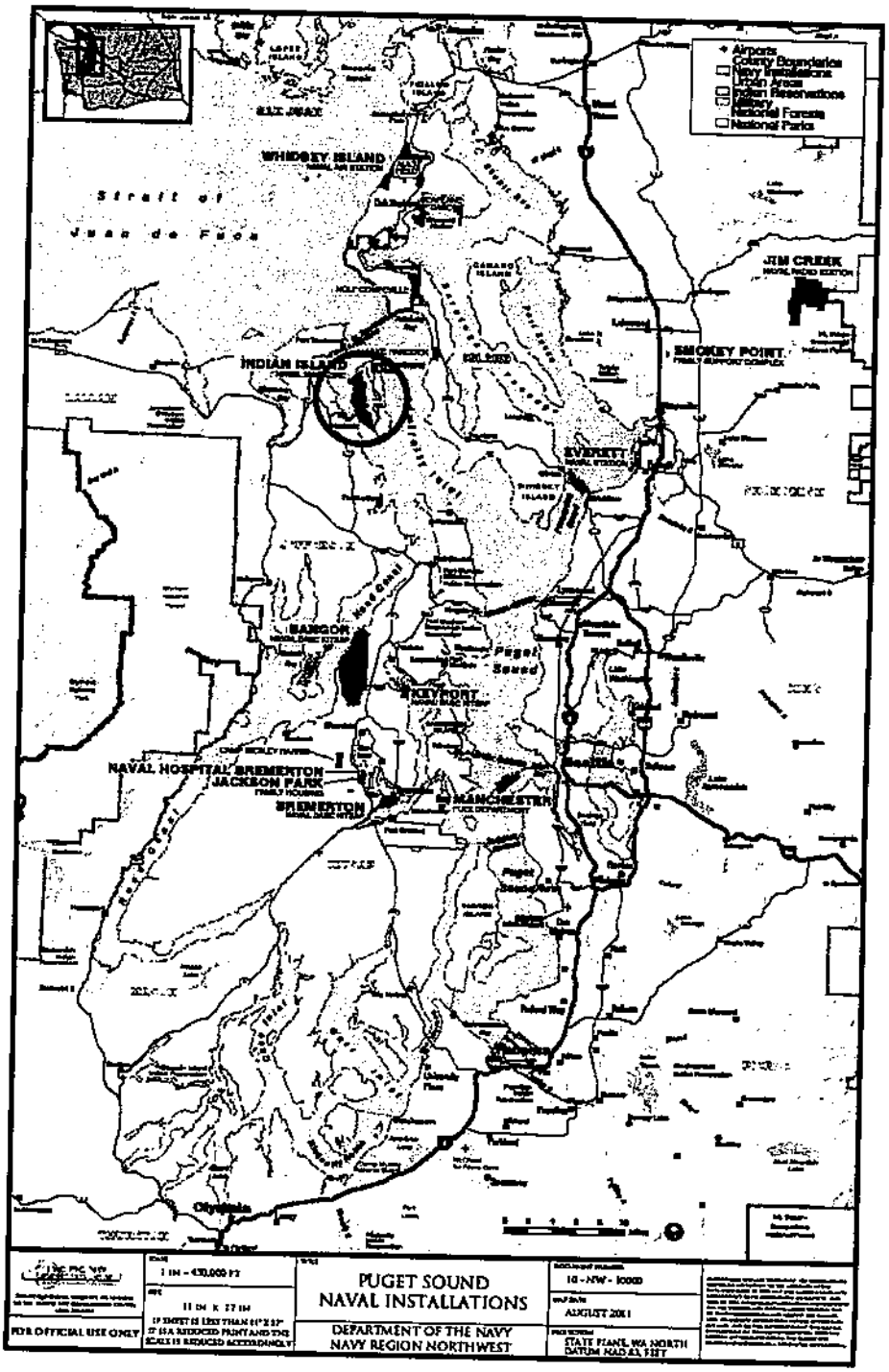
Historic Property Inventories for Building 69 and Building 84 are enclosed (Enclosures 4 and 5).

The Navy requests your concurrence on the determinations of eligibility and finding of effect for the proposed undertaking. If you have any further questions, please contact Ms. Amanda Bennett. She can be reached by phone at (360) 476-6613 or by email at amanda.j.bennett@navy.mil.

Sincerely,

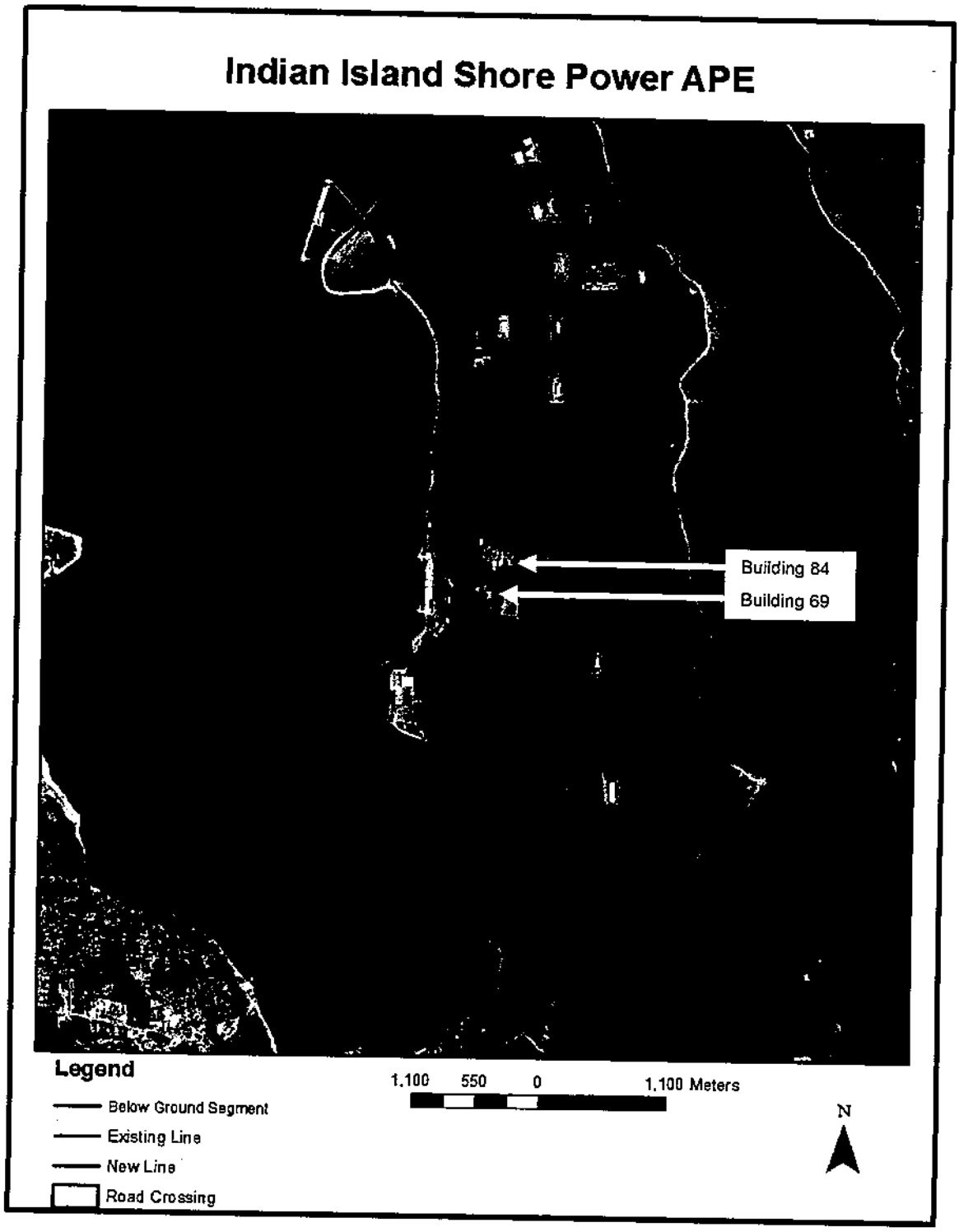
M. B. VESUNAS
Commander, U.S. Navy
Commanding Officer

Enclosures:
1. Location of Naval Magazine Indian Island
2. Project Area Overview
3. Historic Buildings
4. Historic Property Inventory - Building 69
5. Historic Property Inventory - Building 84



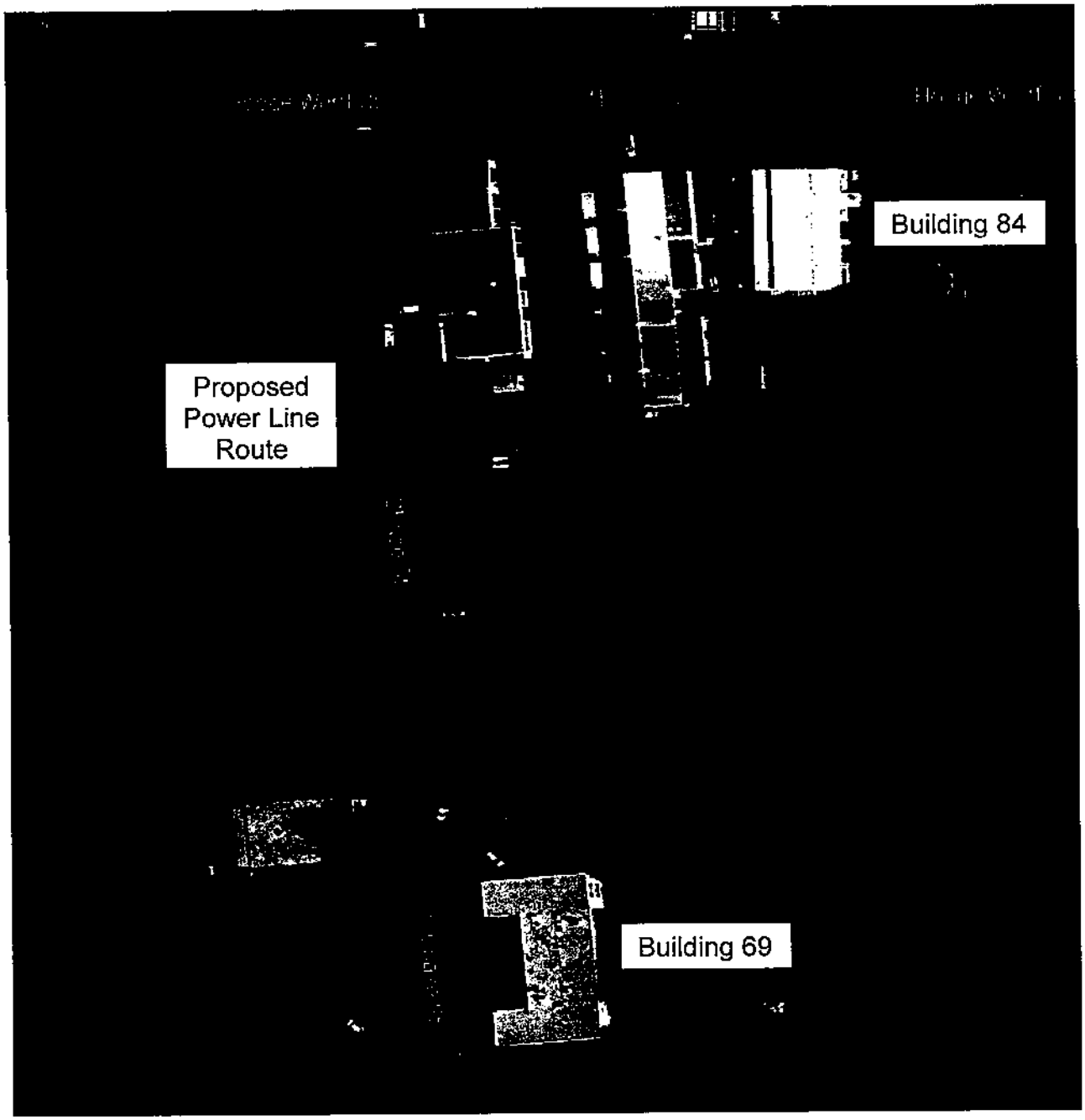
Location of Naval Magazine Indian Island

Enclosure (1)



Project Area Overview

Enclosure (2)



Historic Buildings

Historic Property Inventories

Enclosure (4)

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

Historic Inventory Report

Location

Field Site No. **DAHP No.**

Historic Name: Building 69: Barracks No. 1

Common Name: Administration Building/Navy Exchange

Property Address: 100 Indian Island Rd, Port Hadlock, WA 98339

Comments:

Tax No./Parcel No.

Plat/Block/Lot

Acreage

Supplemental Map(s)

Township/Range/EW	Section	1/4 Sec	1/4 1/4 Sec	County	Quadrangle
T29R01E	06			Jefferson	NORDLAND

Coordinate Reference

Easting: 1095066

Northing: 992568

Projection: Washington State Plane South

Datum: HARN (feet)

Identification

Survey Name: NAVMAG Indian Island Shore Power **Date Recorded:** 10/16/2014

Field Recorder: Amanda Bennett

Owner's Name: US Navy

Owner Address: 100 Indian Island Rd.

