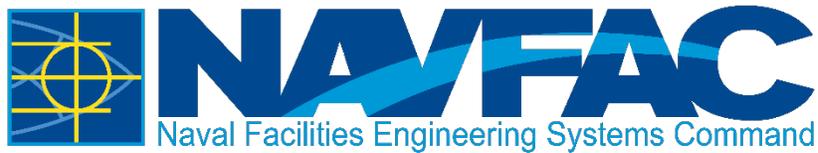


2024 Land Use Controls Inspection Work Plan Naval Air Station Whidbey Island, Oak Harbor, Washington, and Naval Ocean Processing Facility Coos Head, Charleston, Oregon

**United States Department of the Navy
Naval Facilities Engineering Systems Command
Engineering Field Activity, Northwest
1101 Tautog Circle
Silverdale, WA 98315-1101**



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**Naval Facilities Engineering Systems Command Northwest
Silverdale, WA**

Final

2024 Land Use Controls Inspection Work Plan

Naval Air Station Whidbey Island, Oak Harbor,
Washington, and Naval Ocean Processing Facility
Coos Head, Charleston, Oregon

August 2024

DCN: LBJV-5006-4113-0003

Prepared for:

United States Department of the Navy
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Contract Number: N44255-20-D-5006; Task Order No. N4425524F4113

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**FINAL
2024 LAND USE CONTROLS INSPECTION WORK PLAN
FOR
NAVAL AIR STATION WHIDBEY ISLAND, OAK HARBOR, WASHINGTON, AND
NAVAL OCEAN PROCESSING FACILITY COOS HEAD, CHARLESTON, OREGON**

August 2024

**Prepared for
United States Department of the Navy
Naval Facilities Engineering Systems Command Northwest
Silverdale, WA 98315**

REVIEW AND APPROVAL

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Acronyms and Abbreviations

APP	Accident Prevention Plan
avgas.....	aviation gasoline
bgs	below ground surface
CAP	Cleanup Action Plan
CERCLA.....	Comprehensive Environmental Response, Compensation, and Liability Act
COC	contaminant of concern
COR	Contracting Officer's Representative
CSM	conceptual site model
EA	EA Engineering, Science, and Technology, Inc., PBC
EC	engineering control
Ecology	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
EPP	Environmental Protection Plan
ESD.....	Explanation of Significant Differences
FOL	Field Operations Lead
FS.....	feasibility study
FFS	focused feasibility study
GETR	groundwater extraction, treatment, and recharge
GIS.....	geographic information system
HSM	Health and Safety Manager
IC.....	institutional control
JP-4.....	jet propellant No. 4
JP-5.....	jet propellant No. 5
LHTR.....	Lake Hancock Target Range
LTM	long-term monitoring
LUC	land use control
LUCIP.....	Land Use Control Implementation Plan

Acronyms and Abbreviations (continued)

MC.....	munitions constituent
MEC.....	munitions and explosives of concern
mg/kg.....	milligrams per kilogram
MGR.....	machine gun range
MPPEH.....	material potentially presenting an explosive hazard
MRP.....	Munitions Response Program
MTCA.....	Model Toxics Control Act
MTRR.....	mobile turret tower range
NAS.....	Naval Air Station
NAVFAC.....	Naval Facilities Engineering Systems Command
Navy.....	United States Department of the Navy
NOPF.....	Naval Ocean Processing Facility
NTCRA.....	non-time critical removal action
NTR.....	Navy Technical Representative
O&M.....	operation and maintenance
OU.....	operable unit
PA.....	preliminary assessment
PAH.....	polycyclic aromatic hydrocarbon
PCB.....	polychlorinated biphenyl
RAO.....	remedial action objective
RI.....	remedial investigation
ROD.....	Record of Decision
RPM.....	Remedial Project Manager
SSHO.....	Site Safety and Health Officer
SVOC.....	semivolatile organic compound
TCE.....	trichloroethene
TOM.....	Task Order Manager
TPH.....	total petroleum hydrocarbon
UST.....	underground storage tank
UXO.....	unexploded ordnance

Acronyms and Abbreviations (continued)

VOCvolatile organic compound

yd³cubic yard

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1.0 Introduction

This Land Use Controls (LUCs) Inspection Work Plan describes the procedures for LUC inspections, particularly for institutional controls (ICs) and engineering controls (ECs), at specified areas/sites on Naval Air Station (NAS) Whidbey Island, Oak Harbor, Washington. This work plan was prepared by Liberty JV under the U.S. Department of the Navy (Navy) Contract No. N44255-20-D-5006, Task Order No. N4425524F4113, for Naval Facilities Engineering Systems Command (NAVFAC) Northwest.

The Naval Ocean Processing Facility (NOPF) Coos Head Former Tank #6 Site is on a five-year inspection schedule, and the next inspection of NOPF Coos Head will be conducted in 2028. This plan does not include inspections at NOPF Coos Head Tank #6 Site because this task will be performed by the Navy. In addition, the EO351, Former Lake Hancock Target Range (LHTR) LUC inspection is not part of the contracted scope for the 2024 LUC inspections, and will be conducted by a different contractor. The results of the LHTR LUC inspections will be included in the 2024 LUC Inspection Report.

1.1 Purpose

The purpose of this work plan is to define the inspection procedures to be conducted and associated documentation to be prepared during the annual LUC inspections at a total of 19 areas/sites at NAS Whidbey Island listed in the *Land Use Controls Implementation Plan, Naval Air Station Whidbey Island, Oak Harbor, Washington, and Naval Ocean Processing Facility Coos Head, Charleston, Oregon* (LUCIP) (Liberty JV, 2020). The NAS Whidbey Island inspections and associated documentation will support:

1. Determining the effectiveness of the LUCs to protect human health and the environment.
2. Determining whether the specified LUCs are meeting the required level of protection and, if necessary, providing recommendations for future LUC improvements or corrective actions.
3. Providing documentation to the regulatory agencies (i.e., U.S. Environmental Protection Agency [EPA] and Washington State Department of Ecology [Ecology]) of the inspection and that LUCs have not been modified or terminated and land use has not been modified (without approval) at any site listed in this work plan.

The following are used as implementation tools to administer the LUC requirements:

- Existing site approval procedures (described in NASWHIDBEY Instruction 11013.2B, Site Approval Procedures, dated 7 November 2005).
- NAS Whidbey Island security procedures to ensure access control.
- A geographic information system (GIS) database to track all boundaries/areas under LUC restriction.
- Five-year reviews to evaluate the protectiveness of the LUCs along with these annual LUC inspections are used as implementation tools to administer the LUC requirements.

1.2 Regional and Facility Description

NAS Whidbey Island is located on Whidbey Island in Island County, Washington, at the northern end of Puget Sound and the eastern end of the Strait of Juan de Fuca (Figure 1-1). Whidbey Island is a north/south-oriented island approximately 40 miles in length, ranging from 1 to 10 miles in width. NAS Whidbey Island is a Navy facility comprising eight geographically distinct sites. Three of these sites have specific areas/sites that require LUCs: Ault Field (4,337 acres), Seaplane Base (2,773 acres), and Former LHTR (423 acres), which are shown on Figures 1-2, 1-3, and 1-4, respectively. The facility is bordered by residential and agricultural land uses and is located near the city of Oak Harbor, which has a population of approximately 24,016 based on 2023 data (U.S. Census Bureau, 2024).

1.3 Description of LUCs

LUCs include both ICs (i.e., administrative and/or legal) and ECs (i.e., physical) that are used to provide protection from exposure to contaminants that exist or remain on a site (Interstate Technology and Regulatory Council, 2008). The determination as to the type and duration of a specific LUC depends on regulatory requirements and site-specific conditions, although many controls are put in place for long-term use. The *Department of the Navy Environmental Restoration Program Manual* (Navy, 2018a) further describes LUCs as follows:

LUCs include engineering controls and institutional controls. Engineering controls are remedies to contain and/or reduce contamination, and/or physical barriers intended to limit access to property. Engineering controls may include fences, signs, guards, landfill caps, provision of potable water, slurry walls, sheet pile, and monitoring wells. Institutional controls include a variety of administrative and/or legal devices to maintain the viability and

effectiveness of the selected remedy and any engineering controls. Institutional controls are imposed to ensure that the engineering controls stay in place, or where there are no engineering controls, to ensure a restriction on land use. Institutional controls include affirmative and negative easements, affirmative and restrictive covenants, equitable servitudes, notices (in deeds, newspapers, etc.), zoning, permits (such as construction, excavation, well drilling, etc.), agreements with regulators, and reporting on LUC maintenance.

The relevant areas/sites at NAS Whidbey Island that require LUC inspections are further discussed throughout this work plan and are shown on Figures 1-2 through 1-4.

1.3.1 ICs

ICs are measures to prevent or limit exposure to contaminants or hazardous substances left in place at a site or to ensure effectiveness of the chosen remedy until cleanup levels are achieved at the site. ICs are typically legal controls, such as easements, restrictive covenants, and zoning ordinances. ICs are imposed to ensure that the ECs remain in place or, where there are no ECs, the restrictions on land use stay in place to protect human health and the environment. For NAS Whidbey Island, the selected ICs include land use and excavation restrictions.

Land Use Restrictions: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act, and Ecology's Model Toxics Control Act (MTCA) regulations require cleanup of hazardous substances that have been released into the environment to a degree that is determined to be protective of human health and the environment. The purpose of ICs is to ensure compliance with land use assumptions used to establish cleanup levels. The reasonably anticipated future use of land is an important consideration in determining the extent of cleanup necessary to achieve the required protectiveness. For example, if the site is an industrial area and is anticipated to remain industrial, residual contamination may remain on site under the assumption that the land will not be used for residential purposes. The contaminant levels left on the site are safe for workers but may not be safe for full-time residents living on the property if land use becomes residential in the future. In this example, ICs would be necessary to restrict present and future land use to industrial purposes and ensure that ECs remain in place.

Soil Excavation Restrictions: There are two types of soil excavation restrictions for NAS Whidbey Island:

1. Excavation Notifications. An excavation notification is required for each proposed excavation below 2 feet at each of the IC areas/sites. The notifications will be

evaluated by the Navy to determine whether a proposed project at an IC site is consistent with the land use assumptions. The notifications are an additional tool for the Navy to receive timely information (in the absence of local zoning requirements) to monitor land use restrictions. The primary purpose of the IC excavation notification is to inform the Navy of any changes to land use. The areas and/or sites with requirements for excavation notifications include Area 5, Highway 20/Hoffman Road (Surface) Landfill; Area 4, Walker Barn Storage Area; Area 29, Clover Valley Fire School; Area 16, Runway Ditches; Area 31, Former Runway Fire Training School; Area 52, Jet Engine Test Cell; Site 22, Hangar 5; Former Machine Gun Ranges (MGRs) B and C; Former Mobile Turret Tower Range (MTTR); Former Fuel Farms 1, 2, 3, and 4; and Site 45, Trichloroethene (TCE) Tank.

2. Absolute Excavation Prohibitions. At some IC areas/sites, such as former landfills or where there exists a protective cover/cap, excavation by non-Navy personnel is absolutely prohibited, although recreational land uses that add additional cover (e.g., ballfield or golf course) may be permissible. Navy personnel are allowed to excavate for the purposes of repairing landfill caps or conducting other maintenance activities. The areas and/or sites with absolute excavation prohibitions include Area 6, Current (1969–1980s) Landfill; Area 2, Western Highlands Landfill; Area 3, 1969–1970 Landfill; Areas 48/49, Seaplane Base Landfill; and Area 1, Former Beach Landfill.

