



FINAL

14 AUGUST 2018

Long-Term Monitoring, Inspection, and Improvement Plan

for OU A, OU NSC, OU B T, PMP, OU C, and OU D

Naval Base Kitsap Bremerton LTM

Bremerton, Washington

Contract No. N44255-14-D-9011, Task Order N4425518F4137

Department of the Navy

Naval Facilities Engineering Command Northwest

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CONTRACT NO. N44255-14-D-9011
LTM/OM / TASK ORDER N4425518F4137

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NAVAL BASE KITSAP BREMERTON

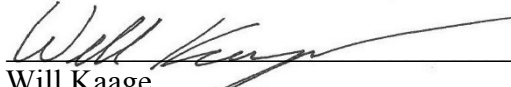
PUGET SOUND NAVAL SHIPYARD (PSNS) COMPLEX SUPERFUND SITE
EPA ID: WA2170023418

AUGUST 14, 2018

BREMERTON, WASHINGTON

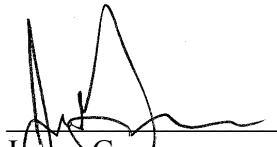
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ACRONYMS AND ABBREVIATIONS

APP	Accident Prevention Plan
BNC	Bremerton Naval Complex (also known as Naval Base Kitsap Bremerton)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CHMI	Contractor Hazardous Material Inventory
CIA	Controlled Industrial Area
CMPWSR	Contractor's Monthly Project Waste Summary Report
COR	Contracting Officer's Representative
CP/QC	Contractor Production/Quality Control
DCN	Design Change Notice
DOT	United States Department of Transportation
Ecology	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
FCR	Field Change Request
IAS	Initial Assessment Study
IC	Institutional Controls
IDW	investigation-derived waste
LDC	Laboratory Data Consultants, Inc.
LNAPL	light non-aqueous phase liquid
LTM	long-term monitoring
µg/L	micrograms per liter
MSDS	material safety data sheets
MTCA	Model Toxics Control Act
NAVFAC	Naval Facilities Engineering Command
NAVSUP Puget Sound	Naval Supply Puget Sound
Navy	United States Navy
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NCR	Nonconformance Report

ACRONYMS AND ABBREVIATIONS (continued)

NTR	Navy Technical Representative
O&M	Operation and Maintenance
OHS	oil and hazard substances
OU	operable unit
OU B M	Operable Unit B Marine
OU B T	Operable Unit B Terrestrial
OU NSC	Operable Unit Naval Supply Center
PCB	polychlorinated biphenyl
PMP	Petroleum Management Plan
PPE	personal protective equipment
PQAM	Project Quality Assurance Manager
PQCM	Project Quality Control Manager
PSNS	Puget Sound Naval Shipyard
QC	Quality Control
QCPM	Quality Control Program Manager
RIP	Remedies in Place
ROD	Record of Decision
RPM	Remedial Project Manager
SAP	Sampling and Analysis Plan
Sealaska	Sealaska Environmental Services, LLC
SS	Site Superintendent
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
SVOC	semi-volatile organic compounds
SWTS	Solid Waste Tracking Sheet
TO	task order
TOM	Task Order Manager
TPH	total petroleum hydrocarbons
UFP	Uniform Federal Policy Act

ACRONYMS AND ABBREVIATIONS (continued)

VOC	volatile organic compound
WAC	Washington Administrative Code
WIS	Waste Information Sheet

1. INTRODUCTION

This work plan has been prepared by Sealaska Environmental Services, LLC (Sealaska) for the United States Navy (Navy) under Contract N44255-14-D-9011, Task Order (TO) 18F4137 to address activities for long-term groundwater monitoring, remedy inspections, and remedy improvements for Naval Base Kitsap Bremerton (hereafter referred to as the Bremerton Naval Complex [BNC]).

1.1 PURPOSE AND SCOPE

BNC is located along the northern shoreline of Sinclair Inlet in Bremerton, Washington, and has six operable units (Figures 1-1 and 1-2, respectively). These include: Operable Unit (OU) A, OU Naval Supply Center (OU NSC), OU B Terrestrial (OU B T), OU B Marine (OU B M), OU C, and OU D. The Navy also implements a Petroleum Management Plan (PMP) that extends across most of the BNC, and conducts shoreline inspections to comply with the requirements set forth for OU B M. All of the OUs and the PMP have Remedies in Place (RIP) and, since May 2005, are in the post-Record of Decision (ROD) phase of monitoring.

Long-term monitoring (LTM) activities at BNC assess and determine compliance with applicable or relevant and appropriate requirements, as described in the:

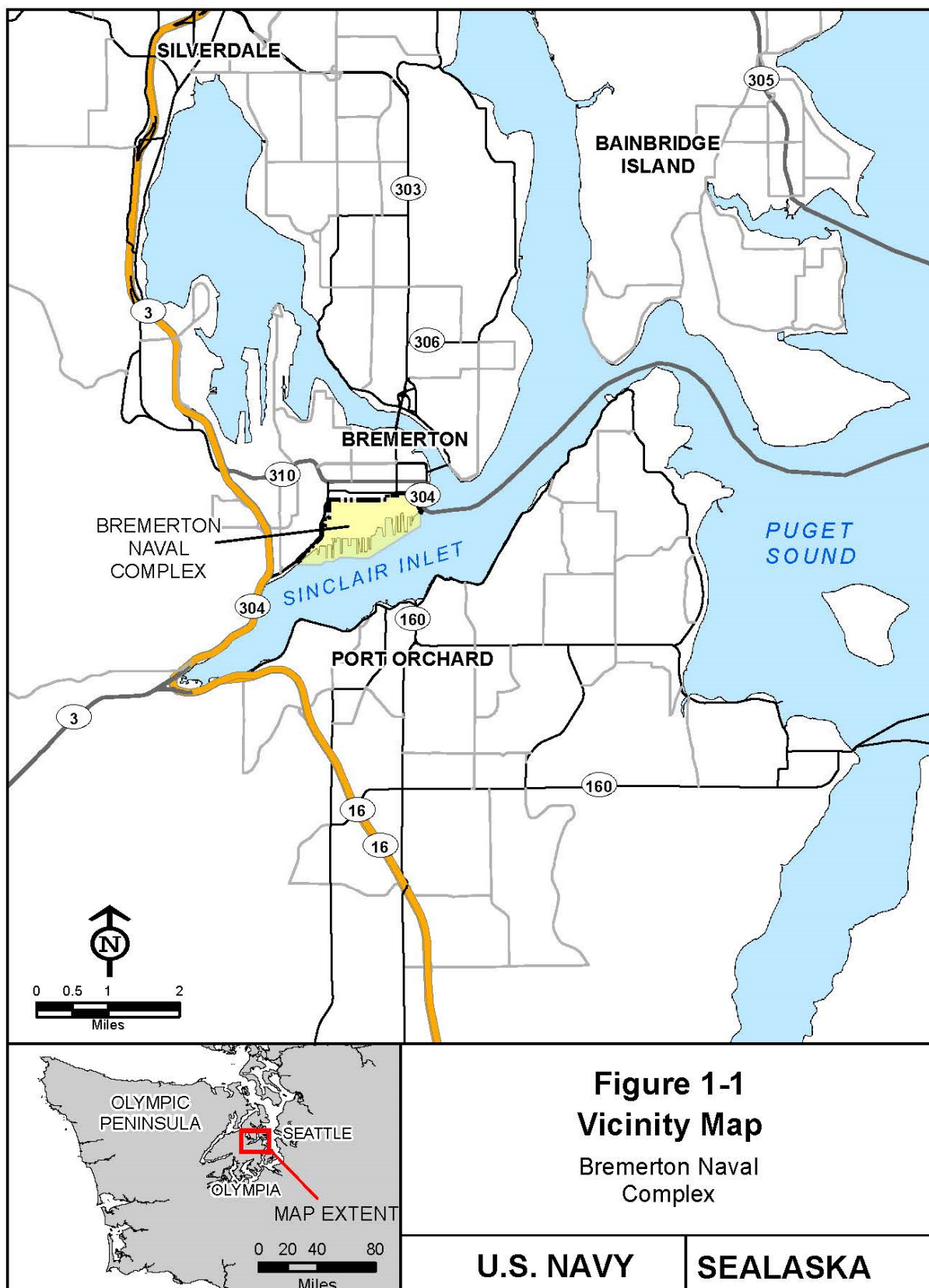
- Final ROD for OU A (Navy 1997)
- Final ROD for OU NSC (Navy 1996)
- Final ROD for OU B M (Navy 2000)
- Final PMP (Navy 2017a)
- Final ROD for OU B T (Navy 2004)
- Final ROD for OU D (Navy 2005)
- Final OU C Cleanup Action Plan (Navy 2007a)

The RODs and PMP allow contaminants of concern to remain in place as long as the Navy maintains remedies to protect human health and the environment. Among the RIPs set forth in the RODS and action plans, the Navy is required to conduct long-term groundwater monitoring to evaluate progress toward long-term cleanup goals, to conduct remedy inspections, and implement remedy improvements.

The purpose of TO 18F4137 is to continue the required long-term groundwater monitoring, remedy inspections, and remedy improvements for the OUs and PMP at BNC. Specifically, this work plan includes the following activities:

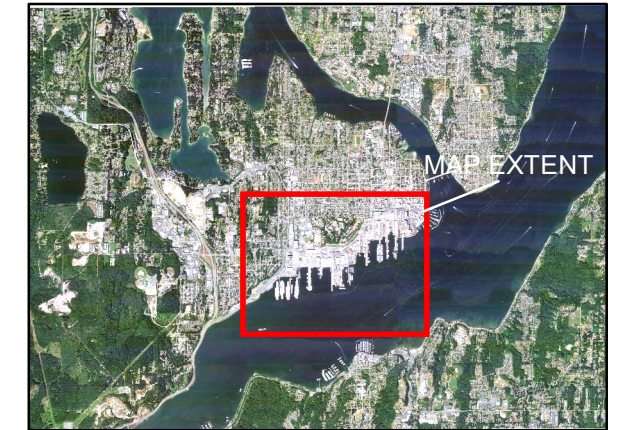
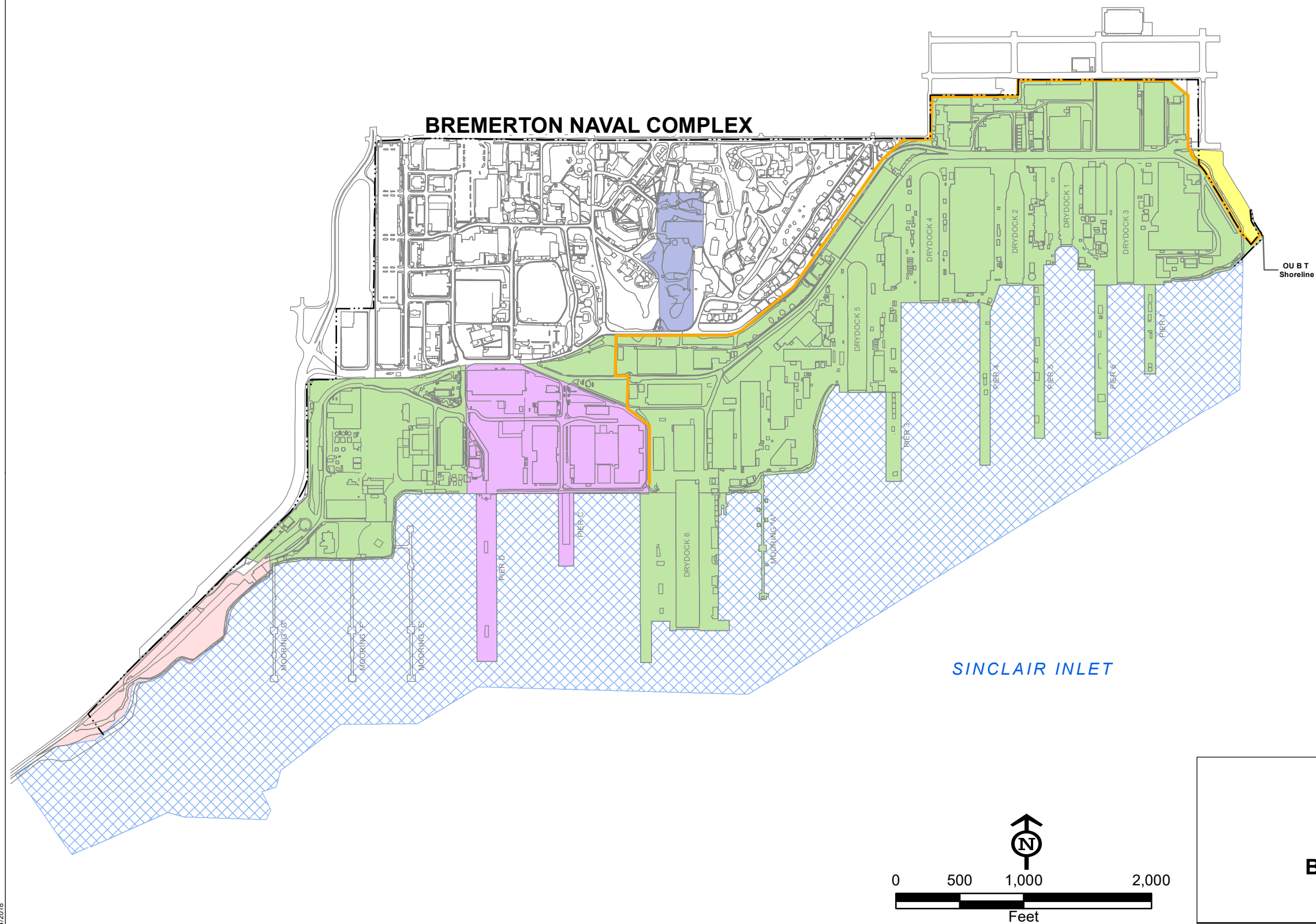
- LTM sampling and analysis for OU A, OU NSC, OU B T, PMP, OU C, and OU D
- Wet weather and OU A shoreline inspections
- Remedy inspections for OU A, OU NSC, and OU B T
- Land Use Control and Institutional Control inspections
- Vegetative control
- Waste management
- Monitoring well access marking, and well lid and gasket replacement.

The TO work plan presents an overview of the BNC long-term groundwater monitoring program. More detailed sampling and analysis methods, procedures, and requirements for LTM environmental and field quality control samples are addressed in Appendix B of the TO 18F4137 Tier II Uniform Federal Policy (UFP) Sampling and Analysis Plan (SAP; Navy 2018) which is a companion document to this work plan. Health and safety evaluations and controls are addressed in the Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP; Sealaska 2018). The TO 18F4137 UFP SAP (Navy 2018) includes detailed sampling and analysis methods, procedures, and requirements for LTM environmental and field quality control samples for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigations. The work plan addresses the overall BNC LTM program, contractor quality control, waste management, and environmental protection processes and procedures.



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LEGEND

- PROPERTY BOUNDARY
- CONTROLLED INDUSTRIAL AREA
- OU D
- OU A
- OU B TERRESTRIAL
- OU B MARINE
- OU C
- OU NSC

Figure 1-2
Operable Units
Bremerton Naval Complex

U.S. NAVY

SEALASKA

1.2 SITE BACKGROUND

BNC is located in Bremerton, Washington, along the northern shoreline of Sinclair Inlet. The Navy has owned and operated facilities at this location since 1891. It is comprised of approximately 350 acres of land and an additional 340 acres of tidelands along 11,000 feet of shoreline. The site is primarily industrial and covered by pavement and buildings. Activities include docking, overhauling, maintaining, and decommissioning naval vessels, and recycling submarines and surface ships.

The area was expanded significantly in the early 1900s by upland filling with soils, dredged sediments, and construction debris. Some of the fill was later determined to contain hazardous substances such as sandblasting grit, copper slag, and other industrial materials. Additionally, industrial wastes were disposed of using practices that were acceptable at the time. These activities have resulted in contamination of soil and groundwater. Contamination sources included but were not limited to metal plating and stripping solutions, metal filings and shavings, transformers and other electrical components containing polychlorinated biphenyls (PCBs), batteries, acids, oxidizing materials, paint and paint chips, degreasing and cleaning solvents, miscellaneous materials from shipbuilding and ship demolitions, and petroleum products.

Petroleum hydrocarbons, heavy metals, semi-volatile organic compounds (SVOCs), and PCBs have been identified in soil and sediments at varying levels throughout BNC. Petroleum hydrocarbons, metals, and volatile organic compounds (VOCs) have been detected in groundwater monitoring wells.

As required by the Navy Assessment and Control of Installation Pollutants program, an Initial Assessment Study (IAS) was released in March 1983. During the IAS process, the Navy collected and evaluated information on past operations at BNC, and potentially contaminated areas were identified and investigated (NEESA 1983). Following further evaluation, the United States Environmental Protection Agency (EPA) placed the site on the EPA's National Priorities List in accordance with CERCLA. The Navy subsequently entered into an interagency agreement with Washington State Department of Ecology (Ecology) and EPA in August 1998. This agreement set forth to expeditiously select, complete, and monitor remedial actions, which grouped the areas of contamination into OUs. RODs were issued for each OU, as applicable, which established remedial actions necessary to protect human health and the environment.

In October 2017, the Navy completed the Fourth Five-Year Review (Navy 2017b) of remedial actions in accordance with Section 121(c) of CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP; 40 CFR Part 300). The objectives of this review were to ensure remedial actions selected in the RODs for each OU remained protective of human health and the environment, and to recommend improvements to RIP. This review was required because contaminants have been left in place at BNC above levels that allow for unlimited use and unrestricted exposure. Contaminant compliance and trigger levels currently remain unchanged; however, the Navy is in the process of conducting a protectiveness evaluation to determine if changes to the State's water quality criteria have an affect on the protectiveness of the remedies at BNC.

2. OPERABLE UNITS AND PETROLEUM MANAGEMENT PLAN OVERVIEW

The following sections briefly summarize the physical and environmental characteristics of OU A, OU NSC, OU B T, OU C, and OU D, and the PMP. Additional detail regarding the LTM program is discussed in Sections 3 through 8. All LTM wells are shown on Figure 2-1. A list of all LTM wells and construction details is provided in Appendix A.

2.1 OPERABLE UNIT A

OU A is located at the southwestern end of the BNC (Figure 1-2). The site was created through placement of fill material beginning in the 1940s and now covers an area of approximately 12 acres. OU A formerly included 27 acres of intertidal and subtidal areas adjacent to the filled areas. The marine portion of OU A was incorporated into OU B M to address chemical levels in the marine environment. Sinclair Inlet (to the south) and State Route 304 (to the north) border OU A.

LTM at OU A has been conducted since summer 1999.

2.2 OPERABLE UNIT NSC

OU NSC is a paved industrial facility covering an upland area of approximately 28 acres, including the Naval Supply Puget Sound (NAVSUP Puget Sound), which was formerly known as the Fleet and Industrial Supply Center and the Naval Supply Center (Figure 1-2). OU NSC is bordered by Sinclair Inlet to the south, T Street to the east, Z Street to the west, and Rogers Avenue to the north.

The land occupied by OU NSC was created between approximately 1900 and 1950 by placement of miscellaneous fill materials. The ground surface at OU NSC is flat and almost entirely paved or covered by buildings. The NAVSUP Puget Sound consists of large, relatively old buildings and former supply pier C. The NAVSUP Puget Sound is the primary materials supplier to the BNC. The buildings on the site are primarily warehouses and offices for staff involved in supply functions.

A quay wall reaching an estimated depth of 40 feet below the ground surface extends along the full length of the waterfront at OU NSC. The quay wall was apparently installed in stages for erosion control, when swampy and intertidal areas were filled to create additional land.

LTM at OU NSC has been conducted since summer 1999.

2.3 OPERABLE UNIT B TERRESTRIAL

OU B originally included both terrestrial and marine areas of the BNC. It was separated into marine (OU B M) and terrestrial (OU B T) units in 1999. OU B T consists of approximately 60 to 65 acres of upland area containing a number of industrial facilities (including various shops and warehouses), dry-docks, cranes, and rail lines. OU B M consists of approximately 230 acres of intertidal and subtidal marine areas extending along the shore of the BNC.

Approximately 27 acres of intertidal and subtidal areas of OU B M are adjacent to the fill that comprises OU A.

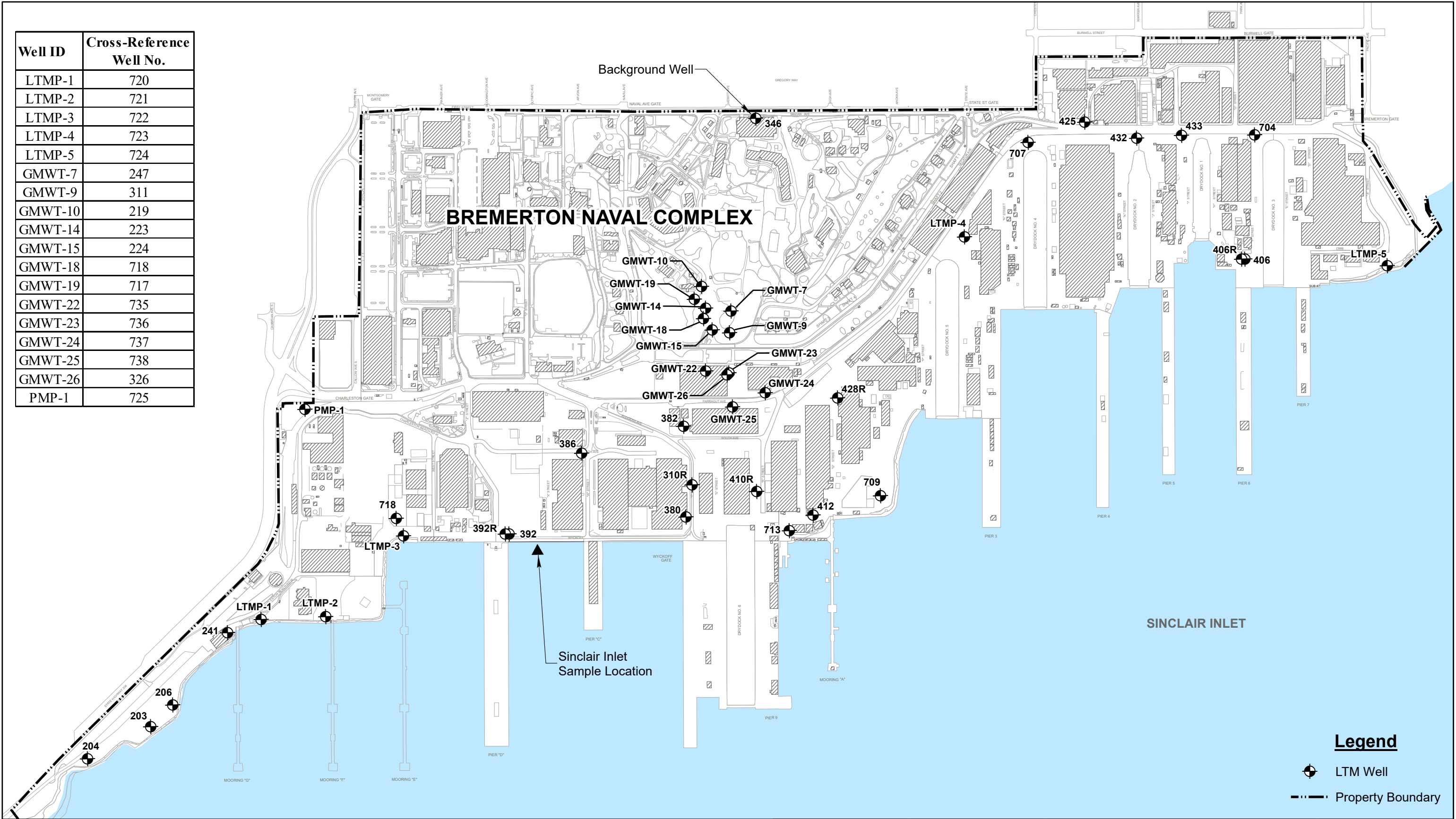
Most of the OU B T site is paved and access is restricted. OU B T consists primarily of the Controlled Industrial Area (CIA) portion of the Puget Sound Naval Shipyard (PSNS). The western portion of OU B T is located between OU NSC and OU A, as shown in Figure 1-2.

LTM at OU B T has been conducted since summer 2004.

2.4 PETROLEUM MANAGEMENT PLAN

The PMP (Navy 2017a) applies to management of petroleum hydrocarbon contamination at OU A, OU NSC, and OU B T. The PMP is focused on the occurrence and management of petroleum hydrocarbon contamination and does not address other potential contaminants of concern. It is intended to provide a summary of complex-wide environmental conditions and petroleum hydrocarbon monitoring requirements. The PMP also proposes the means to establish monitoring endpoints to reduce, modify, or discontinue groundwater monitoring.

Well ID	Cross-Reference Well No.
LTMP-1	720
LTMP-2	721
LTMP-3	722
LTMP-4	723
LTMP-5	724
GMWT-7	247
GMWT-9	311
GMWT-10	219
GMWT-14	223
GMWT-15	224
GMWT-18	718
GMWT-19	717
GMWT-22	735
GMWT-23	736
GMWT-24	737
GMWT-25	738
GMWT-26	326
PMP-1	725



U.S. NAVY

SEALASKA

Figure 2-1
LTM Well Location Map

BREMERTON NAVAL
COMPLEX

2.5 OPERABLE UNIT C

OU C is located in the north-central portion of PSNS (Figure 1-2). The area is topographically higher than much of the BNC operations area, with elevations ranging from approximately 60 to 100 feet above mean sea level. The site is centered on a steep ravine that has been partially filled. The area south of OU C is about 50 to 60 feet lower in elevation and occupied by the CIA for PSNS.

Three petroleum storage tanks (Tanks 315, 316, and 317) were formerly in use in the OU C ravine area. The primary source of petroleum contamination at OU C is considered to be Tank 317, a 5-million-gallon tank constructed of concrete in 1919 that was used mainly for storing No. 6 fuel oil (Bunker C). More than 80,000 gallons of petroleum product were estimated to be floating on the unconfined groundwater table beneath and immediately down gradient of former Tank 317. After remediation efforts to remove the petroleum, it is estimated that approximately 50,000 gallons of petroleum product remain in the subsurface. Although the floating product is primarily Bunker C fuel oil, testing has also detected diesel and gasoline components.

LTM at OU C has been conducted since 2000.

2.6 OPERABLE UNIT D

In August 2002, OU D was made up of a limited portion of the far eastern end of OU B T. It was established to support the planned conveyance of land to the City of Bremerton for creation of a new city park in conjunction with ongoing development in the vicinity of the ferry terminal.

The ROD for OU D was executed in May 2005 (Navy, Ecology, and EPA 2005). Remedy implementation for OU D began in June 2005 and was completed in December 2006. The land comprising OU D has been transferred to the City of Bremerton by quit claim deed. A Memorandum of Agreement is in place between the City of Bremerton and the Navy regarding management and operations of OU D, including remedy inspections.

With the transfer of the deed, the City of Bremerton has assumed responsibility for the implementation and maintenance of Land Use Controls for OU D. The Memorandum of Agreement between the Navy and City of Bremerton (effective date May 6, 2013) governs the Land Use Controls for OU D.

The shoreline adjacent to OU D to the high tide line was not transferred to the City of Bremerton, and is still inspected and maintained by the Navy.

LTM for OU D has been conducted at well LTMP-5, which is located in OU B T, since summer 2004.

3. OPERABLE UNIT A LONG-TERM MONITORING

The LTM wells for OU A are shown on Figure 2-1, and listed in Appendix A. Well 208 was discontinued in August 2008, but rather than decommission well 208, the Navy transferred it to the City of Bremerton at their request for the City's use and care, with Ecology's concurrence.

3.1 OU A FIELD SAMPLING REQUIREMENTS

Groundwater sampling activities at OU A will be scheduled based on consideration of tide cycles due to the proximity and influence from Sinclair Inlet. Tide cycles affecting Sinclair Inlet levels may influence groundwater quality, with the potential for increased brackishness greatest at high tide (TEC 2003a). To reduce the potential influence of tides, groundwater-sampling activities will be scheduled to coincide with low tides to the extent practicable and within daylight hours on weekdays. Groundwater samples will be collected for laboratory analysis within two hours prior to the lowest daytime tide. Once the lowest daytime tide is reached, sampling will be discontinued for the day.

Field water quality parameters including pH, temperature, conductivity, salinity, turbidity, dissolved oxygen, oxidation-reduction potential and depth to groundwater will be measured in the OU A monitoring wells prior to sample collection. Detailed field procedures that will be used during monitoring and sampling activities are included in Appendix B of the TO 18F4137 Tier II UFP SAP (Navy 2018).

3.2 OU A SAMPLING FREQUENCY

Groundwater monitoring activities at OU A are conducted every 1, 2, or 5 years. OU A wells scheduled for sampling during the fall 2018 field event are presented in Figure 3-1. Table 3-1 lists the groundwater contaminants of concern and collection methods. Background well 346 will also be sampled during the OU A 2018 sampling event. Detailed sampling and analysis information can be found in the TO 18F4137 Tier II UFP SAP.

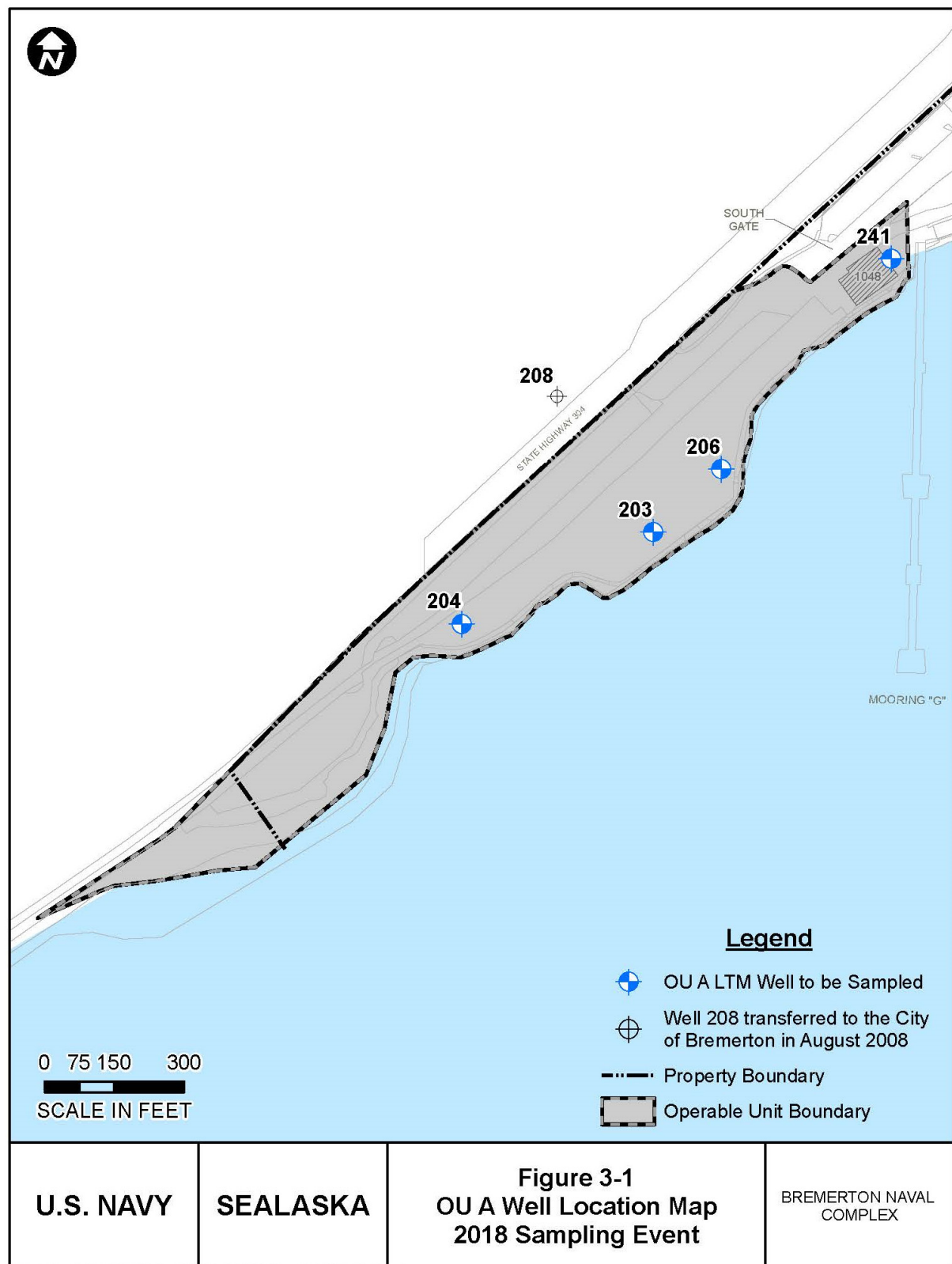


Table 3-1. OU A Groundwater Sampling Schedule and Sample Collection Methods for Fall 2018

Well	Laboratory Analysis				Sample Pump Type
	Total Metals ^{1/}				
	As	Cu	Ni	Zn	
203 (PS03-MW03)	X	X	--	--	Peristaltic
204 (MW204)	X	X	X	X	Peristaltic
206 (MW206)	X	--	--	--	Peristaltic
241 (MW241)	X	X	X	X	Peristaltic
Background Well 346 (PS11-MW1L)	X	X	X	X	Electric Submersible

Notes:
^{1/} Total metals by EPA Method 6020A including reductive precipitation preparation of metals by modified Method 1640 where needed to reduce interferences.
BOLD – Planned to be monitored in 2018.
Well identifications in parentheses are alternate (secondary) names.
As, Cu, Ni, Zn – arsenic, copper, nickel, and zinc
-- Indicates no scheduled monitoring

3.3 OU A CLEANUP LEVELS

Wells monitored in OU A include those that had applicable or relevant and appropriate requirement exceedances during the remedial investigation/feasibility study and displayed the highest levels of soil concentrations for the chemicals with specified cleanup goals. Background well 346 was selected to evaluate background groundwater conditions. LTM groundwater cleanup levels for OU A have been implemented based on the OU A ROD (Navy 1997). A summary of OU A cleanup levels is presented in Table 3-2.

Table 3-2. Groundwater Cleanup Levels for OU A

Chemical	Basis	Cleanup Level (µg/L)
Arsenic	NT Rule	0.5
Copper	State WQC	2.5
Nickel	State WQC	7.9
Zinc	State WQC	76.6

Notes:
Groundwater cleanup levels are based on the protection of adjacent surface waters of Sinclair Inlet.
µg/L – micrograms per liter
NT Rule – National Toxics Rule; applies 0.5 µg/L as the practical quantitation limit since the regulatory limit of 0.14 µg/L cannot be achieved.
State WQC – State of Washington Water Quality Criteria

4. OPERABLE UNIT NSC LONG-TERM MONITORING

The LTM wells for OU NSC are shown on Figure 2-1, and listed in Appendix A. Well 392 was replaced by a deeper well (392R) in 2008. Well 392R is now used to obtain samples for the LTM effort at OU NSC and the NWTPH-Dx analysis under the PMP.

4.1 OU NSC FIELD SAMPLING REQUIREMENTS

Groundwater sampling activities at OU NSC for shoreline wells will be scheduled based on consideration of tidal cycles due to the proximity and influence from Sinclair Inlet. Tidal cycles affecting Sinclair Inlet levels potentially influence groundwater quality, with the potential for increased brackishness greatest at high tide (TEC 2003b). To reduce the potential influence of tides, groundwater-sampling activities will be scheduled to coincide with low tides, to the extent practicable, and within daylight hours on weekdays. Groundwater samples will be collected for laboratory analysis within two hours prior to the lowest daytime tide. Once the lowest daytime tide is reached, sampling will be discontinued for the day.

Field water quality parameters including pH, temperature, conductivity, salinity, turbidity, dissolved oxygen, oxidation-reduction potential and depth to groundwater will be measured in the OU NSC monitoring wells prior to sample collection. After completing water level measurements, the well will be purged using low-flow sampling techniques. Detailed field procedures that will be used during monitoring and sampling activities are included in Appendix B of the TO 18F4137 Tier II UFP SAP (Navy 2018).

4.2 OU NSC SAMPLING FREQUENCY

Groundwater monitoring activities at OU NSC are conducted at required well locations every 1, 2, or 5 years. The OU NSC wells to be sampled the fall 2018 sampling event are presented on Figure 4-1. Tables 4-1 and 4-2 list the contaminants of concern and collection methods for the OU NSC groundwater well samples. Background well 346 will also be sampled during the OU NSC 2018 sampling event. Detailed sampling and analysis information can be found in the TO 18F4137 Tier II UFP SAP.