City: Port Hadlock **State:** WA **Zip:** 98339

Classification: Building

Resource Status: **Comments:**
Survey/Inventory

Within a District? No

Contributing? No

National Register:

Local District:

National Register District/Thematic Nomination Name:

Eligibility Status: Not Determined - SHPO

Determination Date: 1/1/0001

Determination Comments:

Description

Historic Use: Defense - Naval Facility

Current Use: Defense - Naval Facility

Plan: U-Shape **Stories:** 2

Structural System: Concrete - Reinforced Concrete

Changes to Plan: Moderate

Changes to Interior: Extensive

Changes to Original Cladding: Intact

Changes to Windows: Moderate

Changes to Other: Not Applicable

Other (specify):

Style:	Cladding:	Roof Type:	Roof Material:
Art Deco - Streamlined Moderne	Concrete	Flat with Parapet	Asphalt / Composition - Built Up

Foundation:	Form/Type:
Concrete - Poured	Other

Narrative

Study Unit
Military

Other

Date of Construction: 1942 Built Date

Builder:

Engineer: Austin Company

Architect:

Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Statement of Significance:

The following text is from: Architectural Inventory & Evaluation of Naval Magazine Indian Island, by Hardlines Design Company, Columbus, Ohio in 2010.

Constructed in 1942 by the Austin Company, Building 69 was part of the original plan for the installation and was the first barracks there, Barracks No. 1. In 1945, a two-lane bowling alley, barbershop, post office, laundry, and exchange facility were installed in the basement. The main floor contained dormitories for bachelor Navy enlisted men; the dorms were located in the north wing with a kitchen in the middle, and the south wing contained quarters for bachelor Navy and Marine officers. On the second floor, the north and south wings were used as dormitories for up to 70 Marine Corps enlisted men; the middle section was reserved as dorms for senior Marine enlisted men and also contained a brig, an armory, and Marine offices.

The building currently serves as the main administrative building and NEX. The Marines left the station in 1959 when it was placed on reduced status, and the barracks were not used from 1959 until 1975, when the Army used the island for Reserve training between June and September. When the Army left, the barracks was deactivated again and used for storage. In 1979, the basement was used for an exchange, and in the 1980s, the building was used to house male and female enlisted personnel. The building was later remodeled as the main administrative building.

Building 69 was recommended as eligible for the National Register in 1999 by EDAW, Inc., under criteria A and C for contribution to the war effort in the Pacific and Alaskan campaigns, and as an example of the Art Moderne style. Building 69 was originally constructed as a barracks building and exemplifies how the Navy had to restructure ordnance depots in the 1940s. Before 1940, ordnance depots were run by civilian personnel, but the new practice of locating ordnance depots in remote areas required military personnel because those areas lacked the population to provide a civilian workforce. The barracks building represents measures that the Navy had to take to house stationed Navy personnel at the newly established ordnance depots. The building is also a good example of Art Moderne architecture. The Art Moderne style was popular in the 1940s, and the Bureau of Yards and Docks designed many new buildings in the 1940s in this style. Art Moderne architecture lacked ornate details and relied heavily upon concrete, which was readily available, not precious like metal in the time of war. Many examples of Art Moderne architecture exist on other Navy stations in the region, in particular at Naval Air Station Whidbey Island and Naval Base Kitsap Keyport. However, Building 69 is one of the only examples of Art Moderne architecture at Indian Island, and it is the best example at the station.

Although the interior of the building has been extensively remodeled in its conversion from a barracks to an administration building, the exterior still retains a high level of integrity as a World War II-era building. The interior still retains concrete stairs that are typical of Art Moderne design. There is an addition on the north wall, modern front doors, and a new wheelchair ramp and awning, but the additions do not detract from the overall Art Moderne style and character of the building. HDC recommends that Building 69 retains its status as individually eligible for the National Register under criteria A and C for its association with World War II mobilization and for its display of Art Moderne characteristics.

Description of Physical Appearance:

The following text is from: Architectural Inventory & Evaluation of Naval Magazine Indian Island, by Hardlines Design Company, Columbus, Ohio in 2010.

Building 69 is a concrete building built in the Art Moderne style. The Art Moderne characteristics of this building include the flat roof, smooth wall finish, stainless steel trim, and lack of ornamentation on the exterior. The building retains the original steel pivot windows and glass block windows on the west wall. The building is two stories tall, with a U-shaped plan. Exterior concrete stairs lead to the building entrance on the façade. The rear wall has a concrete loading dock. The building was remodeled in 1997 with modern front doors and a wheelchair ramp. The interior has been completely remodeled and converted from a barracks to an administration building and Navy Exchange (NEX). The interior does retain the original concrete stairs.

Major Bibliographic References:

1941 NAVMAG Indian Island map

1942 NAVMAG Indian Island construction drawings

1999 EDAW, Inc. survey report

2010 Architectural Inventory & Evaluation of Naval Magazine Indian Island, Hardlines Design Company, Columbus, Ohio.

Photos

Building 69, looking east
2010

Building 69, looking southeast
2010

Building 69, looking northwest
2010

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

Historic Inventory Report

Location

Field Site No. **DAHP No.**

Historic Name: Building 84: Torpedo Storage and Workshop/Battery and Electric Shop

Common Name: Maintenance Shop

Property Address: 100 Indian Island Rd, Port Hadlock, WA 98339

Comments:

Tax No./Parcel No.

Plat/Block/Lot

Acreage

Supplemental Map(s)

Township/Range/EW	Section	1/4 Sec	1/4 1/4 Sec	County	Quadrangle
T29R01E	06			Jefferson	NORDLAND

Coordinate Reference

Easting: 1095055

Northing: 992574

Projection: Washington State Plane South

Datum: HARN (feet)

Identification

Survey Name: NAVMAG Indian Island Shore Power **Date Recorded:** 10/16/2014

Field Recorder: Amanda J. Bennett

Owner's Name: US Navy

Owner Address: 100 Indian Island Rd.

City: Port Hadlock **State:** WA **Zip:** 98339

Classification: Building

Resource Status: **Comments:**
Survey/Inventory

Within a District? No

Contributing? No

National Register:

Local District:

National Register District/Thematic Nomination Name:

Eligibility Status: Not Determined - SHPO

Determination Date: 1/1/0001

Determination Comments:

Description

Historic Use: Defense - Naval Facility

Current Use: Defense - Naval Facility

Plan: Rectangle **Stories:** 1

Structural System: Concrete - Reinforced Concrete

Changes to Plan: Slight

Changes to Interior: Unknown

Changes to Original Cladding: Intact

Changes to Windows: Intact

Changes to Other: Moderate

Other (specify):

Style:	Cladding:	Roof Type:	Roof Material:
Art Deco - Streamlined Moderne	Concrete	Monitor	Asphalt / Composition

Foundation:	Form/Type:
Concrete - Poured	Utilitarian

Narrative

Study Unit
Military

Other

Date of Construction: 1942 Built Date

Builder:

Engineer: The Austin Company

Architect:

Property appears to meet criteria for the National Register of Historic Places: Yes

Property is located in a potential historic district (National and/or local): No

Property potentially contributes to a historic district (National and/or local): No

Statement of Significance:

The following text is from: Architectural Inventory & Evaluation of Naval Magazine Indian Island, by Hardlines Design Company, Columbus, Ohio in 2010.

The facility was constructed in 1942, and was listed on a 1941 plan of the station as a torpedo storage and workshop facility that was to be built soon. Maps of the installation from 1945 and 1948 list the building as a battery and electric shop, and a 1957 map lists it as an electrical maintenance shop. The building is located in an area of the installation where industrial maintenance facilities are concentrated. It is not clear whether torpedoes were ever stored and overhauled in this space, since the building was clearly an electrical shop by the last year of World War II. Building 84 is similar to Building 33 at NAS Whidbey Island, Seaplane Base.

The change in function of Building 84 from torpedo shop to battery and electrical shop may be related to the introduction of an electric torpedo into the Navy's World War II arsenal. An electric torpedo, the Mark 18, was introduced into service by the Navy in 1943, after several German electric torpedoes were recovered by the U.S. Navy, and their design was copied by engineers at Westinghouse (Blair 1976:280-281). Although submarine crews and commanders had extensive complaints about the performance and time-consuming maintenance procedures for the Mark 18, this torpedo comprised about 30% of the torpedoes fired in the Pacific Theater of the war after 1943 (Blair 1976:402-404). As an electric torpedo, the Mark 18 would have required electrical and battery shop facilities.

EDAW recommended Building 84 as not eligible in its 1999 survey because of loss of integrity; EDAW specifically cited additions and the replacement of the original cargo doors as areas where integrity was lost. The building was also recommended as not eligible by EDAW because it did not make a particularly direct or important contribution to the World War II effort. However, the 2000 ICRMP, also done by EDAW, lists the building as an individually eligible resource in charts but as not eligible in the building description. No explanation was given for the change in status.

HDC's examination found that the building has experienced some minor changes and additions, but overall has a high level of integrity and displays its original form and World War II appearance. The building still retains its original form, windows, exterior wall treatment, and Art Moderne detailing. The replacement of the original garage doors on the side walls and a small addition detract only somewhat from the overall World War II-era character displayed in the exterior of the building. Building 84 is a good example of an intact World War II-era Industrial Vernacular building with Art Moderne details. In addition, there is a similar example of this building type in the region, Building 33 at NAS Whidbey Island, located within a historic district. However, the Whidbey Island building displays a lower level of integrity since it has multiple additions and the original windows have been replaced.

Building 84 is the region's best example of an Industrial Vernacular high bay torpedo shop with Art Moderne details. For these reasons, HDC recommends that Building 84 is individually eligible under Criterion C. Under Criterion A, the building also appears to be significant for its role in the maintenance of the Mark 18 torpedo; the building appears to have been needed as an electrical shop to keep the Mark 18's batteries and other electrical components operational. For these reasons, HDC recommends that Building 84 is also individually eligible under Criterion A.

Description of Physical Appearance:

The following text is from: Architectural Inventory & Evaluation of Naval Magazine Indian Island, by Hardlines Design Company, Columbus, Ohio in 2010.

Building 84 is an Industrial Vernacular building with Art Moderne details. This one-story building features a central high bay, rectangular plan, poured concrete foundation, flat roof with clerestory, and a smooth concrete exterior wall finish. The building also has steel industrial windows and recessed horizontal bands above the original warehouse door on the north wall. The original garage doors on the side walls were replaced with aluminum rolling doors in the mid-1990s; however, this change does not detract from the overall character of the building. On the east wall is a small concrete addition with a shed roof, this addition does not appear on 1948 and 1957 installation maps and thus appears to date from 1958 or later. Some interior wall partitions have been added to the open interior shop space. Overall, the building retains a high level of integrity.

Major Bibliographic References:

1941, 1948, and 1957 NAVMAG Indian Island maps

1942 NAVMAG Indian Island construction drawings

1999 EDAW Inc., survey report

2010 Architectural Inventory & Evaluation of Naval Magazine Indian Island, Hardlines Design Company, Columbus, Ohio.

Photos

Building 84, looking southwest
2010

Building 84, looking northeast
2010

DEPARTMENT OF
ARCHAEOLOGY &
HISTORIC PRESERVATION
Protect the Past, Shape the Future

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

July 14, 2014

Commander M. B. Yesunas
Naval Magazine Indian Island
100 Indian Island Road
Port Hadlock, Washington 98339

RE: Shore Power Project
Log No. 071414-03-USN

Dear Commander Yesunas;

Thank you for contacting our department. We have reviewed the materials you provided for the proposed *Shore Power Project* at US Naval Base Indian Island, Jefferson County, Washington.

We concur with your determination of the Area of Potential Effect (APE) as described and presented in your figures and text for the ground disturbing activities.

We look forward to further consultations as you conduct your identification efforts, consult with the concerned tribal governments, the results of your identification efforts, and the determination of effect.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: *rob.whitlam@dahp.wa.gov*

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO
5090
Ser N39/147
June 24, 2014

Allyson Brooks, PhD
State Historic Preservation Officer
Department of Archaeology and Historic Preservation
P.O. Box 48343
Olympia, WA 98504-8343

Dear Dr. Brooks:

SUBJECT: REQUEST FOR CONCURRENCE ON DEFINITION OF THE AREA OF POTENTIAL EFFECTS (APE) FOR THE PROPOSED SHORE POWER PROJECT, NAVAL MAGAZINE INDIAN ISLAND, PORT HADLOCK, WASHINGTON

The U.S. Navy is initiating consultation in accordance with Section 106 of the National Historic Preservation Act as amended, and 36 CFR Part 800 for the Shore Power Project on Naval Magazine (NAVMAG) Indian Island. The U.S. Navy requests your concurrence with our definition of the Area of Potential Effects (APE).