The ICs identified in this work plan are inspected and reported on as a necessary part of the operation and maintenance (O&M) of the ICs. Ultimately, the activities described in this work plan assess the need for any addition to or reduction in inspection requirements and determine whether the ICs in place are effective. These activities will also be the basis for evaluating the effectiveness of ICs as part of the five-year review process for CERCLA, Munitions Response Program (MRP), and petroleum sites. Because of the presence of chemicals above non-restrictive land use cleanup levels at some areas/sites, NAS Whidbey Island will continue to be subject to five-year reviews pursuant to applicable federal and state regulations. Site inspections are an important element in ensuring the effectiveness of the ICs in place at the areas/sites.

1.3.2 ECs

ECs encompass a variety of engineered remedies to contain or reduce contamination or provide physical barriers intended to limit access to property. For NAS Whidbey Island, ECs include fences, gates, and signage; landfill covers/caps and shoreline armoring; treatment systems; and groundwater monitoring wells.

As part of this annual inspection, field personnel will inspect fences, gates, landfill covers/caps, and shoreline armoring and will note current conditions. Field personnel will also inspect groundwater monitoring wells that are part of contaminant containment or monitored natural attenuation remedies at various sites and document current conditions in field checklists. Sampling will not be included as part of this annual inspection because sampling of these monitoring wells is included in annual long-term monitoring (LTM) and O&M activities (on other contracts).

Under the Explanation of Significant Differences (ESD) to the Records of Decision for Operable Units 1, 2, 3, 4, & 5 at Naval Air Station Whidbey Island (Navy, 2007a), various warning or hazard signs were identified to be posted around the perimeter of some sites. Field personnel will inspect these hazard signs on fencing or posted around the perimeter of the required sites and note current conditions as part of this annual inspection.

1.4 Project Structure and Responsibilities

The lead agency, NAVFAC Northwest, is responsible for ensuring the effectiveness of the LUCs as long as the Navy controls the property or until LUCs are no longer needed. Overall, several organizations, including NAVFAC Northwest, regulatory agencies, and Liberty JV, have responsibilities for inspecting and ensuring the effectiveness of the LUCs at NAS Whidbey Island. Figure 1-5 provides an organizational chart with the lines of authority and communication, and Table 1-1 lists the points of contact and associated organizations and contact information.

Staff from NAVFAC Northwest will be responsible for the following:

- **Contracting Officer:** Navy's authority to award delivery order contracts and modifications, including period of performance extensions. Any changes to the contract scope, budget, or overall schedule must come from the Contracting Officer.
- **Contracting Officer's Representative (COR):** Provides technical support to the Contracting Officer. The COR has the authority to provide technical direction but cannot direct a change to the scope or budget.
- **NAVFAC Northwest Remedial Project Manager (RPM):** Overall responsibility to the Navy for completion of the LUC inspections in accordance with the project plans. The RPM performs the following tasks:
 - a. Planning and securing funding to support LUC management.
 - b. Identifying LUC deficiencies or failures and planning and implementing corrective actions.

- c. Communicating with federal and state agencies as it pertains to LUC effectiveness, maintenance, and management (including any LUC failures, proposed corrective actions, and land use changes).
 - d. Notifying and consulting with EPA and/or Ecology prior to making substantive changes to the LUC Implementation Plan.
 - e. Notifying EPA and/or Ecology 6 months prior to any conveyance of property subject to LUCs, including federal-to-federal transfers.
 - f. Reviewing any planned actions, programs, or construction that will take place on sites or in areas at which LUCs have been implemented and specifying compliance requirements or conditions for these planned actions, programs, or construction.
 - g. Planning, conducting, and reporting on annual and five-year review LUC inspections.
 - h. Reviewing and assessing inspection reports compiled during each five-year period and making recommendations regarding LUCs based on the evaluation of LUC effectiveness.
- **Navy Technical Representative (NTR):** Provides technical quality assurance on behalf of the Navy and reports issues to the RPM and COR.

Regulatory agency staff will be responsible for the following:

- **EPA RPM:** Reviewing annual LUC inspection reports; reviewing the determination on the effectiveness of the LUCs at NAS Whidbey Island; and providing the NAVFAC Northwest RPM with assistance to address identified LUC deficiencies or failures.
- **Ecology Project Coordinator:** Reviewing annual LUC inspection reports; reviewing the determination on the effectiveness of the LUCs at NAS Whidbey Island; and providing the NAVFAC Northwest RPM with assistance to address identified LUC deficiencies or failures.

In support of the LUC inspections at NAS Whidbey Island, Liberty JV personnel will be responsible for the following:

- **Liberty JV Task Order Manager (TOM):** Management of all aspects of the project and providing direction to project personnel. The TOM will report directly to the NAVFAC Northwest RPM on project-related issues.

-
- **Liberty JV Field Operations Lead (FOL):** Management of field personnel assigned to the LUC inspections and reporting to the Liberty JV TOM. The FOL is responsible for the following:
 - a. Supervising on-site field personnel.
 - b. Ensuring completion of the project on schedule and within budget, in accordance with the project plans.
 - c. Ensuring compliance with all environmental, health, and safety requirements, including Liberty JV, Occupational Safety and Health Administration, Washington Industrial Safety and Health (Department of Labor and Industries), and any NAVFAC Northwest-specific requirements.
 - d. Ensuring compliance with all Liberty JV corporate policies, programs, and procedures applicable to the project.
 - e. Ensuring that adequate site security, appropriate for the activities being performed, is maintained.
 - f. Ensuring that an adequate labor force is assigned to the project with the proper training, education, experience, skills, equipment, and materials to complete the task.

 - **Liberty JV Site Safety and Health Officer (SSHO):** Ensures that field activities are performed in compliance with applicable NAVFAC Northwest and site-specific requirements and regulations; ensures that field activities are performed in accordance with the approved Accident Prevention Plan (APP) (Appendix A); assists with the implementation of Liberty JV health and safety programs and guidelines; and reports to the FOL and Health and Safety Manager (HSM). The SSHO is responsible for the following:
 - a. Ensuring that Liberty JV personnel understand the requirements of the Liberty JV health and safety programs and procedures through training and communications.
 - b. Ensuring and documenting that field personnel have read and understood the APP.
 - c. Conducting and documenting the daily safety tailgate meetings and inspections.
 - d. Exercising stop-work authority when warranted by conditions, in accordance with the APP.
 - e. Supporting the FOL in accident and incident investigations.

- f. Functioning as a technical resource for all environmental, safety, loss, and industrial hygiene issues.
 - g. Performing on-site monitoring to determine the appropriate levels and use of personal protective equipment.
 - h. Performing site surveillances, hazard identification, and health risk analysis.
 - i. Implementing procedures and programs to eliminate risk to field personnel, including initiating changes to the APP.
 - j. Implementing site control measures.
 - k. Providing summaries of field activities and progress to the HSM.
- **Liberty JV HSM:** The HSM provides technical guidance to ensure that all project activities are conducted in compliance with applicable federal, state, and local environmental, health, and safety statutes, regulations, and guidance. The HSM, or designated representative, has discretionary authority to shut down project activities if there are health and safety concerns. In addition, the HSM is responsible for the following:
 - a. Overseeing the development, revision, and approval of the APP (Appendix A).
 - b. Auditing the training of pertinent Liberty JV personnel.
 - c. Reviewing health and safety issues that may arise during the project.
 - d. Approving SSHO assignments and project responsibilities.
 - e. Coordinating changes in personal protective equipment requirements with the SSHO.
 - f. Conducting major accident investigations.
 - g. Conducting periodic audits and inspections, if warranted.

1.5 Organization and Content of Work Plan

This work plan for the annual NAS Whidbey Island LUC inspections provides a detailed discussion of the 20 specified areas/sites, including site history and description, maps, and established LUCs. Most importantly, the work plan describes the inspection procedures that will be implemented prior to and during the field activities conducted at NAS Whidbey Island. This plan does not include inspections at NOPF Coos Head Tank

#6 Site, as this site will be inspected by the Navy. This work plan is organized in the following manner, with figures and tables presented at the end of the applicable section:

- Section 1.0 – Introduction
- Section 2.0 – Site Description and History
- Section 3.0 – Inspection Activities
- Section 4.0 – Schedule, Submittal, and File Management
- Section 5.0 – References

The APP and Environmental Protection Plan (EPP) are provided as Appendices A and B, respectively. The site/area-specific LUC Inspection Checklists and Groundwater Monitoring Well Visual Inspection Checklist are contained in Attachments 1 and 2, respectively. Overall, the organization of the work plan will support development of a field logbook and efficient execution of the LUC inspections at NAS Whidbey Island. The Field Change Request form can be found in Attachment 3, and Attachment 4 is reserved for responses to comments from agency review of the Work Plan.

Table 1-1: Organization and Contact Information

Name & Title	Organization	Contact Information
Christie Kroskie NAVFAC Northwest RPM, COR	NAVFAC Northwest	(352) 364-7522 (mobile) christi.l.kroskie.civ@us.navy.mil
Steven Skeehan NTR		(360) 396-1114 (office) (253) 279-0212 (mobile) steven.b.skeehan.civ@us.navy.mil
Laura Muhs Installation Environmental Program Director	NAS Whidbey Island Public Works, Environmental Division	(360) 257-4025 (office) laura.r.muhs.civ@us.navy.mil
Bill Bates Area 6 Treatment Plant Operator	Navy Contractor	(610) 470-1461 wbates@eaest.com
Chan Pongkhamsing EPA RPM	EPA Region 10 SCU4, Superfund and Emergency Management Division	(206) 553-1806 Pongkhamsing.Chan@epa.gov
Binod Chaudhary Ecology Site Manager	Ecology	(564) 669-3015 bcha461@ECY.WA.GOV
Teresa Wilson Liberty JV Program Manager	Liberty JV	(503) 207-9660 (office) (360) 936-8639 (mobile) teresa.wilson@wsp.com
Chelsea Foster Liberty JV Task Order Manager and FOL		(360) 820-3400 (mobile) chelsea.foster@wsp.com
Josh Sandige Liberty JV SSHO		(707) 954-3607 (mobile) jsandige@neiaw.com
Trevon Wilson Liberty JV HSM		(316) 202-9030 (mobile) Trevon.wilson@wsp.com