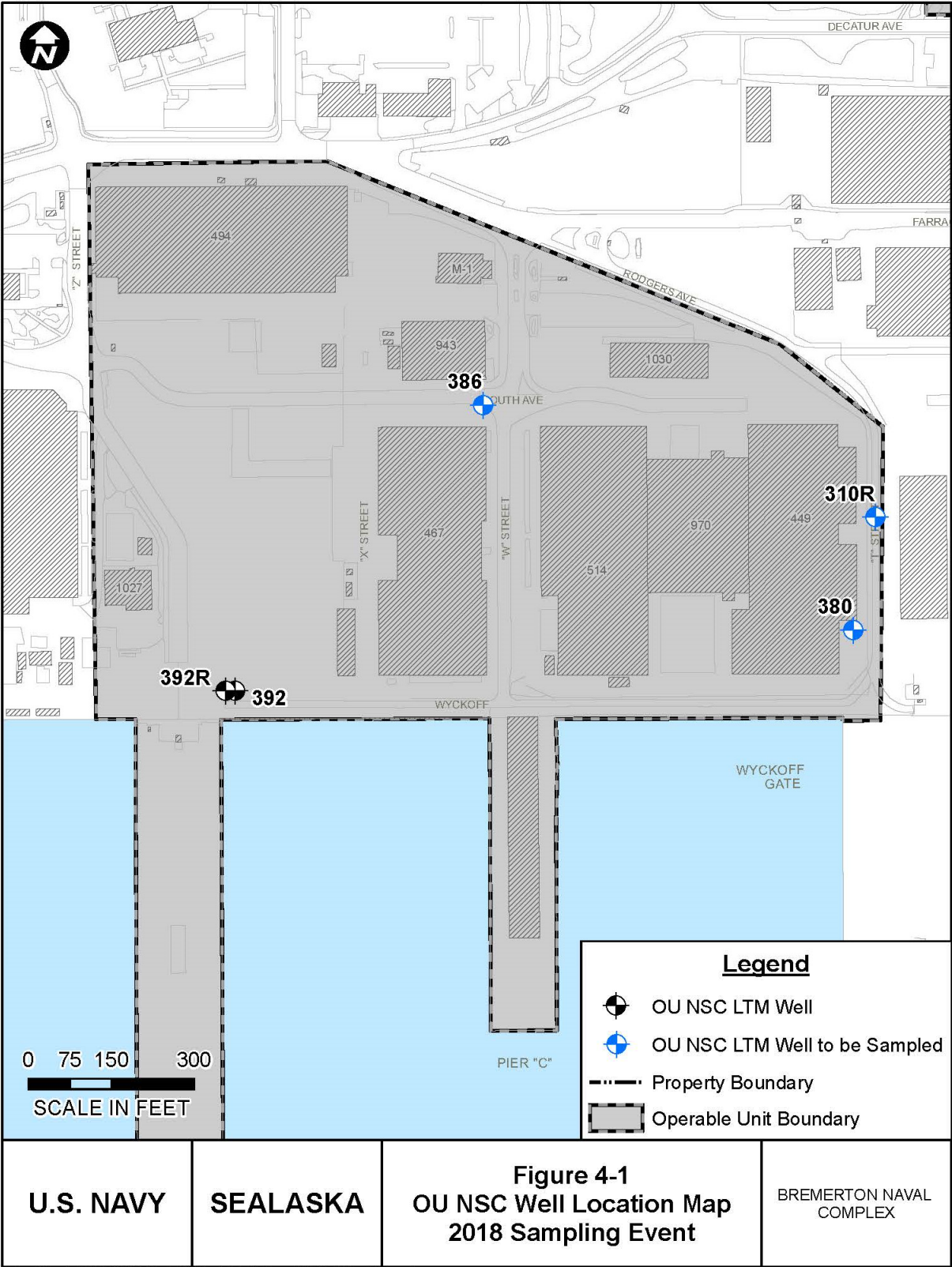


Table 4-1. OU NSC Groundwater Contaminants of Concern and Sample Collection Methods for Fall 2018

Well	Laboratory Analysis			Sample Pump Type
	Total Metals ^{1/}			
	As	Cu	Ni	
310R	X	X	X	Electric Submersible
380 (MW380)	--	X	X	Peristaltic
386 (MW386)	X	X	--	Peristaltic
392	--	--	--	Peristaltic
392R	--	--	--	Peristaltic
Background Well 346 (PS11-MW1L)	X	X	X	Electric Submersible

Notes:

^{1/} Total metals by EPA Method 6020A, including reductive precipitation preparation of metals by modified Method 1640 where needed to reduce interferences.

BOLD – Planned to be monitored in 2018.

Well identifications in parentheses are alternate (secondary) names.

As, Cu, Pb, Ni – arsenic, copper, lead, and nickel

-- Indicates no scheduled monitoring

4.3 OU NSC CLEANUP LEVELS

LTM groundwater cleanup levels for OU NSC have been implemented based on the OU NSC ROD (Navy 1996). A summary of the applicable OU NSC cleanup levels is presented in Table 4-2.

Table 4-2. Groundwater Cleanup Levels for OU NSC

Chemical	Basis	Cleanup Level (µg/L)
Arsenic	NT Rule	0.5
Copper	State WQC	2.5
Nickel	State WQC	7.9

Notes:
µg/L – micrograms per liter
NT Rule – National Toxics Rule; applies 0.5 µg/L as the practical quantitation limit since the regulatory limit of 0.14 µg/L cannot be achieved.
State WQC – State of Washington Water Quality Criteria

5. OPERABLE UNIT B TERRESTRIAL LONG-TERM MONITORING

The LTM wells for OU B T are shown on Figure 2-1, and listed in Appendix A. Background well 346 is also included as part of the OU B T sampling program to evaluate background groundwater conditions.

5.1 OU B T FIELD SAMPLING REQUIREMENTS

Groundwater sampling activities at OU B T for shoreline wells will be scheduled in consideration of tidal cycles due to the proximity and influence from Sinclair Inlet. Tidal cycles affecting Sinclair Inlet levels potentially influence groundwater quality, with the potential for increased brackishness greatest at high tide (URS 2004). To reduce the potential influence of tides, groundwater sampling activities will be scheduled to coincide with low tides, to the extent practicable, and within daylight hours on weekdays. Groundwater samples will be collected for laboratory analysis within two hours prior to the lowest daytime tide. Once the lowest daytime tide is reached, sampling will be discontinued for the day.

Field water quality parameters including pH, temperature, conductivity, salinity, turbidity, dissolved oxygen, oxidation-reduction potential and depth to groundwater will be measured in the OU B T monitoring wells prior to sample collection. Detailed field procedures that will be used during monitoring and sampling activities are included in Appendix B of the TO 18F4137 Tier II UFP SAP (Navy 2018).

5.1.1 OU BT ATTENUATION FACTOR

The Record of Decision (ROD) for Operable Unit B was finalized in November 2003. Among the ROD conditions for compliance was the need to select a conditional point of compliance for groundwater at OU B Terrestrial, as it was not practicable to “meet cleanup levels throughout the site within a reasonable restoration timeframe.”

Ten well locations were then selected to monitor groundwater. Of these, four of the well locations were (1) as close as feasible to the shoreline, and (2) not influenced by drydock discharge pumping (or quay walls). The remaining six wells were located upgradient of each of the drydocks. Together, these locations served as the conditional point of compliance for groundwater.

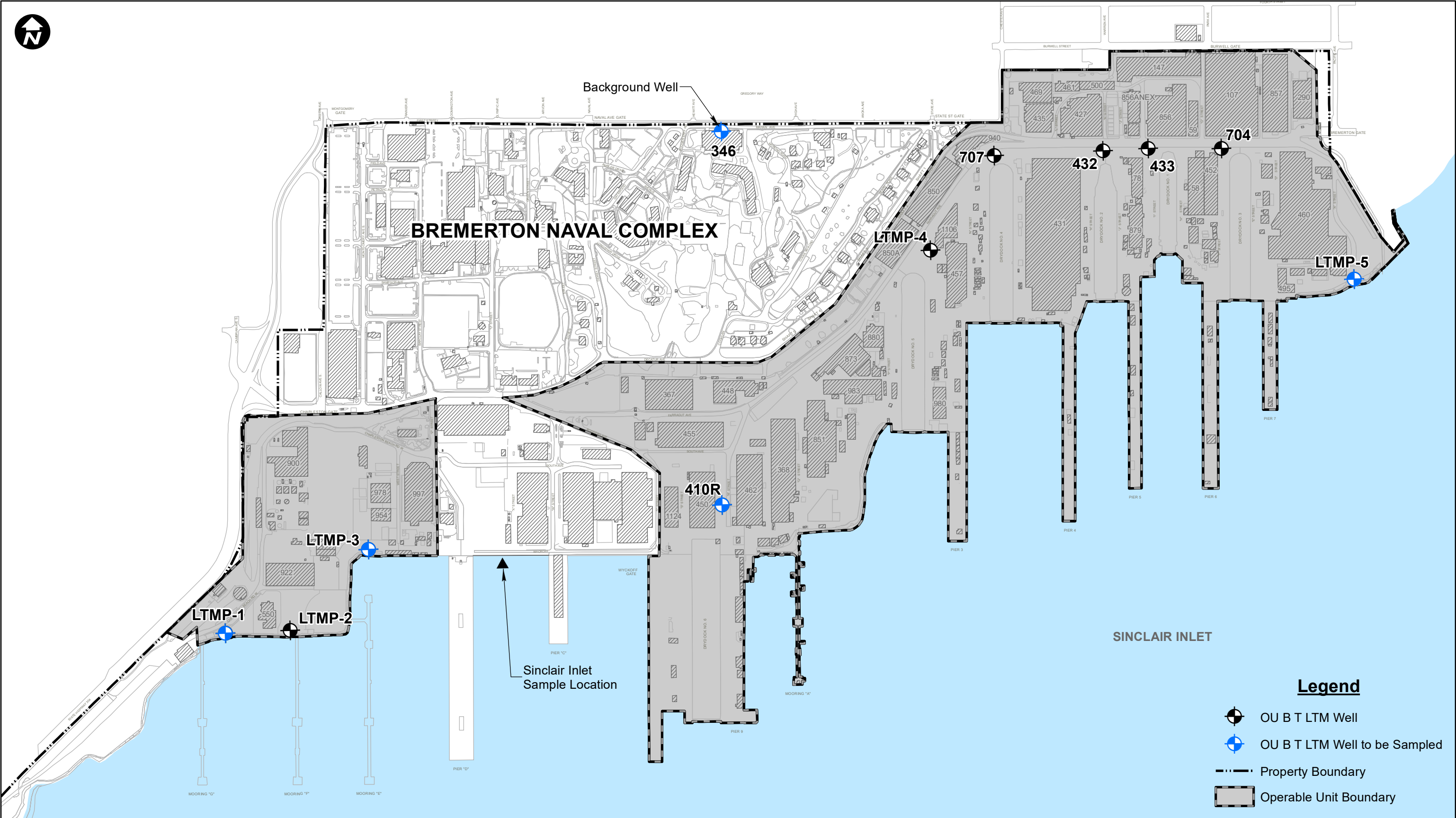
Because the six upgradient wells were some distance from the shoreline, it was assumed that the contaminant concentration results at the wells would be higher than what was actually

discharging into Sinclair Inlet. In order to determine “an estimate of the extent of attenuation between the drydock compliance wells and the ground water discharge points to Sinclair Inlet”, the Navy, Environmental Protection Agency (EPA) and the Washington Department of Ecology (Ecology) were to identify a method to do this estimate. In July 2004, the first LTM Work Plan was developed for OU B T. During its preparation, the Navy, EPA, and Ecology agreed on an approach for estimating the extent of attenuation between the drydock compliance monitoring wells and the groundwater discharge points to Sinclair Inlet. To determine whether compliance has been achieved, groundwater results from the wells are adjusted based on the estimated attenuation and compared to the conditional point of compliance groundwater criteria established in the ROD. The approach to attenuate the contaminant concentration for non-shoreline wells was based on the concept that seawater would be further mixed into the groundwater prior to entering the inlet at the shoreline. In order to determine how much seawater had mixed, the drydock discharge salinity was to be compared to the salinity at the well. The reduction factor essentially reduces the contaminants based on the relative percent of groundwater to seawater.

However, because it was infeasible to collect a salinity measurement of the dry dock discharge, the salinity measurements were collected from Sinclair Inlet. The methodology does not portray an accurate representation of the chemical constituent concentrations being discharged into Sinclair Inlet. Therefore, the terrestrial team, which consists of the Navy, EPA, Ecology and Suquamish Tribe, agreed to discontinue the attenuation factor calculations. The team concluded that the concentrations of contaminants that were calculated using the attenuation factor were possibly not representative of contaminants of concern in wells upgradient of the drydocks.

5.2 OU B T SAMPLING FREQUENCY

Groundwater monitoring activities at OU B T are conducted at required well locations every 1, 2, or 5 years, with OU B T wells scheduled for sampling during the fall 2018 sampling event presented on Figure 5-1. Table 5-1 lists the contaminants of concern and collection methods. Background well 346 is included as part of the OU B T sampling program to evaluate background groundwater conditions. Detailed sampling and analysis information can be found in the TO 18F4137 Tier II UFP SAP.



0 250 500 1,000 SCALE IN FEET	U.S. NAVY	SEALASKA	Figure 5-1 OU B Terrestrial Well Location Map 2018 Sampling Event	BREMERTON NAVAL COMPLEX
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Table 5-1. OU B T Groundwater Contaminants of Concern and Sample Collection Methods for Fall 2018

Well	Laboratory Analysis					Sample Pump Type
	Total Metals	Dissolved Metals ^{2/}				
	Hg ^{1/}	As	Cu	Ni	Zn	
410R	X	--	--	--	--	Electric Submersible
432 (PS07-MW03)	--	--	--	--	--	Electric Submersible
433 (PS07-MW04)	--	--	--	--	--	Peristaltic
704 (OUB-MW15)	--	--	--	--	--	Peristaltic
707 (OUB-MW18)	--	--	--	--	--	Electric Submersible
LTMP-1 (720)	X	--	X	X	X	Peristaltic
LTMP-2 (721)	--	--	--	--	--	Peristaltic
LTMP-3 (722)	X	--	X	X	X	Peristaltic
LTMP-4 (723)	--	--	--	--	--	Electric Submersible
LTMP-5 (724)	X	--	--	--	--	Peristaltic
Background Well 346 (PS11-MW1L)	X	X	X	X	X	Electric Submersible

Notes:

^{1/} Total mercury by EPA Method 1631E applying clean sampling methodologies

^{2/} Dissolved metals by EPA Method 6020A, including reductive precipitation preparation of dissolved metals by modified Method 1640 where needed to reduce interferences

BOLD – Planned to be monitored in 2018.

Well identifications in parentheses are alternate (secondary) names.

As, Cu, Hg, Ni, Zn – arsenic, copper, mercury, nickel, and zinc

-- Indicates no scheduled monitoring

5.3 OU B T COMPLIANCE CRITERIA

The compliance criteria for OU B T are based on the ROD for the site (Navy 2004). The compliance criteria are presented in Table 5-2.

Table 5-2. Groundwater Compliance Criteria for OU B T

Chemical	Basis	Compliance Criteria (µg/L)
Arsenic ^{1/, 2/}	WA NAT BG	5.0
Copper ^{2/}	WA MW – Chronic	3.1
Mercury ^{3/}	WA MW – Chronic	0.025
Nickel ^{2/}	WA MW – Chronic	8.2
Zinc ^{2/}	WA MW – Chronic	81

Notes:

^{1/} The arsenic Standard Method B Surface Water Formula Value is 0.0982 µg/L. The Method B value is below the natural background concentration of 5.0 µg/L. The background level of 5.0 µg/L will be used for determining compliance.

^{2/} Criteria for arsenic, copper, lead, nickel, and zinc are based on dissolved analyses.

^{3/} Mercury is based on total recoverable fractions.

µg/L – micrograms per liter

WA NAT BG – Washington State natural background for arsenic WAC 173-340-900

WA MW-Chronic – Washington Water Quality Standards—Marine Water, Protection of Aquatic Life—Chronic (WAC 73-201A-040)

6. PETROLEUM MANAGEMENT PLAN LONG-TERM MONITORING

PMP well locations are depicted on Figures 2-1 and 6-1, and listed in Appendix A. Some of the wells included in the PMP monitoring scheme are also used to sample other constituents for OU A, OU NSC, and OU B T.

Replacement well 406R was installed in October 2007 adjacent to well 406 because free petroleum product had been observed in well 406. Well 406R was installed to provide a screen interval beneath the water table for monitoring dissolved constituents within the shallow aquifer. Well 406 continues to be used for light non-aqueous phase liquid (LNAPL) measurements only for PMP.

6.1 PMP FIELD SAMPLING REQUIREMENTS

Groundwater sampling activities at PMP shoreline wells will be scheduled based on consideration of tidal cycles due to the proximity to and influence of Sinclair Inlet. Tidal cycles affecting Sinclair Inlet levels potentially influence groundwater quality, with the potential for increased brackishness greatest at high tide. To reduce the potential influence of tides, groundwater sampling activities will be scheduled to coincide with low tides, to the extent practicable, and within daylight hours on weekdays. Groundwater samples will be collected for laboratory analysis within two hours prior to the lowest daytime tide. Once the lowest daytime tide is reached, sampling will be discontinued for the day.

Field water quality parameters including pH, temperature, conductivity, salinity, turbidity, dissolved oxygen, oxidation-reduction potential and depth to groundwater will be measured in the PMP wells prior to sample collection. Detailed field procedures that will be used during monitoring and sampling activities are included in Appendix B of the TO 18F4137 Tier II UFP SAP (Navy 2018).

6.2 PMP SAMPLING FREQUENCY

Groundwater monitoring activities for PMP wells are conducted at required well locations every 1, 2, or 5 years, with all PMP active wells currently proposed for sampling just prior to the next five-year review. PMP wells scheduled for sampling during the fall 2018 sampling event are depicted on Figure 6-1. Table 6-1 lists the contaminants of concern and collection methods for the PMP groundwater samples. Background well 346 will also be sampled

during the PMP 2018 sampling event. Detailed sampling and analysis information can be found in the TO 18F4137 Tier II UFP SAP. Water levels and product thickness will be measured at wells 392 and 406. No product recovery is planned for these wells.

Table 6-1. PMP Groundwater Contaminants of Concern and Sample Collection Methods for Fall 2018

Well	Water Level/ Product Thickness Only	Laboratory Analysis		Sample Pump Type
		Total Petroleum Hydrocarbon		
		Oil Range by NTWPH-Dx ^{1/}	Diesel Range by NWTPH-Dx ^{2/}	
382	--	--	--	Peristaltic
392	X	--	--	Peristaltic
392R ^{3/}	--	X	X	Peristaltic
406	X	--	--	Peristaltic
406R ^{4/}	--	X	X	Peristaltic
412	--	X	X	Peristaltic
425	--	--	--	Peristaltic
428R	--	--	--	Peristaltic
704	--	--	--	Peristaltic
709	--	X	X	Peristaltic
713	--	X	X	Peristaltic
715R	--	X	X	Peristaltic
718	--	X	X	Peristaltic
PMP-1	--	--	--	Peristaltic
LTMP-1	--	X	X	Peristaltic
LTMP-2	--	X	X	Peristaltic
LTMP-3	--	X	X	Peristaltic
LTMP-4	--	--	--	Peristaltic
LTMP-5	--	X	X	Peristaltic
Background Well 346 (PS11-MW1L)	--	X	X	Electric Submersible

Notes:

^{1/} Oil (or residual)-range total petroleum hydrocarbons (TPH) by Ecology NWTPH-Dx

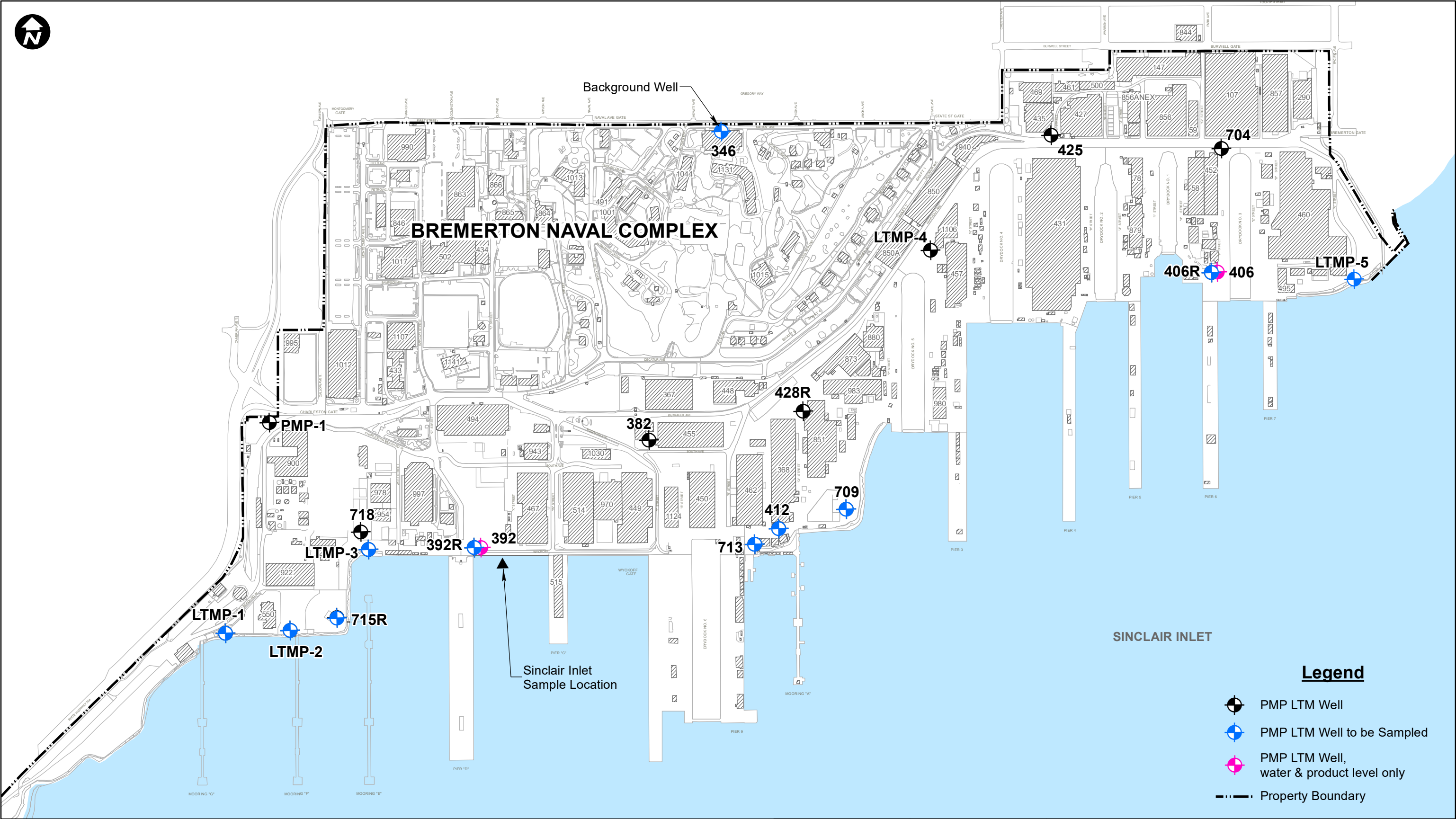
^{2/} Diesel-range TPH by Ecology NWTPH-Dx

^{3/} Well 392 was replaced by a deeper well 392R in August 2008.

^{4/} Well 406 was replaced by a deeper well 406R in October 2007.

BOLD – Planned to be monitored in 2018.

-- Indicates no scheduled monitoring



0 250 500 1,000 SCALE IN FEET	U.S. NAVY	SEALASKA	Figure 6-1 Petroleum Management Plan Well Location Map 2018 Sampling Event	BREMERTON NAVAL COMPLEX
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Date: 4/24/2018

6.3 PMP CLEANUP CRITERIA

The cleanup criteria for PMP wells are based on the Amended PMP (Navy 2003), and summarized in Table 6-2.

Table 6-2. Summary of PMP Cleanup Criteria

Chemical	Basis	Cleanup Level (µg/L)
Diesel-Range TPH (TPH-D)	MTCA Method A	500
Oil-Range TPH (TPH-Dx)	MTCA Method A	500

Notes:
µg/L – micrograms per liter
TPH – Total petroleum hydrocarbons
MTCA – Ecology Model Toxics Control Act-Method A

7. OPERABLE UNIT C LONG-TERM MONITORING

OU C wells monitored under the LTM program are depicted in Figure 2-1 and listed in Appendix A. Following the operation of the steam sparge system, sentinel wells GMWT-22, 23, 24, and 25 were installed in July 1999 and were gauged for LNAPL and sampled quarterly for 5 years to ensure the OU C LNAPL plume was not migrating. Additionally, well GMWT-26 was installed in April 2006 and serves as an alternate trigger (sentinel) well for periods when dry-dock dewatering lowers the water table to levels below the well screens of some of the OU C sentinel wells.

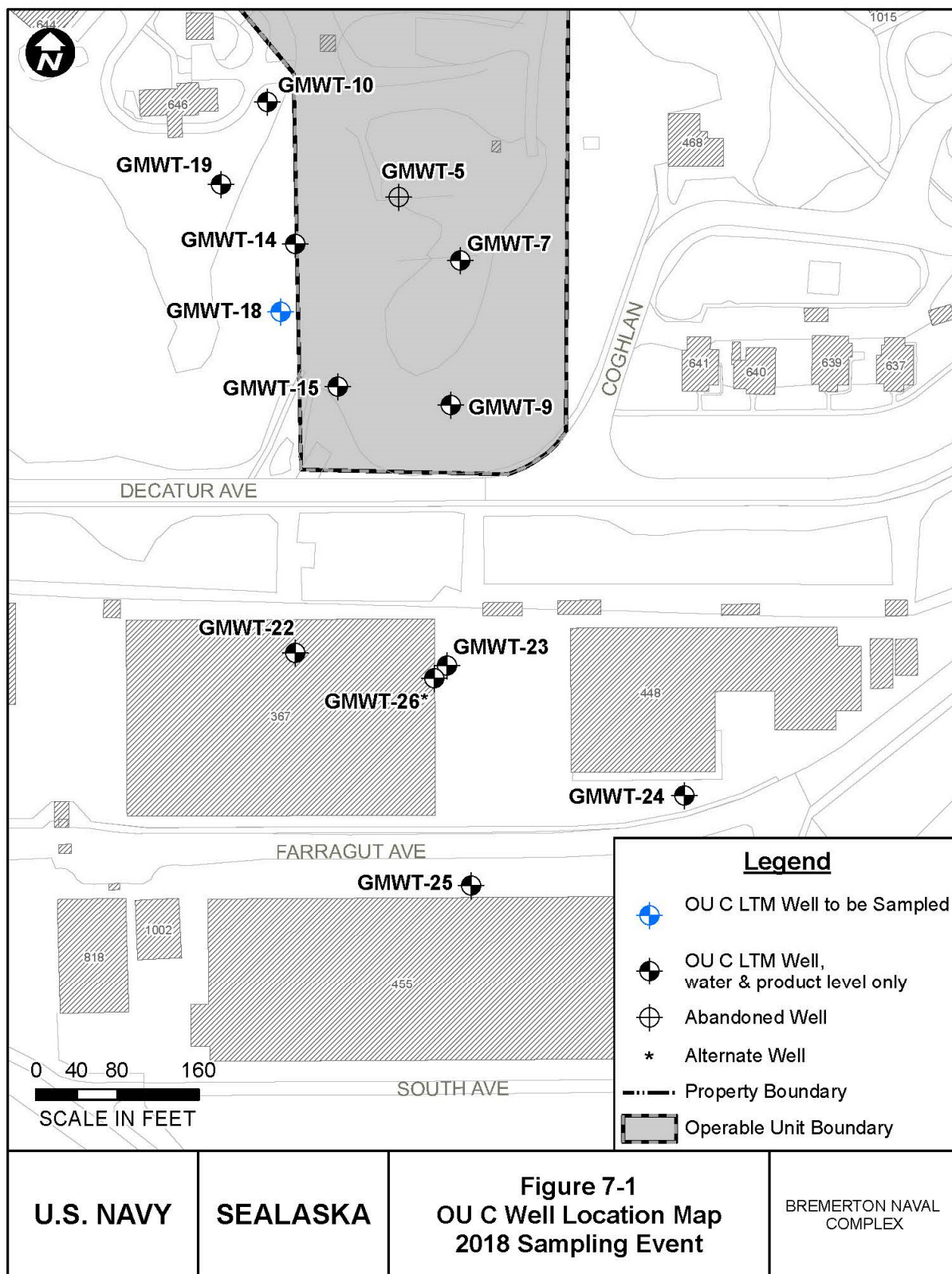
7.1 OU C FIELD SAMPLING REQUIREMENTS

Field water quality parameters including pH, temperature, conductivity, salinity, turbidity, dissolved oxygen, and oxidation-reduction potential and depth to groundwater will be measured in GMWT-18 prior to collecting the groundwater sample. Free-product measurement will be conducted as described in Section 7.3. After completing water level and LNAPL measurements, well GMWT-18 will be purged for groundwater sampling using low-flow sampling techniques.

Detailed field procedures that will be used during sampling activities are included in Appendix B of the TO 18F4137 Tier II UFP SAP (Navy 2018).

7.2 OU C SAMPLING FREQUENCY

Groundwater monitoring activities at OU C are conducted at required well locations every 1, 2, or 5 years. The OU C well scheduled for sampling during the fall 2018 field event is presented on Figures 7-1. Tables 7-1 and 7-2 list the groundwater contaminants of concern and collection methods for the OU C groundwater samples. Background well 346 will also be sampled during the OU C 2018 sampling event. Detailed sampling and analysis information can be found in the TO 18F4137 Tier II UFP SAP.



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 Date: 4/24/2018

Table 7-1. OU C Sentinel Well Groundwater Contaminants of Concern and Sample Collection Methods for Fall 2018

Well Identification	Water Level/ Product Thickness Only	Laboratory Analysis		Sample Collection Method
		Diesel Range by NWTPH-Dx ^{1/}	Oil Range by NWTPH-Dx ^{1/}	
GMWT-7 (247)	X	--	--	Electric Submersible
GMWT-9 (311)	X	--	--	Electric Submersible
GMWT-10 (219)	X	--	--	Electric Submersible
GMWT-14 (223)	X	--	--	Electric Submersible
GMWT-15 (224)	X	--	--	Electric Submersible
GMWT-18 (718)	--	X	X	Electric Submersible
GMWT-19 (717)	X	--	--	Electric Submersible
GMWT-22 (735)	X	--	--	Electric Submersible
GMWT-23 (736)	X	--	--	Electric Submersible
GMWT-24 (737)	X	--	--	Electric Submersible
GMWT-25 (738)	X	--	--	Electric Submersible
GMWT-26 ² (326)	X	--	--	Electric Submersible
Background Well 346 (PS11-MW1L)	--	X	X	Electric Submersible

Notes:

^{1/} Diesel-range and oil range TPH by Ecology Method NWTPH-Dx (Extended)

^{2/} Well GMWT-26 will serve as an alternate monitoring well if GMWT-18 is dry at the time of sampling.

BOLD – Planned to be monitored in 2018.

Well identifications in parentheses are alternate (secondary) names.

7.3 OU C TRIGGER LEVELS

Table 7-2 provides the OU C groundwater trigger levels as set forth in the Cleanup Action Plan (Navy 2007a).

Table 7-2. Groundwater Trigger Levels for OU C

Chemical	Basis	Trigger Level ^{1/} (µg/L)
Diesel-Range TPH	MTCA Method A	500
Oil-Range TPH	MTCA Method A	500

Notes:

^{1/} Trigger Level based on levels in the remedial investigation/feasibility study as agreed to by Washington State Department of Ecology.

µg/L – micrograms per liter

TPH – total petroleum hydrocarbons

MTCA – Ecology Model Toxics Control Act-Method A

8. OPERABLE UNIT D LONG-TERM MONITORING

OU D has been transferred to the City of Bremerton; therefore, there are no groundwater monitoring wells located within OU D. In lieu of an on-site well at this OU, the Navy monitors groundwater from OU D by sampling a downgradient OU B T well, LTMP-5. OU B T well LTMP-5 continues to serve as the conditional point of compliance well for groundwater for OU D, as originally set forth in the Second-Five Year Review (Navy 2007b). The location of well LTMP-5 can be found on Figure 2-1.

8.1 OU D SAMPLING FREQUENCY

Groundwater monitoring activities for OU D will be conducted every 1, 2, or 5 years, and may be sampled just prior to the next five-year review. Background well 346 is typically sampled concurrent with the OU D sampling event.

There are currently no sampling events scheduled for the fall of 2018 for OU D.

9. REMEDY IMPROVEMENTS

Improvements to RIPs enhance the Navy's ability to comply with requirements and conditions in the RODs and recommendations in the Fourth Five-Year Review (Navy 2017b). Improvements in 2018 include OU A cap maintenance, vegetative control, well maintenance, and monitoring well access marking. OU A cap maintenance is not being performed as part of the 2018 LTM contract, and therefore will not be discussed in this plan.

9.1 VEGETATIVE CONTROL

Areas where access to inspection and sampling sites is impaired, plants will be trimmed. The vegetative control effort is not intended to address wholesale grooming of facility vegetation. Vegetative control will not be conducted for OU D because it is maintained by the City of Bremerton.

The vegetative control effort will be conducted in the fall of 2018, or as otherwise specified by the Navy Remedial Project Manager (RPM). Vegetative control activities will be documented in the Contractor Production/Quality Control (CP/QC) Report.

9.2 WELL MAINTENANCE

Sealaska will repair wells that were marked "No" for either "Well Head Locked" and/or "Exterior Seal Good" on the Well Inspection, Purging and Field Measurement Form from the 2017 LTM sampling event. Specifically, Sealaska will perform the following well maintenance:

- For wells LTMP-1, LTMP-3, LTMP-5, 410R, and GMWT-23, bolts are missing and require replacement. Bolt replacement will be performed by removing the lid and drilling out the old eye-bolt, tapping it, creating a new thread via helio-coil, and inserting new bolts.

Well locations are presented on Figure 2-1. The well maintenance performed will be documented in the weekly CP/QC Report.

9.3 MONITORING WELL ACCESS MARKING

The scope of this activity includes painting the surrounding pavement of up to 20 well locations. The concrete area surrounding each well will be painted as shown in Figure 9-1. A red 5-feet wide by 5-feet long square will be painted around each well with three coats of long-lasting, low-VOC outdoor paint with reflective glass bead. At the top of each well, inside the red box, in bold, small caps, white lettering, with long lasting outdoor paint, print the words, “GW MONITORING WELL, DO NOT BLOCK/COVER.” At the bottom of the well monument cover, inside the red box in bold, small caps, white lettering, with long lasting outdoor paint, print the words, “FREQUENT ACCESS REQUIRED # (Well Number).”

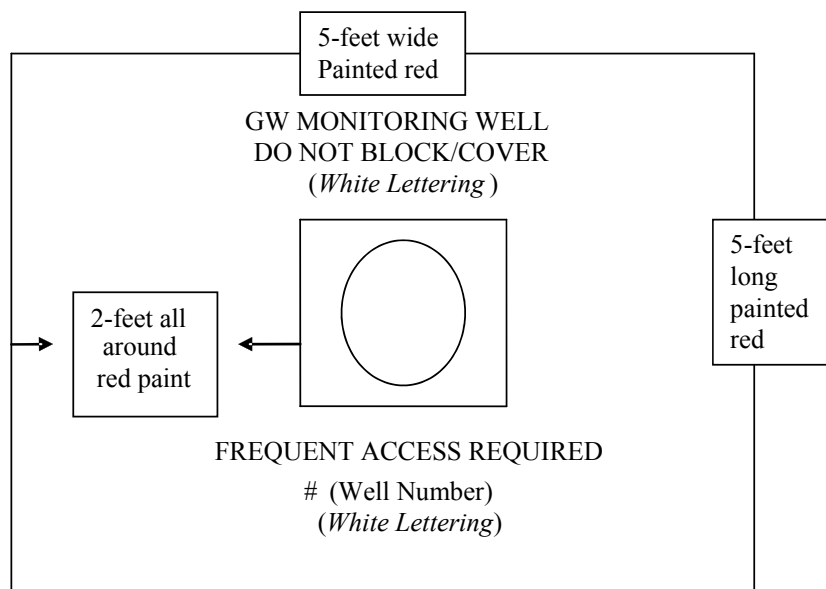


Figure 9-1. Well Painting Guidelines

Monitoring well access markings will include a 5-foot wide by 5-foot long painted area around each well monument following these guidelines:

- Clean off area to be painted;
- Paint only when dry and when temperature is at least 45° F and rising or in accordance with manufacturer’s guidelines;
- Red paint requires multiple coats of low-VOC paint and reflective glass bead;
- Stencil wording in white paint per Figure 9-1;
- Clean up the site after painting; and
- Place “wet paint” signs around each well location until dry.