The Navy proposes to construct a loop electrical power distribution system to the Ammunition Wharf located on Walan Point to supply permanent power for submarines during weapons handling operations. The new distribution system will replace generators which currently supply power to the submarines berthed at the wharf during ordnance handling operations. The proposed action is necessary as the Clean Air Act Notice of Construction Permit for the existing diesel generators is conditioned on removal of the generators by September 30, 2016.

Approximately 22,600 linear feet of new 12.5 kV electric distribution lines will be installed and 2,800 linear feet of existing overhead distribution lines will be upgraded to 12.5 kV. To create a loop system, the newly constructed electric line will tie into a previously existing above ground electric line. Most of the proposed new electric line will be above ground, although 500 feet will be installed by horizontal boring under a stream crossing. The last portion of the line will also be diverted underground, from Power Pole #97 to an above-ground transformer at the south end of the Walan Point laydown area. The construction contractor may also choose to route the line

underground at nine road crossings (see Enclosure 1, red circles).

The surface and subsurface impacts for this project include the excavation of approximately 130 holes for new power poles extending down to a depth not to exceed 10 feet, any grubbing/vegetation removal required for new pole installation, excavations of a 5 foot by 5 foot area at each end of the stream crossing for boring entry and exit, trenching across the paved laydown area at Walan Point, and optionally, trenching at road crossings. If the line is installed underneath road crossings, the conduit will be installed at a depth of 24 inches and encased in concrete. The electrical line underneath the Walan Point laydown area will be excavated to a maximum depth of 30 inches with a concrete encasement. Where overhead lines parallel roadways, trees within 16 feet of the road edge will be cut. Where overhead lines travel through forested areas, trees within 20 feet of the lines will be cut.

The Walan Point sand spit is the location of a well-known, potentially eligible archaeological site. In the 1970s, the Navy capped a portion of the site with fill and paved the top. This paved area is referred to as the laydown area. According to current project plans, an overhead electrical line will bring power to Pole #97 on the south edge of the Walan Point access road. A trench will be excavated south from the pole to a vault at the north end of the laydown area. From there, a second trench will be excavated across the laydown area to an above ground transformer at its southwest end. This trench will follow as closely as possible existing underground power feeds. The project is in the early design phase, and the Navy is currently exploring alternatives to avoid Adverse Effects to the Walan Point archaeological site.

The APE consists of the area of direct impact by the new construction (Enclosure 1, red and blue lines) plus a 30 meter buffer on each side of the new power line. The linear APE crosses through the western half of Indian Island beginning just north of NAVMAG Indian Island's entrance gate and ends at Walan Point. The existing line runs from the main gate, along Anderson

Road to Freeman Street then west along Freeman Street to West Road (Enclosure 1, green line). The APE also includes a number of buildings and structures that fall within the view scape of the proposed line. The APE passes through Section 6 of Township 29 North, Range 01 East, Section 31 of Township 30 North, Range 1 East, and Sections 36, 25, and 24 of Township 30 North, Range 01 West (Enclosure 2).

Tribal consultation for this project has been initiated via government-to-government invitation letters to the S'Klallam Tribes. The Navy requests your concurrence with our definition of the APE within 30 days of receipt of this letter. If you require further information or have any questions, please contact Dr. Susan Hughes, my staff archaeologist, at (360) 396-0083 or susan.s.hughes@navy.mil.

Sincerely,

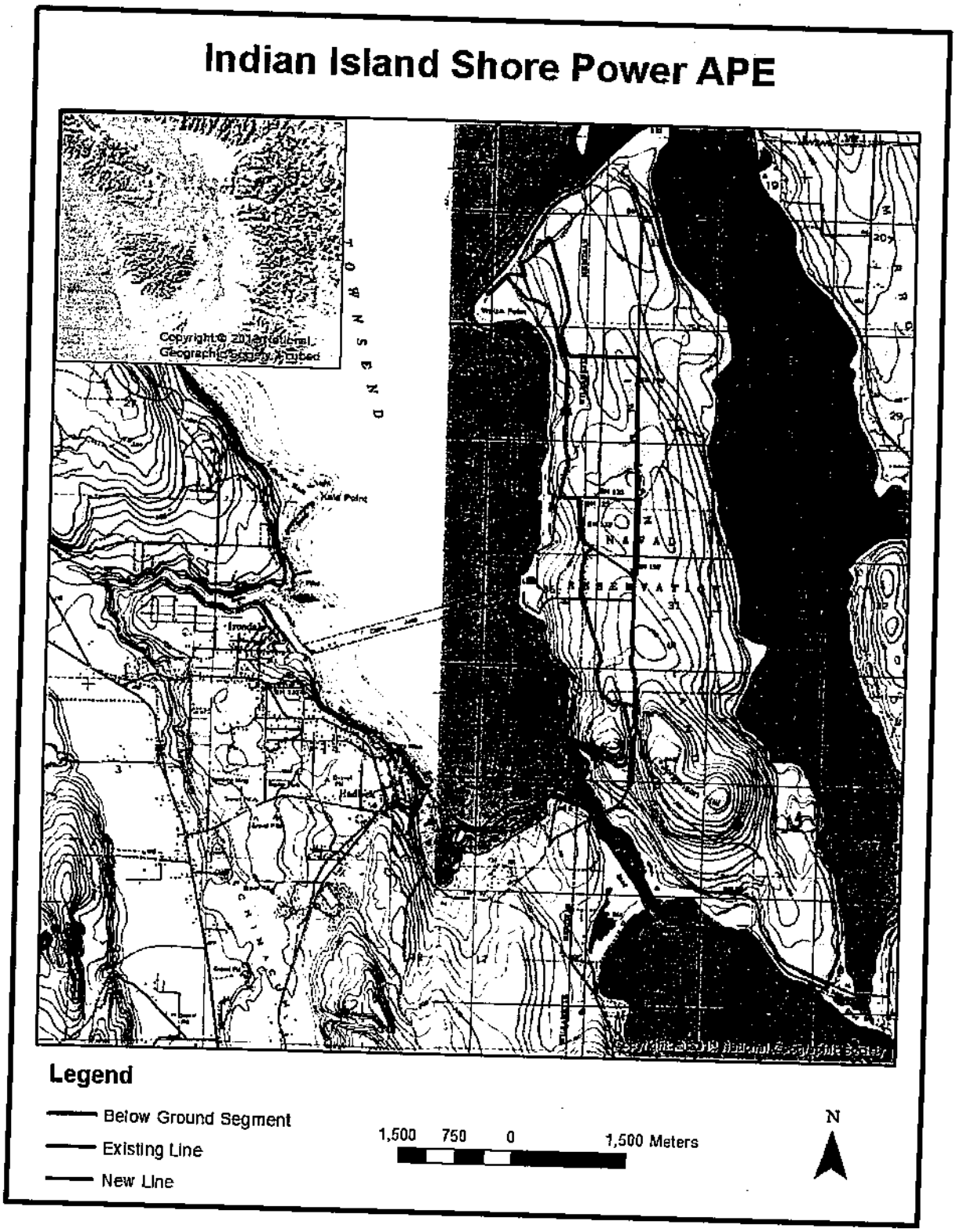
M. B. YESUNAS
Commander, U.S. Navy
Commanding Officer

Enclosures: 1. Area of potential effects on Satellite Imagery
2. Area of potential effects on Topographic Imagery

AREA OF POTENTIAL EFFECTS (APE) ON SATELLITE IMAGERY.

Enclosure (1)

AREA OF POTENTIAL EFFECTS (APE) ON A USGS 7.5 MINUTE TOPOGRAPHIC MAP.



Enclosure (2)

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO:
5090
Ser N39/149
June 24, 2014

Dr. Josh Wisniewski
Tribal Historic Preservation Officer
Port Gamble S'Klallam Tribe
31912 Little Boston Road NE
Kingston, WA 98346

Dear Dr. Wisniewski:

SUBJECT: REQUEST FOR COMMENTS ON DEFINITION OF THE AREA OF POTENTIAL EFFECTS (APE) FOR THE PROPOSED SHORE POWER PROJECT, NAVAL MAGAZINE INDIAN ISLAND, PORT HADLOCK, WASHINGTON

The U.S. Navy is initiating consultation in accordance with Section 106 of the National Historic Preservation Act as amended, and 36 CFR Part 800 for the Shore Power Project on Naval Magazine (NAVMAG) Indian Island. The U.S. Navy requests your comments on our definition of the Area of Potential Effects (APE).

The Navy proposes to construct a loop electrical power distribution system to the Ammunition Wharf located on Walan Point to supply permanent power for submarines during weapons handling operations. The new distribution system will replace generators which currently supply power to the submarines berthed at the wharf during ordnance handling operations. The proposed action is necessary as the Clean Air Act Notice of Construction Permit for the existing diesel generators is conditioned on removal of the generators by September 30, 2016.

Approximately 22,600 linear feet of new 12.5 kV electric distribution lines will be installed and 2,800 linear feet of existing overhead distribution lines will be upgraded to 12.5 kV. To create a loop system, the newly constructed electric line will tie into a previously existing above ground electric line. Most of the proposed new electric line will be above ground, although 500 feet will be installed by horizontal boring under a stream crossing. The last portion of the line will also be diverted underground, from Power Pole #97 to an above-ground transformer at the south end of the Walan Point laydown area. The construction contractor may also choose to route the line

underground at nine road crossings (see Enclosure 1, red circles).

The surface and subsurface impacts for this project include the excavation of approximately 130 holes for new power poles extending down to a depth not to exceed 10 feet, any grubbing/vegetation removal required for new pole installation, excavations of a 5 foot by 5 foot area at each end of the stream crossing for boring entry and exit, trenching across the paved laydown area at Walan Point, and optionally, trenching at road crossings. If the line is installed underneath road crossings, the conduit will be installed at a depth of 24 inches and encased in concrete. The electrical line underneath the Walan Point laydown area will be excavated to a maximum depth of 30 inches with a concrete encasement. Where overhead lines parallel roadways, trees within 16 feet of the road edge will be cut. Where overhead lines travel through forested areas, trees within 20 feet of the lines will be cut.

The Walan Point sand spit is the location of a well-known, potentially eligible archaeological site. In the 1970s, the Navy capped a portion of the site with fill and paved the top. This paved area is referred to as the laydown area. According to current project plans, an overhead electrical line will bring power to Pole #97 on the south edge of the Walan Point access road. A trench will be excavated south from the pole to a vault at the north end of the laydown area. From there, a second trench will be excavated across the laydown area to an above ground transformer at its southwest end. This trench will follow as closely as possible existing underground power feeds. The project is in the early design phase, and the Navy is currently exploring alternatives to avoid Adverse Effects to the Walan Point archaeological site.

The APE consists of the area of direct impact by the new construction (Enclosure 1, red and blue lines) plus a 30 meter buffer on each side of the new power line. The linear APE crosses through the western half of Indian Island beginning just north of NAVMAG Indian Island's entrance gate and ends at Walan Point. The existing line runs from the main gate, along

Anderson Road to Freeman Street then west along Freeman Street to West Road (Enclosure 1, green line). The APE also includes a number of buildings and structures that fall within the view scape of the proposed line. The APE passes through Section 6 of Township 29 North, Range 01 East, Section 31 of Township 30 North, Range 1 East, and Sections 36, 25, and 24 of Township 30 North, Range 01 West (Enclosure (2)).