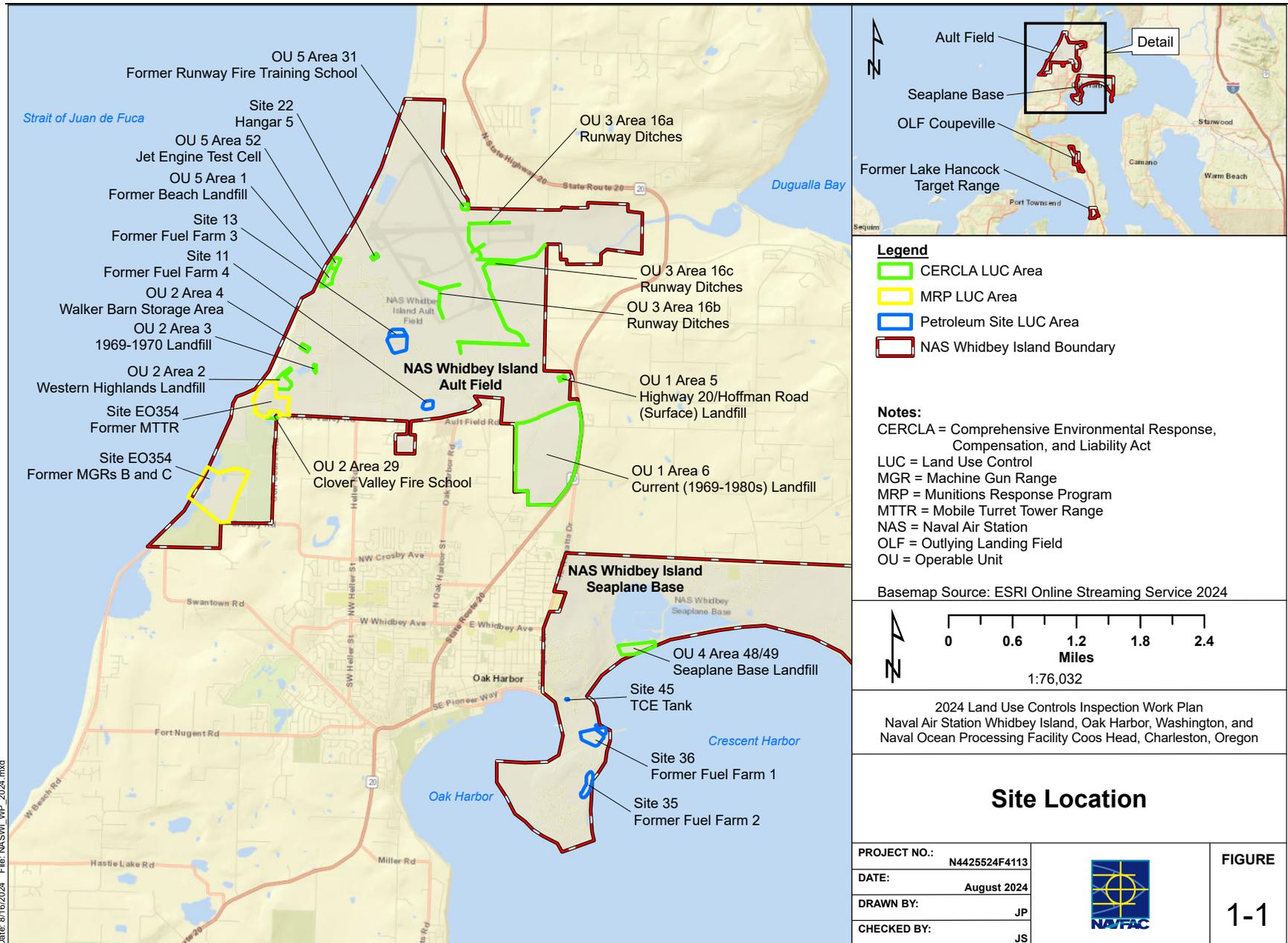
Table 1-1: Organization and Contact Information (continued)

Acronyms/Abbreviations:

COR = Contracting Officer's Representative
Ecology = Washington State Department of Ecology
EPA = U.S. Environmental Protection Agency
FOL = Field Operations Lead
HSM = Health and Safety Manager
NAS = Naval Air Station
NAVFAC = Naval Facilities Engineering Systems Command
NTR = Navy Technical Representative
RPM = Remedial Project Manager
SSHO = Site Safety and Health Officer

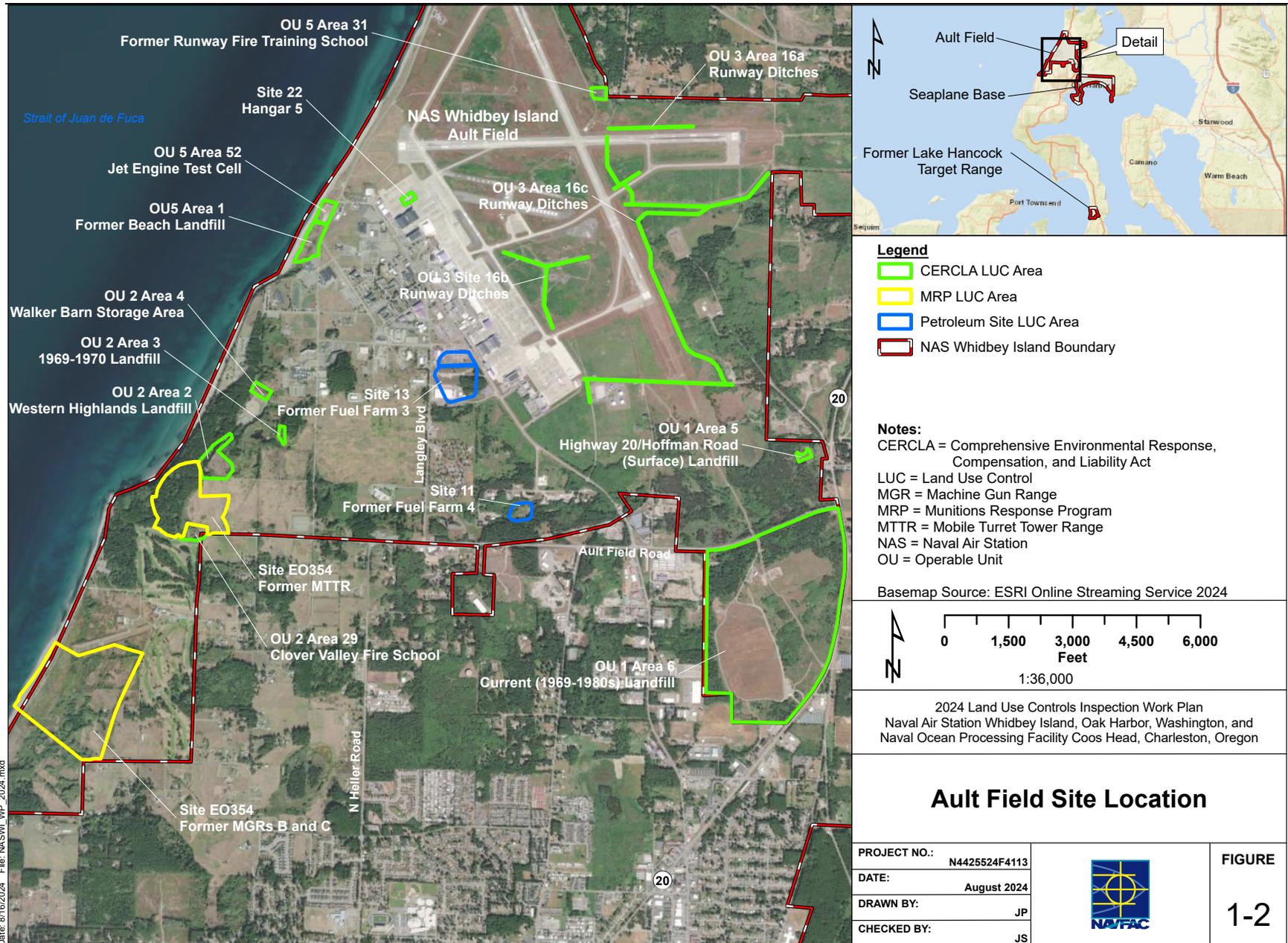
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 NAS Whidbey Island and NOPF Coos Head