Painting will be completed by an approved subcontractor with oversight by Sealaska. Well marking activities will be documented in the CP/QC Report. Waste management for the well marking effort is addressed in Section 11 of this work plan.

9.4 CATCH BASIN TAG RECONCILIATION

In an effort to streamline the catch basin numbering system throughout BNC, the Navy continues to replace the identification tags with new tags and new identification numbers. Sealaska will conduct visual inspections of the catch basins and note their identification codes. This information will be used to prepare a crosswalk between the former catch basin identification markings and current identification markings.

10. ENVIRONMENTAL PROTECTION

This section addresses environmental protection measures required when conducting work at BNC.

10.1 STORMWATER POLLUTION PREVENTION

The main concern regarding stormwater pollution is controlling surface water runoff where it may wash pollutants, including sediments, into storm drains and Sinclair Inlet.

Potential sources of pollution affecting the quality of stormwater discharge from the site include the following:

- Existing oils or other pollutants on pavements in the vicinity of the work;
- Recovered well product spillage; and
- Potential spillage of materials such as paints used for well marking.

The following best management practices (BMPs) will be implemented to minimize impacts to stormwater:

- The work area and the surrounding area will be inspected for existing pollutants. Pavement elevations and direction of water flow will be reviewed. Worksite will be kept clean and orderly.
- Approved hazardous materials will be used properly and only in quantities fitting the intended use. Hazardous materials will be stored when not in use.
- Material stored outside that is susceptible to "wash-off" when it rains will be protected from the effects of wash-off through the use of covers or secondary containment measures or both as necessary.
- Ongoing inspections of the area will be conducted through the duration of the project.

The overriding principle is that if water is captured in a bermed area that would have otherwise gone to a storm drain, it can be directed into a storm drain provided it does not become contaminated. Contaminated means the water has an oily sheen, is discolored, or there is knowledge that the water was otherwise contaminated. If the rainwater in a containment area is suspected to be contaminated, the water will be decanted into a drum and managed as waste awaiting designation. If after visual inspection the water is not contaminated, the water will be discharged to a storm drain upon receipt of approval by

Code 106. Sealaska will send email notifications to Code 106, the RPM, and the Navy Technical Representative (NTR) stating volume discharged. Information concerning discharge to a storm drain will be documented in the logbook. This includes the storm drain identification number (if labeled), the date and time of discharge, and the estimated volume (in gallons) discharged.

10.2 SPILL PREVENTION

Care will be exercised to prevent oil and hazardous substances (OHS) from entering the ground, drainage areas, or local bodies of water. The following additional procedures will be followed to minimize the impact of a spill event to the environment during transfer and handling operations:

- The work area will be inspected daily by the Site Superintendent (SS), or designee, for debris and potential water pollutants. If the work area is found to have a potential for water pollution, the affected area will be cleaned up, then re-inspected to ensure that pollutants will not be transported to Sinclair Inlet. Inspections will be recorded in the field logbook and in the CP/QC Report. The date and time the inspection was performed, inspector's signature, items inspected, problems noted, and corrective action performed will be recorded.
- Equipment coming onto the site will be inspected for potential leaks and will not be allowed on site if leaking. Valves, connections, and hoses will be inspected regularly for leaks. A temporary drip pan will be placed under leaking equipment until the component can be isolated, repaired, or replaced. Leaked material will be cleaned up immediately, and proper spill reporting notifications will be made.
- Temporary drip pans with absorbent pads will be placed under fueling points if machinery is refueled.
- A Spill Response Kit will be on site in the location of active work.

If a spill enters adjacent bodies of water or storm drains, the BNC Spill Response Team (360-476-3333) will be immediately notified to prepare for deployment of booms and containment devices, if required. Booms and containment devices will be deployed to prevent spill migration in accordance with the BNC OHS Spill Contingency Plan.

10.3 SPILL RESPONSE AND NOTIFICATION

This procedure applies to a spill of hazardous substances in any quantity on the site. A spill is defined as any unpermitted or uncontrolled release of oil or hazardous substance to the

water or ground. This includes spilling, leaking, pumping, emitting, discharging, injecting, escaping, leaching, disposing, or dumping of liquid or solid material not authorized in writing by the Waste Information Sheet (WIS).

There are two categories of spills: emergency and non-emergency spills. An emergency spill event has any of the following characteristics:

- Is an immediate threat to human health, property, or the environment.
- Is a material not known to the person discovering the spill.
- Has the immediate potential to enter or has entered a drain or waterway or to migrate off Navy property.
- Requires assistance from the Navy for cleanup.
- Is more than 10 gallons.

A non-emergency spill event has the following characteristics:

- Is not an immediate threat to human health or the environment.
- Is a material known to the person discovering the spill.
- Has not entered and does not have immediate potential of entering a waterway or waterway inlet (e.g., storm drain, sanitary sewer manhole) and remains on Navy property.
- Can be cleaned up safely by Sealaska personnel without assistance from the Navy.
- Is 10 gallons or less.

The following procedures will be posted on site and be immediately accessible to the crews working on this project.

- The discoverer of the spill must immediately notify the On-Site Spill Release Coordinator. For this project, the On-Site Spill Release Coordinator is the SS (Andy Lewis).
- The On-Site Coordinator must immediately contact the BNC Spill Response Team (360-476-3333) for necessary action to contain the spill or release.
- The On-Site Spill Release Coordinator must immediately contact the NTR, Charlie Escola (360-516-9052) and the Task Order Manager (TOM), James Guzman (360-633-0979).
- The TOM will contact the Navy RPM, Joy Gryzenia (360-396-1115).

10.4 HAZARDOUS MATERIALS

A Contractor Hazardous Material Inventory (CHMI) form that lists all hazardous materials to be used on site will be submitted to the NTR for Navy approval prior to bringing hazardous materials on site. This request takes approximately two weeks to process. The CHMI must have material safety data sheets (MSDS) attached that match the product descriptions on the form. Every month, the CHMI must be updated to reflect any usage of the listed materials. The updates must be submitted by the 5th day of the following month.

11. WASTE MANAGEMENT

Sealaska will collect, store, and transfer debris and investigation-derived waste (IDW) in accordance with the approved WIS. IDW generated during monitoring and sampling activities includes well purge water and decontamination water, along with water sampling filters, pump tubing, personal protective equipment (PPE), and oily sampling equipment/supplies.

IDW generated from monitoring activities is expected to consist primarily of PPE and common trash. Free product measurement at well 392 may generate PCB-contaminated PPE and rags.

Under TO 51 (predecessor to 18F4137), Sealaska was allowed to discharge the purge and decontamination water directly into the sanitary sewer at a location approved by the Navy. This work plan assumes the level of effort and information required will be consistent with that required for TO 51 for WISs to collect purge and decontamination water for disposal onsite at an approved location, for all previously sampled wells under the LTM program.

The remaining IDW will be disposed of onsite as directed by the approved WIS.

Hazardous materials that are to be utilized on the job require pre-approval before materials are brought onto the base. A project CHMI will be submitted for approval by the Navy for hazardous materials brought on site (concrete, fuel, etc.). This includes subcontractor hazardous materials. This pre-approval process will be completed by submitting a CHMI as outlined in Appendix C.

Waste storage and disposal activities will be conducted as required by BNC waste management and handling procedures. The BNC waste management procedures are included as Appendix B, and additional BNC waste compliance requirements are included in Appendix C. Unless otherwise noted in this section, waste streams must be designated by Code 106.33 via the WIS process. WISs will be submitted to the NTR for turnover to Code 106.33.

The Navy and Sealaska assume no hazardous waste will be generated during the implementation of this TO. In the unlikely event that hazardous waste is generated, it will be turned over to Code 106 for storage, management, and disposal.

11.1 LONG-TERM MONITORING SAMPLING WASTE

Purge and decontamination water, PPE and tubing, common trash, and inline filters will be generated during the course of the sampling field events. Data from previous sampling activities will be used to submit WISs to request permission for disposal of purge and decontamination water to the sanitary sewer as approved in previous years. WISs will also be submitted for the remaining wastes. Previously, these remaining wastes have been approved for disposal in onsite industrial waste dumpsters. Non-contaminated PPE and common trash will be disposed of as commercial/municipal waste. Waste disposal activities will follow BNC waste procedures and the instructions provided on approved WISs. Waste streams must be designated by Code 106.33 via the WIS process. WIS submission will be coordinated with the NTR for submittal to Code 106.33 prior to the start of work.

Waste streams for this TO are consistent with waste streams generated for TO 51, which were minimal and disposed of on site at the end of the work shift. No onsite hazardous waste accumulation area or non-hazardous waste storage area will be available for LTM work unless otherwise directed by the RPM through the contract change process.

Non-hazardous wastes that may be designated for disposal offsite will be tracked using Solid Waste Transfer Sheets (SWTS). The contractor, transporter, and disposer/recycler must sign each SWTS, and weight tickets must be provided and attached. Copies of the SWTS and the weight tickets will be provided to the RPM and NTR. No waste is anticipated for offsite disposal.

Sealaska will prepare a Contractor's Monthly Project Waste Summary Report (CMPWSR) and CHMI report for submittal to the NTR prior to the 5th calendar day of the following month. Weight tickets must be provided and attached when applicable.

Additional procedures for waste management are included in Appendices B and C.

11.2 MONITORING WELL ACCESS MARKING WASTE

Sealaska will instruct its painting subcontractor, Skookum, to not generate empty paint containers, since the amount of paint required for this task is less than a full container. Any rags or other materials used on the job will be re-used. Common trash will be managed as described in Section 11.1.

11.3 TRAINING

The following training applies to waste management at BNC:

- **Sealaska Waste Management Training:** Project personnel performing waste management functions will be trained on waste management to the appropriate degree required for the project waste being managed.
- **General Awareness:** Project personnel, including subcontractors, will receive General Environmental Training. The training will review the requirements of waste management procedures, stormwater protection, and spill response.
- **Hazard Communication Training:** Under Occupational Safety and Health Administration (OSHA), contractor personnel must complete hazard communication training. Project personnel will receive this training upon mobilization.
- **Puget Sound Naval Shipyard Hazardous Waste Accumulation Operator Training (HW49, EM 385-1-1, 06.B.01.d):** Contractors who will be signing WISs or managing an accumulation area will complete this training annually.
- **United States Department of Transportation (DOT):** Every person performing a DOT function will be properly trained. Certificates will be maintained at the project site.

The records of employee training will be available at the project site in the SS's vehicle.

12. REMEDY INSPECTIONS

The purpose of the remedy inspections is to confirm that selected remedies and institutional controls are implemented and maintained as planned.

Remedy inspections are historically performed at OU A, OU B T, and OU NSC, and include the following ROD-specified activities:

- Pavement and vegetative cap inspections
- Fencing inspection
- Signage inspections
- OU A shoreline inspections
- OU B T and OU A shoreline inspections by boat
- Stormwater (catch basin) system inspection
- Land use control inspections

Remedy inspections will occur only for:

- Pavement and vegetative cap inspections
- OU A, OU NSC, and OU B T stormwater systems during a wet weather event in the fall/early winter
- OU B T and OU A shoreline inspections by boat
- OU A shoreline inspection in the fall/early winter
- Land use and institutional controls inspections

Details concerning the scope, requirements, methods, recording, and reporting for the remedy inspections are provided in the Operations & Maintenance and Institutional Control (O&M and IC) Plan (Navy 2016).

The OU B M site requires land-use restrictions to protect the site cap and the associated “thick/thin” caps adjacent to the confined aquatic disposal site. The integrity of these land-use restrictions are monitored through the access control provided by the BNC Port Operations and Security Force (i.e., no dredging or anchoring takes place since access is restricted). Naval Facilities Engineering Command (NAVFAC) Northwest provides the access control/security review to Sealaska for inclusion in the annual report. Therefore, no

field work is directly associated with the OU B M inspections except for the shoreline inspections noted previously.

The annual inspections of the pavement and vegetative cap, fencing, signage, shoreline inspections by boat, and land use control implementation require detailed field measurements, documentation, and recording to provide consistent quantification of site conditions, such as impervious surfaces, that are elements of the institutional control measures. The scope of work and associated assumptions for completing these annual remedy inspections are:

- OU A: Complete the annual inspection in dry conditions during spring/early summer. This will include inspection and documentation of impervious areas, inspection of the shoreline, and inspection of signage.
- OU B T: Complete annual inspection in dry conditions during spring/early summer. Inspection of OU B T will include: (1) locating catch basins, inspecting and measuring each catch basin, photo-documentation, and completing field forms; (2) inspecting the large expanse of paved areas, rating the areas of three impervious surface conditions (good, moderate, poor), photo-documentation, and completing field forms; (3) completing the shoreline inspection, photo-documentation, and field records; and (4) inspecting, photographing, and completing field forms for sign inspections.
- OU NSC: Complete annual inspection in dry conditions during spring/early summer. This will include inspection and documentation of impervious areas and inspection of signage.
- OU B T and OU A: Conduct offshore inspection from the water for the review of institutional control elements as required in the O&M and IC Plan (Navy 2016).

Managing the many photographs generated by the dry weather inspections will include coordination and acquisition of camera passes to the CIA for authorized field personnel, downloading photos for security approval at the end of each day, and archiving photographs on a secure computer/server in accordance with Navy procedures.

13. TASK ORDER PLANS, REPORTS, AND FORMAL MEETINGS

The scope of work for this TO includes five (approximately quarterly) 4-hour technical meetings. The meetings are anticipated to occur among the Navy, the Suquamish Tribe, the EPA, and Ecology. Sealaska (providing technical support), a third-party facilitator familiar with BNC, and a meeting recorder will also be in attendance. Draft and final meeting notes will be provided for review and concurrence to meeting participants.

Plans and reports to be prepared under the LTM activities set forth for this TO include:

- Tier II UFP SAP
- Long-Term Monitoring, Inspection, and Improvement Plan
- Accident Prevention Plan/Site Safety and Health Plan (APP/SSHP)
- 2018 LTM Data Summary and Trend Analysis Report
- 2018 Remedy Inspection Report/Wet Weather and OU A Winter Inspection Report

The Data Summary and Trend Analysis Report will present the results of the sampling and laboratory analyses and will include field measurements and notes, laboratory analytical results, data validation reports, and a brief discussion concerning usability of the resulting data. Deviations from the LTM Plan will also be included. The report will be submitted as internal draft, draft, and final versions, with Navy and stakeholder review comments incorporated in the final report. The report will also evaluate statistical trends in the LTM data relative to the ROD-required cleanup criteria.

The Remedy Inspection Report will be prepared to document the field inspection data collected during annual inspections of pavement, fencing, signage, shoreline inspections by boat, and land use controls. The purpose of the report is to provide sufficient information to support the Navy in directing maintenance and repairs recommended for compliance with the institutional control requirements. Results obtained during the wet weather inspections will also be included in this report.

Per the recommendations from the Fourth Five-Year Review, a section will be added to the annual Remedy Inspections Report detailing the ongoing and completed maintenance and repairs to pavement and the stormwater system.

14. PROJECT ORGANIZATION

In accordance with the roles and responsibilities of the professional staff positions as described in the Accident Prevention Plan (Sealaska 2018, Section 4) and Program Quality Control Management Plan (Sealaska 2014) developed for LTM contract N44255-14-D-9011, the following individuals will provide the designated support functions:

- Task Order Manager (TOM): James Guzman
- Project Quality Control Manager (PQCM): Will Kaage
- Site Superintendent (SS)/Site Safety and Health Officer (SSHO): Andy Lewis, with alternates Sunrise Patterson, David Nelson, Cara Alferness, Barbara Schleiger, Carrie Johnson, Donald Balmer, James Ruef, Walter Bowles, Robert Boyd, and Will Kaage.
- Certified Industrial Hygienist: Steve Frost
- Quality Control Program Manager (QCPM): Sherri Wunderlich
- Project Quality Assurance Manager (PQAM): Sherri Wunderlich
- Project Chemist: Sherri Wunderlich
- Project Waste Coordinator: Barb Schleiger, Cara Alferness

Analytical testing will be performed by either Analytical Resources, Inc., ALS Environmental, Brooks Applied Labs, or Eurofins. Third-party data validation will be performed by Laboratory Data Consultants, Inc. (LDC) of Carlsbad, California. The NAVFAC Northwest RPM will be notified prior to subtask commencement if alternate personnel are assigned.

For follow-on TOs, the personnel and subcontractors may change from those listed, but the same level of knowledge and expertise will be maintained.

15. CONTRACTOR QUALITY CONTROL

15.1 INTRODUCTION

The Quality Control (QC) inspection and documentation processes are designed to ensure that the work performed at BNC complies with the specific scope, schedule, budget, and level of quality anticipated by NAVFAC Northwest. In support of this project, Sealaska will adhere to the Program Quality Control Management Plan developed for LTM contract N44255-14-D-9011 (Sealaska 2014) and project-specific requirements defined in this section. Project-specific considerations are identified because they provide the framework and criteria for planning, implementing, and assessing quality-related TO services provided for this project.

15.2 SEALASKA QUALITY CONTROL PERSONNEL

Sealaska structured the project organization to maintain control of the quality of all contract elements and ensure the quality of its performance and that of its subcontractors. The Sealaska QC organization will ensure compliance with the QC requirements of the project. The PQCM is assigned the responsibility of fulfilling the overall management of project QC. The PQCM assigned for this project is Will Kaage. The PQAM, Sherri Wunderlich, will support the PQCM and focus on quality-related tasks associated with laboratory analysis. The QCPM, Sherri Wunderlich, will provide program support for the PQCM.

15.3 DEFINABLE FEATURES OF WORK

A definable feature of work is a task that is separate and distinct from other tasks and has separate control requirements. The definable features of work for this TO include the following field activities:

- Perform well maintenance for specified wells.
- Obtaining field measurements and collecting samples
- Performing free product measurement
- Conducting wet weather, dry weather, and OU A shoreline remedy inspections
- Performing vegetative controls

- Painting monitoring well access locations
- Conducting dry weather remedy inspections

15.4 PRE-CONSTRUCTION/MUTUAL UNDERSTANDING MEETING

A Pre-Construction/Mutual Understanding Meeting will be conducted before field work begins. The NTR will schedule and conduct this meeting with the RPM, TOM/PQCM, and field personnel. The purpose of this meeting will be as follows:

- To review the work scope, applicable specifications, and schedule;
- To develop a mutual understanding of the QC that will be performed for the field work;
- To discuss the QC forms to be used; and
- To verify that the necessary resources, conditions, and controls are in place and compliant before the start of work activities.

The following actions are performed by the PQCM prior to or during the Pre-Construction/Mutual Understanding Meeting:

- Verify appropriate plans and procedures have been developed, reviewed, approved, and are available;
- Verify personnel required for the field activities are identified and positions are filled;
- Verify required training has been completed;
- Verify preliminary work and coordination have been accomplished;
- Verify quality issues (if any) have been addressed and agreed upon; and
- Verify appropriate portions of the APP/SSHP have been reviewed with all site personnel.

Meeting minutes will be prepared by Sealaska and submitted to the RPM and NTR for approval.

Any discrepancies identified during the meeting will be resolved prior to proceeding with the affected work. Correction of any identified deficiencies will be verified by the PQCM before proceeding with field work.

15.5 THREE PHASES OF CONTROL

Three phases of control are required for construction-related activities. For TO 18F4137 no construction-related activities are required; thus, the three phases of control are not required. For follow-on task orders, the three phases of control will be performed only if construction-related activities, such as pavement cap improvements, are added.

As needed, the PQCM will be responsible for verifying compliance with project specifications by implementing the three-phase control system. These include a preparatory phase meeting, initial phase inspection, and follow-up phase inspection.

15.5.1 Preparatory Phase Meeting

A preparatory phase meeting will be performed prior to beginning any construction-related field activity. The NTR and RPM will be notified at least 48 hours (two working days) prior to each preparatory phase meeting. The PQCM or designee will conduct this meeting with field personnel including applicable subcontractors, and the RPM and NTR if available. The purpose of this meeting will be to review the specifications applicable to the field activity that will be performed, verify preliminary work and coordination have been accomplished, and assure that provisions have been made to perform the work satisfactorily.

The preparatory phase meeting will be documented on the Preparatory Phase Checklist and will be submitted with the CP/QC Report. These forms are provided in Appendix E. The Preparatory Phase Checklist may be expanded or modified, as necessary, to address unique aspects of a given feature of work.

Discrepancies identified during the preparatory phase meeting will be resolved prior to proceeding with the affected work. Correction of deficiencies will be verified by the PQCM before proceeding with field work.

15.5.2 Initial Phase Inspection

An initial phase inspection will be performed once a representative sample of the work has been completed. The purpose of the inspection will be to check the preliminary work for compliance with procedures and contract specifications, verify inspection and testing, establish the acceptable level of workmanship, identify and update any action items listed on the Preparatory Inspection Checklist and CP/QC Report completed after the preparatory phase meeting, and check for omissions and resolve differences of interpretation. General guidance for performing an inspection is provided in QC Procedure QC-3, Quality Control Surveillance, located in Appendix F.

The initial phase inspection will be documented on the Initial Phase Inspection Checklist (Appendix E) and submitted with the CP/QC Report. The Initial Phase Inspection Checklist may be expanded or modified, as necessary, to address unique aspects of a given feature of work.

15.5.3 Follow-Up Phase Inspection

A follow-up phase inspection may be conducted at the discretion of the PQCM, NTR, or RPM. Follow-up inspections are often unscheduled and may occur at any time, but are generally warranted under any of the following conditions:

- Unsatisfactory work, as determined by Sealaska or NAVFAC Northwest
- Changes in key personnel
- Changes to the project scope of work/specifications

The purpose of the inspection is to ensure continuous compliance and level of workmanship. The PQCM or designee will oversee and observe the same activities as under the initial inspection and ensure that discrepancies between site practices and approved specifications are identified and resolved. Corrective actions for unsatisfactory conditions or practices will be verified by the PQCM prior to continuing work on the affected feature.

Follow-up phase inspections (if conducted) will be documented in the CP/QC Report.

If requested by the RPM or NTR, or at the discretion of the PQCM, final inspections will be performed, with the NTR in attendance, at the conclusion of LTM activities prior to closeout to verify that the project requirements have been met. The NTR will generate a final punch list, if necessary. Final discrepancies, or punch list items identified during the inspection, will be corrected or completed, and reinspected by the RPM or NTR before acceptance is granted. The CP/QC Report will be used to document completion of punch list items.

15.6 INSPECTION PROCESS FOR COLLECTING SAMPLES

During each summer/fall sampling event, the PQCM or designee will conduct an inspection of sample collection activities to ensure that samples are collected, sample data are recorded, and samples are packaged according to the SAP. General guidance for performing the inspection is provided in QC Procedure QC-3, Quality Control Surveillance (Appendix F). The sampling event inspection will address sampling procedures, field documentation (field logbooks, Chain-of-Custody forms, and sample labels), sample preservation, and sample management (handling and shipping). Field sampling and data collection are addressed in the TO 18F4137 Tier II UFP SAP (Navy 2018).

The inspection will be documented on a Surveillance Checklist (Appendix E). The Surveillance Checklist may be expanded or modified to address unique aspects of a given feature of work. The surveillance will be briefly summarized on the CP/QC Report (see Section 15.9.2 for a discussion of the CP/QC Report), with the Surveillance Checklist attached.

The inspection process will ensure that samples are being collected in compliance with approved plans and procedures. The PQCM will ensure that all discrepancies between site practices and approved specifications are identified and resolved. As discussed in Section 15.7, any nonconformance will be documented on a Nonconformance Report (NCR). Corrective actions for unsatisfactory conditions or practices will be verified by the PQCM's designee prior to continuing work on the affected feature.

15.7 NONCONFORMANCE MANAGEMENT

Nonconformances will be managed by following the guidelines in this section. A primary objective of Sealaska's quality program is to prevent nonconformances. If an item is considered nonconforming, it will be corrected in a timely and cost-effective manner and with the intent of preventing recurrence. This section includes provisions for preventing quality problems and facilitating process improvements as well as identifying, documenting, and tracking nonconformances until corrective actions have been completed and verified.

15.7.1 Preventive Measures

Sealaska's quality program focuses on problem prevention. The primary tools for problem prevention on this project include the following: thorough and effective planning; personnel screening and selection based on qualifications and training required for the given work; implementation of the inspection process (applicable to sample collection); and effective management of submittals. If these preventive measures fail, tracking and communicating nonconformance will provide a mechanism for appropriate corrective action and prevention of recurrence.

15.7.2 Identifying Nonconformances

A nonconformance is defined as a deficiency that renders the quality of an item, process, or product that has been defined in the procedures, specifications, or drawings as unacceptable or indeterminate. All nonconforming conditions will be documented on an NCR (provided in Appendix E). Guidance for the preparation and processing of NCRs is provided in QC Procedure QC-2, Identification and Control of Nonconformances (Appendix F). If the

nonconformance occurs at an off-site laboratory, the contract-required Laboratory Nonconformance Report (also provided in Appendix E) will be completed instead of the standard NCR. Each NCR will be sent to the NTR and RPM when finalized. Nonconformances will be resolved prior to completion of the project and in the timeliest manner possible.

The PQCM will provide an update of the status of the nonconformance when it changes. Before the work activities of the day begin, the PQCM will notify appropriate personnel of any nonconforming conditions that require follow-up that day. Any nonconformance that requires rework for resolution will be listed on the Rework Items List (provided in Appendix E). The PQCM will also summarize any nonconformances and their status in the CP/QC Report.

15.7.3 Root Cause Analysis

The NCR prompts the user to enter information regarding the cause of the problem. The determination of the root cause of a nonconformance is an integral part of the QC process. Root cause analysis will be made by the PQCM in conjunction with other appropriate personnel. Examples of common factors considered in the analysis will include but are not limited to the following:

- Staff qualifications and training
- Adequacy of procedures and methods
- Adequacy of equipment
- Adequacy of QC measures

Input will be obtained, as necessary, from field staff and technical advisors to identify the factors that led to the problem.

15.7.4 Corrective Action

Following the root cause analysis, the PQCM will evaluate potential solutions (corrective actions) to determine which remedy would be most effective in correcting the problem. This process will include appropriate staff. Potential remedies considered will include the following:

- Supplemental staff training
- Change of equipment or modification of equipment currently in use
- Acquisition of supplemental equipment

- Implementation of a new procedure or modification of an existing procedure
- Change in QC procedure
- Design change

Implementation of corrective action will be documented by the PQCM in the appropriate areas of the NCR. This documentation will be supported by changes to the inspection procedure or schedule as warranted. As appropriate, the PQCM will verify that corrective action was successful in addressing the problem and that a relapse does not occur. Final approval of all remedies will be the responsibility of the QCPM.

15.8 CHANGE MANAGEMENT

15.8.1 Project Change

During project activities, change may need to be made to plans, drawings, or specifications. Any change needs to be reviewed, approved, and documented to ensure it is properly implemented and recorded. It is the responsibility of the TOM/PQCM and each member of the field crew to identify potential change conditions; the TOM/PQCM will obtain the appropriate review and approval prior to implementation.

Change from plans, specifications, or procedures will be documented on a Field Change Request (FCR) or Design Change Notice (DCN) form (Appendix E) as directed in QC procedure QC-1, located in Appendix F. The QCPM will review and approve FCR and DCN requests prior to sending to NAVFAC Northwest. After all appropriate Sealaska signatures are obtained, each FCR will require acknowledgement by the NTR. It will then be returned to the TOM/PQCM for distribution. All DCNs will require NAVFAC Northwest acknowledgement and approval. Per recent agreement between Sealaska and NAVFAC Northwest, DCNs will only be used for contractual change impacting cost.

15.8.2 Continual Improvement

A primary objective of Sealaska's QC program is to facilitate continual process improvement. Project staff at all levels will be encouraged to provide recommendations for improvements in established work processes and techniques. The intent will be to identify activities that, while compliant, may be performed in a more efficient or effective manner or improve the quality of the work being done. The TOM/PQCM will review any suggestions that can improve quality. Any change that results from such suggestions will be incorporated into the appropriate plan via a FCR or DCN, as discussed in Section 15.8.1.

15.9 SUBMITTALS

Submittals will be prepared, reviewed, approved, and managed in accordance with Section 6 (Documents and Records) of the Program Quality Control Management Plan developed for LTM contract N44255-14-D-9011 (Sealaska 2014). Several submittals to NAVFAC Northwest are required for this project, as summarized in this section and in Table 15-1.

15.9.1 Plans and Reports

The following plans and reports are required for TO 18F4137 and, per the statement of work, will be similar in content and format as those from the previous year (TO 51):

- TO 18F4137 Tier II UFP SAP
- LTM Plan
- APP/SSHP
- 2018 LTM Data Summary Report and Trend Analysis
- 2018 Remedy Inspection Report/Wet Weather and OU A Winter Inspection Report

The Tier II UFP SAP includes sampling and analysis scheduled for TO 18F4137. The APP/SSHP and the LTM Plan include activities specified for TO 18F4137.

The plans and reports will be prepared by technical staff, based on knowledge, experience, and availability. These documents will be reviewed by the TOM and/or a qualified reviewer, based on technical qualifications or experience.

15.9.2 Contractor Production/Quality Control Report

A CP/QC Report is required once each week that non-construction field activities are performed. A CP/QC Report is required daily for construction activities. The report will provide an overview of QC activities performed. It will document both conforming and nonconforming conditions, and should be precise, factual, legible, and objective. Copies of any supporting documentation, such as the field surveillance checklist and safety briefing sign-in sheets, will be attached. The report will contain the following information that applies:

- A summary of the work elements/tasks performed;
- Indication of whether a safety briefing was held, with the sign-in sheets included as attachments;
- A summary of any meetings, including a list of personnel present;

- A summary of any inspection for collecting samples, with the Surveillance Checklist included as an attachment;
- A summary of any preparatory phase meeting for construction activities, including the location of the definable feature of work, a list of personnel present at the meeting, and a summary of items discussed (the Preparatory Phase Checklist will be attached to document that the definable features of work have been discussed, plans have been approved, and work schedules have been discussed);
- A summary of any initial phase inspections for construction activities, including the location of the definable feature of work and a list of personnel present at the inspection (the Initial Phase Inspection Checklist will be attached to document if the preliminary work was done correctly, the workmanship was satisfactory, required testing has been performed, and the work was in compliance with project specifications);
- A summary of any follow-up phase inspections, including the location of the definable feature of work and list of personnel present at the inspection (the Follow-Up Phase Checklist will be included to document if the work complies with the contract and required testing has been performed);
- A list of rework items identified (if any), but not corrected, by the close of business; and
- A “Remarks” section, which will contain pertinent information, including instructions received from NAVFAC Northwest, problem areas, deviations from the approved plans, nonconformances identified, corrective direction given by the PQCM, and corrective action taken.

Each CP/QC Report will contain the following statement signed by the PQCM: “On behalf of the contractor, I certify that this report is complete, accurate, and correct, and equipment and materials used, and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge and belief, unless noted above.”

15.9.3 Laboratory and Field Data

Required submittals for this project also include hardcopy and electronic laboratory and field data as discussed in the 18F4137 Tier II UFP SAP (Navy 2018). Data submittals will be performed in accordance with NAVFAC Northwest Standard Operating Procedures (NAVFAC Northwest 2007) and the online Navy Standard Operating Procedures for Electronic Data Deliverables available (with an account) at

<https://niris.navfac.navy.mil/se/nirisportal>. Electronic data will pass the Navy’s online data checker before being submitted.

15.9.4 Completion Letter

Upon completion of work for each TO, the PQCM shall furnish a letter to the NAVFAC Northwest COR (with carbon copy to the RPM) attesting that “the work has been completed, inspected, and tested, and is in compliance with the contract.”

15.10 PROJECT FILES

Project files will be maintained in the Sealaska office in Poulsbo, Washington. The PQCM is responsible for ensuring that all QC documentation is incorporated into the project files in a timely manner. Copies of necessary to carry out fieldwork will be maintained on site.

Table 15-1. Qualified Preparers and Reviewers for Submittals

Submittal	Preparer(s)	Reviewer(s)
LTM, Inspection, and Improvement Plan	Will Kaage	Scott Elkind, James Guzman
APP/SSHP	Barb Schleiger	James Guzman, Annette Franzen, Steve Frost ¹
Tier II UFP SAP	Will Kaage	Sherri Wunderlich. James Guzman
LTM Data Summary Report/Trend Analysis Report	Will Kaage	James Guzman
Remedy Inspection Report (which includes Wet Weather and OU A Winter Inspection Report and catch basin reconciliation information)	Walt Bowles or Robert Boyd	James Guzman
CP/QC Report	Will Kaage/James Guzman	None required
Laboratory Data	Laboratory personnel	LDC, Inc. (third-party validation firm)
Data Validation Report	LDC, Inc. (third-party validation firm)	Sherri Wunderlich
Completion Letter	Will Kaage	None required

Note:

¹ The APP/SSHP will be approved by Annette Franzen, with concurrence by Steve Frost.