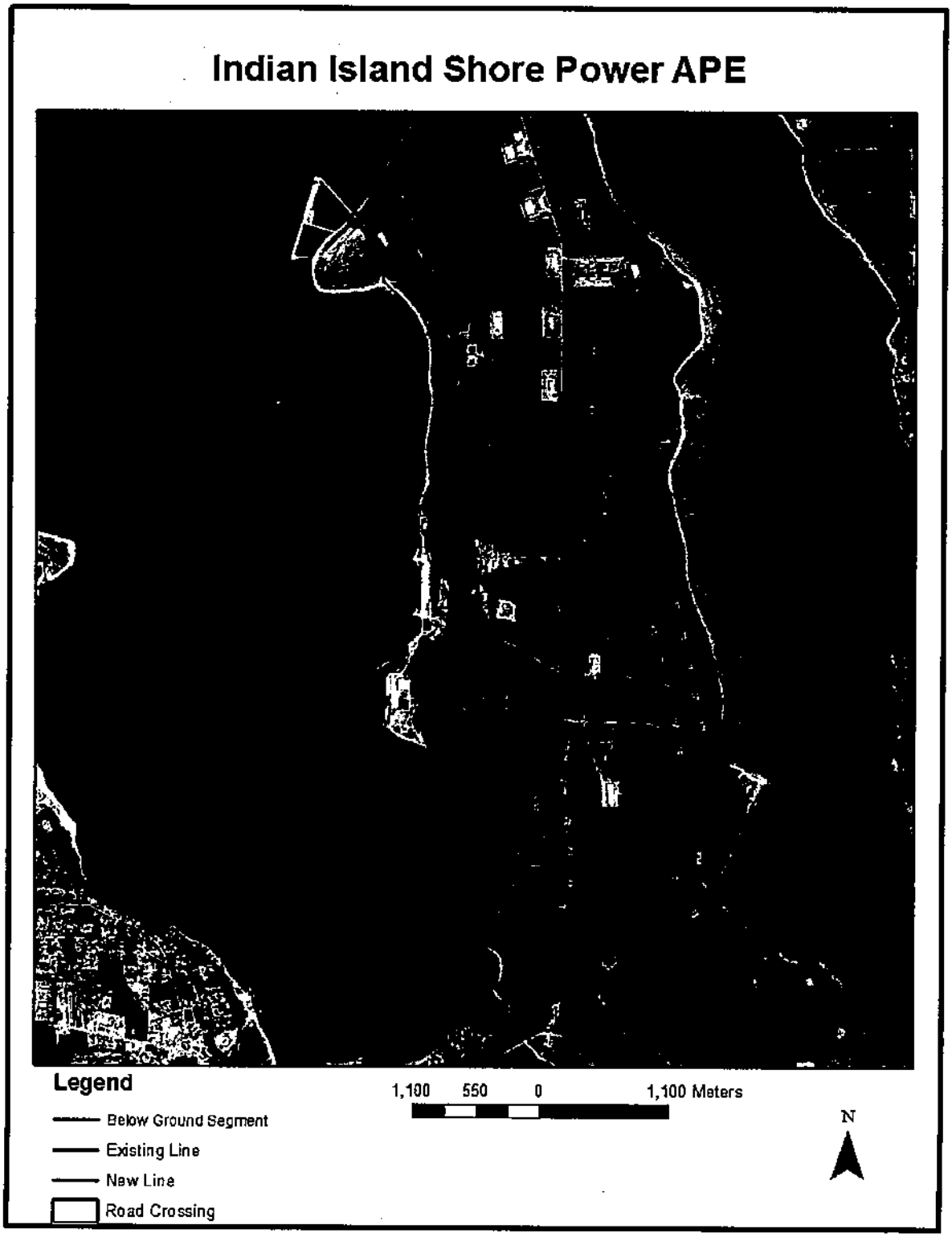
The Navy requests your comments on our definition of the APE within 30 days of receipt of this letter. If you require further information or have any questions, please contact Dr. Susan Hughes, my staff archaeologist, at (360) 396-0083 or susan.s.hughes@navy.mil.

Sincerely,

M. B. YESUNAS
Commander, U.S. Navy
Commanding Officer

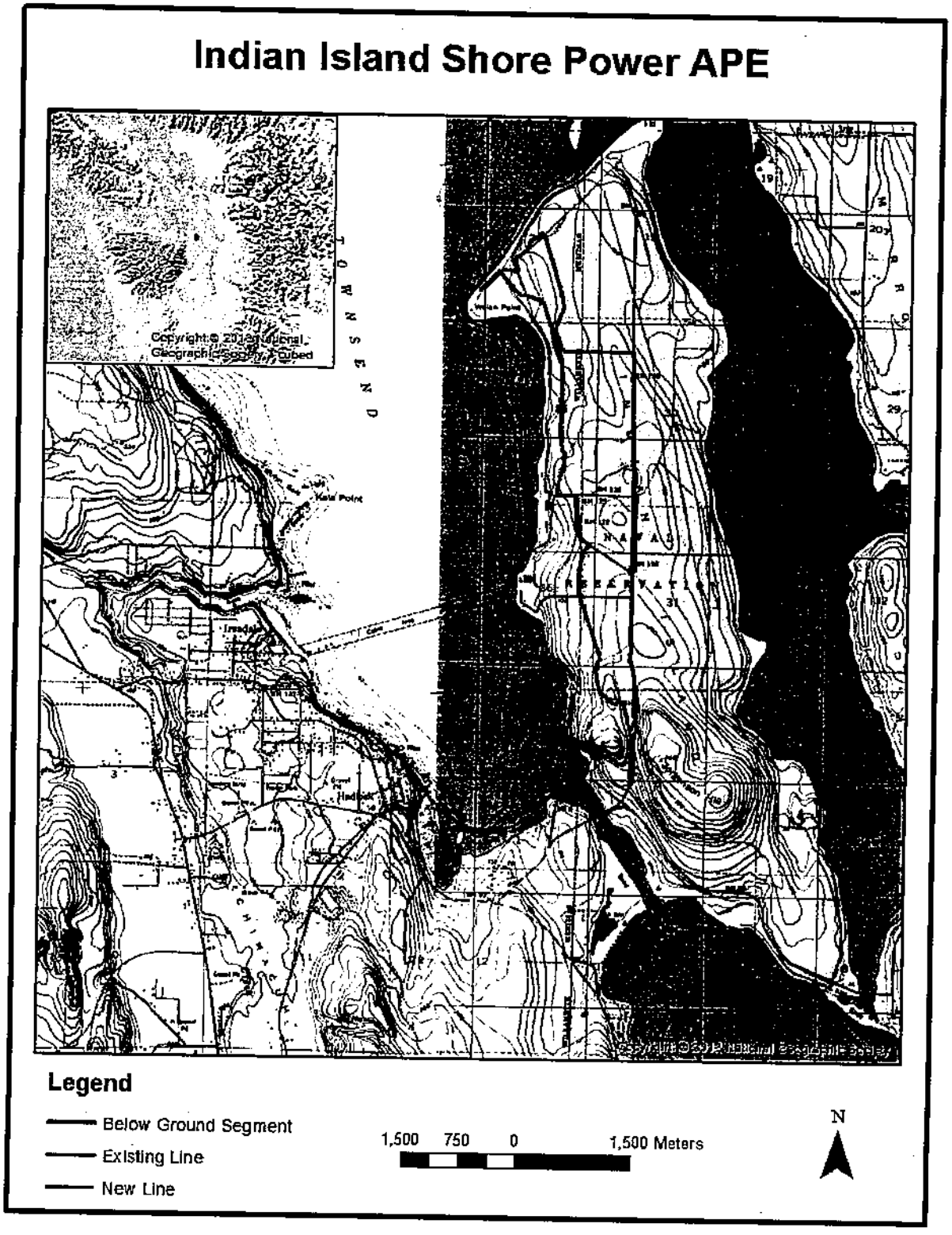
Enclosures: 1. Area of potential effect on Satellite Imagery
2. Area of potential effect on Topographic Imagery

AREA OF POTENTIAL EFFECTS (APE) ON SATELLITE IMAGERY.



Enclosure (1)

AREA OF POTENTIAL EFFECTS (APE) ON A TOPOGRAPHIC MAP.



Enclosure (2)

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO:
5090
Ser N39/150
June 24, 2014

Mr. Gideon Cauffman
Tribal Historic Preservation Officer
Jamestown S'Klallam Tribe
1033 Old Blyn Highway
Sequim, WA 98382

Dear Mr. Cauffman:

SUBJECT: REQUEST FOR COMMENTS ON DEFINITION OF THE AREA OF POTENTIAL EFFECTS (APE) FOR THE PROPOSED SHORE POWER PROJECT, NAVAL MAGAZINE INDIAN ISLAND, PORT HADLOCK, WASHINGTON

The U.S. Navy is initiating consultation in accordance with Section 106 of the National Historic Preservation Act as amended, and 36 CFR Part 800 for the Shore Power Project on Naval Magazine (NAVMAG) Indian Island. The U.S. Navy requests your comments on our definition of the Area of Potential Effects (APE).

The Navy proposes to construct a loop electrical power distribution system to the Ammunition Wharf located on Walan Point to supply permanent power for submarines during weapons handling operations. The new distribution system will replace generators which currently supply power to the submarines berthed at the wharf during ordnance handling operations. The proposed action is necessary as the Clean Air Act Notice of Construction Permit for the existing diesel generators is conditioned on removal of the generators by September 30, 2016.

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be diverted underground, from Power Pole #97 to an above-ground transformer at the south end of the Walan Point laydown area. The construction contractor may also choose to route the line underground at nine road crossings (see Enclosure 1, red circles).

The surface and subsurface impacts for this project include the excavation of approximately 130 holes for new power poles extending down to a depth not to exceed 10 feet, any grubbing/vegetation removal required for new pole installation, excavations of a 5 foot by 5 foot area at each end of the stream crossing for boring entry and exit, trenching across the paved laydown area at Walan Point, and optionally, trenching at road crossings. If the line is installed underneath road crossings, the conduit will be installed at a depth of 24 inches and encased in concrete. The electrical line underneath the Walan Point laydown area will be excavated to a maximum depth of 30 inches with a concrete encasement. Where overhead lines parallel roadways, trees within 16 feet of the road edge will be cut. Where overhead lines travel through forested areas, trees within 20 feet of the lines will be cut.

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crosses through the western half of Indian Island beginning just north of NAVMAG Indian Island's entrance gate and ends at Walan Point. The existing line runs from the main gate, along Anderson Road to Freeman Street then west along Freeman Street to West Road (Enclosure 1, green line). The APE also includes a number of buildings and structures that fall within the view scape of the proposed line. The APE passes through Section 6 of Township 29 North, Range 01 East, Section 31 of Township 30 North, Range 1 East, and Sections 36, 25, and 24 of Township 30 North, Range 01 West (Enclosure 2).

The Navy requests your comments on our definition of the APE within 30 days of receipt of this letter. If you require further information or have any questions, please contact Dr. Susan Hughes, my staff archaeologist, at (360) 396-0083 or susan.s.hughes@navy.mil.

Sincerely,

M.B. YESUNAS
Commander, U.S. Navy
Commanding Officer

Enclosures: 1. Area of potential effect on Satellite Imagery
2. Area of potential effect on Topographic Imagery

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO
5090
Ser N39/151
June 24, 2014

Mr. William White
Tribal Historic Preservation Officer
Lower Elwha Klallam Tribe
2851 Lower Elwha Road
Port Angeles, WA 98363

Dear Mr. White:

SUBJECT: REQUEST FOR COMMENTS ON DEFINITION OF THE AREA OF POTENTIAL EFFECTS (APE) FOR THE PROPOSED SHORE POWER PROJECT, NAVAL MAGAZINE INDIAN ISLAND, PORT HADLOCK, WASHINGTON

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The construction contractor may also choose to route the line underground at nine road crossings (see Enclosure 1, red circles).

The surface and subsurface impacts for this project include the excavation of approximately 130 holes for new power poles extending down to a depth not to exceed 10 feet, any grubbing/vegetation removal required for new pole installation, excavations of a 5 foot by 5 foot area at each end of the stream crossing for boring entry and exit, trenching across the paved laydown area at Walan Point, and optionally, trenching at road crossings. If the line is installed underneath road crossings, the conduit will be installed at a depth of 24 inches and encased in concrete. The electrical line underneath the Walan Point laydown area will be excavated to a maximum depth of 30 inches with a concrete encasement. Where overhead lines parallel roadways, trees within 16 feet of the road edge will be cut. Where overhead lines travel through forested areas, trees within 20 feet of the lines will be cut.

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The Navy requests your comments on our definition of the APE within 30 days of receipt of this letter. If you require further information or have any questions, please contact Dr. Susan Hughes, my staff archaeologist, at (360) 396-0083 or susan.s.hughes@navy.mil.

Sincerely,

M. B. YESUNAS
Commander, U.S. Navy
Commanding Officer

Enclosures: 1. Area of potential effect on Satellite Imagery
2. Area of potential effect on Topographic Imagery

Appendix C

Migratory Bird Treaty Act Documentation

DATE	CORRESPONDENCE	NOTES
6/4/2015	Letter, U.S. Fish and Wildlife Service to Navy	USFWS concurred with the Navy's determination of "may affect, not likely to adversely affect" the ESA-listed marbled murrelet. USFWS concurred with breeding season restrictions and project design to prevent bird electrocution.
4/29/2015	Letter, Navy to U.S. Fish and Wildlife Service	Request for review and approval of Biological Evaluation for the proposed Aboveground Shore Power to the Ammunition Wharf Project

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503

JUN - 4 2015

In Reply Refer To:
01EWFW00-2015-I-0596

Commander M.B. Yesunas
Commanding Officer
Attn: Sara Street
Naval Magazine Indian Island
100 Indian Island Road
Port Hadlock, Washington 98339-9723

Dear Commander Yesunas:

Subject: Naval Magazine Indian Island Biological Evaluation for Above Ground Shore Power to Ammunition Wharf Project P-603

This is in response to your letter, dated April 25, 2015, requesting consultation for the Above Ground Shore Power to Ammunition Wharf Project on Naval Magazine Indian Island. The Navy is proposing to install a new power distribution system that will run nearly the full length of the island along the western side of Indian Island in Jefferson County, Washington. Your letter and biological assessment were received in our office on May 11, 2015.