Introduction



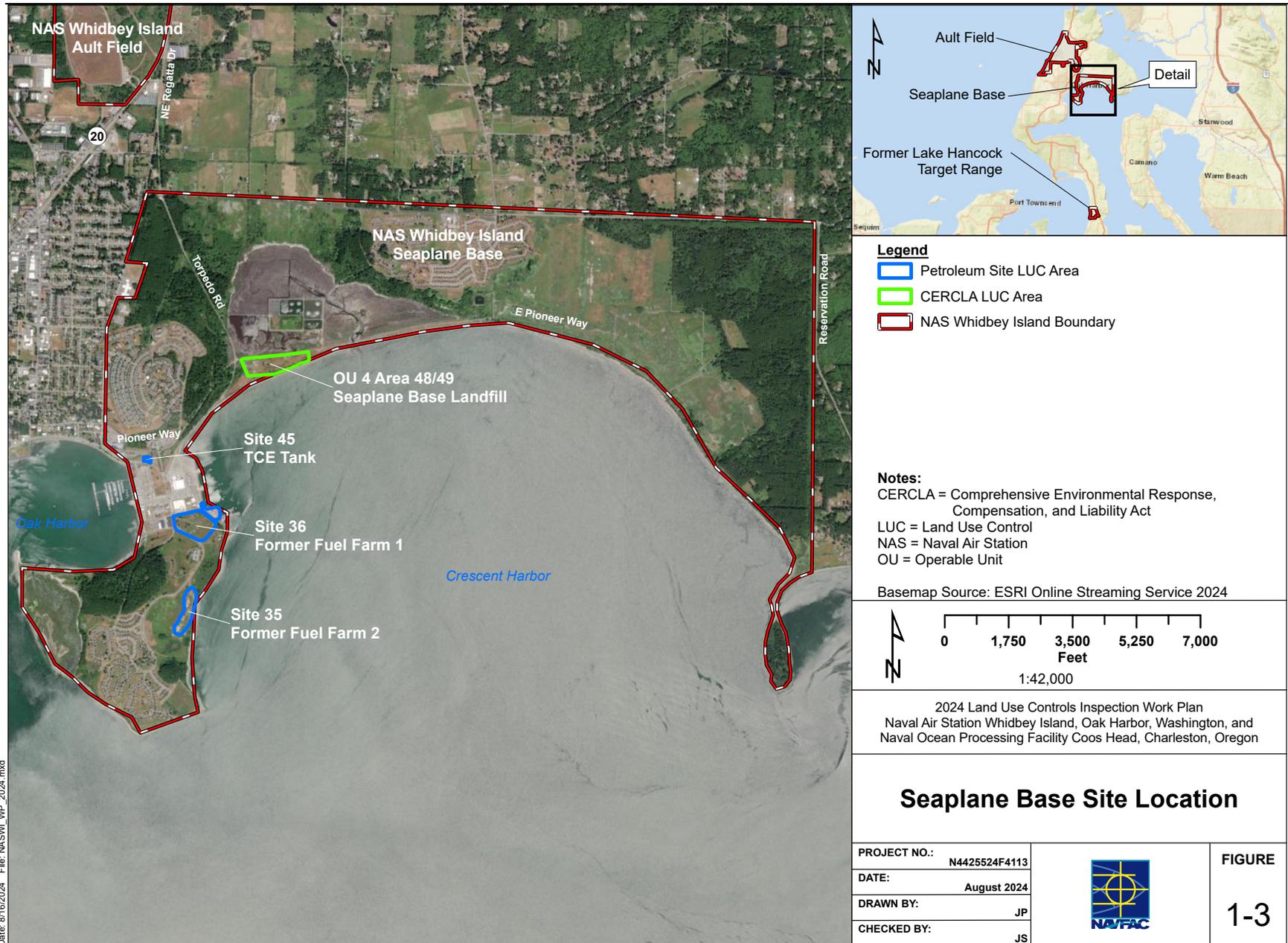
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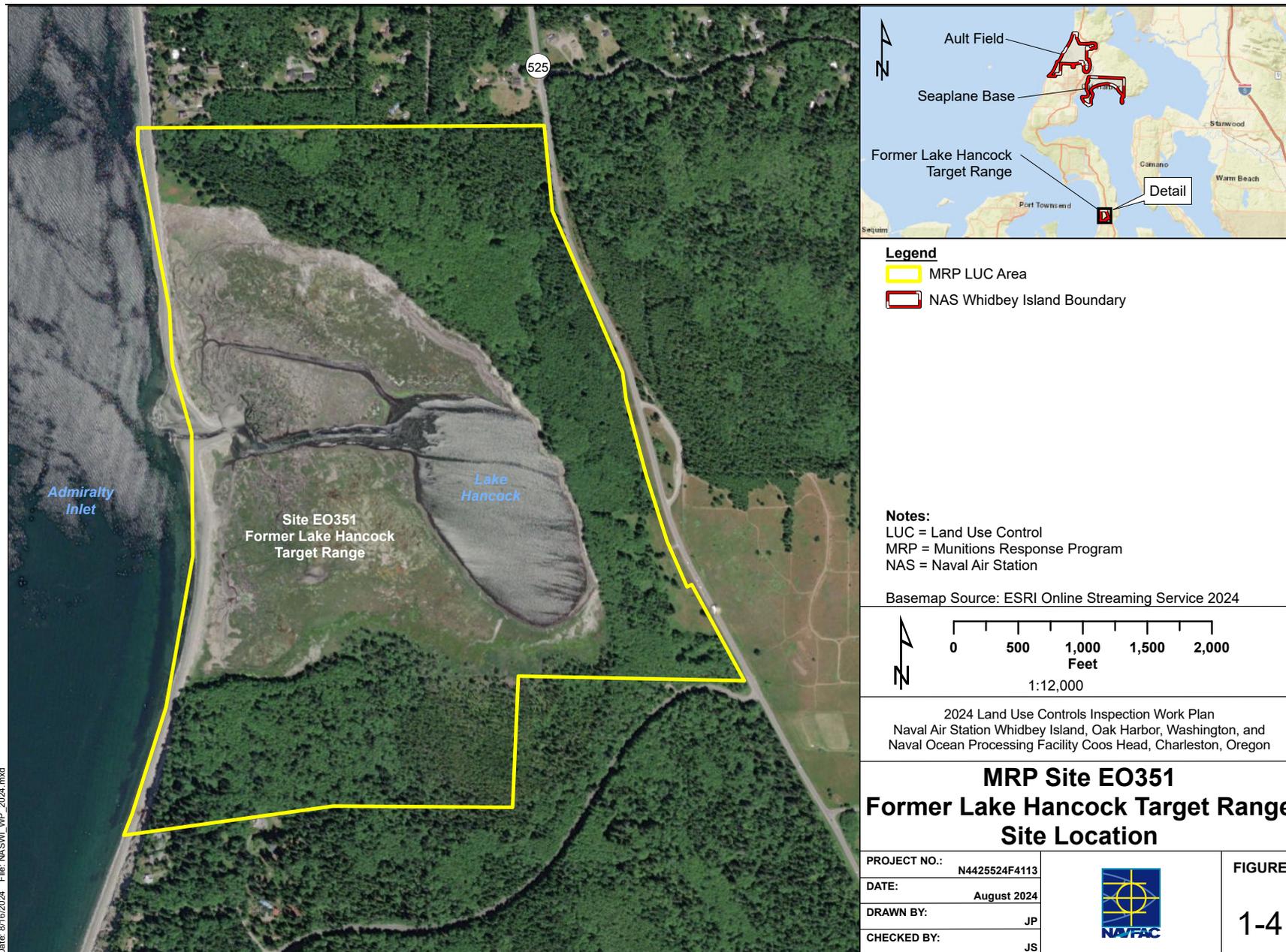
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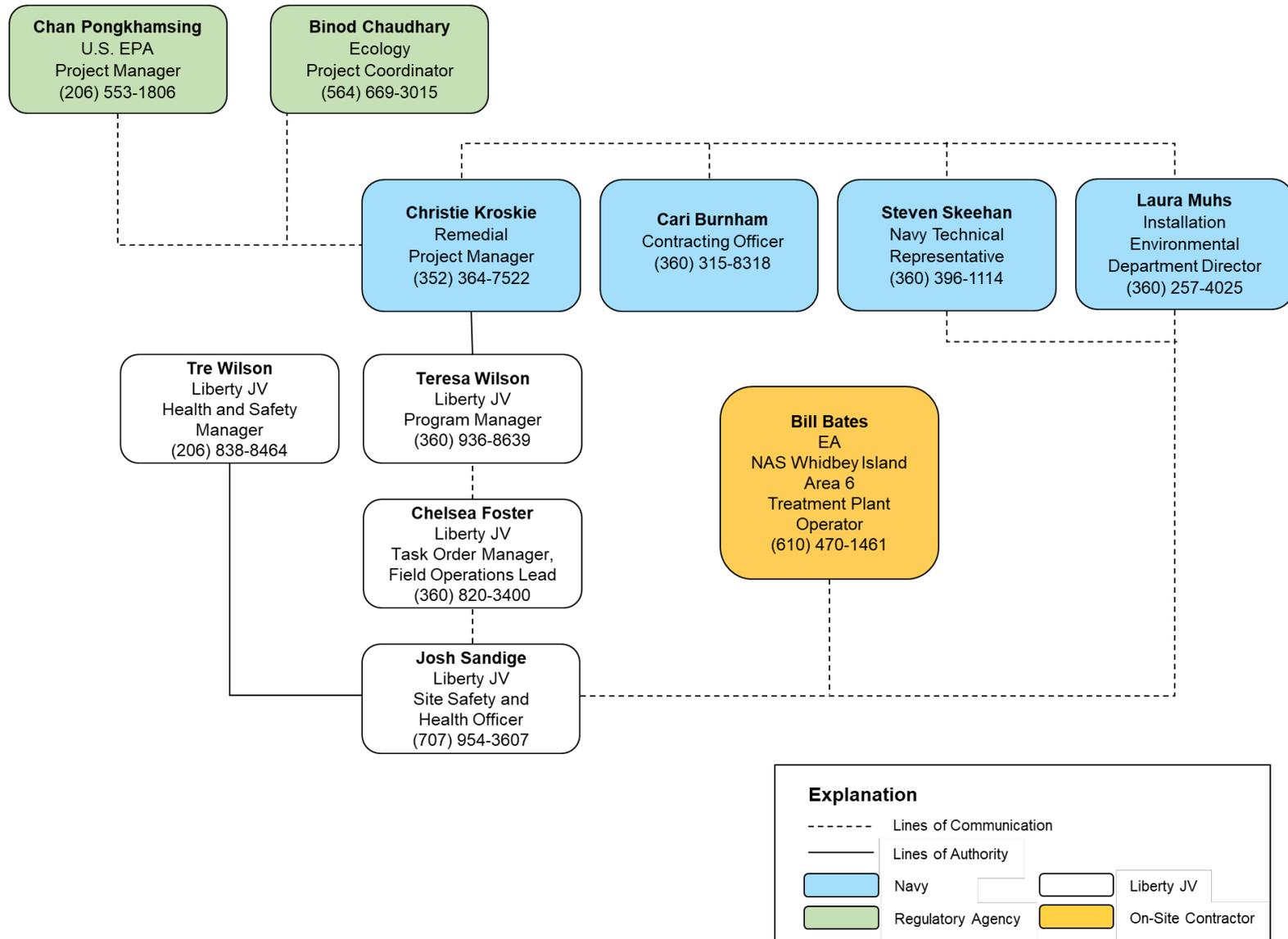
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Figure 1-5: NAS Whidbey Island LUC Inspections Organizational Chart



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2.0 Site Description and History

This section provides a description of the conditions and historical activities conducted at the areas/sites at NAS Whidbey Island listed in the LUCIP (Liberty JV, 2020).

2.1 CERCLA Sites

LUCs are implemented under CERCLA at Operable Units (OUs) 1 through 5 as required by the applicable Records of Decision (RODs) (Navy, Ecology, and EPA, 1993a, 1993b, 1994, 1995, and 1996) and ESD in accordance with the *Explanation of Significant Differences to the Records of Decision for Operable Units 1, 2, 3, 4, & 5 at Naval Air Station Whidbey Island* (Navy, 2007a).

EPA placed two areas of NAS Whidbey Island (i.e., Ault Field and Seaplane Base) on the National Priorities List in 1990. Following CERCLA and Superfund Amendments and Reauthorization Act guidelines, Ault Field and Seaplane Base were administratively divided into the following five OUs, each addressed by an individual ROD that was signed by the Navy, Ecology, and EPA:

- OU 1 – Ault Field, EPA/ROD/R10-94/075 (Navy, Ecology, and EPA, 1993a):
 - Area 5, Highway 20/Hoffman Road (Surface) Landfill
 - Area 6, Current (1969–1980s) Landfill
- OU 2 – Ault Field, EPA/ROD/R10-94/077 (Navy, Ecology, and EPA, 1994):
 - Area 2, Western Highlands Landfill
 - Area 3, 1969–1970 Landfill
 - Area 4, Walker Barn Storage Area
 - Area 29, Clover Valley Fire School
- OU 3 – Ault Field, EPA/ROD/R10-95/113 (Navy, Ecology, and EPA, 1995):
 - Area 31, Former Runway Fire Training School (addressed as part of OU 5)
 - Area 16, Runway Ditches
- OU 4 – Seaplane Base, EPA/ROD/R10-94/074 (Navy, Ecology, and EPA, 1993b)
 - Areas 48/49, Seaplane Base Landfill
- OU 5 – Ault Field, EPA/ROD/R10-96/142 (Navy, Ecology, and EPA, 1996):
 - Area 1, Former Beach Landfill

- Area 31, Former Runway Fire Training School
- Area 52, Jet Engine Test Cell

The NAS Whidbey Island RODs and associated remedial actions for all five OUs have either been fully completed or are in LTM or O&M status. Additionally, Seaplane Base, which comprises OU 4, has since been deleted from the National Priorities List. However, when the RODs were signed, LUCs included in the RODs were unclear and lacked both detailed objectives and specific requirements. Therefore, the ESD (Navy, 2007a) was completed to clarify LUC objectives, requirements, and responsibilities for OUs 1 through 5.

In addition, Site 22 Hangar 5 was included in the suite of CERCLA sites in 2016 after workers described a petroleum-like odor while removing concrete slabs in the flight line north of Hangar 5. There is no decision document requiring LUCs at Site 22 Hangar 5; however, LUCs are needed to ensure long-term protection of human health and the environment. Therefore, LUCs for Hangar 5 were developed based on the nature and extent of contamination described in the Soil and Groundwater Sampling Results, Hangar 5, Naval Air Station Whidbey Island, Oak Harbor, Washington (Multimedia Environmental Compliance Group and AECOM, 2016).

Additional descriptions of LUC requirements for each CERCLA site at NAS Whidbey Island are presented in Section 3.

2.1.1 OU 1, Area 5, Highway 20/Hoffman Road (Surface) Landfill

OU 1, Area 5, is an approximately 350-foot-long by 200-foot-wide area located north of Ault Field Road and west of State Highway 20 (Figure 2-1) that was initially used as a gravel borrow area. Although no record exists that the site ever received hazardous wastes, it was used as a landfill between 1958 and 1959. Waste was purportedly limited to surface disposal of nonresidential material (construction debris, scrap metals, etc.).

The remedial actions specified in the OU 1 ROD (U.S. Navy, Ecology, and EPA, 1993a) required a six-month groundwater monitoring program with no further action status for soils and sediment at the site. Investigation of the small freshwater wetland that had historically received surface water from the excavation suggested that no suspected wastes had released contaminants to the wetlands. The groundwater monitoring was completed in 1996 and, since that time, no additional remedial action has occurred at this site. OU 1, Area 5, is currently a flat open area covered by vegetation.

2.1.2 OU 1, Area 6, Current (1969–1980s) Landfill

OU 1, Area 6, is a tract of land approximately 260 acres in size located south of Ault Field Road, west of State Highway 20, and adjacent to the intersection of these two roads (Figure 2-2). Within OU 1, Area 6, there are two parcels of land where historical waste activities took place: a former landfill and former liquid waste disposal pit (not depicted on Figure 2-2). The former landfill received Navy household municipal waste from 1969 to 1992. The former liquid waste disposal pit accepted industrial waste beginning in 1969 and ending in the early 1980s. Waste consisted of solvents, oily sludge, thinners, and other hazardous compounds. The industrial waste disposal area was filled and is now covered with natural vegetation.

The main entrance to the landfill is via NAS Whidbey Island Gate 90 on Ault Field Road. OU 1, Area 6, is located on a gently east–southeast sloping hill with the approximately 49-acre landfill situated at about 100 feet above mean sea level. The landfill comprises several closed and capped landfill cells that are each approximately 20 feet deep. OU 1, Area 6, is the only landfill at NAS Whidbey Island with an engineered landfill cap. OU 1, Area 6, is bordered by Ault Field Road to the north, State Highway 20 to the east, and the Oak Harbor Landfill on the south and southwest. The land located immediately to the west is privately owned property consisting of an electronics manufacturer, a climate-controlled storage facility, undeveloped forest, and a sand and gravel quarrying operation. The Auld Holland Inn and a mobile home park are located to the immediate south of the landfill property. Private residences are located to the east, west, and south of the OU 1, Area 6 landfill.