16. REFERENCES

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- Navy. 2016. Final Operation and Maintenance and Institutional Control Plan (O&M and IC Plan), PSNS Complex Superfund Site, EPA ID: WA2170023418, Naval Base Kitsap Bremerton, Bremerton, Washington. Prepared by Sealaska under Contract No. N44255-09-D-4005, LTM/O, Task Order 85. March 30, 2016.
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APPENDIX A

MONITORING WELL LIST

Table A-1. BNC Monitoring Well Network

A-1

Operable Unit	Well ID	Location Xref	Ecology Tag	Northing (ft)	Easting (ft)	Installation Date	Ground Elevation (ft MSL)	Casing Elevation (ft MSL)	Depth to Top of Screen (ft)	Screen Length (ft)	Depth to Bottom of Screen (ft)
Background	346	PS11-MW01L	BBF 024	210816.6	1193695.4	4/22/1991	136.18	144.18	295	5	300
OU A	203	PS03-MW03	BBF 013	207019.2	1189695.4	12/6/1990	14.68	14.72	7	9.5	16.5
OU A	204	MW204	BBF 012	206822.4	1189284.1	5/12/1993	14.24	13.91	8	15	23
OU A	206	MW206	BBF 014	207153.9	1189841.7	4/28/1993	12.80	12.54	8	15	23
OU A	241	MW241	BBF 015	207607.4	1190206.8	6/14/1994	14.12	14.13	6	15	21
OU B T	432	PS07-MW03	BBF 032	210621.1	1196141	3/18/1994	14.98	14.59	30	20	50
OU B T	433	PS07-MW04	BBF 033	210628.8	1196429.4	4/6/1994	15.06	14.48	48	15	63
OU B T	707	OUB MW18	BBF 008	210612	1195441.8	10/17/1995	15.32	14.91	45	20	65
OU B T	410R	NA	APS 279	208419.9	1193634.2	10/5/2007	15.38	15.38	55.7	10	65.7
OU B T/PMP	704	OUB-MW15	BBF 034	210618.6	1196900	8/22/1995	15.28	14.92	6	15	21
OU B T/PMP	720	LTMP-1	BBF 001	207686.3	1190425.5	7/19/2004	14.78	14.50	5	15	20
OU B T/PMP	721	LTMP-2	AKG 515	207692.6	1190840.4	7/21/2004	14.81	14.51	5	15	20
OU B T/PMP	722	LTMP-3	AKG 514	208197.2	1191356.6	7/21/2004	14.55	14.24	4	15	19
OU B T/PMP	723	LTMP-4	BBF 029	210016.1	1195015.6	7/20/2004	14.96	14.67	43	20	63
OU B T/D	724	LTMP-5	AKG 517	209755.7	1197728.6	7/22/2004	15.56	15.41	5	15	20
OU C	219	GMWT-10	BBF 020	209712.7	1193396.5	4/8/1997	92.88	94.64	118	25	143
OU C	223	GMWT-14	BBF 021	209604.6	1193339.7	4/17/1995	77.68	79.53	108	25	133
OU C	224	GMWT-15	BBF 017	209462.9	1193377.5	4/18/1997	70.98	70.98	89	25	114
OU C	247	GMWT-7	BBF 023	209709.2	1193401	4/1/1997	57.28	58.47	84	26	110
OU C	311	GMWT-9	BBF 022	209441.8	1193488.6	4/4/1997	52.48	53.69	73	25	98
OU C	717	GMWT-19	BBF 019	209665.6	1193268.1	10/20/1998	94.08	93.62	117	25	142
OU C	718	GMWT-18	BBF 018	209538.2	1193323.1	10/23/1998	84.98	84.98	117	25	142
OU C	735	GMWT-22	BBF 011	209201.9	1193328.1	7/21/1999	15.58	15.56	34	20	54
OU C	736	GMWT-23	BBF 030	209184.7	1193477.2	7/23/1999	15.38	15.39	45	15	60

Table A-1. BNC Monitoring Well Network (continued)

Operable Unit	Well ID	Location Xref	Ecology Tag	Northing (ft)	Easting (ft)	Installation Date	Ground Elevation (ft MSL)	Casing Elevation (ft MSL)	Depth to Top of Screen (ft)	Screen Length (ft)	Depth to Bottom of Screen (ft)
OU C	737	GMWT-24	BBF 031	209050.2	1193707.4	7/23/1999	21.88		34	25	59
OU C	738	GMWT-25	BBF 010	208967.3	1193494.5	7/26/1999	15.48	15.46	34	25	59
OU C	GMWT-26	NA	ARK 523	209173.1	1193464.4	4/11/2006	15.58	15.57	60	30	90
OU NSC	310R	NA	BBF 025	208473.3	1193220.8	10/10/2007	15.38	15.41	58.7	10	68.7
OU NSC	380	MW380	BBF 006	208269.3	1193175.3	6/27/1994	15.47	14.88	14	20	34
OU NSC	386	MW386	BBF 005	208696.5	1192516	7/12/1994	15.62	15.23	12	20	32
OU NSC/PMP	392	MW392	BBF 003	208190.1	1192046.3	7/21/1994	14.48	14.48	6	20	26
OU NSC/PMP	392R	NA	BBF 004	208191.4	1192035.3	8/14/2008	14.48	14.72	25.5	10	35.5
PMP	382	MW382	BBF 009	208849.9	1193175.9	7/5/1994	15.48	15.55	38	20	58
PMP	406	PS08-MW02A	BBF 035	209824.2	1196818.3	1/15/1991	14.32	13.99	13	9.5	22.5
PMP	406R	NA	BAN 056	209823.8	1196814.7	10/12/2007	14.39	14.39	23.2	10	33.2
PMP	412	PS10C-MW01	BBF 027	208256.3	1193992.9	2/8/1991	15.12	14.97	14.5	9.5	24
PMP	425	OUB-MW04	BBF 007	210731.6	1195809.9	4/5/1994	15.69	15.28	47	20	67
PMP	428R	NA	ALN 644	209005.2	1194172	1/31/2007	12.18	11.72	44	20	64
PMP	709	OUB-MW23	BBF 028	208369.5	1194430.2	8/14/1995	13.77	13.42	8	20	28
PMP	713	OUB-MW-20	BBF 026	208161	1193836.8	8/28/1995	15.28	14.96	8	20	28
PMP	718	OUB-MW-25	BBF 002	208310.1	1191312.4	8/30/1995	15.67	15.40	7	20	27
PMP	725	PMP-1	AKG 516	209027.4	1190745	7/22/2004	15.71	21.84	3	15	18
PMP	715R	NA	ALN 643	207763.9	1191143.2	1/29/2007	18.48	18.23	9	20	29

Notes:

Horizontal Position (NAD83) based upon Department of the Navy Naval Station Bremerton "Horizontal and Vertical Control Data" PWO Drawing 64583 dated July 11, 2006 and subsequent well surveys.

Vertical Datum based upon PSNS PWO Drawing 64583 (NAVD88) dated July 11, 2006, as noted, and subsequent well surveys.

Blank cells occur where information is not available.

ft MSL – feet above mean sea level

APPENDIX B

BNC WASTE MANAGEMENT

ACRONYMS AND ABBREVIATIONS FOR APPENDIX B

BNC	Bremerton Naval Complex
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFD	Certificate of Disposal
CFR	Code of Federal Regulations
DOT	United States Department of Transportation
DRMS	Defense Reutilization and Marketing Service
EHW	extremely hazardous waste
EPA	United States Environmental Protection Agency
FCR	Field Change Request
HW	hazardous waste
HWMP	Hazardous Waste Management Plan
ID	identification
IDW	Investigation-derived waste
Navy	United States Navy
NTR	Navy Technical Representative
PSNS & IMF	Puget Sound Naval Shipyard and Intermediate Maintenance Facility
RCRA	Resource Conservation and Recovery Act
RPM	Remedial Project Manager
SAA	satellite accumulation area
SAP	Sampling and Analysis Plan
Sealaska	Sealaska Environmental Services
SWTS	Solid Waste Tracking Sheet
TOM	Task Order Manager
TSDF	treatment, storage, and disposal facility
WAC	Washington Administrative Code
WAD	Waste Area Designation
WIS	Waste Information Sheet
WSN	Waste Stream Number

BNC WASTE MANAGEMENT

WASTE DESIGNATION PROCEDURE

BNC Resource Conservation and Recovery Act (RCRA) Permit (NAVSHIPYDPUGETINST P5090.5D Hazardous Waste Management Plan [HWMP])
Contractor's Guide to Hazardous Waste Compliance (PSNS & IMF P5090[5] (Rev 11-03)
Contractor's Guide to Environmental Compliance (PSNS & IMF P5090[4] (Rev 11-03)

In accordance with Bremerton Naval Complex (BNC) procedures, waste streams must be designated using a Waste Information Sheet (WIS). Sealaska Environmental Services (Sealaska) personnel completing the WIS must be familiar with the Contractor's Guide to Environmental Compliance (NAVSHIPYDPUGET P5090[4 and 5]). All WISs must be submitted to the BNC through the Navy Technical Representative (NTR) for processing waste designation by Code 106.33 prior to producing waste.

Procedures for Waste Awaiting Designation must be followed while the waste stream is being designated. Most waste streams (i.e., wastes that will not require sampling and analysis) will be pre-designated prior to the start of the project with the WIS process. For waste streams that require sampling and analysis, a Sampling and Analysis Plan (SAP) will be submitted to the NTR for review and recommended approval by Code 106.33 before any sampling activities are conducted.

With the submittal of the WIS, the transporter and the various disposal facilities for solid waste and recycling must be specified. Once the WIS is approved and the waste is designated by Code 106.33, neither the facilities nor the transporters can be changed without a change to the WIS. All waste designated by Code 106.33 as hazardous waste shall be turned over to the Government for manifesting and disposal. Treatment, Storage, and Disposal Facilities (TSDFs) and transporters of hazardous waste must be on the Defense Reutilization and Marketing Service (DRMS) qualified list. TSDFs and transporters of non-hazardous waste must be approved by the Contracting Officer in conjunction with Code 106.33. In addition, the facilities and transporters will be reviewed and approved by Sealaska for use on this project.

WASTE STREAMS AND CHARACTERIZATION

BNC Hazardous Waste Management Plan (HWMP)
BNC RCRA Permit (NAVSHIPYDPUGETINST P5090.5D HWMP)
Minimal Functional Standards for Solid Waste Handling (Washington Administrative Code [WAC] 173-304)
Contractor's Guide to Hazardous Waste Compliance (PSNS & IMF P5090[5] (Rev 11-03)
Contractor's Guide to Environmental Compliance (PSNS & IMF P5090[4] (Rev 11-03)
RCRA Hazardous Waste Identification (40 Code of Federal Regulations [CFR] 261)
BNC Water Pollution Prevention and Control Plan (NAVSHIPYDPUGETINST P5090.30A)

The waste streams anticipated for this project are addressed in Section 11. If additional waste streams are identified for the Long-Term Monitoring/Operations actions, they will be added to the plan via the Field Change Request (FCR) process. The FCR is part of the Sealaska quality control (QC) process for implementing and tracking changes as a result of site conditions and ensuring appropriate reviews and approvals have been obtained prior to implementation.

NON-HAZARDOUS WASTE - TRANSPORT SOLID WASTE TRACKING SHEETS (SWTS)

Minimal Functional Standards for Solid Waste Handling (WAC 173-304)

Waste Profiles—If waste profiles are required for non-hazardous waste disposal, the profile will be forwarded with the WIS to the NTR for submittal to Code 106.33.

Solid Waste Tracking Sheets—Waste that is not designated hazardous, PCBs, or asbestos including recycled waste (i.e., metal) and reused material (i.e., oil) will be tracked using the Contractor's SWTSs. Trip Tickets must be submitted along with the SWTS. By the 5th of the following month, a Contractor's Monthly Project Waste Summary Report must be submitted to the NTR, who will submit the completed document to the Solid Waste Program Manager. The contractor, all transporters, and disposer/recycler must sign the SWTS.

HAZARDOUS WASTE AND WASTE AREA DESIGNATION (WAD) CONTAINER MANAGEMENT

Hazardous Materials Transportation Act and Regulations (49 CFR 171-180)
Minimal Functional Standards for Solid Waste Handling (WAC 173-304)
BNC RCRA Permit (NAVSHIPYD PUGET P5090.5D [HWMP])
Contractor's Guide to Hazardous Waste Compliance (PSNS & IMF P5090[5] (Rev 11-03)
Contractor's Guide to Environmental Compliance (PSNS & IMF P5090[4] (Rev 11-03)

Container Selection – Containers will be selected and evaluated using the following methods:

- Inspected before use to ensure that they are in good condition
- Evaluated before use to determine if the container is compatible with the waste.
Incompatible containers will not be used
- United States Department of Transportation (DOT)-approved (e.g., United Nations [UN] specified drums or roll-off boxes)
- Verified to be properly rated for weight of waste to be contained

Container Management – Containers will be managed in several ways:

- Inspected weekly while in use to ensure that they are in good condition. If not in good condition, the waste will be immediately transferred to a compatible container in good condition.
- Closed and bolted at all times, except when waste is being added or removed.
- Reused only for the same waste stream (same Waste Stream Number [WSN]), except uncontaminated overpack containers.
- Positioned so that labels are clearly visible.
- Stored so that a minimum of 36 inches of aisle space is maintained between each row of containers. A row of drums will not be more than two drums wide.
- Segregated so that incompatible wastes are not placed in the same container.
- Stored so that all containers are within containment systems. Incompatible waste will have separate containment systems.

Secondary Containment – Required when the following are present:

- Liquid hazardous waste within 50 feet of a storm drain
- Flammable liquid or reactive waste

- Waste in a 45/90-day accumulation area (See section entitled “Hazardous Waste Management (45/90-Day Accumulation Area) – Accumulation.”)
- Other hazardous waste per Code 106.33 determination

All drums must be placed fully within secondary containment and protected from rain. A covered containment must hold the greater of 10 percent of the volume of all containers or the volume of the largest container. An uncovered area will have the capacity to hold 4 inches of rainfall in addition to holding the greater of 10 percent of the volume of all containers or the volume of the largest container.

Waste Segregation – Waste will be segregated according to the source to prevent cross-contamination. Waste can be segregated by placing in any of the following:

- Roll-off box, drums, or stockpile for soil per Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Drums and/or portable tanks for decontamination
- Containers of WAD will be held in a Navy-approved accumulation area as described in the WAD accumulation section

Marking and Labeling – Container labeling will be specified on the completed WIS. All labels will be supplied by BNC, and all containers will have an identification (ID) label. Designated hazardous waste will have the following labels applied to the containers:

- ID Label
- Hazardous Waste Label
- DOT Labels (and any other label specified in the WIS)
- Accumulation start date

Inventory and Tracking (applies to 45/90-day accumulation areas only) – Containers will be logged on an inventory sheet maintained by the Sealaska Waste Coordinator.

Inventory records will be forwarded to the NTR for submittal to Code N3212 by the first of each month unless this requirement is waived. The inventory will include the following:

- Originator’s name
- Waste description and WSN
- Type and quantity of waste containers
- Accumulation start date
- Date received and shipped from accumulation area

WASTE AWAITING DESIGNATION MANAGEMENT – ACCUMULATION

Contractor's Guide to Hazardous Waste Compliance (PSNS & IMF P5090[5] (Rev 11-03)
Contractor's Guide to Environmental Compliance (PSNS & IMF P5090[4] (Rev 11-03)
BNC RCRA Permit (HWMP NAVSHIPYDPUGET P5090.5D)

WAD will be containerized and held in the Sealaska registered satellite accumulation area (SAA) prior to the end of the work shift. A WIS must be generated prior to producing potential waste. WIS will be submitted to the NTR and then delivered to Code 106.33 for Navy designation. Once designation of the waste has been received, additional labels and management of the WAD will occur as dictated by the designation on the WIS.

Containers will meet the following criteria:

- In good condition and non-leaking
- Compatible with waste being placed in them
- Closed at all times, except when waste is being added
- Labeled with an ID label that includes the word "WAD"
- Positioned so the ID label is visible for inspection
- Physically segregated from containers of designated hazardous waste
- Kept in the original SAA

SATELLITE ACCUMULATION AREA – ACCUMULATION

BNC RCRA Permit (HWMP NAVSHIPYDPUGET P5090.5D)
RCRA 40 CFR 260-268

The following procedures will be performed in the event an SAA is needed:

- Establish an SAA by submitting a Contractor Request for Hazardous Waste (HW) SAA Registration through the NTR.
- Use the area only for storage of waste and not for storing non-related materials, equipment, or functions.
- Label container with an ID label, hazardous waste label, applicable DOT label, and any additional labels specified on the WIS. Fill in completely. HW labels must be clearly visible. All labels should be on the upper one-third of the container where practicable.
- Post the emergency spill response procedures and have a spill kit nearby.
- Keep a fire extinguisher and telephone (cellular phone) near the area as a precaution.
- If SAA is 90-day accumulation area, make an emergency shower/eyewash station immediately available, tested weekly, and kept functioning.
- Ensure that the SAA is secured with temporary fencing and locked as part of securing the site to prevent improper mixing or unauthorized addition of waste to the containers.
- Conduct regular weekly inspections using SAA Inspection Logs. Keep a logbook that includes the date, time, findings, actions taken, and inspector's signature. Record inspections in the Contractor Production/Quality Control (CP/QC) Report.
- Post "HAZARDOUS WASTE ACCUMULATION AREA" signs so they are visible from a distance of 25 feet. Signs are available from Code 106.
- When 55 gallons or more of an HW stream is present in the SAA, fill in the start date on the HW or WSN label and, transfer waste from that waste stream to a 90-day accumulation area or ship off site to the TSDF within 3 days from the start date.
- Remove or decontaminate containers, liners, and waste prior to closure. Arrange a closeout inspection with the NTR.

Secondary containment requirements for an SAA will be implemented as follows:

- Satellite accumulation over water, such as on piers and dry docks, will be attended by an Accumulation Area Operator at all times
- All flammable and Extremely Hazardous Wastes (EHW; WAC 173-303) will have separate impermeable secondary containment.
- Secondary containment will be provided for transfers of liquid EHWs from one container to another.

HAZARDOUS WASTE MANAGEMENT (90-DAY ACCUMULATION AREA) – ACCUMULATION

BNC RCRA Permit (NAVSHIPYDPUGET P5090.5D)
Contractor's Guide to Environmental Compliance (NAVYSHIPYDPUGET P5090[4])
Contractor's Guide to Hazardous Waste Compliance (NAVYSHIPYDPUGET P5090[5])
RCRA 40 CFR 260-268

The following procedures will be performed in the event a waste is characterized as hazardous waste by Code 106.33:

- Establish a 45/90-day accumulation area by submitting a Contractor Request for 45/90-day HW Accumulation Area Certification/Recertification form through the NTR.
- Use the area for waste storage and not for storage of non-related materials or equipment.
- Follow all container requirements.
- Post the emergency spill response procedures and have a spill kit in the area.
- Keep a fire extinguisher, water supply, telephone, and alarm at the area.
- Make an emergency shower/eyewash station immediately available. Test it weekly, and keep it functioning.
- Lock the gate to the accumulation area when authorized personnel are not present.
- Provide secondary containment, unless this requirement is waived by Code 106.
- Post “HAZARDOUS WASTE ACCUMULATION AREA” and “DANGER – UNAUTHORIZED PERSONNEL KEEP OUT” signs at the entrance.
- Conduct inspections every 7 days using 45/90-Day Weekly Inspection Logs. Forward copies of these inspections to the NTR for submittal to Code 106 at the end of every month. Keep a logbook that includes the date, time, findings, actions taken, and inspector's signature.
- Post “NO SMOKING OR OPEN FLAME” signs unless waived.
- Remove or decontaminate all containers, liners, and soil prior to closure. Arrange a closeout inspection with the NTR and Remedial Project Manager (RPM).

NON-HAZARDOUS WASTE MANAGEMENT AND IDW– ACCUMULATION

Minimal Functional Standards for Solid Waste Handling (WAC 173-304)
Bremerton Kitsap County Board of Health, Ordinance Number 2000-6 Solid Waste Regulations

Waste that is designated non-hazardous or investigation-derived waste (IDW) will be handled as follows:

- Stored in a designated non-hazardous storage area.
- Marked with the contents of the container as instructed by the approved WIS. IDW drums will be marked “IDW” until appropriately designated.
- Disposed of at the designated facility as described on the WIS.

NON-HAZARDOUS WASTE MANAGEMENT – DISPOSAL

CERCLA Off-Site Rule (40 CFR 300.440)
RCRA (40 CFR 260-268)

Sealaska is responsible for disposal of non-hazardous waste (on occasion) on behalf of the Navy for these contracts. With the submittal of the WIS, Sealaska will specify the various facilities for solid waste and recycling and the transporters.

BNC will use the information provided to evaluate each waste stream to ensure that it meets the waste acceptance criteria and packaging requirements for the proposed disposal facility.

Certificate for Disposal (CFD) – Within 10 working days of final disposal of hazardous waste, Sealaska will request a CFD from the disposal facility for submittal to the NTR. The NTR will forward the CFD to Code 106.33. The CFD will include the following:

- Waste profile sheet number
- BNC manifest number and ship date
- Quantity disposed
- Disposal facilities (United States Environmental Protection Agency [EPA] ID number, name, location, and phone number)
- Disposal method
- Final disposal date
- Signature of person responsible for adequate and appropriate disposition of the waste

UNANTICIPATED ENCOUNTERED HAZARDOUS WASTE

BNC RCRA Permit (HWMP NAVSHIPYDPUGET P5090.5D)
RCRA 40 CFR 260-268

The following procedures apply when hazardous waste is encountered that is not anticipated and is not part of this project:

- Call Navy emergency response at 360-476-3333 (cellular) or 911 (BNC telephone) if considered a threat to human health and the environment.
- Notify the Task Order Manager (TOM) immediately. The TOM will contact the RPM immediately for direction.
- Contact the NTR to make the necessary arrangements with Code 106.33 for the waste to be handled.

APPENDIX C

CONTRACTOR'S GUIDE TO ENVIRONMENTAL COMPLIANCE

AND

CONTRACTOR'S GUIDE TO HAZARDOUS WASTE COMPLIANCE



Contractor's Guide to Environmental Compliance

Contractor's Guide to Environmental Compliance

PSNS&IMF P5090(4) (Rev. 11-03)

Prepared by the Environmental Division, Code 106.3

Reviewed By: *Linda L. Boyer* 11-04-03
L. L. BOYER
Contracts Support Program Date

Reviewed By: *T. J. Brorson* 01/20/04
T. J. BRORSON
Head, Air Pollution/Asbestos/Contracts Branch Date

Reviewed By: *S. S. Rupp* 2/23/04
S. S. RUPP
Head, Environmental Division Date

Reviewed By: *E. A. Cole* 3/1/04
E. A. COLE
Director, Environment, Safety and Health Office Date

ENVIRONMENT, SAFETY AND HEALTH OFFICE



PUGET SOUND NAVAL SHIPYARD AND
INTERMEDIATE MAINTENANCE FACILITY
Bremerton, Washington

ABOUT THIS GUIDE



The ***Contractor's Guide to Environmental Compliance*** at Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF) and Naval Station Bremerton, herein referred to as the Bremerton naval complex (BNC), is designed to meet the environmental information needs of contractors working at the BNC. This is also a useful tool for other personnel (e.g., contracting officers and design managers) who will very likely find themselves confronted with one or more environmental issues.

Throughout this guide, the term "Contracting Officer" also includes the representatives of the Contracting Officer.

This guide is the second revision. The revision was made to recognize the stand up of the Environmental Office at Naval Station Bremerton. Some programs are managed in parallel for the respective facility. The revision also replaces the information for contractors to attend a station specific three day course HW-39, with a two hour briefing, for an accumulation area operator. Puget Sound Naval Shipyard integrated with Intermediate Maintenance Facility Northwest and is now named Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF). This guide is only applicable to the Controlled Industrial Area (CIA) of the shipyard and Naval Station (NAVSTA) Bremerton. The term "shipyard" will be used to clarify that portion of PSNS & IMF. The term Bremerton naval complex (BNC) is used to include both the shipyard and NAVSTA Bremerton.

Intended as a "*primer*" on environmental regulations and BNC policies and procedures, this guide is structured around questions you need answered in each media (e.g., air, water, waste, etc.) and issues you need to know about.

The information provided in this guide offers the level of detail needed for basic knowledge of key environmental issues. This knowledge will help you develop and maintain the most efficient and effective Environmental Program possible while performing your task. If there are any questions regarding an environmental regulation, or in the event of an emergency, please contact the Contracting Officer.

Telephone numbers for the BNC's designated points of contact are provided on the next page and back cover of this pamphlet, for the contracting officers use. These individuals are not authorized to provide direction to contractors.

We wish you environmental success on this project and in the future!!!

Disclaimer: Each contractor is responsible for compliance with all contractual requirements, including compliance with all applicable Federal, State, and local environmental requirements, as well as Bremerton naval complex environmental requirements as specified in the contract. This document is provided for general awareness only. It remains the contractor's duty to comply with all applicable laws, and this guide alone cannot assure such compliance. To the extent the requirements of this document are in direct conflict with the contract specifications, the contract specifications control. If the contractor believes this guidance conflicts with the contract specifications, the issue should be discussed with the Contracting Officer in order to avoid violating relevant environmental laws.

TELEPHONE LISTING



EMERGENCIES (Medical Assistance, Fire, Flooding, Emergency Spill Response, etc.):

When using a BNC telephone 911
When using a non-BNC telephone system 360-476-2222

CONTRACTING OFFICES

EFA-NW Bremerton ROICC, Building 467 360-476-8130
or 360-476-4552
EFA-NW Silverdale Field Office 360-396-6844
Supervisor of Shipbuilding (SUPSHIP) 360-476-4326
Fleet and Industrial Supply Center (FISC) 360-476-4289
NAVSTA Bremerton, Contract Oversight (QAE).....360-476-7947

BNC ENVIRONMENTAL POINTS OF CONTACT (For Contracting Officer Use):

<u>PROGRAM</u>	<u>SHIPYARD</u>	<u>NAVSTA BREMERTON</u>
Air (Permits/Discharges/ODS)*	360-476-0124	
Asbestos	360-476-4699	360-476-4744
Contracts Support	360-476-0136	360-476-6691
Hazardous Material*	360-476-4364	
Hazardous Waste (HW)	360-476-5734	360-476-6067
Historical/Natural Resources	360-476-4049	360-476-6691
Installation Restoration	360-476-2630	360-476-6691
PCBs	360-476-0127	360-476-6067
Solid Waste*		360-476-6067
Spill Prevention and Response*	360-476-1842	
Water Quality and		
Stormwater/Sewer Discharge	360-476-0118	360-476-6614

**Program is managed for all of the BNC by the activity whose phone number is listed.*

BNC ENVIRONMENTAL SERVICES (For Contracting Officer Use):

Waste Designation**360-476-8612
HW/PCB (Containers/Labels/Turn-In (B-367)** 360-476-7777

***Services provided for all of the BNC.*

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INTRODUCTION



The Chief of Naval Operations (CNO) has defined the Navy's environmental vision to be "*a Navy recognized as an environmental leader while effectively executing Naval operations.*" The Navy is committed to operating in a manner compatible with the environment. National defense and environmental protection are, and must be, compatible goals. An important part of the Bremerton naval complex's (BNC) mission is to prevent pollution and protect the environment. To fulfill this vision and mission, you (as a Navy-employed contractor) must provide the personal commitment to develop an environmental protection ethic.

Environmental regulations have increased exponentially in recent years. The BNC now operates under separate discharge permits for air emissions, dry docks, sanitary sewer, and storm water systems. Specific to hazardous waste, the BNC operates as a fully-regulated, large quantity generator. The BNC has implemented more stringent requirements than mandated by regulations in the area of accumulation for waste management. Compliance with environmental regulations and BNC rules requires specialized knowledge or expertise. In addition to this guide, you may request information regarding your environmental compliance responsibilities from the Contracting Officer, who will work in conjunction with BNC's environmental staff to assist you. Compliance with all applicable Federal, State, local, and BNC environmental requirements is mandatory.

WHAT IS ENVIRONMENTAL COMPLIANCE AND WHY IS IT IMPORTANT?



COMPLIANCE

“Environmental Compliance” is conformance to the many environmental regulations and BNC requirements. These regulations and requirements can vary with the different regulated media (e.g., air, water, waste) depending on your project status. For example, your project could be in compliance with water quality regulations but out of compliance with hazardous waste regulations.

WHY COMPLIANCE IS IMPORTANT

While your project may extend across several individual aspects of the BNC's and Navy's mission, there is one area that is impacted by virtually every one of your actions and operations: **the environment**. The Secretary of the Navy's policy emphasized that *“the Navy is fully committed to strict compliance with all applicable requirements.”* In order for you to comply, you must have a solid understanding of the local, State and Federal regulations and the procedures set forth in the BNC's Environmental Program, which should be included in your contract specifications, to comply with the regulations.

Environmental compliance, although it may be more costly initially, is a responsibility you must plan for and accept as a cost of doing business with the BNC and the Navy. Non-compliance is far more costly in the long run, not only in dollars, but in bad publicity which can affect future jobs and relations in the community. It may also affect your ability to perform future work for the Navy.

Proper environmental coordination with operations at the BNC, or any of the BNC-owned properties, is not only needed for compliance reasons, it also benefits your project by preventing time delays or operational shutdowns, and improves public relations. To this end, you must take a proactive approach to your policies, procedures, and operations.

WHAT IS HAZARDOUS MATERIAL CONTROL AND HOW DO I COMPLY?



HAZARDOUS MATERIAL CONTROL

“Hazardous Material” is defined as any material, which because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment.

The Occupational Safety and Health Administration (OSHA), Hazard Communication (HAZCOM) standard, states that employees have the *“Right-to-Know”* about hazardous materials in their workplace. In addition, Congress has passed laws designed to help communities deal safely and effectively with hazardous materials that are used throughout our society. This law is called the *Emergency Planning and Community Right-to-Know Act (EPCRA)*.

The procurement, storage, use, and minimization of hazardous material in the BNC requires control measures to protect the user, general public, and environment from potential or actual hazards. All hazardous materials must be approved by the Government prior to being brought to the BNC.

COMPLIANCE

To comply with these requirements, contractors and visitors shall ensure their employees working at the BNC are apprised of the requirements of the HAZCOM standard and EPCRA. Contractors shall provide a *Hazardous Material Plan** to the Contracting Officer for review and approval prior to the start of any work requiring the use of hazardous materials. The Plan shall include the information listed on the next page:

- * Depending on the type of contract, the information identified in this guide may be specified as a submission of the material inventory or be a subset of the *Accident Prevention Plan*. The submission and approval of the material inventory is required to comply with regulations implementing OSHA, EPCRA, and the Clean Air Act (CAA). Contact your Contracting Officer for the Contractor Hazardous Material Inventory form (PSNS 5090/132).

WHAT IS HAZARDOUS MATERIAL CONTROL AND HOW DO I COMPLY?

(continued)

- ◆ An inventory of hazardous materials to be used at the work site. The inventory includes information identifying the material, manufacturer, and describing material storage requirements and usage. The inventory shall be updated at completion of the project specifying the quantities used. If your project goes into the next calendar year, then the quantity of material used through 31 December needs to be submitted in mid-January, and at the end of the project for material used since 1 January.
- ◆ Procedures for protecting personnel and property during the transport, storage, and use of the materials.
- ◆ Material Safety Data Sheets (MSDSs) for materials listed in the inventory. Material Safety Data Sheets must be current and available at the work site where the materials will be used.
- ◆ Labeling system to identify contents of all containers on-site. Labeling system must be in accordance with the HAZCOM standard and includes the chemical name, manufacturer's name and address, and chemical hazards.
- ◆ Procedures for training personnel in accordance with the HAZCOM standard.

[illegible]

Quick Tip: Each hazardous material must receive approval prior to being brought onto the BNC. Welding rods are classified as hazardous material.



Quick Tip: Plan jobs to ensure processes or operations use the least hazardous material and minimum quantity necessary for the job.

WHAT MATERIALS AND PRACTICES ARE PROHIBITED?



HAZARDOUS MATERIAL EXCLUSIONS

Notwithstanding any other hazardous material usage permitted in your contract, materials that contain asbestos, mercury, lead, methylene chloride, or Polychlorinated Biphenyls (PCB) are prohibited. Also prohibited are radioactive materials and instruments capable of producing ionizing radiation.

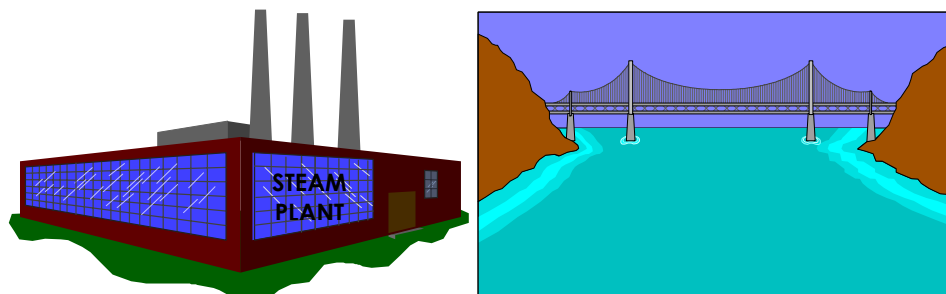
CLASS I OZONE DEPLETING SUBSTANCE (ODS)

- ◆ Class I ODS substances are defined in 40 CFR Part 82. These generally consist of products such as refrigerants that contain Chlorofluorocarbons (CFC), or fire extinguishing agents such as Halons. If you need assistance in determining if your products are Class I ODS, or the contract specifies use of a Class I ODS, contact your Contracting Officer.
- ◆ Class I ODS shall not be used in the performance of your contract, nor be provided as part of the equipment. This prohibition is currently in effect for all Department of Defense activities and shall take precedence and prevail over any other provision of your contract or any specification, drawing, or referenced document. All Class I ODS recovered at the BNC must be turned into the shipyard for Navy mandated stockpiling.

PROHIBITED PRACTICES

- ◆ Releasing refrigerant or other ODS into the atmosphere when installing, servicing, repairing, retrofitting, dismantling, or disposing of any refrigeration systems or equipment with these systems. (Mandatory refrigerant recovery is required in accordance with 40 CFR 82, *Recycling and Emissions Reductions*.)
- ◆ Asbestos removal or hot work (e.g., welding, flame cutting, tar heating, etc.) without a permit to do so.
- ◆ Open burning of ground cover or debris.
- ◆ Pesticide applications of any kind or amount without express permission of the Contracting Officer.
- ◆ Discharging any material or waste into the sanitary sewer, stormwater system, or the surrounding waters. (See the next section for some wastewater discharge allowances.)

WHAT IS STORMWATER AND WASTEWATER MANAGEMENT AND HOW DO I COMPLY?



The goal of the **Clean Water Act (CWA)** is to “*restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.*” The two crucial programs regarding the BNC’s CWA compliance are the **National Pollutant Discharge Elimination System (NPDES)** and the **Waste Discharge Permit**.

The **NPDES Program** controls discharges going directly into surface waters, such as Sinclair Inlet. Specific discharges from the BNC into Sinclair Inlet that are authorized and limited by the BNC’s NPDES Permit include: non-contact cooling water, dry dock ground water infiltration, caisson leakage, Steam Plant Treatment Facility effluent, and stormwater runoff.

The **Waste Discharge Permit Program** regulates discharges into the sanitary sewer. Wastewaters from industry, households, and commercial establishments combine and flow to a Sewage Treatment Plant (owned and operated by the City of Bremerton). At the plant, the wastewaters are treated and discharged into a surface water (e.g., Sinclair Inlet). Industrial discharges from the BNC into the sanitary sewer are specifically regulated by the BNC’s Waste Discharge Permit, which prohibits the introduction of any pollutants into the sanitary sewer system that would interfere with the operation of Bremerton’s Wastewater Treatment Plant, or cause the city to violate its NPDES Permit by allowing the pollutants to pass through untreated. Examples of prohibited discharges include all hazardous materials or wastes, oils, solvents, etc. All industrial wastewaters that are not permitted to be discharged into Sinclair Inlet or the sanitary sewer system must be disposed of in accordance with solid or hazardous waste regulations.



Quick Tip: Get approval before discharging *any* water *anywhere*!

WHAT IS STORMWATER AND WASTEWATER MANAGEMENT AND HOW DO I COMPLY?

(continued)

GENERAL REQUIREMENTS

The shipyard's NPDES Permit requires development and implementation of a Best Management Practices (BMP) Plan. The BMPs are precautions and actions to prevent or reduce water pollution. The BMPs apply to all government civilian, military, and contractor personnel within the Bremerton naval complex, including Fleet and Industrial Supply Center and tenants. Specific guidance is available, from your Contracting Officer, for work practices not included in the NPDES permit (e.g., brick and masonry washing).

BEST MANAGEMENT PRACTICES (BMPs)

The following 12 BMPs are mandatory under the BNC NPDES permit. If the applicable BMPs are not effective in controlling the discharge of pollutants then additional BMPs need to be selected and implemented from the EPA document "Storm Water Management for Construction Activities", Pub 832-R-92-005, and the "Washington Stormwater Management Manual for Western Washington", Pub 99-11, (as applicable).

BMP 1 YARD CLEANUP

Clean the project site on a regular basis to minimize loss of accumulated debris into Sinclair Inlet or the storm drainage system. Do not clean paved areas, equipment, buildings, etc., using wet methods (hosing down) unless conditions for Storm Drain Discharge have been met. See BMP 11 for approval to discharge to storm drain.

Conduct weekly cleanliness inspections of outdoor work and storage areas, including storm drain catch basins. Provide cleaning of work areas as necessary to maintain control of potential pollutants.

Install the plugs if trash containers are equipped with drain fixtures.

BMP 2 DRY DOCK CLEANUP

Collect and properly dispose of wastes (e.g., wood, plastic, paint chips, discarded construction materials, residual sandblast grit, grinding debris, paper, welding residue, rags, sediments, and insulation) prior to the end of each work shift or sooner to preclude the discharge of any pollutants into the dry dock drainage system. Use vacuums or other appropriate equipment for general dry dock floor cleanup.

Do not clean the dry dock floor using wet methods (hosing down) unless you obtained approval in advance from the Contracting Officer. Area will be inspected by the Government prior to any flooding to ensure cleanliness.

WHAT IS STORMWATER AND WASTEWATER MANAGEMENT AND HOW DO I COMPLY?

(continued)

BMP 3 MATERIALS STORAGE AND HANDLING

Protect containers storing liquid wastes or other liquids, which have the potential of adding pollutants to water (e.g., fuels, paints, and solvents), from the weather in a protected, secure location, and away from drains. Proper protection methods include placing materials inside a cofferdam, inside a covered area, underneath tarps, or using rubber mats over storm drains.

Do not store parts, materials, and containers directly on the pavement, dry dock floor, or ground. When possible, store parts, materials, and containers indoors. If outdoor storage is necessary, protect smaller parts, materials, and containers from the weather and place them on pallets. For outdoor storage of large parts (e.g., hull sections), inspect and clean storage areas, as necessary, to control potential pollutants.

Store both spent and virgin sandblast grit under cover. Eliminate contact between process or storm water and sandblast grit. Waste grit must also be managed as a waste following the appropriate state and federal regulations and this contract.