The U.S. Navy (Navy) has requested the U.S. Fish and Wildlife Service's (Service) concurrence with a determination of "may affect, not likely to adversely affect" for the marbled murrelet (*Brachyramphus marmoratus*). This consultation has been conducted in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act). A complete record of this consultation is on file at the Service's Washington Fish and Wildlife Office in Lacey, Washington.

The proposed project involves constructing a power distribution system measuring a distance of approximately 18,300 linear feet. The proposed project will require the clearing of approximately 11.4 acres of forested area, installation of 17,124 linear feet of overhead 12.5 kilovolt (kV) electric distribution power lines on new wooden utility poles, and 1,176 linear feet of trenching for underground portions. The trenching would include 300 feet of linear

underground duct bank within an existing road prism which transects a riparian wetland corridor and trenching an additional 876 feet of underground duct bank beneath a paved parking area. The project will also include upgrading existing overhead distribution lines to 12.5 kV; replacing the existing Ammunition Wharf substation; and removing two diesel generators, fuel tank, and generator-support trailer. Construction of this power distribution system is expected to take approximately 16 months to complete.

After construction is completed, operation and maintenance of the new distribution lines would involve periodic inspection and repair of the system as needed. As a preventative maintenance measure, the Navy would remove overgrown vegetation (i.e., shrubs and herbaceous plants) on an annual basis within 16 feet of the road shoulder or curb where the overhead lines parallel roadways, and within 20 feet on either side of overhead power lines through forested areas.

A survey for platforms identified a single Douglas-fir tree (*Pseudotsuga menziesii*) that has features which meet the habitat assessment criteria for a potential marbled murrelet platform tree. The tree is located approximately 22 feet outside of the proposed tree clearing limits. Given the location of the tree and condition of the surrounding stand, it is extremely unlikely that this individual tree surrounded by younger forest would be used by marbled murrelets for nesting. Based on the proposed design to utilize existing roadways and utility corridors where possible to minimize tree clearing within forested areas, combined with the results of the potential nest platform and habitat survey, the Navy determined that this project "may affect, but is not likely to adversely affect" marbled murrelets. Because the project will not impact suitable nesting habitat and project activities will not occur in or extend into forested areas that may be used by marbled murrelets for nesting, the Service concurs with this determination.

With respect to bald eagles (*Haliaeetus leucocephalus*) and other migratory birds, the Service appreciates the efforts made by the Navy to reduce effects of the project on birds and wetland habitats. Where possible, the power line route parallels existing roadways and utility corridors to minimize the number of trees that will need to be removed and will go underground in areas to protect wetland buffers.

The power line route will require the placement of power lines along an existing road way through the secondary buffer zone of an established bald eagle nest territory (Washington Department of Fish and Wildlife Registration # 1259). This activity has the potential to result in disturbance of the nesting pair during the breeding season. Historically, this pair has been observed in the vicinity of and/or occupying the nest from early November through late August during a typical year. To avoid disturbing nesting bald eagles, the section of overhead power line that will require clearing and construction within the buffer zone of this nest will be conducted between late September and early October during the non-breeding season.

To minimize impacts to wetlands and high bird use areas, a section of the line will go underground to minimize impacts to riparian areas. Trenching for this duct bank will occur within an existing road bed prism for a linear distance of approximately 300 feet. This design element is intended to reduce potential bird mortality from overhead power line strikes and avoid removing trees within the riparian wetland and its adjoining buffer zone. Additionally, the overall power distribution system design will incorporate elements to conform to the U.S. Fish

and Wildlife Service's "Avian Protection Plan Guidelines" for power lines published in April 2005, including a minimum clearance of 60 inches between all overhead power line conductors along 95 percent of the distribution system. The remaining 5 percent of the alignment that cannot achieve a 60-inch minimum conductor clearance due to sharp angles, corners, and taps, will incorporate insulator covers and bushing caps to prevent bird-electrocution hazards from simultaneous contact.

If you have any questions about this letter or our joint responsibilities under the Endangered Species Act, please contact Bill Vogel at (360) 753-4367 (email: bill_vogel@fws.gov) or Martha Jensen at (360) 753-9000, of this office.

Sincerely,

Martha L. Jensen

for Eric V. Rickerson, State Supervisor
Washington Fish and Wildlife Office

cc:
USFWS, Lacey, WA (J. Muck)

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO
5090
Ser N39/065
29 Apr 15

U.S. Department of the Interior
Fish and Wildlife Service
c/o National Marine Fisheries Service
7600 Sandpoint Way NE
Seattle, WA 98115

Attention: Mr. Jim Muck

Ladies and Gentlemen:

SUBJECT: NAVAL MAGAZINE INDIAN ISLAND BIOLOGICAL EVALUATION FOR ABOVE GROUND SHORE POWER TO AMMUNITION WHARF PROJECT P-603

As per Section 7 of the Endangered Species Act, Naval Magazine Indian Island is submitting this abbreviated Biological Evaluation for the proposed Above Ground Shore Power To Ammunition Wharf Project for your review and approval. The proposed project will require the clearing of approximately 11.4 acres of forested area, installation of 17,124 linear feet of overhead power lines on wooden utility poles and trenching for 1,176 linear feet of underground duct bank.

If you require additional information or have any further questions, please contact Ms. Sara Street at 360-396-5394 or e-mail: sara.c.street@navy.mil.

Sincerely,

M. B. YESUNAS
Commanding Officer
Naval Magazine Indian Island

Enclosure: 1. Biological Evaluation for Above Ground Shore Power To Ammunition Wharf Project P-603

Biological Evaluation
Above Ground Shore Power to Ammunition Wharf Project P-603
Naval Magazine Indian Island

Project Description:

The Navy proposes to construct an electrical power distribution system on Naval Magazine Indian Island (NMII) to provide permanent shore power for submarines berthed at the Ammunition Wharf located at Walan Point on the northwest corner of the island. Currently, two large mobile diesel generators and supporting equipment provide this electrical power. These would be removed as a result of this project which would eliminate the largest source of air contaminant emissions currently produced on the installation.

The proposed project would construct an overhead loop power distribution system measuring a distance of approximately 18,300 linear feet on NMII which would include: installing new wooden power poles over a linear distance of 17,124-feet to support 12.5 kilovolt (kV) electric distribution lines; upgrading existing overhead distribution lines to 12.5 kV; trenching 300-feet of linear underground duct bank within an existing road prism which transects a riparian wetland corridor; replacing the existing Ammunition Wharf substation; trenching an additional 876-feet of underground duct bank beneath a paved parking area; and removing two diesel generators, fuel tank, and generator support trailer. Construction of this power distribution system would take approximately 16 months to complete.

After construction is completed, operation and maintenance of the distribution lines would involve periodic inspection and repair of the system as needed. As a preventative maintenance measure the Navy would remove overgrown vegetation (i.e. shrubs and herbaceous plants) on an annual basis within 16-feet of the road shoulder or curb where the overhead lines parallel roadways, and within 20-feet on either side of overhead power lines through forested areas.

Description of the Project Area:

Indian Island is located in Jefferson County, Washington, southeast of Port Townsend. The island is 5 miles long by 1.5

miles wide and totals 2,716 acres. Indian Island is bounded by Kilisut Harbor to the east, Port Townsend Bay to the west and north, and Oak Bay and Portage Canal to the south (See Figure 1). The largest population center in the area is Port Townsend with two smaller communities, Port Hadlock and Irondale, located approximately 2½ miles west of the island. The island is owned entirely by the U.S. Navy and is used primarily for the logistics, handling and storage of naval ordnance in support of the Pacific Fleet operations and joint military services. The proposed construction will begin at the main gate entrance and continue down Anderson Road on the shoulder in parallel with existing power lines (See Figures 2and3). The project will then diverge from the existing power lines and continue northwest passing through a wooded area and continue north onto Clallam Road. The lines will route northwest onto Kingfisher Trail (unpaved access road) and go underground via trenching for approximately 300-feet via linear duct bank within an existing road prism. This design element will avoid cutting trees within the riparian wetland corridor. After clearing the wetland buffer on either side of the stream channel, the line will surface back onto overhead power lines on a westward trajectory until it intersects Ferry Street. From this point the route will continue in a northerly direction along Glennon Avenue and Chase Street for a considerable distance until reaching Chimacum Road. The next segment will turn west following Chimacum Road to the parking area in front of the Ammunition Wharf where it will go underground via trenching into another linear duct bank approximately 876-feet in length beneath an existing paved parking area and continue onto the south trestle of the wharf.

The redundancy loop for this project will split off of West Road just south of Chimacum Road onto Makah Road. The line will travel up Makah Road until it reaches North Road where it will turn southwest and then veer west down Walan Point Road and connect back up with the main line at the Chimacum Road parking area.

Analysis of Effects:

The potential impacts of this proposed construction on wildlife species would be a net loss of approximately 11.4 acres of mixed coniferous and deciduous forest areas due to clearing

and grubbing throughout the power line corridor. Also, the addition of approximately 17,124 linear feet of new overhead power lines throughout the island will result in an increased risk of birds striking power lines.

This proposed alignment will transect a jurisdictional riparian wetland corridor and its adjacent buffer zone. This seasonal stream and its associated ecosystem (i.e. wooded wetland plant communities and upland shrubs) provide habitat for a wide variety of wildlife species. This area of the island is known to be heavily utilized by numerous avian species including wrens, finches, thrushes, and sparrows for foraging, refuge, and nesting. Increased levels of bird mortality could result from placement of overhead power lines through this habitat area.

The power line route will require the placement of power lines along an existing road way through the secondary buffer zone (See Figure 4) of an established Bald eagle nest territory (Washington Department of Fish & Wildlife Registration # 1259). This activity has the potential to result in disturbance of the nesting pair during the breeding season. Historically, this pair has been observed occupying the nest from early November through late August during a typical year.

The proposed project occurs in an area that provides potential nest platform habitat for Marbled murrelets. Although there have been no documented nest platforms identified on NMII in past years, recent U.S. Fish & Wildlife Service (USFWS) surveys conducted via boat have shown that there is a high population density of murrelets that forage in the marine waters of Port Townsend Bay adjacent to the island's western shoreline. Due to the project's proximity to marine waterways utilized by foraging murrelets and the proposed removal of 11.4 acres of forest, the Navy conducted a ground survey (December 2014 thru April 2015) to assess potential nest platform trees that might be located in the vicinity of the power line clearing limits. The areas surveyed consisted primarily of third growth conifer stands mixed with deciduous trees. The survey was performed under the supervision of a Navy Forester (Ms. Terri Jones).

The survey team utilized the criteria outlined within the USFWS "Guidance for Identifying Marbled Murrelet Nest Trees in Washington State" published in April 2012 to identify coniferous

trees with platforms that were: 1.) at least 33-feet in height above ground within a live crown; 2.) contained a horizontal platform with a minimum diameter of 4-inches; 3.) had vertical and/or horizontal tree foliage cover to protect the platform; 4.) provided access to the platform through canopy structure or forest openings from at least one direction. Based on this criteria, the preliminary results of the survey identified a single Douglas fir located on Fort Road approximately 22-feet away from the proposed power line clearing limits (See Figure 4). This tree is located within a relatively young stand of conifers that was selectively thinned to enhance wildlife habitat in the late 1990's as part of the installation's forest management program. The final report which details the results of this potential nest platform survey will be completed in Summer 2015 as it includes additional areas not yet surveyed throughout NMII outside of the footprint for this project.

Mitigation Measures:

In order to avoid installing overhead power lines in a heavy bird concentration area (i.e. riparian wetland corridor), the project design incorporates a segment of underground duct bank which transects the seasonal stream channel. Trenching for this duct bank will occur within an existing road bed prism for a linear distance of approximately 300 feet. This design element is intended to eliminate potential bird mortality from overhead power line strikes and avoid removing trees within the riparian wetland and its adjoining buffer zone. Additionally, the overall power distribution system design will incorporate elements to conform with the "USFWS Avian Protection Plan" guidance published in April 2005. Where possible, the power line route parallels existing roadways and utility corridors to minimize the number of trees that will need to be removed. Also, the design includes a minimum clearance of 60-inches between all overhead power line conductors along 95 percent of the distribution system. The remaining 5 percent of the alignment that cannot achieve a 60-inch minimum conductor clearance due to sharp angles, corners and taps, will incorporate insulator covers and bushing caps to prevent bird electrocution hazards from simultaneous contact.