The remedial investigation (RI) identified six groundwater contaminants and vadose zone soil contamination associated with the two sites. In response to the RI, the OU 1 ROD (Navy, Ecology, and EPA, 1993a) was signed and required that the following selected remedial actions be implemented at the site:

- Installation of a landfill cap on the existing landfill
- Installation of a groundwater extraction, treatment, and recharge (GETR) system to contain groundwater contaminants at the site
- Establishment of a groundwater monitoring program
- Implementation of ICs, including restricting access and preventing drinking water well installations

The landfill cap and GETR system were completed in 1995, and the GETR has been in operation since that time. Both the landfill cap and GETR system are managed under the Navy's LTM/O&M program.

In addition, the Navy conducted a soil removal action in 2000 at the former liquid waste disposal pit. The removal action resulted in the following soil and materials being removed from the site:

- 1,360 cubic yards (yd³) or 2,040 tons of visibly contaminated nonhazardous soil and materials that were sent for thermal desorption and recycling.
- 600 yd³ (900 tons) of hazardous soil and materials that were sent for direct landfill disposal.
- 354 yd³ (531 tons) of hazardous soil and materials that were sent for pretreatment (bioremediation) and eventual disposal.

A total of approximately 166.5 pounds of TCE was removed from the former liquid waste disposal pit area, as documented in the Interim Removal Action Report (U.S. Navy, 2002). The site was then backfilled with clean soil and material and restored to original grade.

1,4-Dioxane was a common stabilizer additive to 1,1,1-trichloroethane, which was a contaminant of concern (COC) in groundwater already identified in the 1993 ROD. 1,4-Dioxane was not initially identified in the ROD as a COC in groundwater, being a relatively unknown contaminant in the 1990s. Therefore, 1,4-dioxane was first sampled for and detected in on-site wells in 2003 and in a private off-site well in 2005, as documented in the focused feasibility study (FFS) for Area 6 (Navy, 2018b). The existing GETR system was not designed to treat extracted water containing 1,4-dioxane, although it does act to hydraulically contain contamination via recirculation. Monitoring has detected levels of 1,4-dioxane that exceed the Ecology MTCA Method B cleanup level of 0.44 microgram per liter in off-site Navy wells. Therefore, the Navy undertook a series of actions to mitigate potential impact to the public and to evaluate alternatives to address the widespread, dilute 1,4-dioxane plume. These actions included replacing the private off-site well, health consultations, public education efforts, expansion of the monitoring well network, bench-scale treatability tests, and several iterations of improvements in the conceptual site model (CSM), culminating in the 2018 FFS (Navy, 2018b).

The 2018 FFS presented an updated CSM for the former source area based on the data collected since the 2000 interim action. The updated CSM concluded that soil contaminant concentrations remaining below the depth of the removal action are decreasing as a result of natural attenuation. The contribution to groundwater contamination from the residual volatile organic compound (VOC) contaminant mass in the vadose zone continues to decrease. The CSM concluded that source area groundwater concentrations will decrease to levels that would be suitable for monitored natural attenuation in the near future (Navy, 2018b).

The 2018 FFS also included a voluntary drinking water investigation around OU 1, Area 6, as a precautionary measure to ensure residents living near the area are not exposed to 1,4-dioxane or vinyl chloride and to better delineate the 1,4-dioxane and vinyl chloride plumes for ROD Amendment. Most significantly, the 2018 FFS proposed remedial action objectives (RAOs) for an integrated groundwater remedy that were intended to supersede the 1993 OU 1 ROD RAOs. The revised RAOs and groundwater remedy, primarily proposed to reduce potential TCE and 1,4-dioxane risks to current and future groundwater users downgradient of the site, were approved in the 2019 ROD Amendment (Navy, 2019a). The ROD Amendment modified the groundwater treatment technology component of the remedy that was selected for OU 1, Area 6, in the 1993 OU 1 ROD, but did not affect the selected remedy components for the landfill remedy as stated in the ROD Amendment.

According to the O&M Manual for Southern GETR System Using Advanced Oxidation Process Area 6 (CTI-URS JV LLC, 2022), two independent GETR systems were designed for construction to replace the existing GETR system. One system was constructed and became operational in the southern portion of the site in 2021 and is addressing the southern plume. The second system is under construction at the previous Western air stripper GETR system location and will address the western plume (CTI-URS JV LLC, 2022).

2.1.3 OU 2, Area 2, Western Highlands Landfill

OU 2, Area 2 is a 13-acre former landfill located southwest of the current fire training school at Ault Field in OU 2 (Figure 2-3). From 1959 to 1969, the landfill was the principal disposal area for solid wastes from NAS Whidbey Island. The landfill received industrial wastes as well as construction and demolition debris. The site is situated on a topographic high of approximately 118 feet above mean sea level and slopes eastward. Beyond the western boundary of OU 2, Area 2, which is covered with mixed evergreen species, the topography slopes moderately to steeply toward the Strait of Juan de Fuca. A gravel security road and a base perimeter fence define the southern boundary, and a wetland is located near the eastern boundary of OU 2, Area 2. A gravel security road bisects Area 2 along a north/south transect.

Remedial actions specified in the OU 2 ROD (Navy, Ecology, and U. S. EPA, 1994) for Area 2 included ICs (i.e., residential use deed restrictions) to be monitored under this LUC program and an initial six-month groundwater monitoring program. The LUC requirements for OU 2, Area 2, were formalized in the ESD (Navy, 2007a) and groundwater monitoring continues as part of the selected remedy.

2.1.4 OU 2, Area 3, 1969 to 1970 Landfill

OU 2, Area 3 is a 1.5-acre parcel located east of OU 2, Area 2, and southeast of the current fire training school (Figure 2-4). OU 2, Area 3, was used for disposal of solid waste from 1969 to 1970. The materials disposed of in this landfill, are similar to those in the OU 2, Area 2 landfill. The landfill is covered with soil and is vegetated. OU 2, Areas 2 and 3, were historically considered together because of their similar nature and proximity to each other.

Remedial actions specified in the OU 2 ROD (Navy, Ecology, and EPA, 1994) for Area 3 included ICs (i.e., residential use deed restrictions) and an initial six-month groundwater monitoring program. The LUC requirements for OU 2, Area 3, were formalized in the ESD (Navy, 2007a) and groundwater monitoring continues as part of the selected remedy. Recent groundwater monitoring in 2023 indicates elevated concentrations of metals (arsenic and manganese) to the east of the landfill extent in monitoring well N3-12; however, the results have showed decreasing trends over time (Liberty JV, 2024a).

2.1.5 OU 2, Area 4, Walker Barn Storage Area

OU 2, Area 4, is located approximately 400 yards west of Saratoga Street in the southwest part of Ault Field. The current fire training school is located immediately to the southwest, and the Navy hospital is located approximately 300 yards to the northeast (Figure 2-5). OU 2, Area 4, is flat, primarily covered with native grasses, and approximately 240 feet wide by 440 feet long. Antimony, arsenic, cadmium, copper, lead, mercury, and zinc were detected above background concentrations in soils at levels exceeding risk-based criteria. In addition, polychlorinated biphenyls (PCBs) and pentachlorophenol were detected in surface soil samples collected north of the former Walker Barn, where transformers were previously stored.

Remedial actions specified in the OU 2 ROD (Navy, Ecology, and EPA, 1994) for Area 4 included removal (to an approximate depth of 3 feet) and disposal of an estimated 1,750 yd³ of PCB-contaminated soil. These soils were transported off site to a landfill approved under the Toxic Substances Control Act for final disposal. Following the soil removal and confirmation soil sampling (indicating that cleanup levels had been met), the area was reseeded, and the site was closed.

The LUC requirements for OU 2, Area 4, were formalized in the ESD (Navy, 2007a). Groundwater monitoring in this area was discontinued, following recommendations in the Fourth Five-Year Review (Navy, 2014).

2.1.6 OU 2, Area 29, Clover Valley Fire School

OU 2, Area 29, is a 4-acre parcel with the majority of the area located west and northwest of the intersection of Clover Point Road and Rocky Point Road in the southwestern portion of Ault Field (Figure 2-6). The site is bordered by evergreen trees to the west, the Navy golf course to the south, Rocky Point Road and an open area to the north, and Clover Point Road and open area to the east.

In the past, a 1,600-square-foot concrete burn pad was located in the center of the area. A small ditch extended northeastward from the pad to a ditch along Clover Point Road. This ditch eventually flowed into a wetland between Areas 2 and 3 of OU 2.

Completed remedial actions at this site include:

- Excavation and disposal of soil contaminated with pentachlorophenol and polycyclic aromatic hydrocarbons (PAHs) to depths of approximately 3 feet from locations surrounding a former concrete burn pad at the site; and
- Installation of a groundwater monitoring network.

The LUC requirements for OU 2, Area 29, were formalized in the ESD (Navy, 2007a). Groundwater monitoring in this area was discontinued after the Fourth Five-Year Review (Navy, 2014).

2.1.7 OU 3, Area 16, Runway Ditches

OU 3, Area 16, consists of a network of runway ditches that are used to drain Ault Field (Figure 2-7). These ditches mainly serve as runoff control for the paved runway and taxiway areas of the airfield. The ditches drain into Clover Valley Lagoon, except for the westernmost ditch, which drains into the Strait of Juan de Fuca. Clover Valley Lagoon, located northeast of OU 3, Area 16, was constructed in 1915 on the western edge of Dugualla Bay. A pump provided by the Navy transfers water from the lagoon into the bay. The pump is maintained by a local farmer to prevent the flooding of agricultural fields.

Past practices at Ault Field resulted in spills and disposal of waste oil and fuels into the ditches. The Navy conducted an RI in the early 1990s. As part of the RI, an ecological risk assessment identified risk to small mammals in OU 3, Area 16. Following the RI, the OU 3 ROD (Navy, Ecology, and EPA, 1995) was signed and found that sediments in the runway ditches that receive stormwater from the storm drain system posed an ecological risk to muskrat and benthic organism populations in the ditches, and that the ditches would be cleaned of contaminated sediments.

The remedial actions were completed in 1995 and included dredging of contaminated soils from the ditches and disposal of the sediment at the Navy Area 6 Landfill as part of the landfill capping and closure activities.

In addition to sediment dredging, the OU 3 ROD (Navy, Ecology, and EPA, 1995) included a stipulation that future materials dredged as part of ditch maintenance could be disposed of on the adjacent banks if the materials did not exceed both the MTCA Method C industrial soil cleanup levels for lead and arsenic and Method A industrial soil cleanup levels for total petroleum hydrocarbons (TPH).

Based on the Fifth Five-Year Review (Navy, 2019b), no additional sediment sampling at OU 3, Area 16, is warranted under the CERCLA Program. All future O&M activities should be conducted by the NAS Whidbey Island Compliance Program, including adding the requirement and procedures for catch basin cleanout every five to 10 years at location 16-2; general catch basin cleanout; ditch cleanout; and sampling to the installation-wide stormwater pollution prevention plan. Because the potential for exposure is already minimal, the cleanout activities conducted under the NAS Whidbey Island Compliance Program will continue to ensure minimal sediment buildup and functionality of the runway ditch and stormwater system.

2.1.8 OU 4, Areas 48/49, Seaplane Base Landfill

OU 4, Areas 48/49, are located on the eastern side of the Seaplane Base adjacent to Crescent Harbor (Figure 2-8).