BMP 4 CONTAINMENT AND CONTROL OF DUST AND OVERSPRAY

Carry out any activity that generates pollutants, (e.g., blasting, painting, metal finishing, welding, grinding) in enclosed, covered areas.

Take applicable measures to adequately contain spent blast grit, paint chips, and paint overspray to prevent the discharge of these materials into Sinclair Inlet.

Perform spray paint operations in a manner to contain overspray and spillage, and minimize emission of particulates.

Perform all dry-blasting operations within an enclosure with adequate dust collection.

BMP 5 DRIP PANS

Use drip pans or other protective devices at hose connections when transferring oil, fuel, solvent, industrial wastewater, and paint. Where design constraints, vertical connections, or interferences do not allow placement of drip pans, use other measures, such as chemical resistant drapes. Where a spill would likely occur, use drip pans or other protective devices when making and breaking connections, or during component removal operations.

Immediately repair, replace, or isolate leaking connections, valves, pipes, and hoses, carrying wastewater, fuel, oil, or other hazardous fluids. As a temporary measure, place drip pans under leaking connections, equipment, or vehicles to collect any leaking fluid.

WHAT IS STORMWATER AND WASTEWATER MANAGEMENT AND HOW DO I COMPLY?

(continued)

BMP 6 VEHICLE AND EQUIPMENT CLEANING

Cleaning/washing of vehicles and equipment is prohibited.

BMP 7 VEHICLE AND EQUIPMENT PREVENTIVE MAINTENANCE

Inspect vehicles and equipment for leaks before use. Maintain them in good condition at all times. Inspect infrequently used vehicles and equipment monthly for leaks. Inspect all equipment and vehicles for fluid leaks before placing them in a dry dock.

If equipment is found to be leaking, take immediate action to stop/minimize the leak. Use drip pans to contain leaking fluids and remove it from the base. Initiate spill response, as appropriate.

BMP 8 MATERIALS LOADING AND UNLOADING

When loading and unloading liquids and fine granulated materials from trucks and trailers at outdoor loading areas, prevent potential spills to storm drains by placing or installing a door skirt, door seal, valved storm drain line. Place mats over the storm drains.

BMP 9 OVER-WATER WORK

For over-water work provide and position floats, tarps, or other suitable protection adjacent to and under work area to contain debris. Work that has a potential for pollution may include, but is not limited to, painting, paint chipping, blasting, welding, grinding, cutting, chipping, and sanding. No paint or paint residue shall enter Sinclair Inlet. If windy conditions prevent adequate containment of pollutants, redesign the containment, stop work until conditions allow, as agreed upon by the Contracting Officer.

BMP 10 TREATED WOOD PRODUCTS

Consider substituting alternate materials for treated wood products unless specified in contract. Where feasible, store treated wood under cover on pallets or indoors when not in use.

BMP 11 DISCHARGES INTO STORM DRAINS

Unless authorized by Contracting Officer, do not discharge anything into the shipyard's storm drains. Complete and submit the Government provided form for approval to discharge to the Storm Drain.

Do not dump pollutants on the ground.

If pollution prevention techniques prove inadequate, contact the Contracting Officer regarding using catch basin filters and/or absorbent blankets. Catch basin filters use sand and organic material to trap sediments, oil, and other storm water contaminants. Inspect catch basin filter material regularly and change it as needed. Inform the Contracting Officer of the location of all catch basin filters and obtain Contracting Officer approval before installing catch basin filters in new locations.

WHAT IS STORMWATER AND WASTEWATER MANAGEMENT AND HOW DO I COMPLY?

(continued)

BMP 11 DISCHARGES INTO STORM DRAINS (continued)

If you must carry out operations which could spill materials (e.g., liquid hazardous materials and wastes, wastewater, fuels) near a storm drain, place a chemical-resistant mat or other protective device over the storm drain during the operation.

BMP 12 OUTDOOR WORK OPERATIONS

When performing outdoor work operations, have equipment and supplies on-hand to control and cleanup debris. Many outdoor work operations can produce debris which if not controlled can wash into Sinclair Inlet. Some common outdoor work operations of concern are sanding, cutting, grinding, painting, material transfer, and mixing; use of oils, solvents, detergents, and degreasers. Consider the potential risks of your work and prepare accordingly. Items you may need include a spill kit, drop cloths, absorbents, rubber mats, storm drain filters, tape, tarps, brooms, or vacuums.

STORMWATER POLLUTION PREVENTION, INCLUDING SOIL EROSION AND SEDIMENT CONTROL

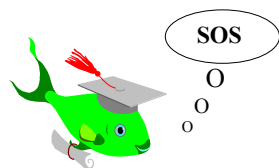
Your project must incorporate measures to prevent stormwater pollution, including temporary and permanent soil erosion and sediment control measures, as specified in WDOE's, *Stormwater Management Manual for the Puget Sound Basin*, Publication #91-75. The site-specific control measures shall be specified in advance by inclusion in the environmental plan submission. A Stormwater Pollution Prevention Plan (SWPPP) is required if your project disturbs one acre or greater. You will need to utilize EPA's, *Stormwater Management for Construction Activities, Developing Pollution Prevention Plan, and Best Management Practices*, Document #832-R-92-005, to prepare the SWPPP.

DEWATERING

Dewatering of excavations and vaults on BNC property is rather complex (some areas are contaminated) and special requirements apply. Your Contracting Officer can provide further direction if dewatering is anticipated.

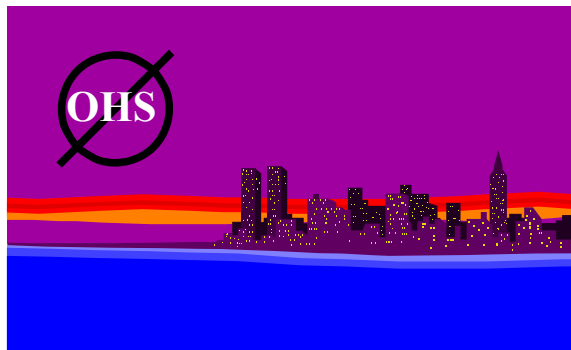
EQUIPMENT CLEANING OF RESIDUAL CONCRETE & SAW CUTTING WATER

The preferred method is to arrange for cleaning of equipment off-station. Never discharge rinsate directly into the storm sewer, dry dock drainage system, or Sinclair Inlet. For 100 gallons per day or less, the water may be allowed to seep into permeable ground at the immediate job site. For greater than 100 gallons it must be collected in containers and managed through the waste process. See the chapter entitled, *"I Actually Have to Plan for All My Waste?"*



Quick Tip: Help Save our Schools (of fish). Be wise, to get help, ask your Contracting Officer.

WHAT SHOULD I DO TO PREVENT SPILLS?

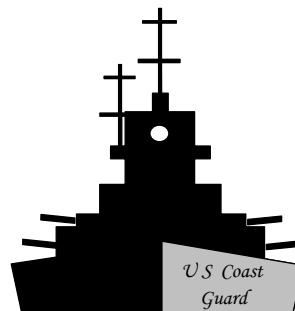


To ensure protection of Washington waters, land, air, and natural resources from the impacts of **Oil and Hazardous Substance (OHS)** spills, you must operate in a manner which will provide the best achievable protection of public health and the environment. The previous section provided guidance on Water Pollution Prevention Practices to prevent unauthorized discharges to the storm and sanitary sewer systems. Implementing the spill prevention procedures outlined in the following paragraphs will help reduce the risk of a spill occurring, and protect the area if one does occur.

- ◆ **All OHS Handling and Transfer Equipment** shall be inspected prior to use and during intervals of the operation to ensure equipment is in proper working condition. All connections and transfer points shall be carefully checked prior to, during, and after transfer operations to monitor for leaks. Hose connections shall be wrapped and/or containment placed under them.
- ◆ **All containers of OHS** with a storage capacity of 55 gallons or greater, shall be located in an impermeable secondary containment. The containment system shall have sufficient capacity to contain ten percent of the total volume of all containers stored in the area or the volume of the largest container, whichever is greater. If secondary containment is not protected from precipitation, provide additional capacity for 4 inches of rain. Storage of containers in uncovered locations must also have provisions for sampling, controlled draining, and disposing of stormwater in the containment area. Dangerous waste containers may have more stringent requirements.
- ◆ **A Spill Response Kit** shall be placed at or near any OHS handling and transferring work sites. The kit needs to contain items appropriate for the clean up of the type of spill that could occur from your project.

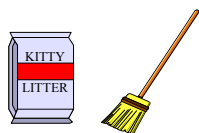
WHAT SHOULD I DO TO PREVENT SPILLS?

(continued)



The Coast Guard, in Title 33 Code of Federal Regulations Part 154, requires personnel involved in the transfer of oil or hazardous materials, in bulk, to or from a vessel with a capacity of 250 barrels (10,500 gallons) or more, to be certified as a Person-In-Charge of facility transfer operations, and carry evidence of this designation when engaged in transfer operations. This includes mobile facilities. A good example of this is a fuel tanker delivery driver; if this driver is transferring fuel to a vessel with a capacity of 250 barrels or more, the driver must be certified as a Person-In-Charge. Ensure your personnel are adequately trained!

If you need additional help or clarification on the required training for certification, contact your Contracting Officer.



Quick Tip: Place spill kits and discharge control devices at the job site prior to starting the job (retrofitting takes more time and is disruptive)!



Quick Tip: Make sure your oil transfer personnel are adequately trained. The Coast Guard conducts frequent inspections at the BNC!

WHAT IS A SPILL AND WHAT SHOULD I DO IF I HAVE A SPILL?



The Clean Water Act (CWA) addresses improvement of the nation's water resources, and deals with the prevention of, and response to, **Oil and Hazardous Substance (OHS)** spills. The CWA prohibits OHS discharges in quantities that are determined to be harmful to the public health or the environment. The Oil Pollution Act of 1990 (OPA 90) amended the CWA to strengthen the response and enforcement authority of the Federal government, and outlines additional prevention and preparedness measures for both government and industry. What this means in the BNC is that not only must adequate spill prevention measures be employed to prevent any discharge of an oil or hazardous substance into the environment (as outlined in the previous section on Stormwater and Wastewater Management), but specific spill response actions must be initiated to provide for immediate response to prevent spills from reaching navigable waters and to ensure that proper actions are taken when a spill has occurred.

The purpose of the BNC's Spill Contingency Plan is to ensure that actions are initiated immediately to minimize adverse effects to human health and the environment resulting from spill events. The Spill Contingency Plan outlines guidelines and actions workers must follow when a spill occurs.

SPILLS

A **Spill Event** is a release involving any unauthorized spilling, leaking, pumping, emitting, emptying, discharging, injecting, escaping, leaching, disposing, or dumping of oil or hazardous substance. There are two types of spill events in the BNC: a non-emergency and an emergency spill event. The definition of each type, and the required responses, is provided below.

NON-EMERGENCY SPILL EVENT

Definition: A discharge of a known material or hazardous substance of ten gallons or less that can be cleaned up by the personnel who discovered the spill and does not pose an immediate threat to human health or the environment. In a non-emergency spill event, the spill material is **not** released into any waterway inlet (e.g., storm drain) or outside the BNC fenceline.

WHAT IS A SPILL AND WHAT SHOULD I DO IF I HAVE A SPILL?

(continued)

Actions Required in a Non-Emergency Spill Event:

- ◆ Stop the source of the spill.
- ◆ Contain the spilled material by keeping the spill away from drains or waterways by blocking off drains located near the spill if there is a chance that the spill will reach them.
- ◆ Clean up the spilled material wearing the proper personal protective equipment.
- ◆ Dispose of the spill debris per designation.

EMERGENCY SPILL EVENT

Definition: Any release of a known or unknown material or hazardous substance which poses an immediate threat to human health or the environment and is not classified as a non-emergency spill event. In these situations, the individual which discovers the spilled material may require assistance from the government. All unpermitted or uncontrolled releases, greater than ten gallons if on land, or any amount to any waterways, or outside BNC properties, are classified as emergency spill events.

Actions Required in an Emergency Spill Event:

- ◆ If you don't know the properties of the material or it is a threat to human health, evacuate the area and go upwind.
- ◆ Warn others in the area and direct them upwind.
- ◆ Ask someone to watch the area and to warn others away.
- ◆ Dial "911" if on a BNC telephone (for non-BNC or cellular telephones, call 360-476-2222), and provide the requested information.
- ◆ Return to the spill site and stand by for emergency response personnel.
- ◆ Maintaining a safe distance, try to stop the source of the spill or contain it to prevent it from going into drains or waterways.
- ◆ If you have Material Safety Data Sheets (MSDSs) for the spilled material, provide them to the emergency response personnel.



Quick Tip: *When in Doubt . . . Make the Call!*

**Call 911 if you are dialing from a BNC telephone. The BNC has its own emergency response team and can be at your site very quickly.
Call 360-476-2222 from a non-BNC line or cellular telephone.**

WHAT IS AIR POLLUTION AND HOW DO I CONTROL IT?



WHAT IS AIR POLLUTION ?

Air pollution is the presence in air of one or more air contaminants in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property. The Puget Sound Clean Air Agency (PSCAA) is the local regulatory agency responsible for air pollution control, including all asbestos, demolition, and renovation work. They conduct job site compliance inspections at the BNC on a regular basis.

HOW DO I CONTROL AIR POLLUTION?

PSCAA requires the use of Best Available Control Technology (BACT) to control fugitive emissions. Fugitive emissions are those emissions (e.g., dust, mist, vapors, fumes) not caught by a capture system. Depending on the project, BACT can be as simple as a light water spray or as complex as a Class I containment. Some examples include:

- ◆ Perform spray painting operations inside a spray enclosure equipped with an overspray emission collection device. If working outdoors, use reasonable methods to confine overspray, such as tarps, shrinkwrap, mobile enclosures, or similar methods.
- ◆ Keep containers of paints or solvents closed unless they are being used.
- ◆ Control dust from construction, road travel, demolition projects, sanding, grinding, concrete work, abrasive blasting, and clean-up work with a BACT such as water spray.

All air pollution control equipment brought to the BNC, such as dust collectors and vacuum recovery units, must be maintained in good working order and maintained per manufacturer's recommendations. Contracting Officers may direct that defectively maintained equipment be secured until adequate repairs are completed.

WHAT IS AIR POLLUTION AND HOW DO I CONTROL IT?

(Continued)

PERMITS

PSCAA requires notification for asbestos removal and demolition projects. Receipt of the processed notification with PSCAA's case number and review signature constitutes a "permit" to start work.

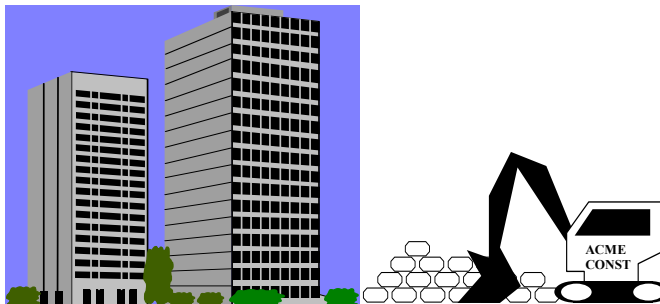
A Notice of Construction (NOC) is required before beginning the installation of new equipment that has the potential for creating air pollution.

The shipyard and NAVSTA Bremerton are under individual air operating permits. Inspections will be conducted by the BNC environmental staff. The permit requires PSNS & IMF and NAVSTA Bremerton to self-report findings of non-compliance to PSCAA and EPA.

MARINE COATINGS

The National Emission Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair (Marine Coating NESHAP) apply at BNC. Only VOC-compliant marine coatings may be used shipboard or on ship's components. No thinning solvents may be added to coatings. Marine coating containers require additional labeling prior to use. Monthly reporting of the types and quantities of marine coatings used is required. Work Practices, such as keeping containers closed when not adding or removing material or waste and using tools or methods to prevent spillage, must be followed. Contact your Contracting Officer for details.

WHAT SHOULD I DO BEFORE I DEMOLISH OR RENOVATE A BUILDING?



BEFORE YOU GET STARTED

PSCAA must be notified at least ten days prior to work for any modifications which include removing, changing, or replacing a load bearing member, or demolishing a structure. *“Load bearing members”* are items like the foundation, a structural beam or wall, or structural roof components. Provide a copy of the approved notification to your Contracting Officer prior to starting work for forwarding to the PSNS & IMF Environment, Safety and Health Office, Code 106.31 for shipyard projects and NAVSTA Bremerton, Code N444.91 for NAVSTA Bremerton projects.

If you have not already done so, obtain or perform an **Asbestos Survey** of the building. The BNC has accomplished asbestos surveys on many of its structures and these may be available for your use. If not, this survey must be performed by a building inspector who is Asbestos Hazard Emergency Response Act (AHERA) certified.



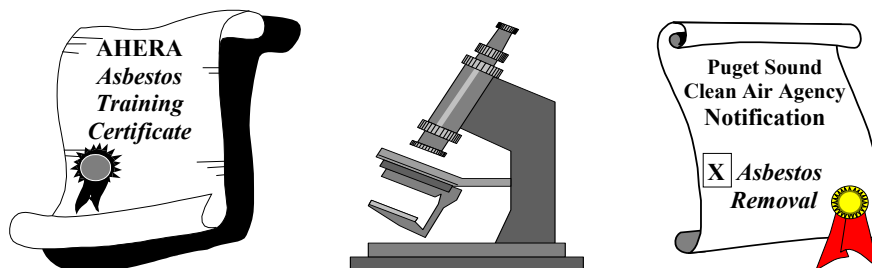
Quick Tip: No asbestos survey is needed if: the material is presumed to contain asbestos; the job is handled as an asbestos project; and the work is done by a certified asbestos worker per AHERA.

WHAT ELSE SHOULD I DO?

PREPARE!!! Planning is an all important key to a project that runs smooth. Please refer to the applicable sections of this guide for information so you know how to:

- ◆ Find out if you need a permit for the type of work you're performing.
- ◆ Eliminate stormwater discharges.
- ◆ Properly control, manage, and recycle or dispose of your solid and hazardous waste.
- ◆ Implement spill prevention and control measures.
- ◆ Properly store excavated material.

WHAT DO I NEED TO KNOW ABOUT ASBESTOS?



If you will disturb asbestos in the performance of this job, please read and understand the following information.

COMPLIANCE

The government is responsible to identify all asbestos which will be removed or is likely to be disturbed. Contractors are responsible to ensure their employees and cognizant work areas are in compliance with the applicable OSHA and PSCAA regulations when working an Asbestos Project. PSCAA defines an Asbestos Project as any activity involving the abatement, renovation, demolition, removal, salvage, clean up, or disposal of asbestos-containing material (ACM), or any other action that disturbs, or is likely to disturb, any ACM (both friable and non-friable).



Quick Tip: Contractor employees performing work on an Asbestos Project must be trained and certified before beginning any asbestos work.

ASBESTOS REMOVAL PERMIT

When the asbestos survey results show, or if you already know, asbestos is present in the building, you must submit a Notification for Asbestos Removal through PSCAA at least ten days prior to start of work. Your approved notification ("permit" to disturb or remove asbestos or perform a demolition) must be in-hand prior to work. Provide a copy of the approved notification to your Contracting Officer prior to starting work. The Contracting Officer shall provide a copy of this permit to the PSNS & IMF Environment, Safety and Health Office, Code 106.31 for shipyard projects and NAVSTA Bremerton, Code N444.91 for NAVSTA Bremerton projects.

ASBESTOS WASTE

Asbestos waste must be transported by a hauler, who is licensed to do so, and disposed at a landfill permitted to receive asbestos waste. The facility must be approved by the Contracting Officer. It is very likely that some type of waste disposal application may be required by the receiving site. An Asbestos Waste Shipment Record (AWSR) is required for the transport and disposal of asbestos. A copy of the AWSR, after the transporter signs and before the waste leaves the base, needs to be provided to Code 106.31 for PSNS&IMF and NAVSTA Bremerton, Code N444.91 for NAVSTA Bremerton projects. A completed AWSR also needs to be provided to the respective environmental office within 25 calendar days from initial shipment.

WHAT DO I NEED TO KNOW ABOUT HISTORICAL PROPERTIES?



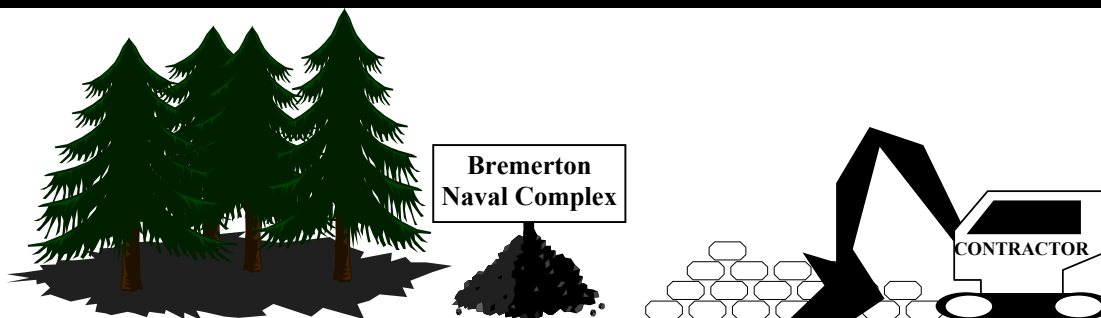
The BNC contains several historic properties, which are included in four separate National Historic Register Districts. There are also some historic structures at Jackson Park Naval Housing. All preservation actions on, within, or adjacent to historical structures or districts must meet professional standards in conservation, history, landscape architecture, and planning. Contractor personnel must meet professional standards, skills and expertise qualifications established by the Secretary of the Interior (36 CFR 800) and professional societies of the disciplines involved.

If a project is likely to change a building, structure, or landscape in any way, change its visual characteristics or change the land use in a historic district, Code 106 (PSNS & IMF Environmental) must be consulted for shipyard projects and NAVSTA Bremerton, Code N45A4 for NAVSTA Bremerton projects. Examples of changes include:

- ◆ New construction in or within 200 feet of a historic district.
- ◆ Demolition of a historic property, removal of historic features of a property, replacement of significant and visible features of a historic property.
- ◆ Re-roofing (even replacement in kind).
- ◆ Excavation for a new electrical duct bank (potential impact to archaeological resources).
- ◆ Addition of sixth floor on Building 850 or 850A (potential visual impact to Officers' Row Historic District).
- ◆ Installation of window type air conditioners.
- ◆ Replacement of windows and doors.
- ◆ Application of paints and sealants (interior and exterior).

A map identifying the properties and districts is available from your Contracting Officer.

WHAT DO I NEED TO KNOW ABOUT EXCAVATIONS?



The BNC was established over 100 years ago. Practices that were considered acceptable in the past have now been changed with regulations. The BNC was placed on the National Priorities List by the EPA in May 1994, and is managed under the Navy's Installation Restoration (IR) Program, similar to the Superfund Clean-Up Program. Based on this listing the BNC was divided into several operable units (OUs), including OUA, OUB, OUC, and OUNSC. In 2002, OUD was created from part of the original OUB.

The Navy has identified specific IR sites where studies have found elevated levels of contaminants. While it is possible to uncover unexpected items during any earth moving or excavation project, you need to be especially aware of this possibility if you are working in an IR site. The BNC has eleven IR sites within the fenceline. There are also some at Jackson Park. Information on the BNC Superfund sites has been placed in the local libraries and at EFA Northwest offices for public review. The information in the library is under the name Puget Sound Naval Shipyard. Contact your Contracting Officer to confirm if your work area is within one of these sites.

EXCAVATION

Take measures to preserve the work area's natural resources. Protect existing trees that are to remain and which may be injured, bruised, defaced, or otherwise damaged by your operations. Confine your construction activities to within the limits of your work site.

- ◆ Restore to an equivalent or improved condition when the job is completed. Do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer's permission, unless they are within the specific area to be cleared. Furthermore, unless you have permission, do not fasten or attach ropes, cables, or guys to existing heavy trees for anchorage. Be advised that if damage occurs where you have had approval to attach these items, you are the responsible party.
- ◆ Upon the Contracting Officer's approval, remove and replace trees and other landscape features scarred or damaged by equipment operations with equivalent undamaged trees and landscape features. Remove displaced rocks from uncleared areas. Remove trees with 30 percent or more of their root systems destroyed.
- ◆ During excavation or any digging or trenching operations, inspect the work site for obvious signs of contamination (e.g., cement asbestos pipe, insulation, cans, drums, stained soil, or strong odors). Telephone in obvious signs of contamination immediately to NESCOM at 911 if dialing from a BNC telephone, from a non-BNC or cellular telephone dial 360-476-2222. Report it as a spill to the NESCOM operator, then notify your Contracting Officer. If you are uncertain, or for questionable items or signs of contamination, immediately notify your Contracting Officer.

WHAT DO I NEED TO KNOW ABOUT EXCAVATIONS?

(continued)



Quick Tip: KEEP YOUR EYES OPEN!!

There are areas of high archeological potential. Excavations in these areas may require an archaeologist on site during excavation activities and State Historic Preservation Officers' consultation.

Check with your Contracting Officer to see if you are working in one of these areas. If you find historical or archaeological items or human skeletal remains in the course of your digging, STOP WORK in the immediate area of the discovery, until directed by the Contracting Officer to resume excavating.

DEWATERING

Dewatering of excavations and vaults on BNC property is rather complex as some areas are contaminated and special requirements apply. Contact your Contracting Officer for further direction if dewatering is anticipated.

SOIL CONTROL AND MANAGEMENT

You need to know if your work will take place in an IR site. This knowledge serves two purposes, one is for health and safety reasons, the other is for determining possible options for excess soil. How much soil will be reused at the same site is also important information. Regardless of where soil is being excavated the following guidance applies for reusable and non-reusable soil at the same worksite, unless otherwise approved by the Contracting Officer.

Soil is reusable at the same work site. Accumulate reusable soil within the same area as the excavation from which it was removed, preferably as near to the excavation as practicable. Create a storage area in the following manner:

- ◆ Underlay the soil accumulation area with a continuous impervious sheet of plastic. Protect the plastic from perforation during loading and handling operations. The thickness of the plastic shall be sufficient to contain the soil, and in no case be less than ten mil. Thicker or reinforced plastic, or other measures, to protect the integrity of the plastic underlayment may be required if there is danger that the plastic will be punctured or torn during soil accumulation. If it is necessary to join two or more sheets of plastic to cover the pile, all seams shall be welded, heat sealed, or taped continuously on both sides of the sheet.
- ◆ Install a berm around the pile so that soil remains in the designated area. The edges of the underlayment must be laid over the top of the berm and secured to prevent water from running under the soil pile.

WHAT DO I NEED TO KNOW ABOUT EXCAVATIONS?

(continued)

- ◆ Install an impervious continuous sheet of plastic, ten mil minimum thickness, over the pile and over the outside of the berm so that rainwater is directed away from the soil inside the berm. If it is necessary to join two or more sheets of plastic to cover the pile, all seams shall be welded, heat sealed, or taped continuously on both sides of the sheet.
- ◆ Secure the top cover sheet to ensure that wind will not balloon the cover or blow it aside leaving the soil exposed to weather.
- ◆ Keep the soil pile covered and secured at all times except when actually adding or removing soil or taking samples.

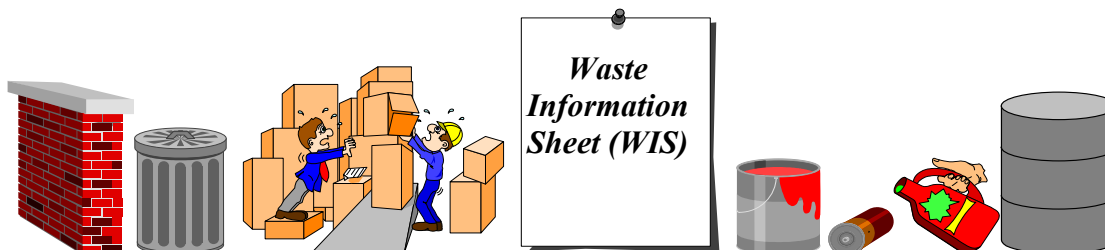
Soil is not reusable at the same work site. Soil may not be reusable due to compaction, excavation needs or other reasons. If this is the case, check with your Contracting Officer to see if it can be used somewhere else at the BNC. This may require testing, depending on where the soil came from and where it will be placed. If not, then it is waste soil and must be designated; see section *"I Actually Have to Plan for All of My Waste?"* Sampling *"in-situ"* (in place) and testing prior to excavation is highly recommended; however, most of the time it is not feasible or cost effective. It eliminates the guess work and you can arrange for the proper disposal site before you excavate. Due to limited storage space it makes your project run smoother when you can direct-load for disposal off-site. However, before you sample, you must submit a **Sampling and Analysis Plan** to the Contracting Officer for approval by shipyard Shop 90HM. Once approved, these tests, at minimum, must be performed.

- ◆ If the presence of petroleum or the type of petroleum is unknown, request the **Washington Total Petroleum Hydrocarbon Identification (WTPH-HCID)**.
- ◆ After completing the test above or when you know the type of petroleum hydrocarbon present, request the WTPH test along with the specific method for that type of petroleum (e.g., gasoline, diesel, or 418.1 modified) to tell you the level of contamination that is there.
- ◆ A Toxicity Characteristic Leaching Procedure (TCLP) metals test (includes arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc) will tell you the levels of heavy metals in the soil. In some situations, a total metals test may be suggested in lieu of the TCLP, but based on the results, a TCLP test may still be required.

Potential Additional Tests: If the soil is in an area, where there is a possibility that PCBs are present in some degree, test for PCBs including Arochlor 1268. Other contaminants are also possible in an IR site, so check with your Contracting Officer. There has been extensive studies and sampling to determine the constituents of concern in each IR site. Remember that information is also available at the local libraries.

Accumulate soil in a container approved by the Contracting Officer. Washington Department of Ecology has determined that plastic sheeting does not meet the definition of a container.

I ACTUALLY HAVE TO “PLAN” FOR ALL OF MY WASTE?



Waste Management Planning is extremely important so you will know how to design your operation for proper control and disposition of all waste that originates from the project. At the BNC, all waste, not just the waste you suspect will be dangerous or hazardous, **must** be designated prior to leaving the Bremerton naval complex. For each waste you expect to produce, actually produce, or encounter during the project, complete and submit a **Waste Information Sheet (WIS)** to your Contracting Officer. The WIS identifies the general characteristics and composition of the waste that serves as the basis for designation. The WIS also provides the Government with a means for waste tracking. Include with the WIS, identifying information such as Material Safety Data Sheets, Asbestos Survey Reports, and other test results. A WIS is not required for sanitary wastes. Contracts vary in assigning responsibility for sampling and analyzing waste. The shipyard retains designation responsibility. The contractor will never designate waste generated at the BNC. In your Environmental Plan you will have already identified your waste streams and the planned final destination for disposal or recycling. Even if your contract did not require an Environmental Plan, the receiving facility for your waste must be approved by the Contracting Officer and those facilities are then included on the WIS. Reuse or recycling, when Government-approved facilities are available, is preferred over disposal in the landfill!



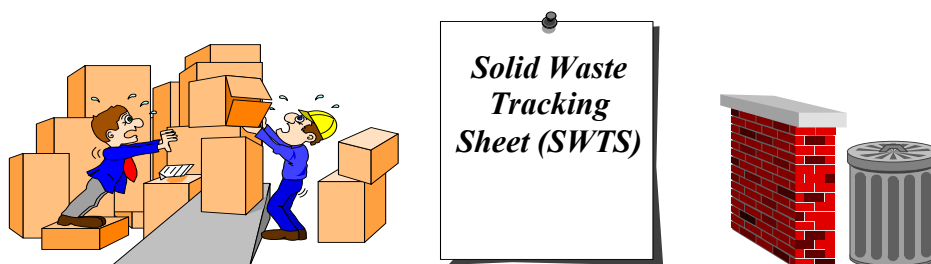
Quick Tip: Designation of waste before it's generated is the best route. Have the proper containers onsite prior to waste generation.

All waste that originates or is generated in the BNC must be designated and tracked . . . **even if the waste is non-hazardous**. This also includes material of Government origin that is planned for reuse, salvage or recycle. If you know which waste streams you will generate ahead of time, have them pre-designated so you won't need to control it as waste awaiting designation.

HOW DO I MANAGE MY WASTE?

IT DEPENDS ON THE TYPE OF WASTE IT IS! If the waste is awaiting designation then it is handled much like hazardous waste. Waste that has been designated dangerous waste has very stringent accumulation requirements. Management of waste awaiting designation and designated dangerous waste are described briefly in this document and more thoroughly in the *Contractor's Guide to Hazardous Waste Compliance*. Go to the next section “How Do I Manage Solid Waste?” for information on solid waste.

HOW DO I MANAGE SOLID WASTE?



This section describes the control, management, and recycling or disposal of solid waste. Remember that **all waste**, including what you probably would think of as “trash,” is designated prior to removal from the BNC. At the BNC, the term “**Solid Waste**” is used to describe designated waste that has **not** been given the designation by the government as “*HW*,” “*PCB*,” or “*Asbestos*.” This term can include construction debris, liquids, and landfill-controlled waste.

CONTROL AND MANAGEMENT

- ◆ Place solid waste in approved, labeled containers, so that it is not stored on the ground.
- ◆ If recycling is an option for a waste stream (e.g., asphalt, concrete, cardboard, scrap metals & unpainted, untreated wood) keep the other types of “trash” out of it!
- ◆ Good housekeeping is important. Keep your solid waste accumulation area, and the surrounding area, clean and free of debris.
- ◆ Remember that liquids are not allowed in the dumpster or at the landfill! Containerize and recycle or dispose of in accordance with the WIS.

DISPOSITION

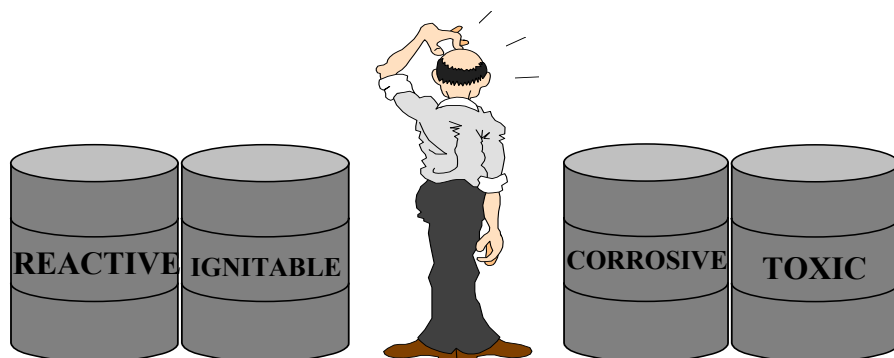
- ◆ Be sure to empty your containers no less than once per week, unless your Contracting Officer has approved a different schedule.
- ◆ Ensure your waste is not taken to any site that has not been approved by the government **prior** to removal from the work site, and ensure your driver takes the waste where you told the government it was going to go (the SWTS will help . . . see “*Tracking*” below).
- ◆ **You** are responsible to ensure no disposal action is taken that can be construed as illegal dumping.
- ◆ Remember that a cover must be in place over the waste while it is being transported.

TRACKING

You will use a ***Solid Waste Tracking Sheet (SWTS)***, a serialized chain-of-custody form, to track each load of solid waste as described above. You must have a completed WIS before you can fill out a SWTS*. **Make sure all SWTSs are returned to you!** At the end of each month, and at the end of the project, complete the *Contractor's Monthly Project Waste Summary Report*, which is a summary of all solid waste removed from the project for that month. Directions are on the back of both forms. Forms are provided by the Contracting Officer. The entire package is then submitted to the Contracting Officer by the 5th day of the following month.

* Certain blocks on the SWTS have numbers that correspond to blocks on the WIS to make it easier to complete.

WHAT IS HAZARDOUS WASTE AND HOW DO I KNOW IF I HAVE ANY?



“Hazardous Waste” is defined and regulated by the Federal Resource Conservation and Recovery Act (RCRA) and by the Washington State Dangerous Waste Regulations, WAC 173-303. **A waste is considered hazardous if it meets certain levels of reactivity, ignitability, corrosivity, or toxicity, or is otherwise listed as a hazardous waste.** Testing of the waste may be required for the designation process. The BNC designates all waste and will inform the Contractor on any required analysis when the contract specifies sampling and analysis as the Contractor’s responsibility. The State of Washington regulates more waste as hazardous than mandated by RCRA, and has adopted the term **“dangerous waste”** to include Federal hazardous waste and Washington’s additional regulated waste. The BNC uses the terms interchangeably, so whenever the term hazardous waste is used, it means all waste regulated by Washington State as a dangerous waste. In general, the regulations address how to identify if a waste is hazardous and the day-to-day management of these wastes for accumulation, containerization, labeling, storage, and disposal.