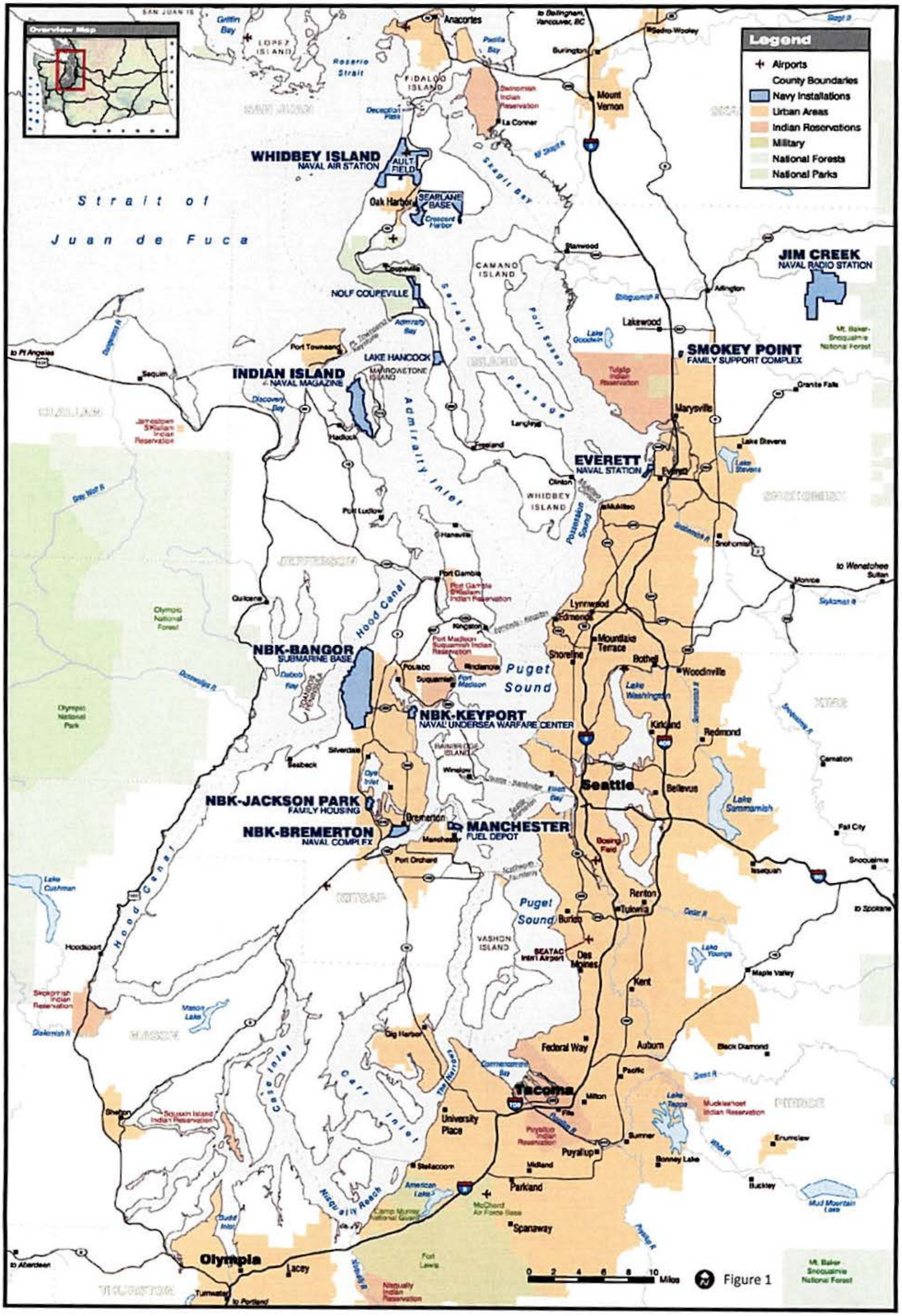
To avoid noise disturbance within the secondary buffer zone of the Bald eagle nest territory located west of Chase Street (See Figure 2) the section of overhead power line that will be

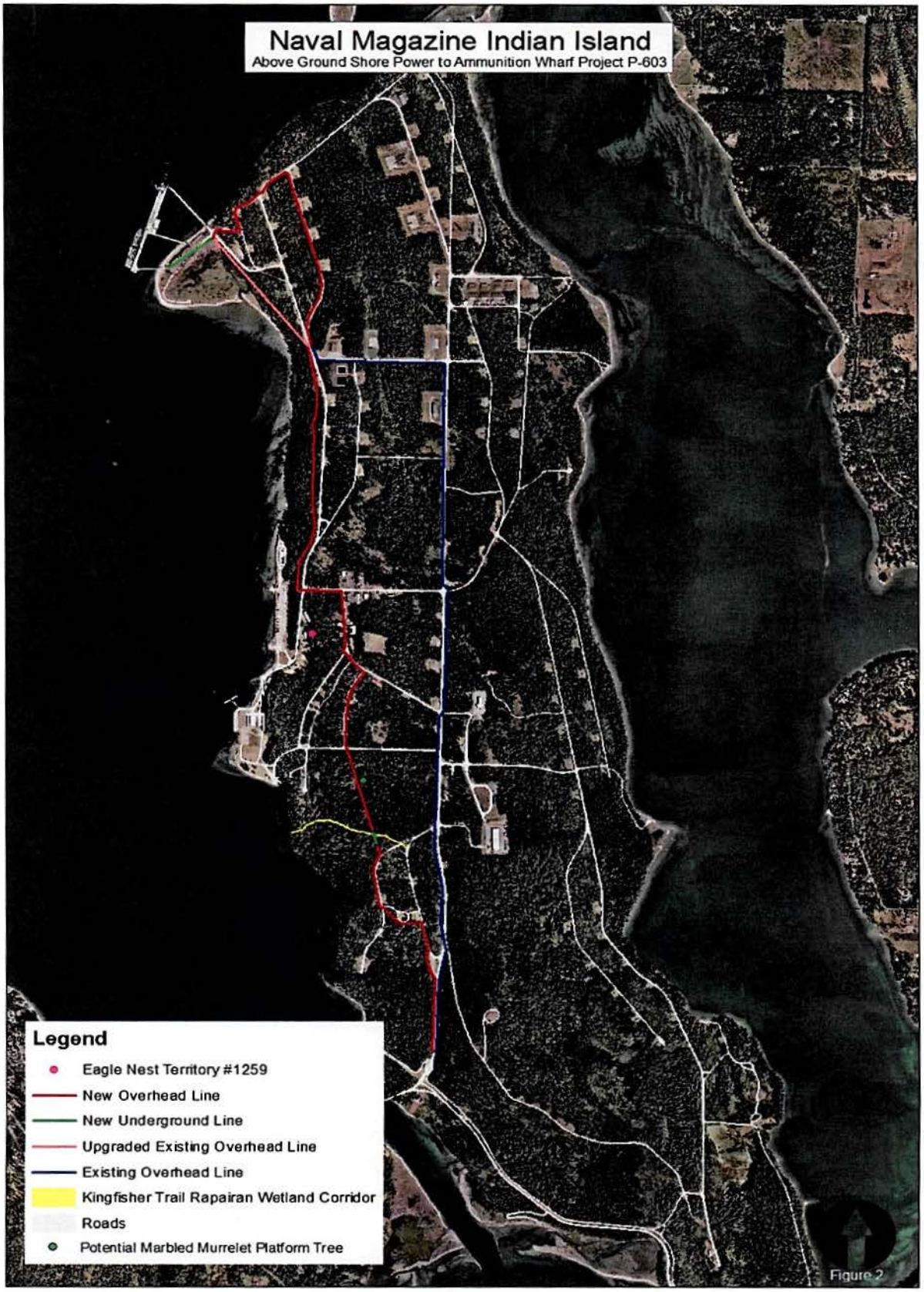
located within the secondary buffer zone of this nest will be installed between late September and early October during the non-breeding season. This work will only occur when the installation wildlife biologist has verified that the adult pair of eagles are not present and the nest is inactive.

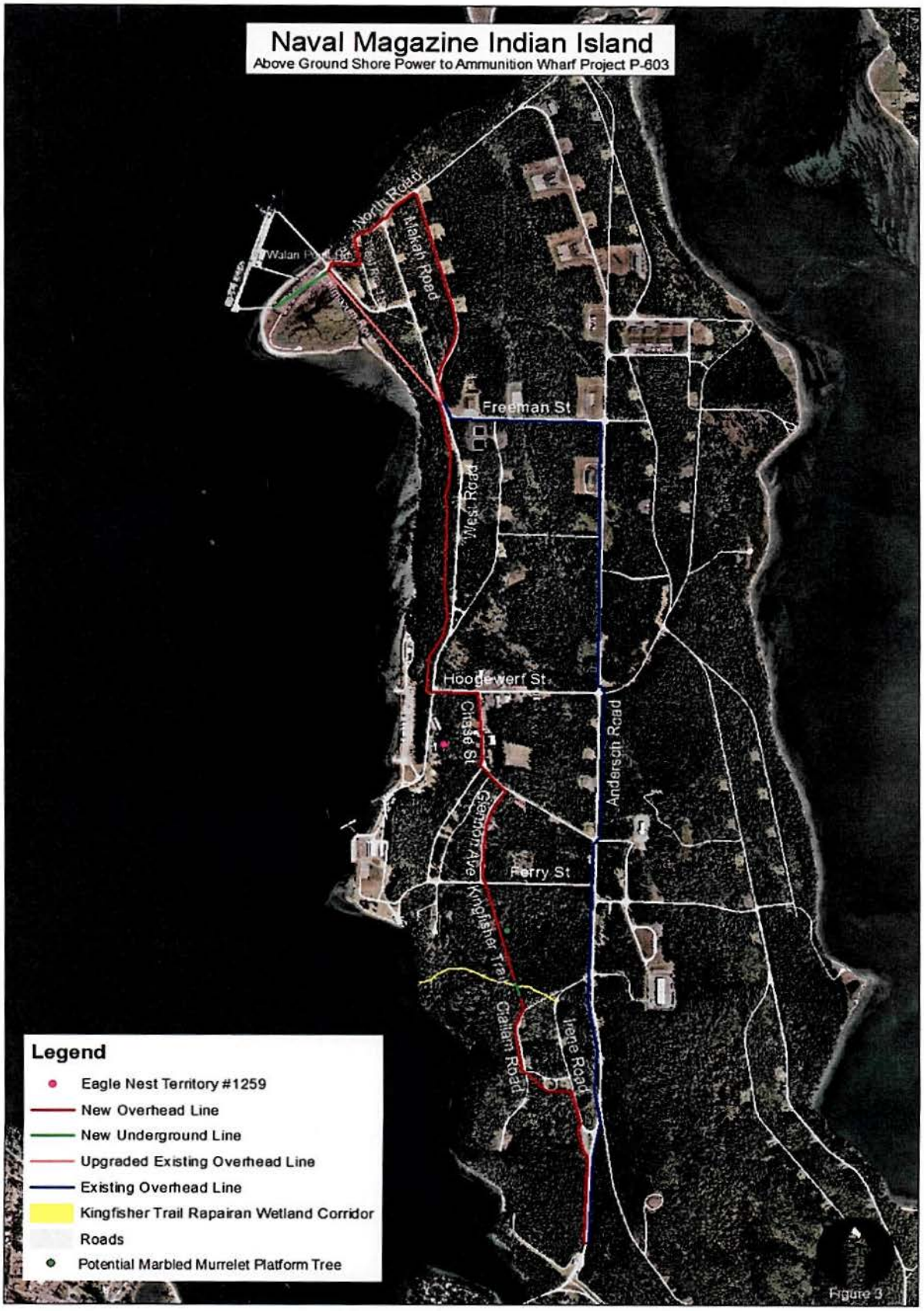
An additional measure undertaken by the Navy to avoid potential impacts to wildlife habitat includes a ground survey along the proposed power line route to identify potential marbled murrelet platform trees. The survey was performed under the supervision of a Navy Forester (Ms. Terri Jones) and was completed in April 2015. Ms. Jones is qualified to lead the survey effort based on the field training she received in 2013 from Ms. Emily Teachout from the USFWS Office in Lacey. The preliminary results of this survey identified a single Douglas fir that has features which meet the habitat assessment criteria for a potential platform tree. The tree is located adjacent to the proposed power line route on Kingfisher Trail but lies approximately 22-feet outside of the proposed tree clearing limits.