OU 4, Area 48, was a salvage yard for the Seaplane Base used from the 1940s until the late 1960s or early 1970s. It was located southeast of the intersection of Torpedo Road and East Pioneer Way. In the mid-1960s, flammable materials stored on site caught fire, which resulted in unknown quantities of solvents, thinners, strippers, and paints being spilled onto the ground and into the marsh. The selected remedy for OU 4, Area 48, included excavation of contaminated soils, on-station disposal at the OU 1, Area 6 landfill, and placement of a multilayer cap. The COCs included lead, arsenic, chromium, pesticides, and PAHs; approximately 1,000 yd³ of surface soil was removed from OU 4, Area 48. There is no visual evidence of the historical fire or storage yard activities.

OU 4, Area 49, was a 3- to 4-acre landfill located farther east along Crescent Harbor. The landfill was used between 1945 and 1955, with all solid waste from Seaplane Base operations reportedly being disposed of there during that period. Seaplane Base repair and maintenance operations may have disposed of solvents, degreasers, paints, thinners, and strippers at this landfill. No visible evidence of the landfill can be found at this time. Areas 48 and 49 were investigated and evaluated together in the RI/feasibility study (FS) (Navy, 1999a). Inorganic and organic constituents were detected in

groundwater at OU 4, Area 49; however, groundwater in that area is not suitable for potable uses due to saltwater intrusion, and no chemicals were detected above the Washington State MTCA cleanup levels.

The selected remedy for OU 4, Areas 48/49, included: (1) a notification of past construction and demolition debris landfill being included on the deed if and when the Navy disposes of the property; and (2) excavation of approximately 1,000 yd³ of surface soils at Area 48. The remedial actions were completed prior to 2000, and the site now has no further action status. Both sites are covered with native grasses and are presently used for occasional recreational purposes.

2.1.9 OU 5, Area 1, Former Beach Landfill

OU 5, Area 1, is an approximately 6-acre former landfill located on Ault Field along the western boundary between Saratoga Street and the Strait of Juan de Fuca (Figure 2-9). The landfill reportedly received waste materials that included sanitary trash, demolition and construction debris, scrap equipment, and other refuse generated by base operations. Some of the base waste was burned at the landfill from 1945 to 1958.

Within OU 5, Area 1, the topography consists of a series of manmade terraces that descend approximately 30 feet from Saratoga Street to the beach. The landfill is located on the central terraced area. The site is incised by two east-west-trending drainage depressions: (1) a central marsh located in the middle of the landfill that serves as a retention pond for a storm drain from Saratoga Street; and (2) the tidally influenced depression located at the northwestern end of the landfill.

The beach and intertidal environment at OU 5, Area 1, is a high-energy environment that does not provide an ideal habitat for most species of marine life. Because of this high-energy environment, shellfish are not present in the intertidal zone. The approximately 10-foot-high shoreline bluff is above the high-tide line. OU 5, Area 1, has not been identified as a sensitive area for historic or archaeological resources. It is not in a floodplain and is not considered a critical habitat for endangered species.

Wave and wind erosion off the Strait of Juan de Fuca eroded the outer edge of the landfill over the decades, exposing the landfill contents. The Navy constructed a large seawall along the seaward edge of OU 5, Area 1, and regraded the landfill cap in 2012 to stabilize the area against future erosion. This seawall was extended in 2017 following observations of eroding debris in the beaches immediately south of the former site boundary.

During the RI, soil samples were collected from soil borings and test pits. Results of the soil sampling identified petroleum hydrocarbons, copper, lead, and zinc as COCs. However, based on the low concentrations of these contaminants, the remedial actions

outlined in the OU 5 ROD (Navy, Ecology, and EPA, 1996) included ICs and monitoring. The LUC requirements for OU 5, Area 1, were formalized in the 2007 ESD (Navy, 2007a). Intertidal seep sampling and groundwater monitoring were conducted with no adverse impact identified at OU 5, Area 1.

According to the Fifth Five-Year Review (Navy, 2019b), an additional 150 to 250 feet of shoreline at the south end of the landfill was eroding landward, exposing underlying landfill debris along the shoreline. To address the erosion issues, erosion protection work involving construction of a permanent coastal erosion protection system at the site, initiated in 2013 as a non-time critical removal action (NTCRA), was extended 160 feet south of the existing OU 5, Area 1, seawall in 2017, as documented in the Remedial Action Completion Report (Tetra Tech, 2018). Groundwater monitoring at OU 5, Area 1, was discontinued based on recommendations in the Fourth Five-Year Review (Navy, 2014).

2.1.10 OU 5, Area 31, Former Runway Fire Training School

OU 5, Area 31, was used for firefighter training from 1967 to 1982 and is located approximately 400 yards northeast of the intersection of Runways 13-31 and 7-25 (Figure 2-10). The entire fire training area consisted of approximately 1 to 2 acres, sloping gently southwest.

Waste fuels (e.g., aviation gasoline [avgas] and jet propellant No. 5 [JP-5], waste oil, solvents, thinners, and other flammable materials) were ignited and extinguished in a shallow concrete burn pad at the site, which no longer exists. The former burn pad was approximately 50 by 50 feet and had a berm around its perimeter with a floor sloping toward a drain in the center. Unburned liquids were drained from the center of the pad through underground piping to a former oil/water separator at the southwest corner of the fire training area, which also no longer exists. Water separated from floating product was discharged to a small ditch that led to a depression in the southwest portion of OU 5, Area 31, and drained to the runway ditches.

Remedial activities specified in the OU 5 ROD (Navy, Ecology, and EPA, 1996) included ash pile and oil/water separator removal, fuel skimming/recovery, bioventing, ICs, and annual groundwater monitoring. The RAOs were: (1) to reduce the risk of human exposure by limiting site access; and (2) to remove the source of contamination. To date, all remedial actions have been completed at this site, removing or destroying the majority of the source of free product. Subsequent to the completion of remedial actions, a groundwater monitoring event was completed in May 2000. Results of the groundwater monitoring event indicate that residual concentrations of specific VOCs (i.e., vinyl chloride, benzene, toluene, styrene, and naphthalene) and petroleum hydrocarbons were below the cleanup levels in the lower portion of the unconfined

aquifer and at downgradient wells, indicating that no contaminants have migrated off site above the cleanup levels. These COCs remain above cleanup levels within 50 feet of the originally identified plume of free product in the shallow portion of the aquifer, and the Navy continues annual monitoring at this site. The fuel recovery system had reached a point of diminishing returns and was shut down in 2006.

The LUC requirements for OU 5, Area 31, were formalized in the 2007 ESD (Navy, 2007a). No additional removal or remedial actions have been implemented following the initial remedy implementation.

2.1.11 OU 5, Area 52, Jet Engine Test Cell

OU 5, Area 52, is located southwest of the intersection of Saratoga and Enterprise Streets (Figure 2-11). It is bounded by the Strait of Juan de Fuca on the west, Area 1 on the south, Saratoga Street on the east, and open grassy areas to the north. Similar to Area 1, the site has been elevated to its current topography by placement of fill materials into a low area. During its past operations, fuels were leaked to the environment from two former 10,000-gallon underground jet fuel storage tanks located east of Saratoga Street. These tanks were removed in the late 1990s and are no longer present. Although the facility is no longer used to test jet engines, it is still used to test propeller-driven engines.

Remedial actions specified in the OU 5 ROD (Navy, Ecology, and EPA, 1996) included removal of a suspected dry well, installation and operation of a floating fuel recovery system, and groundwater monitoring. The dry well was abandoned in the 1990s. The fuel recovery system, which had been in operation from approximately 1995 to 2008, was shut down because the amount of recoverable fuel had diminished to a sheen. Over the 13-year operational period, approximately 2,500 gallons of fuels were recovered and sent off site for recycling. The LUC requirements for OU 5, Area 52, were formalized in the 2007 ESD (Navy, 2007a).

The groundwater monitoring wells at OU5, Area 52 were removed from the LUC inspection program per the 2014 LUCIP (URS, 2014). One monitoring well remains on site (Liberty JV, 2024b).

According to the Fifth Five-Year Review (Navy, 2019b), the seawall along the western border of OU 5, Area 52, required repair and maintenance. In total, approximately 315 feet of the shoreline seawall was repaired by resetting existing armor stone and/or placing new armor stone to eliminate voids and exposure of marine mattress areas. The seawall prevents shoreline erosion that could lead to both physical and residual chemical hazards being released from OU 5, Area 52, and provides long-term

protection of the permanent coastal protection system to maintain LUC requirements as set forth in the ROD (Navy, Ecology, and EPA, 1996).

2.1.12 Site 22, Hangar 5

Site 22, Hangar 5, is located in the western portion of Ault Field along the flight line (Figure 2-12). In July 2012, a construction crew was removing concrete slabs in the flight line north–northwest of Hangar 5 to install electrical service for aircraft. Significant vapors were reported during this work. As a result, a soil sample was collected and analyzed for TPH. The sample contained 22,700 milligrams per kilogram (mg/kg) diesel-range organics and 4,180 mg/kg heavier oil-range hydrocarbons. The location of this sample was not documented, and the data were not formally presented. The general area of the site is identified by new concrete where the subsurface electrical lines were placed (Figure 2-12). The source of these impacts to soil and groundwater at Hangar 5 are assumed to be incidental spills and leaks from flight-line operations.

Because of concerns that conditions in this area may pose a vapor intrusion risk for personnel working in Hangar 5, a field investigation was conducted in July and August 2015. During this investigation, soil and groundwater samples were collected and analyzed for VOCs, semivolatile organic compounds (SVOCs), PCBs, TPH-gasoline range organics, TPH-diesel-range organics, volatile petroleum hydrocarbons, extractable petroleum hydrocarbons, and/or metals. Overall, the analytical results from 2012 were not duplicated during this investigation. Specifically, the absence of VOCs in soil and groundwater demonstrated that there are no contaminants present in the investigated area that could result in a potential vapor intrusion risk within Hangar 5. Based on this finding, it was recommended that additional investigation was not warranted in the Hangar 5 area (Multimedia Environmental Compliance Group and AECOM, 2016). However, LUCs are required at Site 22, Hangar 5, to ensure long-term protection of human health and the environment.

2.2 MRP Sites

LUCs are implemented under the MRP at the following former gun range sites:

- Site EO354, Former MGRs B and C
- Site EO354, Former MTTR
- Site EO351, Former Lake Hancock Target Range

Site EO354, Former MGRs B and C, and Site EO354, Former MTTR (Figure 2-13) were constructed as part of the former Aviation Fleet Gunnery School, NAS Whidbey Island, in 1942 and 1943 as a training facility for naval aviation gunners. The Engineering

Evaluation/Cost Analysis for the Former Aviation Fleet Gunnery School (Navy, 2013a) evaluated remedial alternatives for these sites. The document recommended administrative controls imposed to limit Navy development of both EO354 sites to nonresidential land uses, or Alternative 2. Nonresidential land uses may include recreational, industrial, commercial, office, and educational uses. Prohibited land uses for both EO354 sites would include residential housing, elementary and secondary schools, childcare facilities, and playgrounds.

The Action Memorandum (Navy, 2013b) provides a description of the sites, documents their LUCs, and details approval of a NTCRA for the two sites. The NTCRA selects and implements LUCs that restrict future land uses at sites EO354 and EO354 for long-term protection of human health and the environment from munitions constituents (MCs), while maintaining current recreational land use for Whidbey Island residents. To document and enforce these administrative controls, both of these sites were incorporated into the LUC Implementation Plan beginning in 2014 (URS, 2014), and are included in the 2020 LUCIP as well (Liberty JV, 2020).