ACCUMULATION

Hazardous waste must be turned into a trained Accumulation Area Operator for placement in a satellite or 45/90-day accumulation area prior to the end of each work shift. Requirements for secondary containment and locations for accumulation areas are more stringent at the BNC than at other facilities.

TRAINING

All personnel must be taught to perform their duties to ensure compliance with WAC 173-303. Personnel must be taught dangerous waste management procedures relevant to their positions and duties and ensure they are able to respond effectively to emergencies and is referred to as "general awareness" training. Personnel managing an accumulation area must be trained in accordance with WAC 173-303-330 and also complete a facility specific two hour hazardous waste brief. This training must be completed prior to the generation of waste awaiting designation or dangerous waste.

Facility specific procedures must be included in the Contractors written general awareness training plan and are provided in the contract specifications. This guide and the Contractors Guide to Hazardous Waste Compliance amplify the station specific requirements and procedures. The general awareness training must be completed prior to the generation of any waste.

WHAT IS HAZARDOUS WASTE AND HOW DO I KNOW IF I HAVE ANY?

(continued)

TURNING IN YOUR WASTE

If your contract specifies to turn hazardous waste into the government, the procedure will vary depending on the quantity of waste and the project location. Your Contracting Officer will direct you on how to turn it in. You must apply the appropriate government furnished labels (i.e., ID, HW, and DOT) and complete a WIS as soon as the waste is generated. A WIS needs to be completed for each waste stream. Provide any additional information requested by your Contracting Officer in order to properly designate the waste.

UNFORESEEN ENCOUNTERED HAZARDOUS WASTE

The contractor shall immediately contact the Contracting Officer, if unforeseen hazardous waste is encountered. If you feel there is a threat to human health or the environment, or it constitutes an Emergency Spill Event, then call 911 on a BNC telephone, or call 360-476-2222 on a cellular or non-BNC telephone.

WASTE AWAITING DESIGNATION

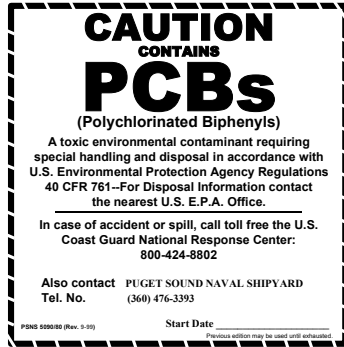
Waste that is not designated must be managed as "*Waste Awaiting Designation.*" The shipyard has an Agreed Order with Washington Department of Ecology that requires the shipyard to control this category of waste much like hazardous waste. Waste awaiting designation must have an ID label applied and placed in a hazardous waste accumulation area prior to the end of the work shift. Complete a WIS to have the waste designated.



***TO GET HELP OR INFORMATION . . .
CALL YOUR CONTRACTING OFFICER!***

The shipyard environmental staff has prepared another document entitled, "*Contractor's Guide to Hazardous Waste Compliance.*" This document provides specific details on how to manage hazardous waste at the BNC.

WHAT DO I NEED TO KNOW ABOUT POLYCHLORINATED BIPHENYLS (PCB)?



Since 1979, the Environmental Protection Agency has regulated the use, storage, disposal, and distribution in commerce of PCBs. The law for PCBs is the Toxic Substance Control Act (TSCA). Most people immediately think about electrical transformers or maybe fluorescent light ballasts.

Light ballast may or may not contain PCB. If they are not marked "No PCB" then they are assumed to contain greater than 50 parts per million (ppm) PCB and are fully regulated under the TSCA. The BNC and Jackson Park no longer have transformers containing greater than 50 ppm PCB; however, some do contain less than that amount. All transformers should be labeled identifying their PCB content. Discarded transformers, capacitors, or bushings containing PCB at concentrations of 2 ppm or greater (except when drained of

all free-flowing liquid) are regulated in this State as dangerous waste. Fluid, core, and core papers from these specific sources are also regulated in this State as a dangerous waste when generated from the salvaging, rebuilding, or discarding of transformers, capacitors, or bushings.

Does your contract involve work onboard a Naval vessel? Due to the seriousness of fire, the Navy specified fire retardancy in most of its specifications. Many manufacturers used PCB to meet these fire retardancy requirements. What type of products? Basically anything with an oil base, such as paints or rubber, anything that has a plasticizer in it, or even the felt gaskets in the ventilation systems. The shipyard has a list of areas and equipment that identifies the presence or potential of PCB's. Contact your Contracting Officer representative.

How does the Navy make a determination whether or not PCBs are an issue on a particular job? If the vessel began its construction before 1984, it is automatically suspected of containing non-liquid PCB. Even though PCBs were banned in 1979, the Navy has found them in items manufactured as late as 1983. Next we look at the type of repair or maintenance that is needed. Are we going to be removing material that is to be disposed? If so, we need to know what it is so that it is managed and disposed of per the requirements of TSCA.

Depending on the contract specifications, the contractor or the shipyard will take samples of materials that have shown in the past (on other vessels) to contain PCBs above the regulatory limit of 50 ppm. Once the analysis from these samples is available, a plan should be developed which includes how to manage and dispose of the waste. If the vessel has previously been maintained at PSNS & IMF or Naval Station Bremerton, historical sample data may be used to make this determination. Be sure to submit a Waste Information Sheet to Shop 90HM for designation of your waste. Responsibilities for disposal should be specified in the contract. The process for the management, transport, and disposal of PCBs is similar to dangerous waste (e.g., accumulation requirements, time limits, and manifests).

TELEPHONE LIST

EMERGENCIES (Medical Assistance, Fire, Flooding, Emergency Spill Response, etc.):

When using a BNC telephone 911
When using a non-BNC telephone system 360-476-2222

CONTRACTING OFFICES

EFA-NW Bremerton ROICC, Building 467 360-476-8130
or 360-476-4552
EFA-NW Silverdale Field Office 360-396-6844
Supervisor of Shipbuilding (SUPSHIP) 360-476-4326
Fleet and Industrial Supply Center (FISC) 360-476-4289
NAVSTA Bremerton, Contract Oversight (QAE) 360-476-7947

BNC ENVIRONMENTAL POINTS OF CONTACT (For Contracting Officer use):

<u>PROGRAM</u>	<u>SHIPYARD</u>	<u>NAVSTA BREMERTON</u>
Air (Permits/Discharges/ODS)*	360-476-0124	
Asbestos	360-476-4699	360-476-4744
Contracts Support	360-476-0136	360-476-6691
Hazardous Material*	360-476-4364	
Hazardous Waste (HW)	360-476-5734	360-476-6067
Historical/Natural Resources	360-476-4049	360-476-6691
Installation Restoration	360-476-2630	360-476-6691
PCBs	360-476-0127	360-476-6067
Solid Waste*		360-476-6067
Spill Prevention and Response*	360-476-1842	
Water Quality and		
Stormwater/Sewer Discharge	360-476-0118	360-476-6614

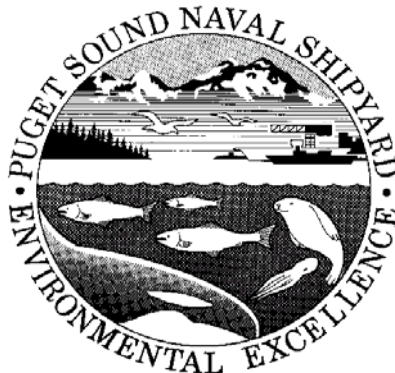
**Program is managed for all of the BNC by the activity whose phone number is listed.*

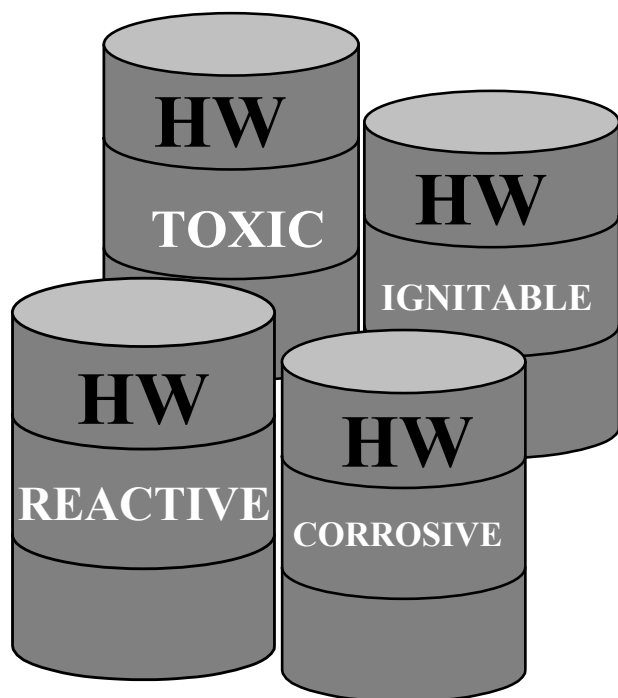
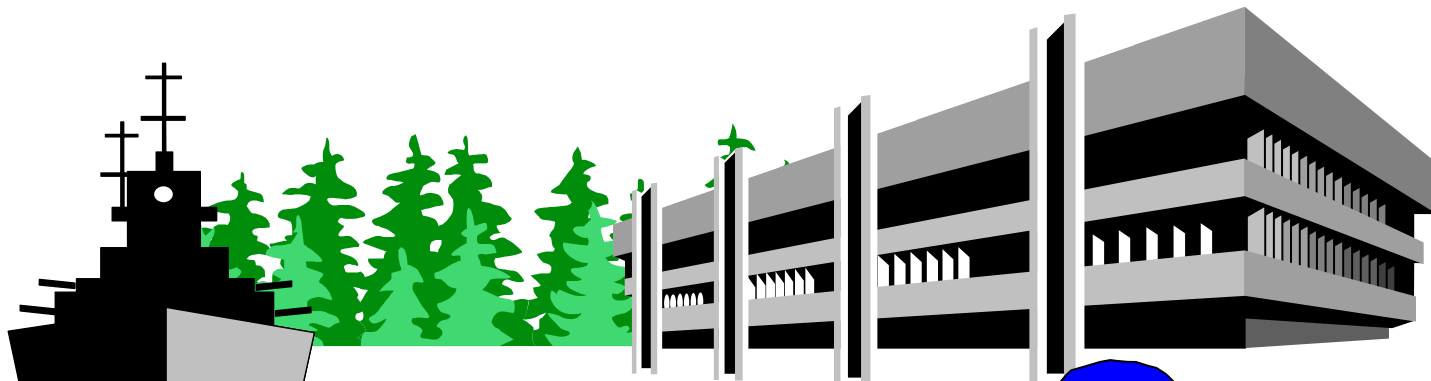
BNC ENVIRONMENTAL SERVICES (For Contracting Officer Use):

Waste Designation** 360-476-8612
HW/PCB (Containers/Labels/Turn-In (B-367)** 360-476-7777

***Services provided for all of the BNC.*

HELP SAVE OUR ENVIRONMENT





Contractor's Guide to Hazardous Waste Compliance

Contractor's Guide to Hazardous Waste Compliance

PSNS&IMF P5090(5) (Rev. 11-03)

Prepared by the Environmental Division, Code 106.3

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Date

Reviewed By: L. A. Cole
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Director, Environment, Safety and Health Office

3/1/04
Date

ENVIRONMENT, SAFETY AND HEALTH OFFICE



PUGET SOUND NAVAL SHIPYARD AND
INTERMEDIATE MAINTENANCE FACILITY
Bremerton, Washington

ABOUT THIS GUIDE



The ***Contractor's Guide to Hazardous Waste Compliance*** at Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF) and Naval Station (NAVSTA) Bremerton, herein referred to as the Bremerton naval complex (BNC), is designed to meet the information needs of contractors working at the BNC. Puget Sound Naval Shipyard integrated with Intermediate Maintenance Facility Northwest and is now named Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF). This guide is only applicable to the

Controlled Industrial Area (CIA) of PSNS & IMF and Naval Station Bremerton. This is also a useful tool for other personnel, such as Contracting Officers and design managers, who will very likely find themselves confronted with one or more hazardous waste issues involving contractor-generated waste. Throughout this guide, the term "Contracting Officer" also includes the representatives of the Contracting Officer.

This guide is the second revision to the original one, which was issued in August 1997. This revision was made to replace information regarding a three day classroom course provided by the BNC with a two hour brief. It also adds environmental points of contact for Naval Station Bremerton.

Intended as a "*primer*" on hazardous waste regulations and BNC policies and procedures, this guide is structured around questions you need answered and issues you need to know about. This guide amplifies station specific procedures to meet the Government's responsibilities under WAC 173-303-330. The contractor is still responsible for training all their personnel on the applicable Washington State, Federal, and BNC specific regulations.

The information provided offers a level of detail needed for basic knowledge of key hazardous waste issues. This knowledge will better enable you to work with your Contracting Officer and the environmental personnel in the BNC, and help you develop and maintain the most efficient and effective Hazardous Waste Program possible while performing your task.

If you have any questions concerning the information provided, do not hesitate to call your Contracting Officer. Telephone numbers for the BNC's designated points of contact are provided in this guide, for Contracting Officers use.

Disclaimer: Each contractor is responsible for compliance with all contractual requirements, including compliance with all applicable Federal, State, and local environmental requirements, as well as BNC environmental requirements as specified in the contract. This document is provided for general awareness only. It remains the contractor's duty to comply with all applicable laws, and this guide alone cannot assure such compliance. To the extent the requirements of this document are in direct conflict with the contract specifications, the contract specifications control. If the contractor believes this guidance conflicts with the contract specifications, the issue should be discussed with the Contracting Officer in order to avoid violating relevant environmental laws.

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Asbestos	360-476-4699	360-476-4744
Contracts Support	360-476-0136	360-476-6691
Hazardous Material*	360-476-4364	
Hazardous Waste (HW)	360-476-5734	360-476-6067
Historical/Natural Resources	360-476-4049	360-476-6691
Installation Restoration	360-476-2630	360-476-6091
PCBs	360-476-0127	360-476-6067
Solid Waste*		360-476-6067
Spill Prevention and Response*	360-476-1842	
Water Quality and Stormwater/Sewer Discharge	360-476-0118	360-476-6614

**Program is managed for all of the BNC by the activity whose phone number is listed.*

BNC ENVIRONMENTAL SERVICES (For Contracting Officer Use):

Waste Designation**	360-476-8612
HW/PCB (Containers/Labels/Turn-In (B-367)**	360-476-7777

***Services provided for all of the BNC.*

Bremerton naval complex

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INTRODUCTION

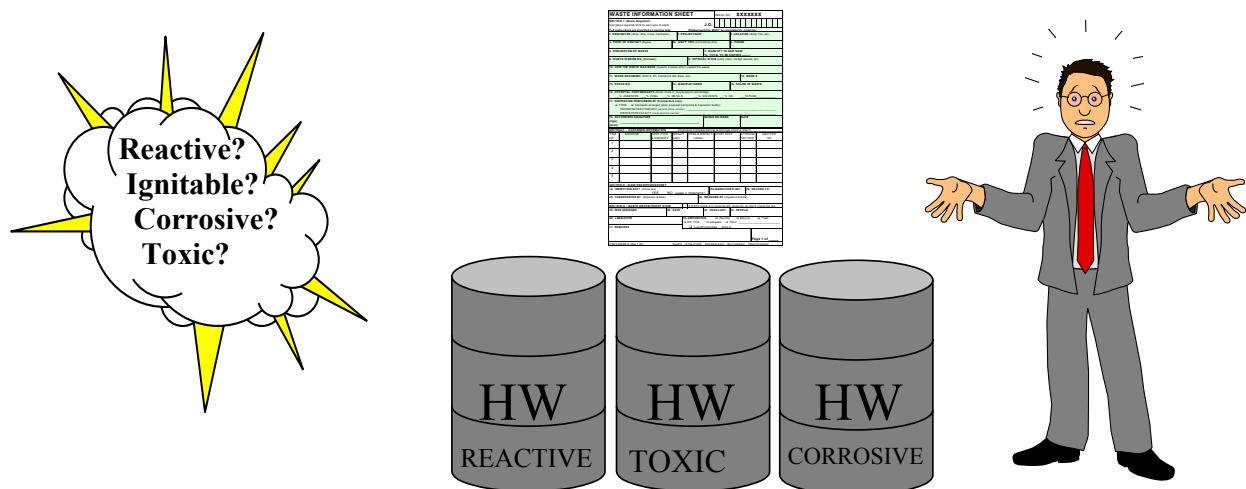


The Chief of Naval Operations (CNO) has defined the Navy's environmental vision to be "*a Navy recognized as an environmental leader while effectively executing naval operations.*" The Navy is committed to operating in a manner compatible with the environment. National Defense and environmental protection are, and must be, compatible goals. An important part of the BNC's mission is to prevent pollution and protect the environment.

To fulfill this vision, you (as a Navy-employed contractor) must provide the personal commitment to develop an environmental protection ethic. Environmental regulations have increased exponentially in recent years. Specific to hazardous waste, the BNC operates as a fully-regulated, large quantity generator. The BNC has implemented unique requirements in the area of accumulation for waste management. Compliance with the hazardous waste regulations and BNC rules requires specialized knowledge or expertise. PSNS & IMF (Code 106.33) and NAVSTA Bremerton (Code N45A4) provide the hazardous waste support for their respective facility. Rather than re-iterating these organizations throughout the guide we have used the phrase "base environmental office".

All Navy personnel, including contractors working for the Navy, shall comply with all applicable Federal, State, local, and internal BNC hazardous waste requirements as specified in the contract.

WHAT IS HAZARDOUS WASTE AND HOW DO I KNOW IF I HAVE ANY?



“Hazardous Waste” is defined and regulated by the Federal Resource Conservation and Recovery Act (RCRA) and by the Washington State Dangerous Waste Regulations (WAC 173-303). A copy of the WAC may be obtained by contacting the Washington Department of Ecology Records Center at (360) 407-6038. The WAC is also available at website: <http://www.ecy.wa.gov/biblio/wac173303.html>. A waste is considered hazardous if it meets certain levels of reactivity, ignitability, corrosivity, or toxicity, or is otherwise listed as a hazardous waste. The State of Washington regulates more waste as hazardous than mandated by RCRA and uses the term *“dangerous waste.”* The BNC uses the terms *hazardous* and *dangerous* waste synonymously. In general, the regulations address how to identify if a waste is hazardous and the day-to-day management of these wastes for accumulation, containerization, labeling, storage, and disposal.



Quick Tip: Try to Have Waste Designated BEFORE it's Generated....

All waste that originates or is generated in the BNC must be identified, designated, and tracked ... **even if the waste is non-hazardous**. Shop 90HM designates all waste generated at the BNC. This is accomplished by the submittal of a Waste Information Sheet (see page 3) through your Contracting Officer. In completing Section 1, Block 1, state the Prime contractor's name. A subcontractor's name, who is actually producing the waste, can be identified following the prime's name. Block 5 is for the phone number of the Prime contractor. If your waste streams are determined before you create them, it eliminates having to control everything as **“Waste Awaiting Designation.”** Once a waste stream is established it is added to the Waste Stream Dictionary. The dictionary is a listing of all designated waste streams for the BNC, including common trash. Contractors will work from their WISs and are not provided the Waste Stream Dictionary.



Quick Tip: Shop 90HM Designates ALL Waste.

WASTE INFORMATION SHEET (WIS)

PSNS 4855/612 (Rev. 4-00) (Front)

FOR ILLUSTRATION PURPOSES ONLY - DO NOT REPRODUCE

WASTE INFORMATION SHEET				SERIAL NO. XXXXXXX			
SECTION I (Waste Originator) Complete a separate WIS for each type of waste. J.O. Full instructions are provided on reverse side Shaded sections MUST be completed by originator							
1. ORIGINATOR (Shop, Ship, Code, Contractor) PRIME/SUB-CONTRACTOR		2. PROJECT/SHIP		3. LOCATION (Bldg, Pier, etc)			
4. POINT OF CONTACT (Name)		4a. GOV'T POC (Contractors only)		5. PHONE PRIME			
6. DESCRIPTION OF WASTE				7. QUANTITY TO SHIP NOW: 7a. TOTAL TO BE SHIPPED (approx):			
8. WASTE STREAM NO. (If known)			9. PHYSICAL STATE (solid, liquid, sludge, aerosol, etc)				
10. HOW THE WASTE WAS MADE (Specific process which created this waste)							
11. WORK DOCUMENT (DOC #, IPI, Contract #, MIL Spec, etc)						12. MSDS #	
13. STOCK NO.		14. MANUFACTURER		15. COLOR OF WASTE			
16. POTENTIAL CONTAMINANTS (Either check or include approx percentage) % ASBESTOS % PCBs % METALS % SOLVENTS % OIL % OTHER							
17. DISPOSITION PERFORMED BY (Contractors only) q PSNS q Contractor-arranged (enter proposed transporter & disposition facility) TRANSPORTER COMPANY (name & phone number) _____ DISPOSITION FACILITY (name & phone number) _____							
18. AUTHORIZED SIGNATURE (sign) _____ (print) _____				BADGE NO./RANK		DATE	
SECTION II - CONTAINER INFORMATION (Originators Complete barcode & cont type columns ONLY)							
ITEM NO.	BARCODE	CONT TYPE & CAPACITY	WEIGHT (LBS)	OPEN & INSPECT (initials)	START DATE	STORAGE SECTION	ANALYSIS NO.
1							
2							
3							
4							
5							
SECTION III - 90HM RECEIPT/INVENTORY							
19. INSPECTION SAT? (Circle one) YES NO (explain in "REMARKS")				19a INSPECTOR'S INIT		20. DELIVER TO:	
22. TRANSPORTED BY (Signature & Date)				22. RECEIVED BY (Signature & Date)			
SECTION IV - WASTE DISPOSITION BY 90HM				If WSN in block 8 is correct & tech resolution not req'd, check this box			
25. WSN ASSIGNED		26. DATE		27. TECH'S INIT		28. PROFILE	
29. LABELS/PPE				30. DISPOSITION: q Reutilize q Recycle q Trash q HW, PCB q Asbestos q Other _____ q Landfill Controlled - WDA # _____			
31. REMARKS							
						Page 1 of	
PSNS 4855/612 (1(Rev. 4-00) Routing: White: 90HM Pink: Data Entry Blue: Handlers Yellow: Originator							

WASTE INFORMATION SHEET (WIS)

PSNS 4855/612 (Rev. 4-00) (Back)

FOR ILLUSTRATION PURPOSES ONLY - DO NOT REPRODUCE

Waste Information Sheet (WIS) Instructions

GENERAL: THIS PAGE PROVIDES BLOCK BY BLOCK INSTRUCTIONS FOR THE ORIGINATOR. NOTE THE FOLLOWING:

- Originators are to complete all sections which are shaded in gray. Enter "N/A" if a block is not applicable.
- A Job Order Number **must** be provided on **all** WISs turned into Shop 90HM. A section is provided in the upper right hand corner of the form for the Job Order Number. WISs **will not** be accepted without a Job Order Number.
- Please write legibly and press hard enough to clearly imprint on all copies.

SECTION I

1. ORIGINATOR - This is the organization which is directly creating the waste material. Examples: "C/350"; "S/72"; "ACME Painting".
2. PROJECT/SHIP - Enter the general project or job that is creating the waste. Examples might include: "CVN-72"; "BEQ construction"; "Farragut Ave repair"; "S/71" (used in the case of general Shop work).

3. LOCATION - Record the location where the process occurred which created the waste. Be as specific as possible. Examples include: "Sump room - Bldg. 427"; "south end DD3"; "corner of Huey and Duey St."

4. POINT OF CONTACT - Write the name of the person who is sufficiently knowledgeable to answer questions concerning the waste generation process. This person may be military, civilian, or contractor.

4a. GOV'T POC (Contractors only) - THIS BLOCK IS FOR CONTRACTORS ONLY! List a government point of contact. This is the government person who is the contracting officer's representative.

5. PHONE - List the phone number for the primary point of contact listed in **block 4**. If this is not a Shipyard phone number, include the area code.

6. DESCRIPTION OF WASTE - This block should be the same as, or very similar to, the "MATERIAL CONTENTS" section of the ID label located on the waste container.

7. QUANTITY TO SHIP NOW - List the actual amount of material to be shipped now. The quantity should be described in terms of the smallest container contained in the transport package. For example a 5-gallon drum full of tubes might say "63 - 25 oz tubes" where as a 55-gallon drum full of liquid would simply say "1- 55 gal drum".

7a. TOTAL TO BE SHIPPED - This info is used by 90HM for planning purposes. If you are doing a defined project where waste will be shipped to 90HM at various times, ESTIMATE the total quantity of waste to be generated over the life of the project. If this number is unknown or if the project is a very long term or perpetual project, mark this area "N/A".

8. WASTE STREAM NUMBER - If the waste has an established waste stream number, indicate the number here. If the waste is a new waste stream or if you are not sure, indicate "Unknown" here.

9. PHYSICAL STATE - Describe the waste from a standpoint of what you would see, smell, and/or feel if you were to open the waste and look at it. Examples might include "Thick brown sludge" or "clear oily liquid w/ banana scent" or "white paste in tubes".

10. HOW THE WASTE WAS MADE - Describe the process which created the waste. Be as specific as space allows. Examples might include "mild steel water jet cutting" or "removal of dirt, Phys Fitness Center" or "Wiping grease from arresting gear cables" or "excess from pattern gluing". The words "excess" and "expired" are not processes. Use these words in conjunction with the process for which they were intended.

11. WORK DOCUMENT - Indicate the document which governs the work process generating the waste. This might be a contract, an IPI, a MILSPEC, an ASTM, an instruction, or any other type of document.

12. MSDS - List the Material Safety Data Sheet number or numbers for hazardous materials which make up the waste.

13. STOCK NO. - List the stock number or stock numbers of the material(s) obtained through the Federal Supply System which make up the waste. If possible include the FSN and the NIIN.

14. MANUFACTURER - Indicate the manufacturer of the material which makes up the waste.

15. COLOR OF WASTE - Indicate the color of the waste. Examples: "milky white"; "black"; "grayish".

16. POTENTIAL CONTAMINANTS - Indicate potential contaminants which you believe MAY be in the waste.

17. DISPOSITION PERFORMED BY - This section is for contractors ONLY. Check "PSNS" if your contract states to turn your waste over to the Shipyard for disposal. Check "Contractor-arranged" if you will be disposing of the waste using non-government resources. If "Contractor-arranged" is checked, indicate the name and phone number of the planned transporter and disposition facility.

18. AUTHORIZED SIGNATURE - This is the person who is authorized by the originator's command or company to request and sign for HW commitments.

SECTION II

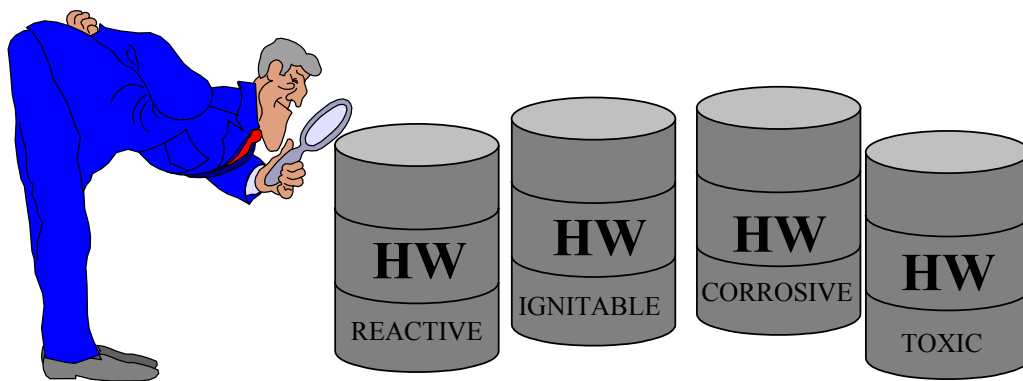
"BARCODE" column - Enter the BARCODE of each container of waste. PLEASE WRITE CLEARLY. If you have more than 6 containers use a continuation sheet(s) or additional WIS(s).

"CONT TYPE & CAPACITY" column - Enter the type and capacity of each container being shipped. The following codes can be used to abbreviate some container types.

CODE	TYPE	CODE	TYPE	CODE	TYPE
CY	Cylinder	DF	Fiber drum or poly drum	DT	Dump Truck
CF	Fiber box or carton	DM	Metal drum	TP	Portable Tank

EXAMPLE - "55g DM" is a 55 gallon metal drum, 5g Can is a 5 gallon can.

WHY IS HAZARDOUS WASTE COMPLIANCE SO IMPORTANT?



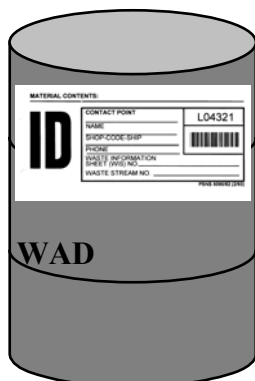
“Hazardous Waste Compliance” means conformance to the many regulations and BNC requirements.

Hazardous Waste Compliance may be costly, but it’s a responsibility you must plan for and accept as a cost of doing business at Naval facilities, such as PSNS & IMF and Naval Station Bremerton, or any of their tenants. You can be assured, **non-compliance will be very costly**, and will not be tolerated by the BNC or the regulators. Prime and sub-contractors have been cited, and can be fined, by Washington Department of Ecology for violations of dangerous waste regulations.

While your project may extend across several individual aspects of the BNC and Navy mission, there is one area of responsibility that impacts virtually every one of your actions and operations: **the environment**. The Secretary of the Navy’s policy emphasized that *“the Navy is fully committed to strict compliance with all applicable requirements.”* In order for you to comply, you must have a solid understanding of the BNC’s Hazardous Waste Program, as well as Federal and Washington State requirements.

Proper coordination and operations at the BNC are not only needed for compliance reasons, they also benefit your project by preventing time delays or operational shutdowns, and improve public relations. To this end, you must take a proactive approach to policies, procedures, and operations.

HOW DO I MANAGE WASTE AWAITING DESIGNATION?

A form titled 'WASTE INFORMATION SHEET' with a header section for 'WIS NO.' and 'DATE'. Below this are several sections with checkboxes and text boxes, including 'Waste Description', 'Waste Quantity', 'Waste Characteristics', 'Waste Handling', 'Waste Storage', 'Waste Disposal', and 'Waste Management'. The form is designed for detailed record-keeping of waste management activities.

Waste that has **not** been designated by the PSNS & IMF, Shop 90HM, must be managed as **“Waste Awaiting Designation.”** The BNC requires *Waste Awaiting Designation (WAD)* to be labeled with an ID label, PSNS 5090/82 (2-93) and be controlled much like hazardous waste. WAD is required to be containerized and managed in a Satellite or 45/90-Day accumulation area prior to the end of the work shift. Submit a WIS to the Contracting Officer for government designation within one day of generating the waste. Once designation of the waste has been completed, additional labels and management will take place as dictated by the designation.

CONTAINER USE AND MANAGEMENT FOR WAD

Containers must be:

- ◆ In good condition and non-leaking.
- ◆ Compatible with the waste being placed in them.
- ◆ Closed at all times, except when waste is being added.
- ◆ Labeled with an ID label, PSNS 5090/82 (2-93) and include the word “WAD.”
- ◆ Positioned so the ID label is visible for inspection.
- ◆ Physically segregated from containers of designated hazardous waste.

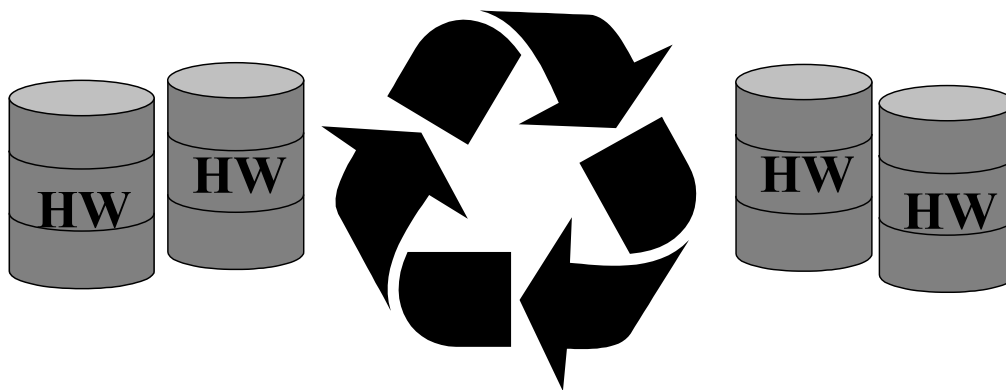


Quick Tip: Waste Awaiting Designation has much the same controls as hazardous waste.



Quick Tip: A waste stream number will not be assigned to WAD until the full Government designation has been completed.

CAN I RECYCLE MY HAZARDOUS WASTE?



Some hazardous waste can be recycled. **Hazardous Waste Minimization** is a Federal requirement and is one of the BNC's top priorities. Recycling is one tool to help minimize waste. The regulations vary on how waste must be managed prior to recycling, depending on the waste itself. The most common categories for recycling are:

- (1) Specifically regulated recyclable materials. These are recyclable materials regulated under their own respective sections of WAC 173-303 (e.g., spent lead-acid batteries).
- (2) Recyclable materials that are not regulated. These are materials that are not reclaimed prior to use, reuse, or returned to the original process.
- (3) Recyclable materials that are fully regulated. These materials are fully regulated up to the point when they actually enter the recycling process that recycles the material.

The majority of waste that is destined for recycling must still be controlled as hazardous waste until the point that it is reclaimed.

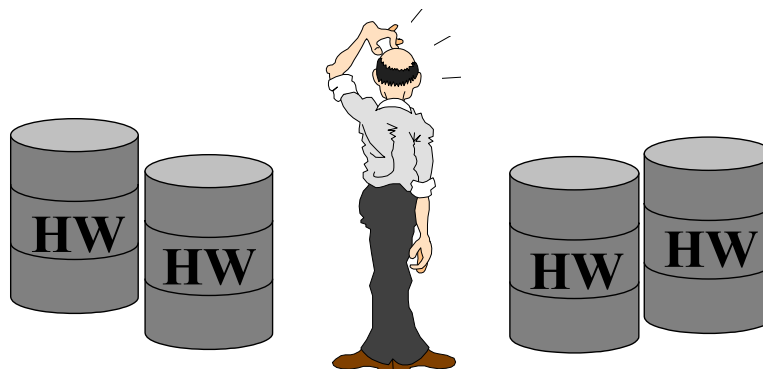


Quick Tip: Do not confuse treatment with reclamation. Treatment is intended to make a waste non-hazardous or less hazardous before final disposal. Reclamation is done for the purpose of recovering and recycling usable materials. Stay clear of “sham recycling,” which is treatment or disposal posing as recycling. Washington Department of Ecology has an excellent publication titled “Regulation of Dangerous Wastes Being Recycled,” Publication No. 91-46 (Revised Feb 94).



Quick Tip: The BNC does not utilize the Universal Waste Regulation, WAC 173-303-573.

WILL I BE HANDLING AND DISPOSING OF THE WASTE PRODUCED FROM MY JOB?



Responsibilities and BNC specific requirements and procedures for the on-site management and disposal of waste are specified in your contract. This does not relieve the contractor, or its employees, of the responsibility of knowing and following all applicable State and Federal regulations related to hazardous waste. If they are not, have your Contracting Officer contact the base environmental office. If your contract specifies that you will be disposing of your waste, PSNS & IMF Shop 90HM still must designate the waste, approve the profiles, and prepare and sign the **Uniform Hazardous Waste Manifest** for all shipments. Your designated transporter, as well as your Treatment, Storage, and Disposal Facility (TSDF) must be selected from the facilities and transporters listed as qualified by the Defense Reutilization and Marketing Service (DRMS). Facilities can be found on the DRMS website at <http://www.drms.dla.mil/environmental/qualfac.pdf> and <http://www.drms.dla.mil/environmental/qualtran.pdf>, respectively.

All personnel must be taught to perform their duties to ensure compliance with WAC 173-303. Personnel must be taught dangerous waste management procedures relevant to their positions and duties and ensure they are able to respond effectively to emergencies referred to as 'general awareness training'. Personnel managing an accumulation area are titled "Accumulation Area Operator (AAO)", and must be trained in accordance with WAC 173-303-330 and attend a two hour facility specific course, provided by PSNS & IMF Code 106.ESH. This training must be completed prior to generation of waste awaiting designation and dangerous waste.