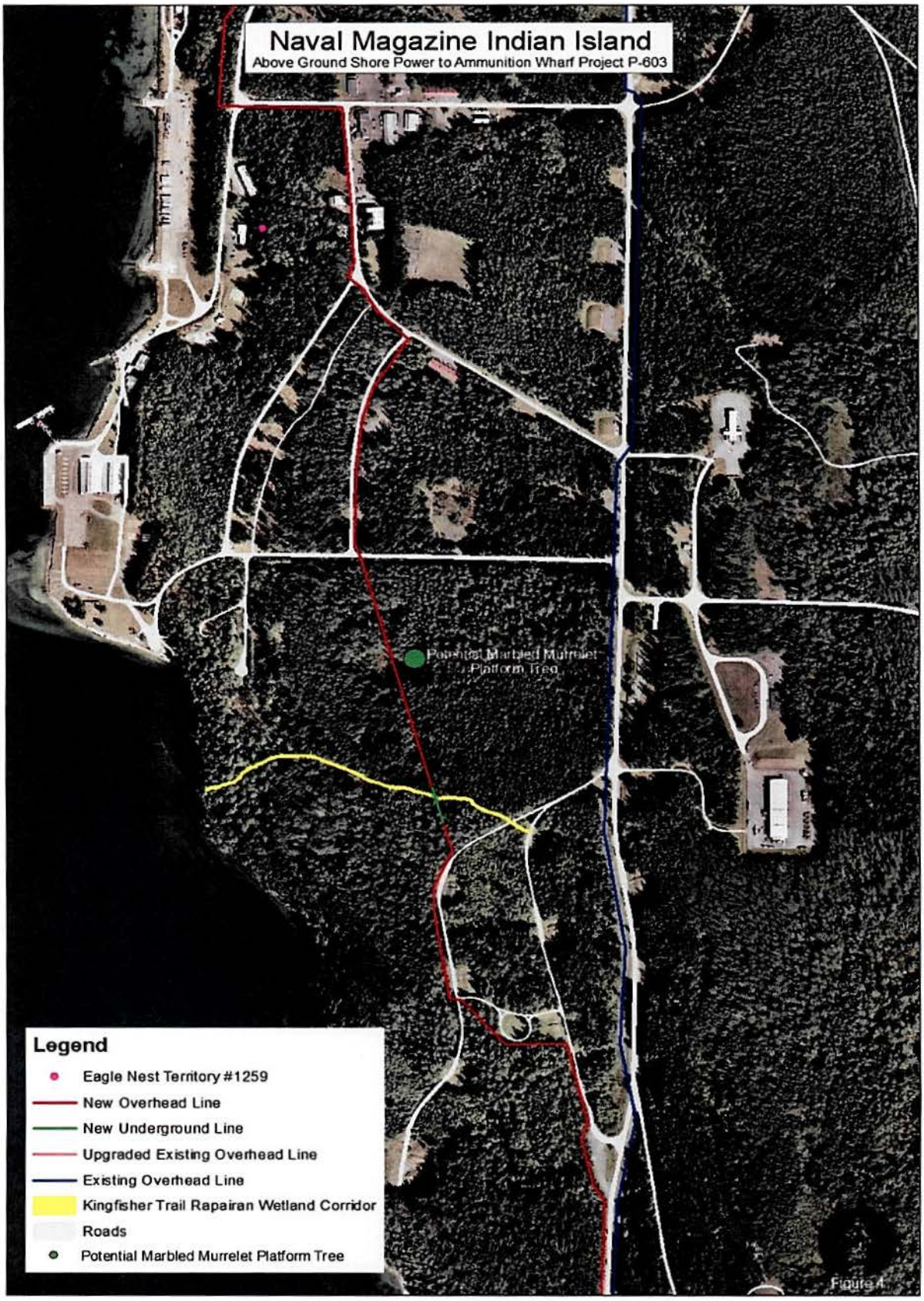
Conclusions:

Based on the proposed design to utilize existing roadways and utility corridors where possible to minimize tree clearing within forested areas, combined with the above mentioned mitigation measures and preliminary results of the potential nest platform habitat survey this project is considered to be a "May Affect, not likely to Adversely Affect" for the ESA listed species (i.e. Marbled murrelets) in the project vicinity.


Overview Map
Legend
Airports
County Boundaries
Navy Installations
Urban Areas
Indian Reservations
Military
National Forests
National Parks
WHIDBEY ISLAND
NAVAL AIR STATION
AULT FIELD
SEAPLANE BASE
NOLF COUPEVILLE
JIM CREEK
NAVAL RADIO STATION
SMOKEY POINT
FAMILY SUPPORT COMPLEX
LAKE HANCOCK
INDIAN ISLAND
NAVAL MAGAZINE
EVERETT
NAVAL STATION
NBK-BANGOR
SUBMARINE BASE
NBK-KEYPORT
NAVAL UNDERSEA WARFARE CENTER
NBK-JACKSON PARK
FAMILY HOUSING
NBK-BREMERTON
NAVAL COMPLEX
MANCHESTER
FUEL DEPOT
Strait of Juan de Fuca
Admiralty Inlet
Hood Canal
Puget Sound
Anacortes
Mount Vernon
Oak Harbor
Port Townsend
Marysville
Everett
Seattle
Bellevue
Redmond
Bremerton
Port Orchard
Renton
Kent
Auburn
Federal Way
Tacoma
Puyallup
Olympia
Lacey
Shelton
0 2 4 6 8 10 Miles
Figure 1


Naval Magazine Indian Island
Above Ground Shore Power to Ammunition Wharf Project P-603
Legend
Eagle Nest Territory #1259
New Overhead Line
New Underground Line
Upgraded Existing Overhead Line
Existing Overhead Line
Kingfisher Trail Rapairan Wetland Corridor
Roads
Potential Marbled Murrelet Platform Tree
Figure 2


Naval Magazine Indian Island
Above Ground Shore Power to Ammunition Wharf Project P-603
North Road
Makah Road
Freeman St
Hoogewerf St
Anderson Road
Ferry St
Kingfisher Trail
Chatham Road
Irene Road
Legend
Eagle Nest Territory #1259
New Overhead Line
New Underground Line
Upgraded Existing Overhead Line
Existing Overhead Line
Kingfisher Trail Rapairan Wetland Corridor
Roads
Potential Marbled Murrelet Platform Tree
Figure 3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Existing Overhead Line
Kingfisher Trail Rapairan Wetland Corridor
Roads
Potential Marbled Murrelet Platform Tree
Figure 4

Appendix D

Tribal Government-to-Government Consultation Documentation

DATE	CORRESPONDENCE	NOTES
06/12/14	Letters, Navy to Jamestown S'Klallam Tribe, Lower Elwha Klallam Tribe, Port Gamble S'Klallam Tribe, and Suquamish Tribe	Invitation to Initiate Government-to-Government Consultation for the Naval Magazine Indian Island Shore Power Installation Project MCON P-603

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO:
5090
Ser N45/139
June 12, 2014

The Honorable Jeromy Sullivan
Chairman, Port Gamble S'Klallam Tribe
31912 Little Boston Road N.E.
Kingston, WA 98346

Dear Mr. Chairman:

SUBJECT: INVITATION TO INITIATE GOVERNMENT-TO-GOVERNMENT CONSULTATION FOR THE NAVAL MAGAZINE INDIAN ISLAND SHORE POWER INSTALLATION PROJECT MCON P-603

I am writing to inform you of a proposed project to construct a new power distribution system on Naval Magazine (NAVMAG) Indian Island that will provide permanent shore power for submarines during ordnance handling operations at the Ammunition Wharf. Components of the project include installing power poles, installing approximately 22,600 linear feet of overhead and underground electric distribution lines, upgrading approximately 2,800 linear feet of existing overhead distribution lines, and replacing an existing electrical substation. Construction of this system will allow the Navy to remove the existing diesel generators and associated fuel tanks currently located at the Ammunition Wharf.

Pursuant to the Navy's American Indian and Alaska Native policy, I would like to extend the opportunity to review this proposed action and evaluate whether you believe there would be impacts to tribal treaty harvest rights or resources resulting from the implementation of the project. If there is a concern that tribal rights or resources may be adversely affected, we can arrange to have a meeting to further discuss and address these matters.

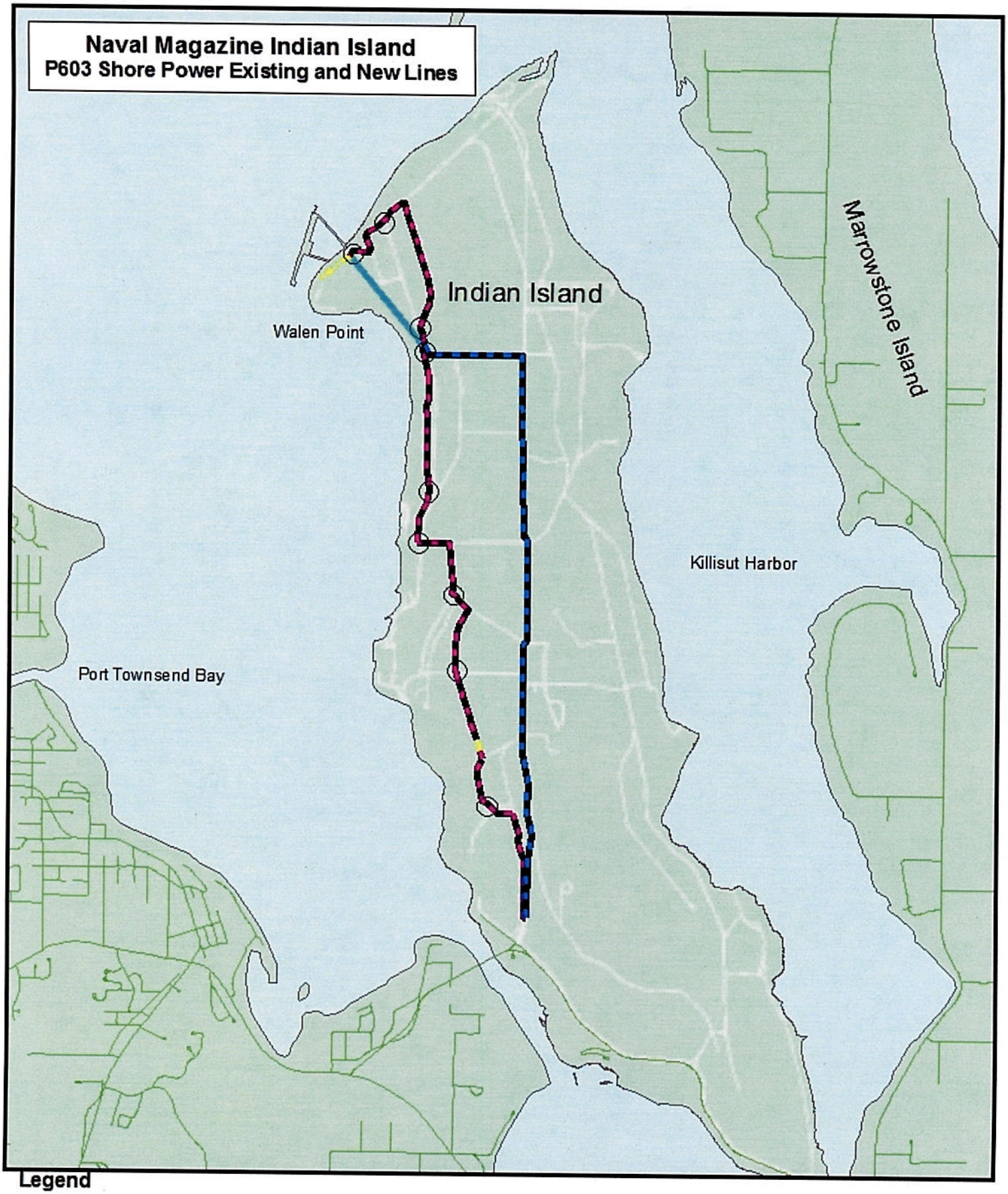
5090
Ser N45/139
June 12, 2014

I look forward to working with you to address any concerns or provide additional information you may need. Please contact me or my Environmental Site Manager, Mr. Bill Kalina, (360) 396-5353 or william.kalina@navy.mil, with any questions or comments.

Sincerely,

M. B. YESUNAS
Commander, U.S. Navy
Commanding Officer

Enclosure: 1. Naval Magazine Indian Island Proposed Shore Power project map


Naval Magazine Indian Island
P603 Shore Power Existing and New Lines
Indian Island
Walen Point
Marrowstone Island
Killisut Harbor
Port Townsend Bay
Legend
New Overhead Line
Underground Line
Upgraded Existing Line
Existing Overhead Line
Road Crossings
0 300 600 1,200 1,800 2,400
Meters
Date: 4 June 2014

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
100 INDIAN ISLAND ROAD
PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO:
5090
Ser N45/136
June 12, 2014

The Honorable W. Ron Allen
Chairman, Jamestown S'Klallam Tribe
1033 Old Blyn Highway
Sequim, WA 98382

Dear Mr. Chairman:

SUBJECT: INVITATION TO INITIATE GOVERNMENT-TO-GOVERNMENT CONSULTATION FOR THE NAVAL MAGAZINE INDIAN ISLAND SHORE POWER INSTALLATION PROJECT MCON P-603

I am writing to inform you of a proposed project to construct a new power distribution system on Naval Magazine (NAVMAG) Indian Island that will provide permanent shore power for submarines during ordnance handling operations at the Ammunition Wharf. Components of the project include installing power poles, installing approximately 22,600 linear feet of overhead and underground electric distribution lines, upgrading approximately 2,800 linear feet of existing overhead distribution lines, and replacing an existing electrical substation. Construction of this system will allow the Navy to remove the existing diesel generators and associated fuel tanks currently located at the Ammunition Wharf.

Pursuant to the Navy's American Indian and Alaska Native policy, I would like to extend the opportunity to review this proposed action and evaluate whether you believe there would be impacts to tribal treaty harvest rights or resources resulting from the implementation of the project. If there is a concern that tribal rights or resources may be adversely affected, we can arrange to have a meeting to further discuss and address these matters.