Site EO351, Former LHTR (Figure 2-14), was used for aerial bombing training from 1943 to 1971. Based on the results of past investigations, there is a potential for munitions and explosives of concern (MEC) or material potentially presenting an explosive hazard (MPPEH). As such, the ROD for the site (Navy, 2016) identifies the selected response action necessary to protect human health or welfare and the environment from actual or threatened explosive hazards at the site based on the current and intended future land use. The major components of the selected response action include:

1. Surface removal of munitions items
2. Annual surface inspections and munitions removals in and around the target area
3. Surface inspections and munitions removals within the removal action area boundary every five years, until no MEC/MPPEH items and less than 10 material documented as safe items are identified during inspections
4. LUCs

As stated in the ROD (Navy, 2016), LUCs to prevent exposure to MEC/MPPEH include prohibiting residential use, requiring unexploded ordnance (UXO) support during construction activities, and requiring perimeter fencing and signage designating the site as a restricted access area and potential UXO area.

Additional descriptions of LUC requirements for each MRP site at NAS Whidbey Island are presented in Section 3.

2.2.1 Site EO354, Former MGRs B and C

Three MGRs, designated A, B, and C, were used between 1943 and 1957. These MGRs occupied approximately 180 acres. Site EO354, Former MGR A, the northernmost range at the site, is currently occupied by operational rifle and pistol ranges. Because this portion of the nonoperational range overlaps with an operational range, none of MGR A is eligible for the MRP, and thus is not addressed in this LUC inspection. The central and southernmost ranges (Site EO354, Former MGRs B and C, respectively) remain in place at the site and are located on approximately 116 acres, representing the total current acreage of the MGR sites (Figure 2-13).

Site EO354, Former MGRs B and C slopes gently from east to west, with the target area berms still visible and approximately 10 feet higher than the surrounding topography. The site is currently overgrown, with low-lying vegetation along the range floor and medium-growth vegetation on the berms. Vegetation established across the site is characterized as grassland with scattered freshwater marsh and scrub-shrub.

Most of the site is not currently used for military purposes and has no designated land use. The western portion of the site is a beach, which is accessible to the public. A fenced transmitter array is located along Cowpens Road between Former MGRs B and C. Except for the restricted area near the transmitter array, access to the site is not actively restricted. Surrounding land uses include operational rifle and pistol ranges to the north, Joseph Whidbey State Park to the south, an active public golf course and open fields to the east, and the Strait of Juan de Fuca to the west.

A preliminary assessment (PA) was performed for Site EO354, Former MGRs B and C, in 2007 (Navy, 2007b). The PA concluded that MCs at Site EO354, Former MGRs B and C, would be found primarily in the near-surface soil (i.e., within 1 foot below ground surface [bgs]) within the berms and along the former firing lines. Most of the bullets that hit the target, located above the berms, would travel over the range and into the Strait of Juan de Fuca, so MCs may also be present in the offshore sediments. The Site EO354, Former MGRs B and C, site investigation included soil sampling using a multi-increment sampling approach and three-point composite soil and sediment sampling within a series of decision units. Fifteen decision units, representing a total of approximately 57.5 acres, were sampled at the Site EO354, Former MGRs B and C. Soil and sediment samples were collected from the surface to 1 foot bgs and analyzed for metals, SVOCs, and organic MCs.

With the exception of lead (Navy, 2013b), chemical concentrations in soil were below their respective MTCA Method A soil cleanup levels for unrestricted land uses and MTCA priority contaminants of ecological concern. Lead exceeded the MTCA Method A soil cleanup levels for unrestricted land uses of 250 mg/kg and MTCA priority

contaminants of ecological concern of 220 mg/kg in two composite soil samples collected at the western Site EO354, Former MGR B, berm and eastern Site EO354, Former MGR C, berm. Only one of these samples exceeded the EPA residential soil regional screening level of 400 mg/kg. All chemical concentrations in sediment collected at beach, intertidal, and wetland/pond areas were below their respective Washington State Sediment Management Standards marine sediment quality standards and MTCA Method A soil cleanup levels for unrestricted land uses (Navy, 2013b).

2.2.2 EO354, Former MTTR

Site EO354, Former MTTR, occupied approximately 69 acres in the southwest corner of Ault Field and was closed in 1948. It is bounded to the south by the current Gallery Golf Course and includes a portion of a wooded area to the north bordering the shoreline of the Strait of Juan de Fuca (Figure 2-13).

The site was originally constructed as part of the former Aviation Fleet Gunnery School in 1942 and 1943 as a moving-target orientation training facility for naval aviation gunners. There were two wooden turret towers approximately 30 feet tall, separated by approximately 480 feet. The towers were about 90 feet west of an approximately 930-foot-long and 105-foot-wide oval track. Clay pigeons were launched from the towers to the north, south, or east, and Navy personnel fired at these targets from various turret firing positions along the oval track.

The entire site is covered in vegetation, except the areas covered by Rocky Point Road. The vegetation on the eastern and central-eastern portions of the site is characterized as grassland with scrub-shrub scattered throughout. The northern and western portions of the site are characterized as mixed forest with vines and brush.

Portions of the site are currently used for recreational purposes, including a Whidbey Island Bowmen Club archery range in the western portion of the site. The northern border of the site lies in a densely vegetated area within the installation fence line; OU 2, Area 2 slightly overlaps the site in this area. Access to the eastern and southern portions of the site is not restricted, except for a fenced area around OU 2, Area 29, which is immediately adjacent to Site EO354, Former MTTR.

A PA (Navy, 2007c) was performed for Site EO354, Former MTTR, in 2007, followed by an addendum to the PA (Navy, 2008). The PA concluded that lead pellets from shotguns and clay target fragments would likely be dispersed across the surface of the Site EO354, Former MTTR, range with minimal penetration. The site investigation at Site EO354, Former MTTR, included soil sampling using the multi-increment sampling approach within decision units. Four decision units, representing a total of approximately 26.3 acres, were sampled. Soil samples were collected from the surface

to 6 inches bgs and analyzed for metals, SVOCs, organic MCs, and PAHs (Navy, 2010). Except for lead and PAHs, all chemical concentrations in soil were below their respective MTCA Method A soil cleanup levels for unrestricted land uses and MTCA priority contaminants of ecological concern (Navy, 2013b). Lead exceeded the MTCA Method A soil cleanup levels for unrestricted land uses and MTCA priority contaminants of ecological concern in the inner range floor west, and western and eastern maximum shot fall zones. Only the lead concentration in one sample exceeded the EPA residential soil regional screening level of 400 mg/kg. Eleven PAHs were reported at concentrations exceeding the MTCA Method A soil cleanup levels for unrestricted land uses in samples from the eastern maximum shot fall zone. Concentrations of two of these PAHs also exceeded the EPA industrial soil regional screening levels. PAH concentrations reported in the site investigation did not exceed the MTCA Method A soil cleanup levels for unrestricted land uses in other areas of the site. No PAH concentrations exceeded the MTCA Method A soil cleanup levels for industrial properties or the MTCA priority contaminants of ecological concern (Navy, 2013b).

2.2.3 EO351, Former Lake Hancock Target Range

Site EO351, Former LHTR (Figure 2-14), encompasses approximately 423 acres and is located within a large and diverse coastal lagoon system that includes salt marsh, brackish marsh, freshwater marsh, and bog forest subsystems. The site also includes a saltwater lagoon (i.e., Lake Hancock) and a 50-foot-wide channel connecting Lake Hancock to Admiralty Inlet, which extends tidal influence to Lake Hancock (Navy, 2016).

As stated previously, LHTR was used for aerial bombing training from 1943 to 1971. Munitions used at this range included practice bombs and rockets equipped with spotting charges or filled with sand. Aircraft would approach the site from the east, make a steep diving approach over the target located on the ground, release the practice bombs, and exit the area westward over Admiralty Inlet (Figure 2-14). The range included a triangular-shaped yellow target with a white bull's-eye, a radar screen, two range and deflection observation shacks, a scoring house, and an observation post with a radio transmitter and receiver. All structures associated with the range have been removed from the site (Navy, 2016).

The site is no longer used for aerial bombing target practice, but it is still located within restricted air space. A portion of the property is currently being used by the military to monitor training exercises in Admiralty Bay and in the airspace overhead. The area just offshore of the site, known as operating area Navy 7, is used for training. EO351, Former LHTR is currently fenced on the northern, eastern, and southern boundaries with locked gates. On the western boundary, public access to the beach is restricted

(via signage); however, there are no physical barriers to prevent access to the beach and the site (Navy, 2016).

As part of the selected response action detailed in the ROD (Navy, 2016), implementation of LUCs have been executed each summer to protect public health and reduce exposure to the site. Improvements included installation of LUC signage along fencing or installed as standalone signs on the beach notifying trespassers of the hazards and restrictions of the area. Additional improvements included installation of tideland and perimeter fencing, upgrade of the access gate located along the west side of State Route 525, and installation of LUC signage (APTIM, 2023).

Response actions in support of surface removal/clearance of munitions items were conducted from November 2018 through February 2019, July through August 2020, July through November 2021, and August through September 2022 (APTIM, 2023). During these activities, a clearance grid was established over the target range area and then an instrument-aided visual surface clearance of the grids (using a magnetometer to locate and identify anomalies on or protruding from the ground surface) was performed by qualified UXO personnel. Overall, over 500 anomalies (not including seed items) have been recorded and recovered from the grids, investigated, and processed since the start of the Remedial Action (APTIM, 2023). Figure 2-14 illustrates the final surface removal/clearance area at EO351, Former LHTR.

The EO351, Former LHTR LUC inspection is not part of the contracted scope for the 2024 LUC inspections, and will be conducted by a different contractor. However, the inspection results will be included with the LUC inspection report.

2.3 Petroleum Sites

LUCs are required and implemented at a total of five petroleum sites at NAS Whidbey Island:

- Site 36, Former Fuel Farm 1
- Site 35, Former Fuel Farm 2
- Site 13, Former Fuel Farm 3
- Site 11, Former Fuel Farm 4
- Site 45, TCE Tank

LUCs are implemented at the four former fuel farms as described in the Revised Cleanup Action Plan, NAS Whidbey Island, Closed Former Fuel Farms 1, 2, 3 and Fire Training Area (Revised CAP) (Navy, 2013c) and Addendum, Interim Remedial Action

Completion Reports NAS Whidbey Island: Former Fuel Farm 4 and Building 491, Site 11 (Navy, 2013d).

LUCs are also implemented and required at Site 45, TCE Tank, in accordance with the Memorandum to File, Documentation of Response Complete for Installation Restoration Site 45 at Naval Air Station Whidbey Island, Washington (Navy, 2015).

Additional descriptions of LUC requirements for each petroleum site at NAS Whidbey Island are presented in Section 3.

2.3.1 Site 36, Former Fuel Farm 1

Site 36, Former Fuel Farm 1 (Figure 2-15), is located at Seaplane Base and began operation in approximately 1942. Site 36, Former Fuel Farm 1, is divided into an upper area and a lower area. The upper area is approximately 10 acres with grass, some trees, and characterized by the closed fuel farm; the lower area is approximately 2.6 acres with grass, roads, landscaping, and characterized by the existing building and land use in the marina area. In total, nine underground storage tanks (USTs) were used for fuel storage during various periods:

- Four USTs (Tanks 473, 474, 475, and 476) formerly stored marine diesel, No. 1 fuel oil, off-specification fuel, and avgas, and were removed in 1992.
- Four USTs (Tanks 224, 225, 226, and 227) were 250,000-gallon capacity tanks that stored avgas until the 1970s. Some temporarily stored No. 2 fuel oil and jet propellant No. 4 (JP-4). All four USTs stored jet petroleum No. 8. Three of these USTs were cleaned and closed in place in August 2009, while one UST (Tank 226) was cleaned and reconfigured for potential use as a bioventing tank for petroleum-impacted soil.
- One UST (Tank 237) with a 100,000-gallon capacity stored petroleum from 1943 until 1978. Afterwards it stored JP-5 and avgas until 1995, when it was closed in place.