Facility specific procedures must be included in the contractors written general awareness training plan for all employees and are provided in the contract specifications. This guide and the *Contractors Guide to Environmental Compliance* amplify the station specific requirements and procedures. All contractor personnel responsible for the generation, accumulation, or transportation of hazardous waste must be fully trained on all relevant Washington State, Federal, and BNC specific regulations prior to the generation of waste.



Quick Tip: The Navy is jointly responsible for all waste generated within its boundaries. You are considered a co-generator of the waste, and as such are liable for your actions. We want you to be successful in this project!



Quick Tip: Be prepared with questions at the pre-con or start up meeting and/or the environmental meeting to discuss proper handling and disposal of waste.



Quick Tip: Do not rely solely on this guide for all hazardous waste requirements. You must be trained in and understand WAC 173-303.

WHAT ARE THE LABELING REQUIREMENTS FOR HAZARDOUS WASTE?



The BNC requires that all known hazardous wastes have an *ID Label*, PSNS 5090/82 (2-93), on the accumulation container(s). All other required labels, such as the *Hazardous Waste Label*, PSNS 5090/81 (Rev. 4-00) or *Washington Dangerous Waste Label*, PSNS 5090/183 (5-00), and any applicable DOT label(s), as well as any additional labels specified in the WIS, must be applied to the containers immediately. The DOT label is used by the BNC to identify the hazard(s) associated with the waste. WSW will be the term used when Washington Dangerous Waste Label is required. Other labels may be required depending on the type of waste and if the BNC will be disposing of it. A labeling flowchart on the next page helps clarify these requirements. The completed WIS will specify all required labels. The Government will supply all the labels for you . . . just ask!



Quick Tip: The WIS (section IV, block 29) will specify all the required labels for your waste... including any labeling requirements for non-hazardous waste.

MATERIAL CONTENTS:

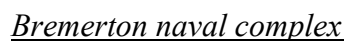
ID	CONTACT POINT	L04321
	NAME	
	SHOP-CODE-SHIP	
	PHONE	
	WASTE INFORMATION SHEET (WIS) NO	
	WASTE STREAM NO	

PSNS 5090/82 (2/93)

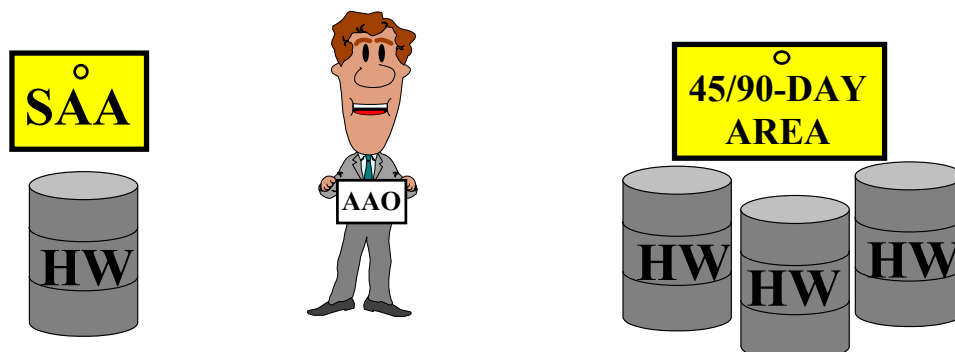


LABEL TO BE APPLIED WHEN IDENTIFIED AS A NON-HAZARDOUS WASHINGTON STATE ONLY DOW. WASHINGTON STATE DANGEROUS WASTE Rev. WASHSTATE/PUGETSOUND/PSNS/5 STATE LAW PROHIBITS IMPROPER DISPOSAL. IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY, AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.	
NAME: PUGET SOUND NAVAL SHIPYARD SHOP 801M ADDRESS: 1400 FARRAGUT AVE. CITY: BREMERTON STATE: WA ZIP: 98314-5001 TELEPHONE (24 HRS/DAY): (206) 476-3393 EPA ID NO.: WA2170023418 START DATE: _____ HANDLE WITH CARE! PSNS 5090/183 (5-00) (OP 11-0-00)	

LABEL TO BE APPLIED WHEN IDENTIFIED AS HAZARDOUS WASTE. HAZARDOUS WASTE STATE AND FEDERAL LAW PROHIBITS IMPROPER DISPOSAL. IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY, AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, AND THE GENERATOR.	
NAME: PUGET SOUND NAVAL SHIPYARD C/910C.21 ADDRESS: 1400 FARRAGUT AVE. CITY: BREMERTON STATE: WA ZIP: 98314-5001 TELEPHONE (24 HRS/DAY): (206) 476-3393 EPA ID NO.: WA2170023418 START DATE: _____ HANDLE WITH CARE! PSNS 5090/81 (4-00)	



HOW DO I ACCUMULATE MY WASTE WHEN I'M THE ACCUMULATION AREA OPERATOR?



There are two types of accumulation areas:

- ◆ The **Satellite Accumulation Area (SAA)** is an area at or near the point of origination. The waste must be secure, properly containerized, and labeled. There are time and quantity limits with SAAs, which are explained in this guide on page 14 and can also be found in WAC 173-303. The form used by the BNC for registration is provided on page 15.
- ◆ The **45/90-Day Accumulation Areas** have no quantity limits but have substantially more requirements than an SAA. The Dangerous Waste Regulations, WAC 173-303-200 provides state requirements, and your contract specifications provide additional requirements. The form used by the BNC for certification is provided on pages 19 and 20.

Your contract specification will specify if you are responsible for managing an accumulation area. This guide provides the majority of the information needed for accumulation. There are more stringent requirements at the BNC for satellite accumulation than you'll find at other facilities or in the state regulation. Violation of these requirements is the same as violating any other standard regulatory requirement. These additional requirements include the secondary containment, location restrictions, SAA registration, and signs. These are all explained in this guide and your contract specification.



Quick Tip: The base environmental office can answer your questions on accumulation areas, but be sure to work through your Contracting Officer.



Quick Tip: Accumulation areas need to be approved prior to waste generation.



Quick Tip: Waste generated onboard large shipboard projects normally will be turned in to a shipboard HazWorld prior to the end of each shift.



Quick Tip: Waste generated in dry docks or pierside must NOT be taken onboard ship. All waste generated OFF HULL must be managed OFF HULL-NO EXCEPTIONS,

SATELLITE ACCUMULATION AREA (SAA) REQUIREMENTS



Getting Started: The following information guides you through the basic *Satellite Accumulation Area (SAA)* requirements.

1. Contact your Contracting Officer for labels and *Waste Information Sheets, PSNS 4855/612 (Rev. 4-00)*. A sample WIS form is included on pages 3 and 4. Your Contracting Officer can provide assistance on filling out Section 1 of the WIS so your waste stream can be designated. The Government also provides containers if the BNC is disposing of the waste. The Contracting Officer obtains all these items by contacting Shop 90HM.

The WIS provides information about your waste that you will need to know.

- ◆ *Labeling*
- ◆ *Description of Waste*
- ◆ *Designation*
- ◆ *Final Disposition*

2. Contact your Contracting Officer for a form, *Contractor Request for Hazardous Waste Satellite Accumulation Area Registration, PSNS 5090/136 (Rev. 4-00)*. Submit the registration form when you are ready for your SAA to be registered and prior to generating any waste. Personnel from the base environmental office will come to the worksite within one workday to approve the registration. If any of the information on the registration form changes during the life of the SAA, including closure, the Contracting Officer must be notified and the information forwarded to the base environmental office.

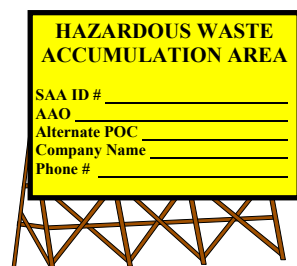
3. Unknown Waste. Anyone discovering an unknown waste **must immediately contact their Contracting Officer** for disposition. If you feel there is a threat to human health or the environment, or it constitutes an Emergency Spill Event, then call 911 on a BNC telephone, or 360-476-2222 on a cellular or non-BNC telephone. **Do not store Unknown Waste in an SAA.** The discoverer shall immediately apply an *ID Label, PSNS 5090/82*, and identify the contents as **“UNKNOWN.”** (Do this **only** if you can do so without increased risk to yourself or others.) Your Contracting Officer will work with the base environmental office and Shop 90HM.



Quick Tip: Keep your Contracting Officer informed on any change of information provided on the registration form. This includes closure.

SATELLITE ACCUMULATION AREA REQUIREMENTS

(Continued)



Setting Up Your SAA:

1. Signs. SAA signs are required for any SAA that is in operation for seven days or more.

Contact your Contracting Officer for a Hazardous Waste Accumulation Area sign. Signs are available from the base environmental office. The sign has information blanks in which you identify the SAA ID#, Accumulation Area Operator (AAO), alternate Point of Contact (POC), company name, and phone number. Write this information on the sign with a grease pencil. Post the sign so it is visible from a distance of 25 feet.

2. Labels. All containers of hazardous waste must have the following labels: *ID Label (PSNS 5090/82), HW Label (PSNS 5090/81) or WSW Label (PSNS 5090/183), applicable DOT Label*, and any additional labels specified on the WIS. ID labels must be filled in completely. Hazardous waste labels must be clearly visible. All labels are to be applied immediately and should be placed on the upper one-third of the container.

3. Location. Containers of ignitable or reactive hazardous waste must be located 50 feet from the Bremerton Naval Complex fence line, unless waste is locked in a building or is in transit. Consideration must be given for forklift and/or crane access for waste pickup when looking at a potential SAA location. Remember, the first criteria for an SAA is “*at or near*” the point of waste generation. Your Contracting Officer will work with the PSNS & IMF Code 106.33 or NAVSTA Bremerton N45A4 for approval.

4. Security. The AAO is responsible for ensuring that the SAA is secure or under their control to prevent improper mixing or unauthorized addition of waste to the containers. SAAs located outside of buildings must be under the control of the AAO or secured by lock. A drum with a lid secured by a mechanically tightened ring and bolt, or a drum with a wrench-tight bung top, is considered locked and secure. Other methods of securing the area must be approved, in writing, by the Contracting Officer who will work with the base environmental office approval. SAAs on piers or other over-the-water worksites must be attended by the AAO at all times.

5. Incompatibles. Containers of incompatible waste **must** be physically separated (e.g., bermed). If in doubt about compatibility, contact your Contracting Officer who will work with Shop 90HM.

6. Flammables/Reactives. Accumulate flammable, combustible, or reactive waste per local fire code, in addition to the hazardous waste requirements.



Quick Tip: Planning your SAA can make a difference in the ease of operation.

SATELLITE ACCUMULATION AREA REQUIREMENTS

(Continued)

7. Secondary Containment

a. Secondary containment of **all hazardous waste is required** in SAAs on piers, or at other over-the-water worksites. Criteria for secondary containment is found in WAC 173-303-630(7).

b. Secondary containment is also **required** in SAAs for **all liquid hazardous waste or WAD** in dry docks or within 50 feet of a storm drain. Storm drains within 50 feet of an SAA must be blocked or otherwise protected from spills.

c. **Containers of waste flammable liquids or reactive waste** must have secondary containment **anywhere** they are accumulated or being transferred from one container to another.

8. Start Date/Time and Quantity Limits. When 55 gallons or more of a hazardous waste stream is present in the SAA, the start date must be filled in on the HW or WSW label; and all waste of that particular waste stream, must be transferred to a 45/90-Day Accumulation Area or shipped off-site to a TSDF within three days from the start date.



Arranging for Waste Pickup (when BNC is Handling Waste)

If you are not responsible to manage an accumulation area then hazardous waste and waste awaiting designation must be turned over to a trained AAO at a Government operated accumulation area **prior to the end of each work shift**. A WIS with Section 1 completed must accompany each waste stream being transported (record this WIS # on the ID label). AAOs must properly palletize their waste and contact their Contracting Officer for pickup of the waste. The Contracting Officer will coordinate with Shop 90HM for pickup or turn-in of waste.

Shop 90HM will pickup waste pierside and in shop areas; however, transfer of the waste from ships or out of the dry docks is the responsibility of the waste originator. For shore based projects, the contract typically requires the contractor to turn in waste to the government. Most turn-ins will be to Building 367 at PSNS & IMF.



Quick Tip: Hazardous waste may not be left unattended on piers or other over-water sites. Once waste is taken off the ship, it cannot be taken back on board.



Quick Tip: Remember to notify your Contracting Officer to close out your SAA when all the waste has been removed.



Quick Tip: Remember time limits are calendar days **NOT** working days.

CONTRACTOR REQUEST FOR HAZARDOUS WASTE SATELLITE ACCUMULATION AREA REGISTRATION

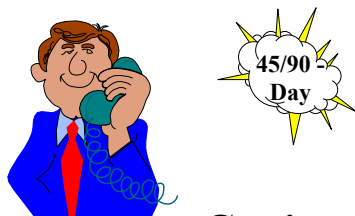
PSNS 5090/136 (Rev. 4-00)

FOR ILLUSTRATION PURPOSES ONLY - DO NOT REPRODUCE

CONTRACTOR REQUEST FOR HAZARDOUS WASTE SATELLITE ACCUMULATION AREA (SAA) REGISTRATION																									
Ref: NAVSHIPYDPUGETINST P5090.5																									
THE SUBMITTAL OF THIS FORM REQUESTS CODE 106.3 TO INSPECT A HAZARDOUS WASTE SATELLITE ACCUMULATION AREA (SAA) FOR REGISTRATION OF THE SITE. CODE 106.3 SHALL INSPECT FOR REGISTRATION WITHIN ONE WORKING DAY OF RECEIPT OF THIS FORM.																									
COMPANY NAME	CONTRACT NUMBER	SITE SUPERINTENDENT	PHONE NUMBER																						
SITE LOCATION		ESTIMATED DURATION OF SAA																							
WASTE STREAMS																									
TRAINED ACCUMULATION AREA OPERATOR (AAO)			PHONE NUMBER																						
ALTERNATE POINT OF CONTACT			PHONE NUMBER																						
I VERIFY THAT THE HAZARDOUS WASTE SAA IDENTIFIED ABOVE WAS INSPECTED USING THE SAA PRE-REGISTRATION INSPECTION CRITERIA (BELOW) AND ALL APPLICABLE ATTRIBUTES WERE SATISFACTORY.																									
CONTRACTING OFFICER SIGNATURE		PHONE	DATE																						
NOTE: ANY CHANGES IN THE INFORMATION PROVIDED ON THIS FORM MUST BE FORWARDED TO THE SHIPYARD REPRESENTATIVE VIA THE CONTRACTING OFFICER WITHIN ONE WORK DAY.																									
SATELLITE ACCUMULATION AREA PRE-REGISTRATION INSPECTION <table border="0"> <thead> <tr> <th align="center">ATTRIBUTES*</th> <th align="center">YES / NO</th> </tr> </thead> <tbody> <tr> <td>1. IS THE AREA SECURE OR UNDER THE CONTROL OF THE AAO? <i>If the area is outdoors, it must be under the control of the AAO or secured by lock. (A drum with a tightened ring and bolt is considered locked.)</i></td> <td>_____</td> </tr> <tr> <td>2. IS A SPILL KIT READILY AVAILABLE AND ADEQUATE FOR THE TYPES AND AMOUNTS OF WASTE EXPECTED?</td> <td>_____</td> </tr> <tr> <td>3. IS SECONDARY CONTAINMENT SET UP IF:</td> <td>_____</td> </tr> <tr> <td> A. THE AREA IS ON A PIER OR OTHER OVER-WATER WORKSITE?</td> <td>_____</td> </tr> <tr> <td> B. LIQUID HW WILL BE ACCUMULATED IN A DRY DOCK OR WITHIN 50 FEET OF A STORM DRAIN?</td> <td>_____</td> </tr> <tr> <td> C. CONTAINERS OF FLAMMABLE LIQUID OR REACTIVE WASTES WILL BE ACCUMULATED?</td> <td>_____</td> </tr> <tr> <td>4. ARE STORM DRAINS WITHIN 50 FEET OF THE AREA BLOCKED OR OTHERWISE PROTECTED FROM SPILLS?</td> <td>_____</td> </tr> <tr> <td>5. IF IGNITABLE OR REACTIVE WASTE IS TO BE ACCUMULATED, IS THE AREA LOCATED AT LEAST 50 FEET FROM THE PROPERTY BOUNDARY? <i>(unless waste is in a building)</i></td> <td>_____</td> </tr> <tr> <td>6. IF FLAMMABLE, COMBUSTIBLE, OR REACTIVE WASTES WILL BE ACCUMULATED, DOES THE AREA MEET THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT?</td> <td>_____</td> </tr> <tr> <td>7. IS A CONTRACTOR WASTE STREAM DICTIONARY, ID LABELS, AND WASTE INFORMATION SHEETS (WIS) AVAILABLE FOR USE AT THE JOB SITE?</td> <td>_____</td> </tr> </tbody> </table> *If an attribute is not applicable, mark "NA" in the Yes/No column.				ATTRIBUTES*	YES / NO	1. IS THE AREA SECURE OR UNDER THE CONTROL OF THE AAO? <i>If the area is outdoors, it must be under the control of the AAO or secured by lock. (A drum with a tightened ring and bolt is considered locked.)</i>	_____	2. IS A SPILL KIT READILY AVAILABLE AND ADEQUATE FOR THE TYPES AND AMOUNTS OF WASTE EXPECTED?	_____	3. IS SECONDARY CONTAINMENT SET UP IF:	_____	A. THE AREA IS ON A PIER OR OTHER OVER-WATER WORKSITE?	_____	B. LIQUID HW WILL BE ACCUMULATED IN A DRY DOCK OR WITHIN 50 FEET OF A STORM DRAIN?	_____	C. CONTAINERS OF FLAMMABLE LIQUID OR REACTIVE WASTES WILL BE ACCUMULATED?	_____	4. ARE STORM DRAINS WITHIN 50 FEET OF THE AREA BLOCKED OR OTHERWISE PROTECTED FROM SPILLS?	_____	5. IF IGNITABLE OR REACTIVE WASTE IS TO BE ACCUMULATED, IS THE AREA LOCATED AT LEAST 50 FEET FROM THE PROPERTY BOUNDARY? <i>(unless waste is in a building)</i>	_____	6. IF FLAMMABLE, COMBUSTIBLE, OR REACTIVE WASTES WILL BE ACCUMULATED, DOES THE AREA MEET THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT?	_____	7. IS A CONTRACTOR WASTE STREAM DICTIONARY, ID LABELS, AND WASTE INFORMATION SHEETS (WIS) AVAILABLE FOR USE AT THE JOB SITE?	_____
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SHIPYARD REPRESENTATIVE (CODE 106.3)		PHONE	DATE/TIME																						
ASSIGNED SAA NUMBER		DATE SAA CLOSED																							
PSNS 5090/136 (Rev. 4-00)																									

45/90-DAY ACCUMULATION AREA REQUIREMENTS

The following information guides you through the major requirements for a **45/90-Day Accumulation Area**. Unlike SAAs, there is no limit on how much hazardous waste can be held. As the name implies, waste can be held for up to 90 days from the start date; however, your contract will specify to start arrangements for turn-in or off-site shipping within 45 days of the start date. This reduced time frame is necessary to ensure all waste is shipped off-site to a TSDF within 90 days of the start date. The “45” part of the 45/90-day is to flag you of the need to initiate transport and disposal actions. If hazardous waste is not shipped to off-site within 90 days, the shipyard and contractor could be subject to a citation and fine and/or the much more stringent permitting requirements of a TSDF.



Getting Started:

1. Contact your Contracting Officer to obtain a form, *Contractor Request for 90-Day Hazardous Waste Accumulation Area Certification, PSNS 5090/137 (Rev. 4-00)*. This form provides a list of items that are required for an approved area. Make sure all attributes are addressed and then submit the form to the Contracting Officer. The Contracting Officer will check your area and sign that it is ready for inspection. A representative from the base environmental office and the Fire Department will inspect your area and certify it for use if all the requirements have been met.

2. The following is a quick list of major requirements for which you are responsible:

- ◆ The area cannot be located on piers or in dry docks.
- ◆ Wastes must be transported off-site to an approved TSDF within 90 days of the accumulation start date. Initiate transport action within 45 days of the start date.
- ◆ The area will be used only for the storage of waste and waste awaiting designation. It will not be used to store non-related materials, equipment, or be used for other functions.
- ◆ Container use and management requirements specified in WAC 173-303-200, -630, and your contract specifications (including the environmental plan) must be followed.
- ◆ The *Puget Sound Naval Shipyard and Naval Station Bremerton Emergency Spill Response Procedures, PSNS 5090/9*, form will be posted and a spill kit will be maintained in this area.
- ◆ A fire extinguisher, two-way communication device, and alarm must be present.
- ◆ Emergency shower/eyewash stations will be immediately available, tested weekly, and functioning.
- ◆ The gate/door to the accumulation area will remain locked when the trained AAO is not present.
- ◆ Secondary containment will be provided at the accumulation area for all hazardous waste.

45/90-DAY ACCUMULATION AREA REQUIREMENTS

(Continued)



- ◆ Signs reading ***“HAZARDOUS WASTE ACCUMULATION AREA”*** and ***“DANGER - UNAUTHORIZED PERSONNEL KEEP OUT”*** will be posted at the entrance to the accumulation area and must be legible from a distance of 25 feet or more.
- ◆ ***“NO SMOKING OR OPEN FLAME”*** signs will be posted on all four sides of the fence and will be legible from 50 feet.
- ◆ Inspections of the accumulation area will be conducted every **seven calendar days** by the AAO. The AAO must maintain a logbook of the inspections. The date, time, findings, actions taken, and signature of the inspector will be included. A form, PSNS 5090/127, will be completed to meet this requirement. The completed form will be submitted to the Contracting Officer and forwarded to the base environmental office at the end of each month (within five days).
- ◆ Prior to closure of the accumulation area, all containers, liners, bases (e.g., concrete slab or paving), and soil (as applicable) must be decontaminated or removed. The Contracting Officer shall be notified within three working days of closure, so that a close-out inspection may be arranged with the base environmental office.

3. Container Management

Containers of hazardous waste must be closed at all times, except when waste is being added or removed. Containers with liquids will be closed and secured with ring and bolt, or bung screwed in (wrench tight). Containers with solids will have snug fitting lids. If you have waste that is subject to 40 CFR, Part 265, Subpart CC requirements (volatile organic compounds), then the container must be closed in accordance with the Subpart CC requirements.

Only reuse containers for the same waste stream, unless they are uncontaminated-overpack containers.

Position containers so that the labels are clearly visible. Place the labels on the top one-third of the drum, whenever possible. When using roll-off boxes, place labels on the front of the container.

Maintain a 36-inch aisle space between each row of containers. This is required so that containers can be readily inspected and personnel have access to them.

45/90-DAY ACCUMULATION AREA REQUIREMENTS

(Continued)

4. Inventory and Tracking

An inventory, tracking the coming and going of all containers, is required to be on-site and current. The inventory includes:

- | | |
|---|---------------------------------------|
| ◆ Originator's Name | ◆ Date Received at Accumulation Area |
| ◆ Waste Description | ◆ Date Shipped from Accumulation Area |
| ◆ Type and Quantity of Waste Containers | ◆ Waste Stream Number |
| ◆ Accumulation Start Date | |

Copies of the inventory records are to be submitted to the Contracting Officer for forwarding to the Fire Department, Code N3211, by the first of each month.

5. Government Shipping The Waste Off-Site

If your contract specifies that the Government will dispose of the dangerous waste, make arrangements within 45 calendar days of the start date with your Contracting Officer for coordination with Shop 90HM to ship bulk containers of waste. Non-bulk containers (e.g., 55-gallon drums) need to be turned in to the Government 45 days from the start date. Depending on the quantity of the waste, the BNC may want to ship the waste directly off-site from your area, or transfer it to the BNC's 90-Day Facility. Shop 90HM needs about 45 days if the waste is going to be shipped directly off-site.

6. Contractor Shipping the Waste Off-Site

If your contract specifies for you to provide the transporter and the TSDF, then at least 20 working days before requesting a manifest, submit copies of the profile(s) for Government approval. The Government encourages submitting profiles as soon as the waste is first designated. Then at least 10 days before you want to ship, contact your Contracting Officer to coordinate with Shop 90HM for manifest and Land Disposal Restriction (LDR) preparation. The profile should already be approved. Shop 90HM will prepare the manifest and the LDRs. On the date of shipping, personnel from Shop 90HM will verify the waste and weight, and sign the manifest. Shop 90HM keeps one copy after the transporter signs in his block and the rest of the documents go with the transporter.

When the waste reaches the TSDF, the receiving facility will sign in their block and send the original back to the BNC. The BNC needs to receive the manifest within 35 days of the ship date or, by regulation we have to call and obtain the status of our waste. If we don't receive the manifest within 45 days of the ship date, then we have to submit an exception report to Washington Department of Ecology.

Within 10 working days after the final disposal, you are required to submit the Certificate of Final Disposal (CFD). Final disposal means disposal of all wastes and any residues from the treatment of waste prior to disposal. Review your contract specification for all the information included in a CFD.

CONTRACTOR REQUEST FOR 45/90-DAY HAZARDOUS WASTE ACCUMULATION AREA CERTIFICATION

PSNS 5090/137 (Rev. 4-00) (Front)

FOR ILLUSTRATION PURPOSES ONLY - DO NOT REPRODUCE

CONTRACTOR REQUEST FOR 45/90-DAY HAZARDOUS WASTE ACCUMULATION AREA CERTIFICATION / RE-CERTIFICATION Ref: NAVSHIPYDPUGETINST P5090.5	
THE SUBMITTAL OF THIS FORM REQUESTS CODE 106.3 TO INSPECT A 45/90-DAY HAZARDOUS WASTE ACCUMULATION AREA FOR CERTIFICATION / RE-CERTIFICATION OF OPERATION. CODE 106.3 SHALL INSPECT FOR CERTIFICATION WITHIN ONE WORKING DAY OF RECEIPT OF THIS FORM.	
CONTRACTOR	
SITE LOCATION	
ACCUMULATION AREA OPERATOR	PHONE NUMBER
SITE SUPERINTENDENT	PHONE NUMBER
I VERIFY THAT THE 45/90-DAY HAZARDOUS WASTE ACCUMULATION AREA IDENTIFIED ABOVE WAS INSPECTED USING THE PRE-CERTIFICATION INSPECTION CRITERIA AND ALL APPLICABLE ATTRIBUTES WERE SATISFACTORY.	
CONTRACTING OFFICER SIGNATURE	DATE
REMARKS	
PSNS 5090/137 (Rev. 4-00) (Front)	

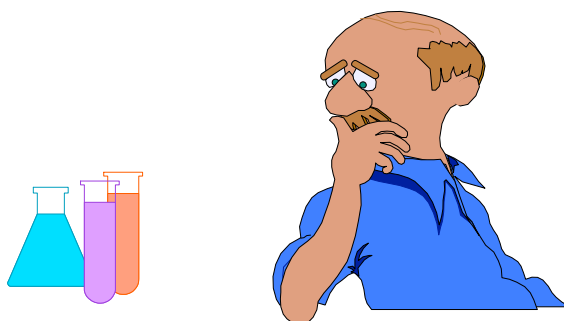
CONTRACTOR REQUEST FOR 45/90-DAY HAZARDOUS WASTE ACCUMULATION AREA CERTIFICATION

PSNS 5090/137 (Rev. 4-00) (Back)

FOR ILLUSTRATION PURPOSES ONLY - DO NOT REPRODUCE

CONTRACTOR REQUEST FOR 45/90-DAY HAZARDOUS WASTE ACCUMULATION AREA CERTIFICATION / RE-CERTIFICATION			
PRE-CERTIFICATION INSPECTION			
LOCATION OF 45/90-DAY SITE:			
CONTRACTOR REQUESTING CERTIFICATION:			
ATTRIBUTES*			INITIALS
1.	LOCKABLE WHEN AUTHORIZED PERSONNEL ARE NOT PRESENT.		
2.	SIGNS:		
A.	"HWAA & DANGER UA PERSONNEL KEEP OUT" POSTED ON ENTRANCE & LEGIBLE 25 FEET AWAY.		
B.	"NO SMOKING / OPEN FLAME" POSTED ON ALL SIDES AND LEGIBLE 50 FEET AWAY.		
C.	"NO HOT WORK" POSTED ON ALL SIDES (IN PRODUCTION AREAS ONLY).		
3.	SPILL KIT ON SITE.		
4.	EYEWASH/SHOWER IMMEDIATELY AVAILABLE AND WORKING.		
5.	TWO-WAY EMERGENCY COMMUNICATION DEVICE AVAILABLE AND OPERABLE.		
6.	APPROVED SECONDARY CONTAINMENT.		
7.	INVENTORY RECORDS ON SITE.		
8.	INSPECTION LOG SHEETS ON SITE.		
9.	PERSONNEL MANAGING HWAA HAVE CURRENT DOCUMENTED TRAINING.		
10.	EMERGENCY SPILL RESPONSE PROCEDURES POSTED (PSNS 5090/9).		
11.	FIRE EXTINGUISHERS PRESENT AND CURRENTLY INSPECTED (MONTHLY).		
12.	METHOD TO PROVIDE ALARM FOR EMERGENCIES.		
13.	LOCATED >50 FEET FROM BREMERTON NAVAL COMPLEX FENCE LINE, UNLESS IN A BUILDING.		
14.	NOT LOCATED ON A PIER OR IN A DRY DOCK.		
15.	SUFFICIENT AISLE SPACE (MINIMUM 36 INCHES) IS MAINTAINED.		
16.	INVENTORY RECORDS FORWARDED TO CONTRACTING OFFICER MONTHLY		
17.	INSPECTION LOGS FORWARDED TO CONTRACTING OFFICER MONTHLY		
18.	WASTE "AWAITING DESIGNATION" IS SEGREGATED FROM DESIGNATED HW.		
19.	ID LABELS ON CONTAINERS ARE PROPERLY FILLED OUT.		
20.	A WIS IS COMPLETED FOR EACH TYPE OF WASTE BEING DISPOSED.		
21.	FLAMMABLE, COMBUSTIBLE, OR REACTIVE WASTE STORED PER THE LOCAL FIRE CODE.		
22.	CONTAINERS ARE IN GOOD CONDITION AND HAVE PROPER FITTING LIDS.		
23.	CONTAINERS CLOSED EXCEPT WHEN ADDING OR REMOVING WASTE.		
24.	HW LABELS VISIBLE AND START DATE FILLED IN.		
25.	INCOMPATIBLE HW SEPARATED BY DIKE, BERM, WALL, OR OTHER DEVICE.		
26.	CERTIFICATION FORM POSTED.		
* INITIAL CERTIFICATION INCLUDES ATTRIBUTES 1-14 ONLY.			
INSPECTOR'S SIGNATURE	PHONE	DATE	TIME
PSNS 5090/137 (Rev. 4-00) (Back)			

HOW AND WHO WILL BE DOING MY SAMPLE ANALYSIS FOR THE WASTE DESIGNATION?



If **you** are responsible for disposing of your waste, then typically the contract also specifies that you are responsible for sampling and analysis of the waste. Before submitting samples to be analyzed, confer with your Contracting Officer to verify the analysis required to ensure proper designation of the waste. The Contracting Officer will work with Shop 90HM to determine the required analysis (tests) for waste designation. When metals are a concern, analysis will include the eight RCRA metals, plus copper, nickel, and zinc. The contractor must prepare and submit for Government approval a Sampling and Analysis Plan, prior to collecting samples.

Sampling of waste is to be accomplished using the procedures in Environmental Protection Agency (EPA) Publication, *Samplers and Sampling Procedures for Hazardous Waste Streams*, EPA 600/2. Waste analysis is to be accomplished by using EPA Publication, *Test Methods for Evaluation Solid Waste - Physical/Chemical Methods*, SW-846. Washington Department of Ecology also has a publication which adopts the EPA Publication, *Chemical Testing Methods for Designating Dangerous Waste*, #97-407.

If the Government is responsible for waste disposal, the sampling and analysis will be accomplished by the BNC, unless otherwise specified in the contract.

If analytical results are available before the job starts, include it with your WIS.

A list of environmental laboratories accredited by the Washington Department of Ecology is available at their website at <http://www.ecy.wa.gov/programs/eap/labs/lablist.html>.



Quick Tip: Shop 90HM provides information on what analysis is required for waste designation. The Government must review and approve your Sampling and Analysis Plan, prior to collecting samples.



Quick Tip: PSNS & IMF, Shop 90HM will ALWAYS designate your waste.



Quick Tip: Waste being sampled for designation must be managed as WAD.

WHO'S RESPONSIBLE FOR WHAT?



You, the Contractor, are responsible to comply with your contract specifications (including your approved Environmental Plan and Hazardous Waste Management Plan), in addition to complying and being trained in all the Federal, State, and local regulations.

Your Contracting Officer is responsible to ensure that you are aware of our hazardous waste requirements, to monitor your compliance, and to be a liaison between you and the BNC. They are also responsible to answer any questions you have regarding hazardous waste requirements.

PSNS & IMF Code 106 is responsible to act as the overall program coordinator for hazardous waste management and provides compliance information and technical assistance for PSNS & IMF. They do all the reporting to regulatory agencies and interpret laws and regulations. They are the registration point for accumulation areas and will initially inspect and approve accumulation areas.

NAVSTA Bremerton, Code N45A4, provides compliance information and technical assistance for Naval Station Bremerton. They are the registration point for accumulation areas and will initially inspect and approve accumulation areas.

PSNS & IMF Code 134 analyzes samples when the BNC is responsible for waste disposal. They perform quality assurance checks for outside analysis.

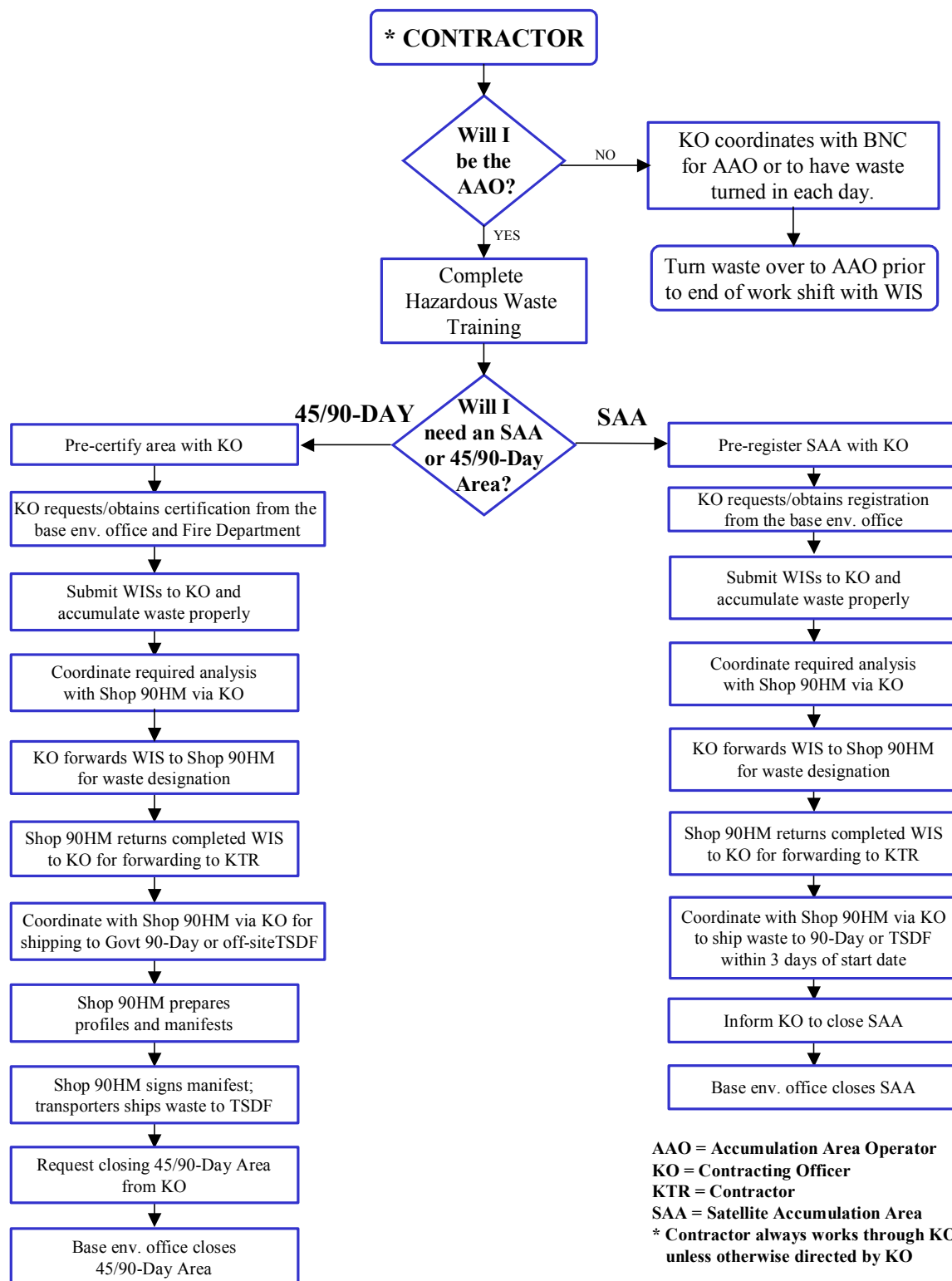
PSNS & IMF Shop 90HM determines proper designation, classification, and disposition of all waste. They collect samples when the BNC is responsible for disposal, unless otherwise specified in the contract. They provide information on labeling and marking. They provide all required labels. Depending on the contract specifications, they may supply containers, be the Accumulation Area Operator, and arrange for the off-site transport and disposal of hazardous waste.