5090
Ser N45/136
June 12, 2014

I look forward to working with you to address any concerns or provide additional information you may need. Please contact me or my Environmental Site Manager, Mr. Bill Kalina, (360) 396-5353 or william.kalina@navy.mil, with any questions or comments.

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M. B. YESUNAS
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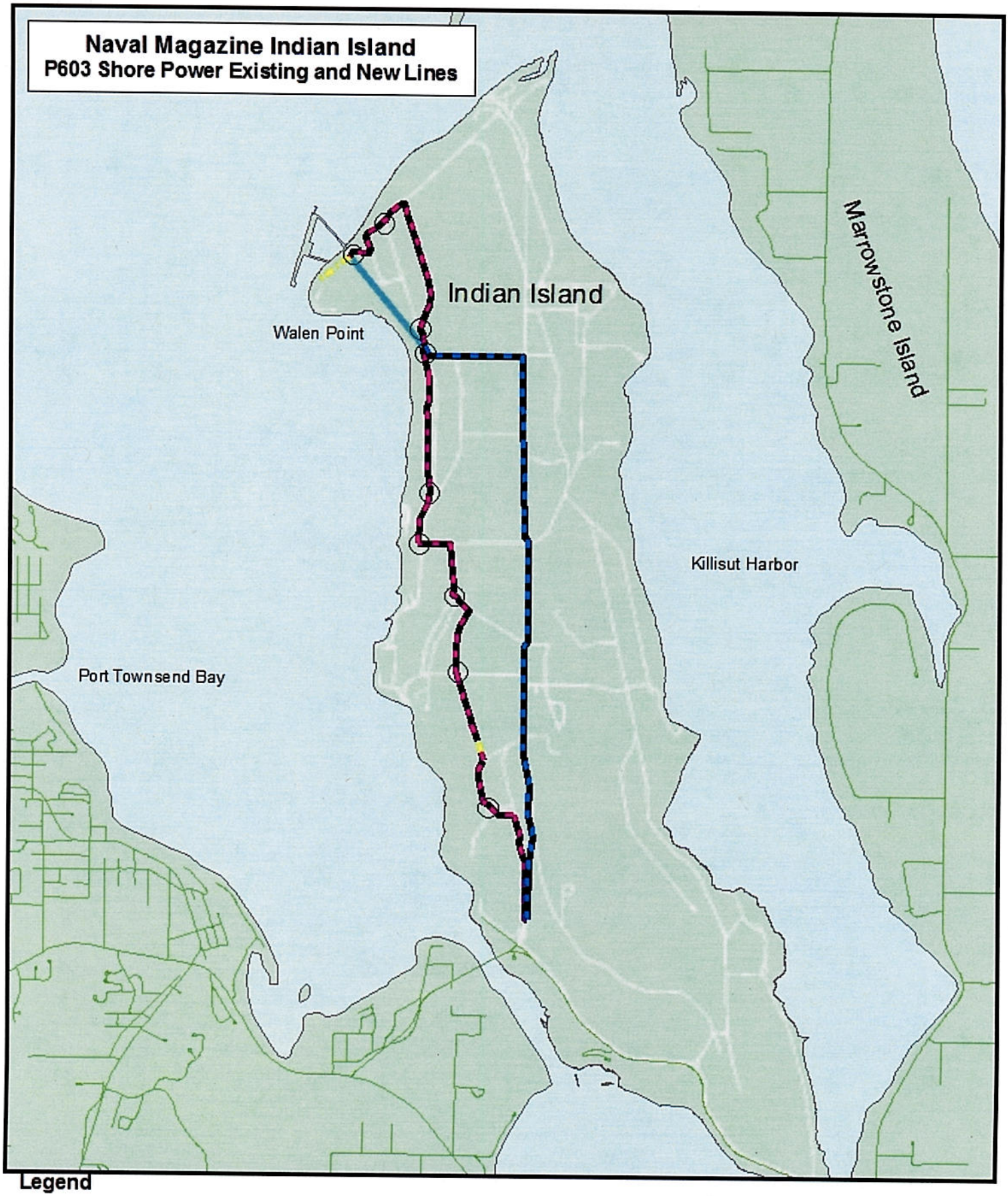
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Meters
Date: 4 June 2014

DEPARTMENT OF THE NAVY
NAVAL MAGAZINE INDIAN ISLAND
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PORT HADLOCK, WA 98339-9723

IN REPLY REFER TO:
5090
Ser N45/137
June 12, 2014

The Honorable Ms. Frances Charles
Chairman, Lower Elwha Klallam Tribe
2851 Lower Elwha Road
Port Angeles, WA 98363

Dear Madam Chairman:

SUBJECT: INVITATION TO INITIATE GOVERNMENT-TO-GOVERNMENT CONSULTATION FOR THE NAVAL MAGAZINE INDIAN ISLAND SHORE POWER INSTALLATION PROJECT MCON P-603

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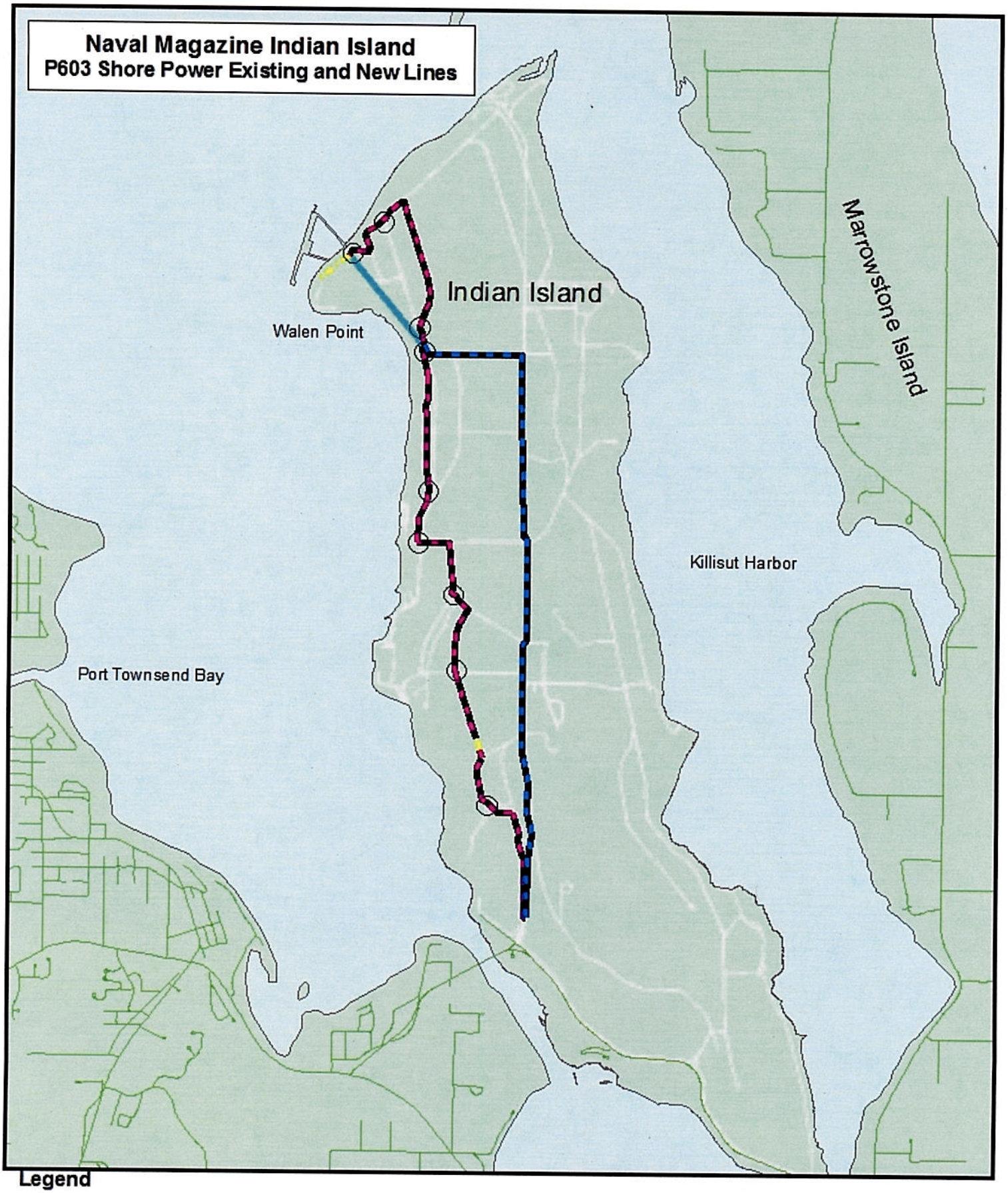
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IN REPLY REFER TO:
5090
Ser N45/138
June 12, 2014

The Honorable Leonard Forsman
Chairman, Suquamish Tribe
P.O. Box 498
Suquamish, WA 98392

Dear Mr. Chairman:

SUBJECT: INVITATION TO INITIATE GOVERNMENT-TO-GOVERNMENT CONSULTATION FOR THE NAVAL MAGAZINE INDIAN ISLAND SHORE POWER INSTALLATION PROJECT MCON P-603

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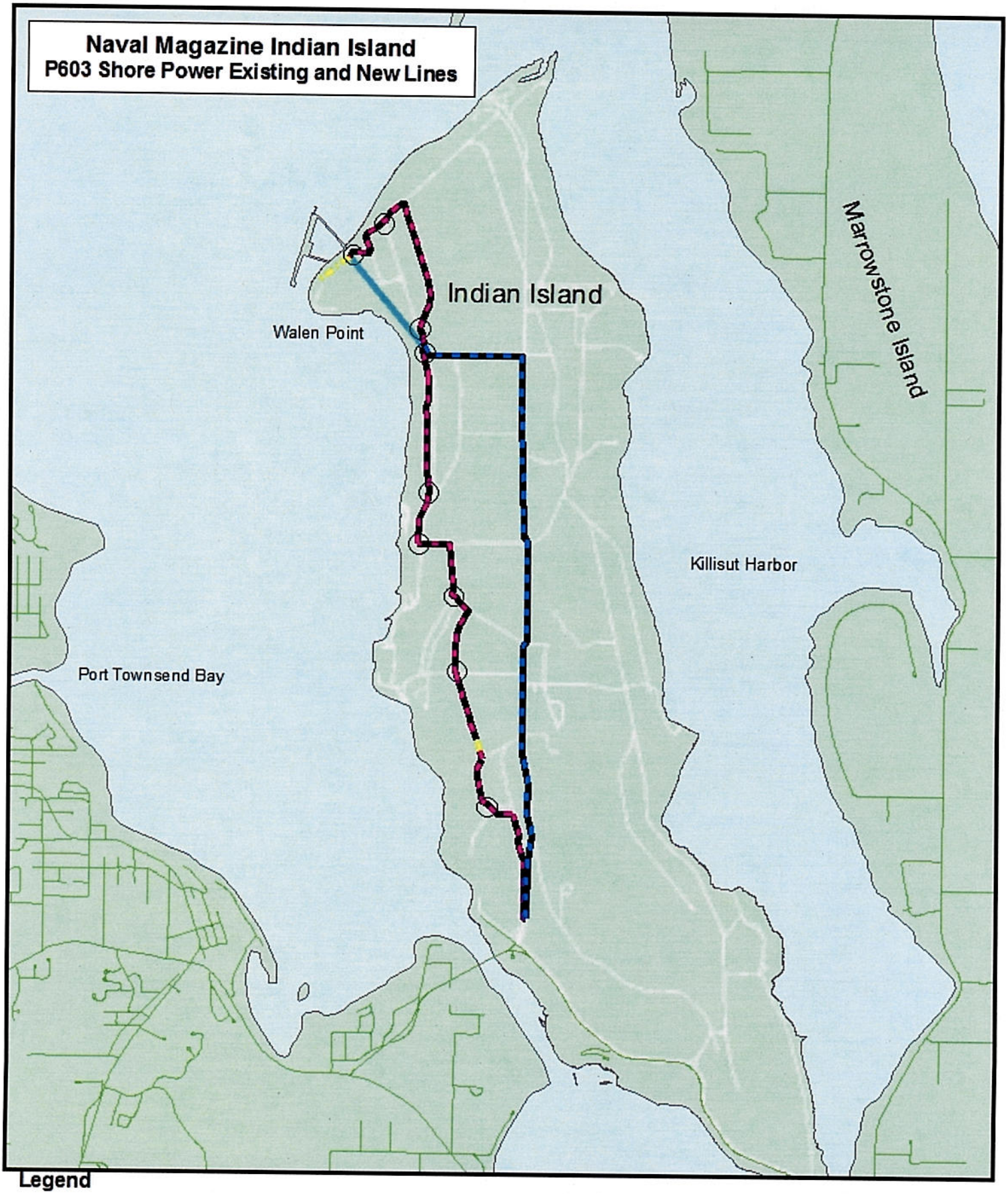
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