Code N3211, Fire Department, inspects all work areas to ensure the safe storage of chemicals in an effort to reduce fire hazards. The Fire Department jointly inspects and approves 45/90-Day Accumulation Areas with the base environmental office.

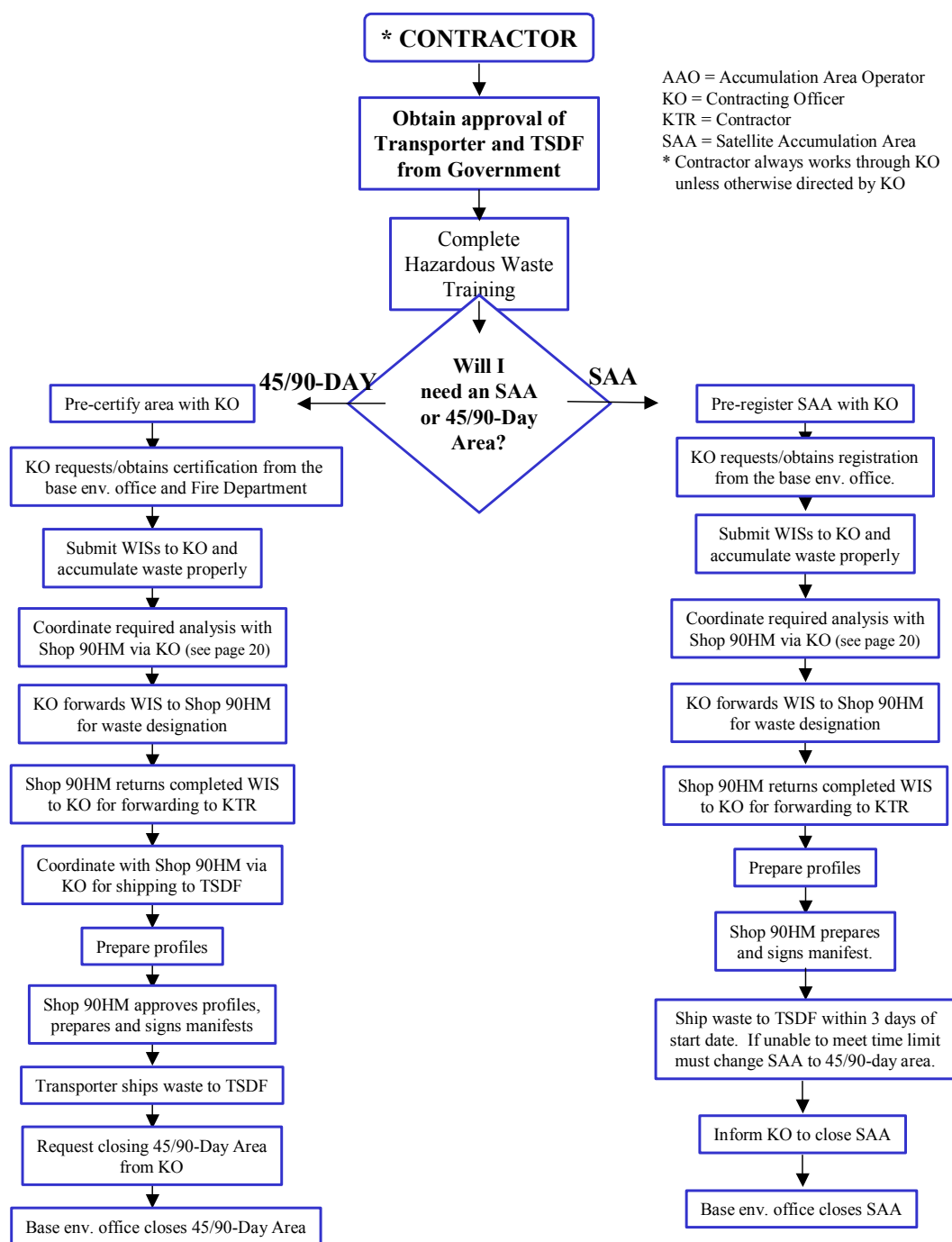
On the following pages you will find two flowcharts. The first is an overview of the path that will be taken when the BNC is disposing of the waste. The second is the path taken if you are disposing of the waste.

Bremerton naval complex

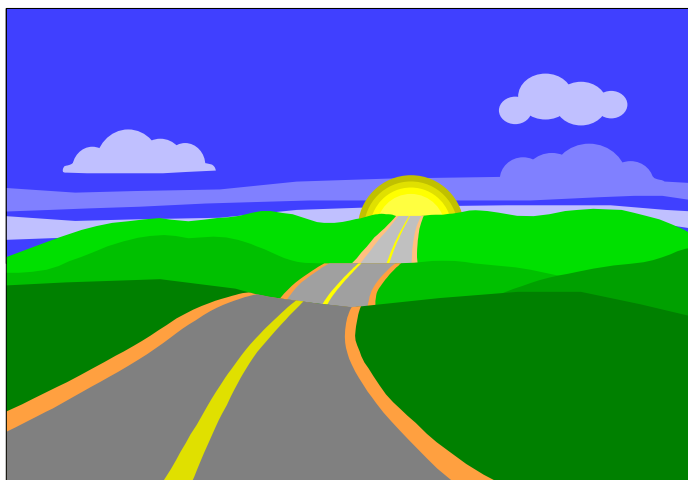
BNC DISPOSING OF CONTRACTOR WASTE FLOWCHART



CONTRACTOR DISPOSING OF WASTE FLOWCHART



THE ROAD TO COMPLIANCE



In conclusion, the road to compliance depends on everyone knowing their responsibilities and proper procedures for managing waste. We all have responsibilities to help ensure compliance with all the regulations. This guide, in addition to the *Contractor's Guide to Environmental Compliance*, are valuable tools to help you in meeting your responsibilities for hazardous waste compliance.

We wish you environmental success on this project and in the future!!!

TELEPHONE LISTING



EMERGENCIES (Medical Assistance, Fire, Flooding, Emergency Spill Response, etc.):

When using a BNC telephone 911
When using a non-BNC telephone system 360-476-2222

CONTRACTING OFFICES

EFA-NW Bremerton ROICC, Building 467 360-476-8130
or 360-476-4552
EFA-NW Silverdale Field Office 360-396-6844
Supervisor of Shipbuilding (SUPSHIP) 360-476-4326
Fleet and Industrial Supply Center (FISC) 360-476-4289
NAVSTA Bremerton, Contract Oversight (QAE) 360-476-7947

BNC ENVIRONMENTAL MANAGERS (For Emergency Use Only):

<u>PROGRAM</u>	<u>PSNS & IMF</u>	<u>NAVSTA BREMERTON</u>
Air (Permits/Discharges/ODS)*	360-476-0124	
Asbestos	360-476-4699	360-476-4744
Contracts Support	360-476-0136	360-476-6691
Hazardous Material*	360-476-4364	
Hazardous Waste (HW)	360-476-5734	360-476-6067
Historical/Natural Resources	360-476-4049	360-476-6691
Installation Restoration	360-476-2630	360-476-6082
PCBs	360-476-0127	360-476-6067
Solid Waste*		360-476-6083
Spill Prevention and Response*	360-476-1842	
Water Quality and Stormwater/Sewer Discharge	360-476-0118	360-476-6614

**Program is managed for all of the BNC by the activity whose phone number is listed.*

BNC ENVIRONMENTAL SERVICES (For Emergency Use Only):

Waste Designation** 360-476-8607
HW/PCB (Containers/Labels/Turn-In (B-367))** 360-476-7777

***Services provided for all of the BNC.*

APPENDIX D

PROJECT QUALITY CONTROL MANAGER ASSIGNMENT LETTER



May 3, 2018
SES-LTM/OM-9011-18-0235
3.0 / Correspondence

Mr. Will Kaage
Environmental Scientist
Sealaska Environmental Services, LLC

**SUBJECT: Project Quality Control Manager Appointment, Task Order
N4425518F137, Terrestrial Long-Term Monitoring/Operations &
Maintenance, Naval Base Kitsap Bremerton, Bremerton, Washington**

Ref: Contract N44255-14-D-9011, Long-Term Monitoring, Operations and Maintenance

Dear Mr. Kaage:

This letter provides notification that you have been appointed as the Project Quality Control Manager (PQCM) for Task Order N4425518F4137 of the referenced contract. You will be responsible for the quality of work on the job and for implementing the project-specific quality control requirements in accordance with the contract and approved plans. As the PQCM, you will have the authority and responsibility for suspending work if conditions adverse to quality are identified and for directing the correction of any nonconforming work.

Please contact me at (360) 337-0780 with any questions about this appointment.

Sincerely,

Sherri Wunderlich
Quality Control Program Manager
Sealaska Environmental Services, LLC

Fields of Special Competence

- All aspects of environmental sampling including groundwater, surface water, air, meteorology, soil, and over-water sediment
- Baseline environmental studies
- GIS experience
- Field lead for activities 2011-2016
- Experience in international field sampling events

Education

- M.S., Environmental Science (ecosystems emphasis), University of Colorado, 2010
- B.S., Biology, Centenary College of Louisiana, 2007

Health, Safety, and Environmental Training

- OSHA 40-Hour Hazardous Waste Operations & Emergency Response, 2013
- OSHA 8-Hour HAZWOPER Refresher, 7/2014, 2/2015, 1/2016, 3/2017 & 2/2018
- OSHA 8-Hour HAZWOPER Safety Supervisor, 2015
- OSHA 30-Hour Construction Safety Supervisor, 2015
- DOT Hazardous Waste & Shipping Training, 2018
- First Aid, CPR, Bloodborne Pathogens, Fire Extinguisher, and Respirator Safety, 2/2018
- Respirator Fit Tested, 2014-current
- Level 1 OPSEC Awareness Training, 2017
- Munitions Precautions Training, 2014
- Antiterrorism Level 1 Training, 2017
- Waste Management 4-Hour CFR 264.16, 2018
- Wetland Delineation Training, The Wetland Training Institute, 40-Hour, 2014
- Low Impact Development Design, 2016

Chronology

- Environmental Scientist III, Sealaska Environmental Services, LLC. 2014-present
- Environmental Specialist, AATA International, Inc. 2011-2014
- Surface Water Assessor, Colorado Watershed Assembly, 2010
- Life Scientist, US EPA, 2009



WILL KAAGE Environmental Scientist III

Mr. Kaage brings over 7 years of experience as an environmental scientist to Sealaska Environmental Services, LLC. Mr. Kaages's professional experience includes all aspects of environmental sampling including groundwater sampling, surface water sampling and surveying, air quality sampling, meteorology, soil sampling, and over-water sediment sampling. He has worked on multiple monitoring projects, baseline studies, and environmental impacts and assessments.

While working as an Environmental Scientist III and Environmental Specialist, Mr. Kaage has been a field lead and managed field events and reporting. These events supported long-term monitoring, compliance, Impact Assessments and Statements, and baseline studies. He also managed field personnel, health and safety protocols, operations, and reporting associated with these environmental events at various proposed and operational mining operations in multiple states and countries. He performed data analysis and reporting for the support of these projects. He was also responsible for the use of GPS data collection and ArcGIS software in map preparation and creation for these projects.

NOTABLE PROJECTS:

Long-Term Monitoring, Bremerton Naval Complex, Bremerton, Washington, 2015-current – Provides project support. Performs report writing, GIS analysis, and figure creation for long-term monitoring, remedial inspection, and trend analysis reports. Provides graphics support for work plans. Database management, monitoring and creation.

Former Navel Complex, Icy Cape, Alaska, 2016 – Provides technical support, and conducts groundwater monitoring and sampling, data analysis, GIS support, and report writing and review.

Port of Bremerton Site Development Plan, Bremerton, Washington, 2016-current – Provides project support and leads site assessment field activities including infiltration testing soil test pit survey and soil mapping. Responsible for health and safety of personnel while on site. Provides GIS analysis and figure creation as well as hydrologic modeling and low-impact development design.

Liberty Bay Stormwater Comprehensive Plan, TMDL Plan, Poulsbo, Washington, 2015-current – Provides support performs GIS analysis and figure creation. Database monitoring and creation, low-impact development design and capital improvement project support.

Long-Term Monitoring, Joint Base Lewis-McChord, Washington, 2015-2017 – Provided project support and leads groundwater monitoring, sampling, data analysis, GIS analysis and report writing at Landfills 1, 2, 4 and 5, Logistics Center, FLAO sites, Artillery Impact Areas and for multiple sites across the installation. Health and safety officer while performing field duties on site.



Product Recovery and Monitoring, Fuel Farms 1-4, Naval Air Station Whidbey Island, Washington, 2014-current – Provides support during annual sampling of wells at former fuel farms. Assisted in product recovery activities. Provides GIS analysis and figure creation.

Annual Groundwater Monitoring, Former Navel Complex, Adak, Alaska 2014-current – Provides technical support, and conducts groundwater monitoring and sampling, data analysis, and report writing and review. Also assisted with petroleum product recovery.

Meteorological Monitoring Project Manager, North Butte, Gas Hills, Wyoming and Crow Butte, Nebraska, 2010-2014 – Project Manager and Site Safety Health Officer. Managed meteorological monitoring programs for Cameco Resources. This included all aspects of project management, acting as Site Safety Health Officer while in the field with additional personnel, data analysis and reporting.

Data Collection for Compliance Purposes, Juneau, Alaska 2010-2014 – Manager of Kensington Gold Mine Meteorological Monitoring Program. Managed all administrative and field portions of monitoring program. The data collected at the stations were used for compliance in accordance with ADEC requirements. Responsible for data validation, data analysis, document production, document review, and ensuring that day-to-day activities are on time and within budget.

Baseline Environmental Data Collection, Mogocha, Russia, La Oroya, Peru and Pantukan, the Philippines 2011-2013 – Field Lead and Site Safety Officer. Managed field sampling of multiple surface water and groundwater sites in addition to air quality sampling, noise sampling and installation of a meteorology station in challenging Siberian and tropical environments. Responsible for field safety, safety equipment and protocols, data analysis, mapping, report writing, and document review.

Life Scientist, United States Environmental Protection Agency-2009 – Participated in Student Employment Program Region 8 Laboratory. Managed microbiology lab organization, safety, operation, and implementation. Participated in field sampling, stream gauging, and electrofishing.

APPENDIX E

QUALITY CONTROL FORMS



SEALASKA ENVIRONMENTAL SERVICES
NAVFAC NW LTM/O&M CONTRACT
CONTRACT NO. N44255-14-D-9011

CONTRACTOR PRODUCTION / QC REPORT		
TASK ORDER	PROJECT NAME AND LOCATION	REPORT NO.
SITE SUPERINTENDENT		DATE
WEATHER		
WORK PERFORMED (INCLUDE LOCATION AND DESCRIPTION OF WORK)		
JOB SAFETY	WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach copy of the meeting minutes)	☐ YES ☐ NO
	WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? (If YES attach copy of completed OSHA report)	☐ YES ☐ NO
	WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? (If YES attach description of incident and proposed action.)	☐ YES ☐ NO
LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED:		
QUALITY CONTROL ACTIVITIES PERFORMED:		
TESTS PERFORMED:		
DEFICIENCIES OR CORRECTIVE ACTIONS NOTED:		
SUMMARY OF MEETING AND DISCUSSION HELD:		
FIELD CHANGE REQUESTS GENERATED:		
REMARKS:		
Contractor's Verification: On behalf of the contractor, I certify that this report is complete, accurate, and correct, and equipment and materials used, and work performed during this reporting period are in compliance with the contract plans and specifications to the best of my knowledge and belief, unless noted above.		
NAME:	TITLE: Project QC Manager	
SIGNATURE:	DATE:	
NAME:	TITLE: Task Order Manager	
SIGNATURE:	DATE:	

CONTRACT #:

DESIGN CHANGE NOTICE (DCN)

TASK ORDER # _____	DCN # _____	DATE _____
LOCATION _____	NTR / RPM _____	

1. Document to be changed. Identify revision, date, section, drawing, etc.

2. Description of Change (Items involved, submit sketch, if applicable): (Use continuation sheet if necessary)

3. Reason for Change (Attach additional information if needed)

4. Originator (Print name and sign)		Title		Date
Reviewed by: (Print name and sign)		Title		Date
Task Order Manager (Print name and sign)	Date	Program Quality Manager (Print name and sign)	Date	
NTR Acknowledgement (Print name and sign)	Date	RPM Approval (Print name and sign)	Date	
COR Acknowledgement (Print name & sign)	Date			

CONTRACT NUMBER:

FIELD CHANGE REQUEST (FCR)

TASK ORDER # _____ FCR # _____ DATE _____
LOCATION: _____ NTR / RPM _____

1. Document to be changed. Identify revision, date, section, drawing, etc.

2. Description of existing requirement and proposed change (Attach sheet if necessary)

3. Reason for Change (Attach sheet if necessary)

4. Originator: (print name and sign)		Title		Date
Reviewed by: (print name and sign)		Title		Date
Site Superintendent (Print name and sign)	Date	Task Order Manager (Print name and sign)	Date	
TtEC Program QC Manager (Print Name and Sign)	Date	NTR Acknowledgement (Print name and sign)	Date	



SEALASKA ENVIRONMENTAL SERVICES
NAVFAC NW LTM/O&M CONTRACT
CONTRACT N44255-14-D-9011

Initial Phase Inspection Checklist

Task Order: _____ Date: _____
Definable Feature of Work: _____ Contract Specification Section: _____

I. Personnel Present:

	<u>Name</u>	<u>Position</u>	<u>Company / Government</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____

(List additional personnel on reverse side)

II Review plans, specifications, and submittals. Identify any follow-up items identified during preparatory inspection.

Comments _____

III Preliminary Work

Is the preliminary work complete, correct, and in compliance with specifications?

Yes _____ No _____

Comments _____

IV Establish Levels of Workmanship

1. Where is the work located?	_____		
2. Is a sample panel required?	_____	Yes _____	No _____
3. Will the initial work be considered as a sample?	_____	Yes _____	No _____

(If yes, maintain in present condition as long as possible.)

V Resolve any differences or concerns.

Comments _____

VI Check Safety

Review job conditions using Site Safety and Health Plan and activity hazard analysis.

Comments: _____

PQCM Name & Signature

Laboratory Nonconformance Report

Submitter Information		
Name:	Organization:	Email Address:
Date Prepared:	Address:	Phone:
Laboratory Information		
Name:	Address:	Phone:
POC:	POC Phone:	POC Email Address:
Description of Nonconformance:		
Source of Laboratory Specification (e.g. Title of QAPP)		Contract No.:
Requirement (include specific reference from requirements document):		
Description of problem:		
Summary of discussion with the laboratory POC about this issue:		
Requested resolution:		



SEALASKA ENVIRONMENTAL SERVICES
NAVFAC NW LTM/O& M CONTRACT
CONTRACT NO. N44255-14-D-9011

NONCONFORMANCE REPORT

TASK ORDER _____ NCR # _____ DATE _____

LOCATION _____ NTR / RPM / COR _____

Plan, Procedure, Specification, or Drawing (Clearly state the requirement)

Description of Nonconforming Item or Condition

Did nonconforming condition require suspension of work activities? Yes ☐ No ☐

If yes, explain requirement necessary restart work activities.

Root cause analysis

Corrective Action

☐ use-as-is ☐ Repair ☐ rework to specification

Other action - specify:

Additional Comments

Preparer Name:	Preparer Signature:	Title:	Date:
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SEALASKA ENVIRONMENTAL SERVICES

NONCONFORMANCE REPORT

TASK ORDER

NCR #

DATE

EVALUATION OF CORRECTIVE ACTION

Description of Corrective Action Performed

Did corrective action sufficiently address nonconformance and prevent relapse?

Yes ☐

No ☐

Comments:

Evaluator Name:

Evaluator Signature:

Title:

Date:

APPROVAL

Comments

Approved by:

Signature:

Title:

Date:

Program QC Manager



SEALASKA ENVIRONMENTAL SERVICES
NAVFAC NW LTM/O&M CONTRACT
CONTRACT N44255-14-D-9011

Preparatory Phase Checklist

Task Order: _____ Date: _____
Definable Feature of Work: _____

I. Personnel Present:

	<u>Name</u>	<u>Position</u>	<u>Company / Government</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____

(List additional personnel on reverse side)

II Workplans/Other Submittals and Materials/Equipment

1. Identify applicable workplans and other submittals.

2. Review workplans and other submittals. Have all applicable workplans and submittals been approved?

Yes _____ No _____

If No, what items have not been submitted or approved?

3. Are all materials/equipment on hand? Yes _____ No _____

If No, what items are missing?

4. Check approved submittals against delivered materials/equipment. (This should be done as items arrive.)

Comments _____

III Material Storage

Are materials stored properly? Yes _____ No _____

If No, what action is taken? _____

Preparatory Phase Checklist

IV Specifications

1. Identify and review each specification section of workplan or submittal related to Definable Feature of Work.

2. Discuss procedure for accomplishing the work.

3. Clarify any differences or concerns.

V Preliminary Work and Permits

Ensure preliminary work is correct and permits are on file.

Yes _____ No _____

If No, what action is taken?

VI Testing

1. Identify test to be performed and by whom.

2. Frequency and when required?

3. Where required?

4. Have test facilities been approved?

Yes _____ No _____

VII Safety

1. Review applicable portion of the Site Safety and Health Plan.

2. Activity Hazard Analysis approved?

Yes _____ No _____

VIII Navy comments during meeting

IX Other Items or Remarks

PQCM Name & Signature



**SEALASKA ENVIRONMENTAL SERVICES
NAVFAC NW LTM/O&M CONTRACT
CONTRACT N44255-14-D-9011**

REWORK ITEMS LIST

Task Order: _____	Location: _____	Date: _____
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Number	Identification of item requiring rework	Date Identified	Date Corrected	Remarks

--

PQCM Name & Signature

**SEALASKA ENVIRONMENTAL SERVICES
NAVFAC NW LTM/O& M CONTRACT
CONTRACT NO. N44255-14-D-9011**

[illegible]

APPENDIX F

QUALITY CONTROL PROCEDURES

PREPARATION OF FIELD CHANGE REQUESTS AND DESIGN CHANGE NOTICES

Approved by:

Sherri L. Wunderlich

Sherri L. Wunderlich
Quality Control Program Manager

1. PURPOSE

The purpose of this procedure is to describe the processes to document and implement changes to final project plans, designs, specifications, or procedures that have been accepted by Naval Facilities Engineering Command (NAVFAC) Northwest.

2. SCOPE

This procedure is applicable to all Long-Term Monitoring/Operations and Maintenance (LTM/O&M) personnel involved in identification and documentation of changes to the final project plans, designs, specifications, or procedures. Changes will be documented using the Field Change Request (FCR) or Design Change Notice (DCN) forms.

The FCR form is used to request and document a change identified as a result of unanticipated field conditions or that is procedural and will not affect the original task order cost, design specification, or contract. The FCR form is signed by the Navy Technical Representative (NTR) to acknowledge the changed condition.

A Design Change Notice (DCN) form is used to document a change that requires contractual modification. The DCN form requires approval by the NAVFAC Northwest Remedial Project Manager (RPM) and acknowledgement by the NTR and Contracting Officer's Representative (COR) prior to implementation. Implementation can only occur after a contract modification is awarded.

If a plan, design, or specification has been stamped by a Professional Engineer, written approval must be received from the original Professional Engineer or another qualified Professional Engineer prior to implementing any change to the original document.

3. PROCEDURE

3.1 FIELD CHANGE REQUEST

The FCR form will be used to document a change identified as a result of unanticipated field conditions or that is procedural and will not affect the original task order cost, design specification, or contract.

Each FCR form will be uniquely identified by inclusion of a contract number, task order number, and sequential FCR number. The Quality Control Program Manager (QCPM) will maintain a program FCR Log.

An FCR may be initiated by any member of the task order team using the FCR form. The FCR form is then signed by the preparer and submitted to the Task Order Manager (TOM) and Project Quality Control Manager (PQCM), who evaluate the need for the change. The TOM and PQCM will identify the appropriate reviewer(s) of the FCR. The Certified Industrial Hygienist must review the FCR form if safety and health issues are addressed. All reviewer(s) must sign and date the FCR form to indicate their approval. The QCPM will review the FCR after other internal Sealaska reviews have been completed. NAVFAC Northwest's NTR will review and sign the FCR form, acknowledging that they are aware of the proposed change. The RPM must also be informed about the change.

Changes presented in the FCR shall be communicated by the PQCM to all appropriate site personnel. FCRs shall not be implemented prior to acknowledgement of the proposed change by NAVFAC Northwest's NTR.

Each completed FCR form (acknowledged/signed by the NTR) will be retained in the task order file.

3.2 DESIGN CHANGE NOTICE

A DCN form will be used to document a change that requires contractual modification by NAVFAC Northwest.

Each DCN form will be uniquely identified by inclusion of a contract number, task order number, and sequential DCN number. The QCPM will maintain a program DCN Log.

Any member of the task order team may initiate a DCN using a DCN form. The DCN form is then signed by the preparer and submitted to the TOM and PQCM, who evaluate the need for the change and identify the appropriate reviewers.

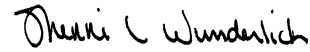
The TOM shall determine the impact of the change in relation to task order cost, scope of work, design, etc. and if warranted will immediately notify the Program Manager. The Certified Industrial Hygienist must review the DCN form if safety and health issues are addressed by the DCN. The QCPM will review the DCN after all other Sealaska internal reviews have been completed.

Written approval from NAVFAC Northwest must be received prior to implementation of the change. The DCN form requires written approval by the RPM and acknowledgement by the NTR and COR (by application of their signatures on the form). Additionally, approval by NAVFAC Northwest is documented by receipt of a Technical Direction Letter and/or Modification of Contract. The approved DCN form and any other documentation of approval will be retained in the task order file.

Changes presented in the approved DCN shall be communicated to all appropriate site personnel.

Approved by:

IDENTIFICATION AND CONTROL OF NONCONFORMANCES



Sherri L. Wunderlich
Quality Control Program Manager

1. PURPOSE

The purpose of this procedure is to describe the process for identifying, tracking, and controlling a nonconformance in a task order contract.

2. SCOPE

This procedure defines responsibilities and methods to be used for the identification and control of nonconforming conditions, items, material, equipment, and components requiring rework for the Naval Facilities Engineering Command (NAVFAC) Northwest Long-Term Monitoring/Operations and Maintenance (LTM/O&M) projects.

3. DEFINITIONS

Deficiency – Failure to develop, document, or implement effectively any applicable element of approved plans or to follow established procedures. A deficiency could lead to a nonconformance.

Nonconformance – A deficiency that renders the quality of an item, process, or product that has been defined in the procedures, specifications, or drawings as unacceptable or indeterminate.

Nonconformance Report (NCR) – The documentation that identifies the disposition of a nonconforming condition to use as is, repair, rework, or reject.

Rework – A nonconforming condition that cannot be corrected the same day it was identified. Rework items shall be maintained on a Rework Items List and submitted to the NAVFAC Northwest Navy Technical Representative (NTR) with the Contractor Production/Quality Control Report (CPQCR).

4. PROCEDURES

4.1 EVALUATION AND IDENTIFICATION OF DEFICIENCIES AND NONCONFORMANCES

All members of the task order team have the responsibility to report a potential deficiency to the Project Quality Control Manager (PQCM). If the PQCM determines that the condition reported is not in violation of the task order contract or specification, the condition will be reported to the Quality Control Program Manager (QCPM) for concurrence. If the QCPM concurs, no further action will be taken. If the PQCM determines that the condition is a deficiency, it will be reported on the CPQCR and corrective action will be implemented, as appropriate.

If the deficiency is identified by the PQCM (with concurrence by the QCPM) as a nonconformance, the PQCM shall determine if work will be suspended to prevent the continuation of a nonconforming condition. If the nonconforming condition is an item to be installed or utilized in construction activities, the PQCM will have the item isolated, tagged with a "Hold Tag," or removed from the site so that it cannot be inadvertently used. If the PQCM chooses to use a "Hold Tag," one similar to the example found in Attachment A shall be placed on the item. The "Hold Tag" should be of a distinctive color, e.g., red. Only the PQCM or designee shall remove a "Hold Tag" from the item. Any nonconformance (which, by definition, is also a deficiency) will be reported by the PQCM on the CPQCR.

4.2 NONCONFORMANCE REPORT

Once a nonconforming item or condition has been identified, the PQCM will prepare an NCR. Each NCR will be uniquely identified by inclusion of a contract number, task order number, and sequential NCR number. The QCPM will maintain a program NCR Log.

The PQCM will clearly identify the requirement or specification, describe the nonconformance, and decide if suspension of work is appropriate. The PQCM will concur with others, such as the field staff, Site Superintendent, Task Order Manager (TOM), QCPM, and/or Program Manager, and will summarize the root cause analysis and propose corrective action.

The PQCM in conjunction with the TOM and QCPM will determine the appropriate personnel to implement corrective action. After the proposed corrective action has been completed, the evaluator(s) will review whether the corrective action is successful in remedying the nonconformance and preventing relapse. If the corrective action is not

acceptable, further corrective action is required. If the evaluator determines that the corrective action is acceptable, the NCR will be updated and submitted to the QCPM for review. When completed, the NCR will be distributed to the task order file and copies shall be distributed as appropriate.

4.3 REWORK ITEMS LIST

The PQCM shall compile and maintain a list of items requiring rework that do not comply with the task order requirements. The list shall identify what items need to be reworked, the date the item was originally discovered, and the date the item was corrected. Items that are corrected the same day as they are identified will not be considered rework and will not be listed on the Rework Items List.

A copy of the Rework Items List shall be attached to the CPQCR each day or week (as applicable) until the rework is completed and accepted by NAVFAC Northwest.

4.4 LABORATORY NONCONFORMANCE REPORT

If a significant problem with a laboratory analysis impacts data usability and was preventable (i.e., determined not to be a result of sample matrix), the nonconforming item will be documented on a Laboratory Nonconformance Report instead of an NCR. The Project Quality Assurance Manager (PQAM) is responsible for completing the Laboratory Nonconformance Report. As applicable, the laboratory will be notified to institute corrective measures. At the judgment of the PQAM and QCPM, this may include (in increasing order of seriousness) any of the following: reanalysis, resampling and reanalysis, or laboratory reviews and audits. A laboratory review would consist of a selective evaluation of all supporting documentation, QC samples, logbooks, etc. associated with generation of the data, and may include a site visit to the laboratory by the PQAM and/or QCPM, including interviewing of chemists.

The PQAM will notify the government QA manager, contracting officer's representative (COR), remedial project manager (RPM) and Navy chemist of any laboratory nonconformance.

5. ATTACHMENT

A. Hold Tag (Example)

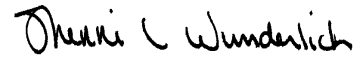
ATTACHMENT A

HOLD	
DO NOT REMOVE THIS TAG WITHOUT Q.C. AUTHORIZATION	
Back	

HOLD	
DN No. _____	NCR No. _____
ORIGINATING ORGANIZATION _____	
ITEM DESCRIPTION _____	
REASON FOR HOLD _____	
PROJECT QC MANAGER _____	
CONDITIONAL RELEASE	
RESTRICTIONS FOR USE _____	
PROJECT QC MANAGER _____	DATE _____
Front	

APPROVED BY:

QUALITY CONTROL SURVEILLANCE



Sherri L. Wunderlich
Quality Control Program Manager

1. PURPOSE

The purpose of this quality control (QC) surveillance procedure is to establish the requirements for performing evaluations to monitor and improve performance and to ensure procedural implementation of activities for task order projects and programs conducted under the Naval Facilities Engineering Command (NAVFAC) Northwest Long-Term Monitoring/Operations and Maintenance (LTM/O&M) Contract. Primary objectives of a QC surveillance system are to:

- Provide a technically competent evaluation of activities
- Provide evaluation and feedback to management
- Provide timely detection and identification of performance and program deficiencies
- Provide a method of self-evaluation
- Verify quality requirements
- Serve as an integral element of the overall QC program

2. SCOPE

This procedure is applicable to any LTM/O&M program activity, including site activity performed by Sealaska personnel and Sealaska's subcontractors.

3. SURVEILLANCE

The QC surveillance is a management tool that emphasizes the observation of activities as they occur. The QC Program Manager (QCPM) or designee may conduct programmatic assessments to measure and evaluate the quality system. More routinely, the Project QC Manager (PQCM) or designee will conduct surveillances of task order site work in

accordance with individual task order requirements and/or as needed. The Program Manager, QCPM, Task Order Manager (TOM), or NAVFAC Northwest Remedial Project Manager (RPM) may also request a surveillance of site work to evaluate an actual or perceived problem area.

The QCPM, PQCM, or designee performing the surveillance shall have a combination of education, experience, and skills commensurate with their functional level of responsibility (i.e., their assigned duties).

3.1 PREPARATION FOR SURVEILLANCE

The TOM and other project staff will be notified verbally and/or in writing of the date and time of an upcoming surveillance of their project.

The personal performing the surveillance may develop a Surveillance Checklist to identify the requirements, acceptance criteria, and other items to be evaluated in accordance with approved task order plans, specifications, or procedures. Past programmatic inspections and surveillance reports may be reviewed to develop a surveillance checklist.

3.2 PERFORMANCE OF THE SURVEILLANCE

The QCPM, PQCM, or designee conducting the surveillance should observe activities, review documentation, and interview appropriate personnel to assess compliance with the specified technical and administrative requirements and the attainment of performance objectives.

For each surveillance, the results of the activity conducted or reviewed will be documented in sufficient detail to ensure that the record clearly reflects who was contacted, what was observed, when it was observed or reviewed, and what results were obtained.

Typically, a checklist will be used to ensure depth and continuity of the surveillance. However, additional items may be included during the surveillance if observations warrant them. Observations will be clearly documented.

3.3 REPORTING SURVEILLANCE RESULTS

After the surveillance is performed, the assessor may complete a Surveillance Report. The report typically includes the following:

- Contract and task order for which the surveillance was performed
- Date and persons contacted during the surveillance

- Findings of deficient work performance, immediate corrective action taken for identified deficiencies, summary of good work practices, and recommendations for improvement
- Summary of needed corrective actions and identification of person(s) responsible for performing correction

Any Surveillance Report will be issued within one week following the surveillance date. The Surveillance Report will be distributed to the responsible parties. For example, a report for a programmatic surveillance will be distributed to the Program Manager, and a report for a task order surveillance will be distributed to the TOM. Additionally, project-specific Surveillance Reports and/or checklists will be included with the Contractor Production/QC Report (CPQCR) submitted by the PQCM to the NAVFAC Northwest Remedial Project Manager (RPM) and Navy Technical Representative (NTR).

3.4 CORRECTIVE ACTION AND FOLLOW-UP

The Surveillance Report prompts the assessor to document corrective action to be taken by the responsible person for deficient items that affect quality. The responsible party shall respond with an outline of corrective actions being taken to correct or prevent recurrence. If adverse conditions are significant, a root cause determination should also be performed. The PQCM will communicate the progress of any corrective action on the CPQCR to NAVFAC Northwest's RPM and NTR to ensure corrective action is conducted in a timely manner.

If necessary, follow-up surveillance will then be scheduled to ensure corrective actions have been implemented to correct deficiencies and rectify the causes of adverse trends.