Based on the results of the RI/FS (Navy, 1999a), the primary areas of contamination at Site 36, Former Fuel Farm 1, are Site B0892 and the fuel farm. Constituent concentrations at Sites B0095, B0048, and B0214 did not exceed risk-based or regulatory criteria. Site B0892 is located along Tulagi Avenue northeast of Site 36, Former Fuel Farm 1, at a pump house (Building 892). Site B0892 moved from Sites 36 and 35, Former Fuel Farms 1 and 2, respectively, to Sites 13, and 11, Former Fuel Farms 3 and 4, respectively. In the spring of 1996, an excavation (6 to 8 feet bgs) was completed at Building 892 to install a sweeping-bend pipe to replace a mitered-bend

pipe. Floating product was observed on the groundwater in the excavation. After the piping was replaced, the hole was backfilled (Navy, 2013c).

In accordance with the Revised CAP (Navy, 2013c), free product recovery and natural attenuation are included as part of the selected remedy for Site 36, Former Fuel Farm 1, which also includes compliance monitoring. According to the Fourth Five-Year Review Report for (Former) Fuel Farms 1, 2, 3, and 4, Naval Air Station Whidbey Island, Oak Harbor, Washington (Navy, 2023), LTM performed over the past 15 years has demonstrated that groundwater and soil conditions at Site 36, Former Fuel Farm 1, are stable, with natural attenuation occurring. A total of 30 groundwater monitoring wells are included in the LTM program, sampled on a mixed frequency of quarterly or annually depending on the analyte (Navy, 2019b). Protection of the existing groundwater monitoring wells is a component of the LUCs for Site 36, Former Fuel Farm 1.

2.3.2 Site 35, Former Fuel Farm 2

Site 35, Former Fuel Farm 2, is approximately 12 acres and is located on the Seaplane Base east of Coral Sea Avenue on Forbes Point overlooking Crescent Harbor (Figure 2-16). The site is covered by grass and serviced by paved access roads (Navy, 2013c). Site 35, Former Fuel Farm 2, began operation in 1942 and was closed in 2009. Current activity is limited to periodic environmental remediation, long-term O&M, as well as a recreational drone practice area. Seven 250,000-gallon USTs (Tanks 228 through 234) stored avgas until the mid-1970s, when JP-4 was used. Beginning in the early 1980s, JP-5 and subsequently jet petroleum No. 8 were stored. Seven dry wells associated with the USTs were used for tank bottom sludge disposal until about 1980. These dry wells and contaminated soils were removed in 1995. In November 2009, all remaining USTs were cleaned and closed in place.

Three JP-5 spills have been documented at Site 35, Former Fuel Farm 2: one in 1988 and two in 1995. During these events, JP-5 was released through drainage outlets onto the beach along Crescent Harbor, mainly around drainage outfall D-2. In 1999, petroleum was also observed flowing on the surface from the area surrounding Tank 229 to the runoff ditch, and free product was observed on the beach below the drainage outfalls. However, the source of this surface spill is unknown.

A number of remedial actions were conducted at Site 35, Former Fuel Farm 2, before completing the RI/FS (Navy, 1999a). In response to the RI/FS findings, an independent cleanup action was taken to prevent additional petroleum migration to Crescent Harbor, (Navy, 1999b). Sediment sampling and intertidal biological monitoring were conducted as part of the independent cleanup action, which concluded that no impacts to the beach exist from Site 35, Former Fuel Farm 2. While the beach environment is not conducive to harvestable shellfish habitat and is not likely to be used in this manner,

advisories for shell fishing have been posted on the Washington State Department of Health website, and signs were historically posted at beach access points on the site. No legible signage was observed during the 2023 LUC Inspections (Liberty JV, 2024b).

In accordance with the Revised CAP (Navy, 2013c), free product recovery and natural attenuation are included as part of the selected remedy for Site 35, Former Fuel Farm 2, which also includes compliance monitoring. LTM performed over the past 15 years has demonstrated that groundwater and soil conditions at Site 35, Former Fuel Farm 2, are stable, with natural attenuation occurring. Three groundwater monitoring wells are included in the LTM program, sampled quarterly (Navy, 2023). Protection of the existing groundwater monitoring wells is a component of the LUCs for Site 35, Former Fuel Farm 2.

2.3.3 Site 13, Former Fuel Farm 3

Site 13, Former Fuel Farm 3, is approximately 21 acres and located north of Fourth Street between Langley Boulevard and Charles Porter Avenue at Ault Field (Figure 2-17).

Site 13, Former Fuel Farm 3, consisted of two 250,000-gallon USTs installed in 1942. These USTs (235 and 236) were used to store avgas until the mid-1970s, then stored JP-5 and heating oil. In 1955, approximately 75,000 to 80,000 gallons of avgas spilled from UST 235 as a result of over pumping. The avgas soaked into the ground around the UST and flowed down the hill, flooding the parking lot and basement of Building 118. Approximately 20,000 to 30,000 gallons of avgas were recovered from this spill. Prior to their removal in 1995, one dry well was located next to each UST. The dry wells may have been used for the disposal of UST bottom sludges until about 1980. In September 2009, both USTs were cleaned and closed in place and then the grounds were regraded (Navy, 2013c).

In accordance with the Revised CAP (Navy, 2013c), free product recovery and natural attenuation are included as part of the selected remedy for Site 13, Former Fuel Farm 3, which also includes compliance monitoring. LTM performed over the past 15 years has demonstrated that groundwater and soil conditions at Site 13, Former Fuel Farm 3, are stable and protective, with natural attenuation occurring. A total of 20 groundwater monitoring wells are included in the LTM program, sampled on a mixed frequency of quarterly or annually depending on the analyte (Navy, 2023). Protection of the existing groundwater monitoring wells is a component of the LUCs for Site 13, Former Fuel Farm 3.

2.3.4 Site 11, Former Fuel Farm 4

Site 11, Former Fuel Farm 4, is located at Ault Field and consisted of three large USTs: T0360-1, T0361-1, and T0362-1 (Figure 2-18). Site 11 also included the area around Building 491 (called site B0491-2). USTs T0360-1 and T0361-1 each had a capacity of 560,000 gallons, and UST T0362-1 had a capacity of 150,000 gallons. These USTs were situated on a north-facing slope, which is generally covered with grass. USTs were accessed by a gravel road. The three USTs were installed in 1952 and used at various times to store avgas and JP-4 until they were cleaned and closed in place in December 2009.

From the 1950s to 1969, overflow spills of up to 100 gallons were estimated to have occurred approximately once per week. In addition, three dry wells (one on the north side of each tank) were possibly used for disposal of tank bottom sludges and possibly other petroleum products.

In February 1995, the three dry wells were removed along with 100 yd³ of soil, gravel, and concrete pavement. These materials were disposed of in the NAS Whidbey Island landfill. The site immediately around the area where UST B0491-2 was located is now paved with concrete and is level within a bermed area. Site 11, Former Fuel Farm 4, was included in the 1997 environmental investigation of the 26 documented petroleum release sites at NAS Whidbey Island (Navy, 1999a). It was determined that contaminant concentrations in groundwater slightly exceeded screening criteria, but that there were no risks for receptors under current land use (i.e., industrial). Ultimately, Site 11, Former Fuel Farm 4, was included in the nine sites determined to require no additional action. The findings further predicted that petroleum concentrations in the water of the surface water ditches (the point of compliance) would be below regulatory levels, and that the risk associated with surface water at the point of compliance would likely be negligible based on the infrequent flow and low concentrations of petroleum.

In September 2001, the Navy implemented a monitoring plan as part of the remedial action operation specified in the *Independent Remedial Action Closure Report for Fuel Farm 4, Naval Air Station Whidbey Island, Oak Harbor, Washington* (URS, 2001). Groundwater monitoring was conducted in September 2002 to determine whether residual petroleum hydrocarbon concentrations in groundwater were below MTCA Method A cleanup levels. Monitoring was also performed to assess the groundwater impacts resulting from residual petroleum hydrocarbons in the soil. Results of the September 2002 monitoring indicated that gasoline-range hydrocarbons were detected in groundwater at the site, but at concentrations below MTCA Method A cleanup levels. Results also indicated that diesel-range hydrocarbons were present at concentrations slightly greater than the MTCA Method A cleanup levels at monitoring well MW-113 at

Site B0491 and MW-114. In addition, a thin layer of free product was observed on the groundwater surface at monitoring well MW-109. Because of the free product observed in MW-109, the Navy continued LTM to identify whether product thickness was increasing, decreasing, or remaining static, and whether the product was contained and not migrating off site. Groundwater quality monitoring to evaluate natural attenuation was put on hold until 2007. Quarterly monitoring of groundwater levels and free product thicknesses was conducted from 2002 through 2011 (Navy, 2012).

In accordance with the Interim Remedial Action Completion Report Addendum (Navy, 2013d), free product recovery is included as part of the selected remedy for Site 11, Former Fuel Farm 4, which also includes compliance monitoring. LTM performed over the past 15 years has demonstrated that groundwater and soil conditions at Site 11, Former Fuel Farm 4, are stable, with natural attenuation occurring. Three groundwater monitoring wells are included in the LTM program, and are sampled either quarterly or annually, depending on the analyte (Navy, 2023). Protection of the existing groundwater monitoring wells is one of the LUCs for Site 11, Former Fuel Farm 4.

The land use at Site 11, Former Fuel Farm 4, is classified as industrial use only. A change in land use is unlikely unless the base mission changes; therefore, soils were left in place. ICs ensure continued protection of human health and the environment. The locations of possible contaminated soils are marked on the Base Master Plan and maintained on file at the Base Environmental Department and the Base Public Works Office.

2.3.5 Site 45, TCE Tank

Site 45, TCE Tank, is located at the base of a steep hill at Seaplane Base, immediately adjacent to the Base entrance (Figure 2-19). Two 500-gallon, steel USTs reportedly used for TCE storage until 1982 (URS, 1994) were located along the northern wall at the east end of Building 14, which formerly housed a dry-cleaning facility. No spills or leaks from the USTs were previously reported, and the USTs have not been used since 1982. To note, Oak Harbor city limits are located approximately 1,000 feet to the west of the site (Groundwater Technology Government Services, Inc., 1995).

In February and July 1995, a two-phase removal action was conducted at Site 45, TCE Tank. While the USTs were reportedly used for TCE storage, during the February 1995 activities they were found to contain remnants of PD-680, a dry-cleaning mineral spirit.

The two-phase removal action consisted of the following:

- Removal and disposal of 440 gallons of dry-cleaning solvent PD-680, removal and disposal of the two 500-gallon steel USTs and associated appurtenances, and removal and disposal of 22 yd³ of contaminated soil in February 1995; and
- A follow-up over-excavation of 117 yd³ of contaminated soil in July 1995.

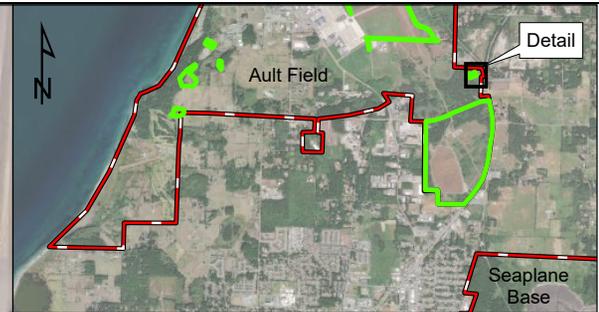
Confirmation soil sampling from February 1995 activities indicated that TPH concentrations (as PD-680) remained between 60 and 1,400 mg/kg. Confirmation soil sampling results from July 1995 activities are not available; therefore, it is assumed that TPH concentrations remain within the range of 60 to 1,400 mg/kg. This TPH concentration range falls partly above the Washington State MTCA Method A cleanup level of 200 mg/kg for unrestricted exposure (Groundwater Technology Government Services, Inc., 1995), the unrestricted exposure cleanup level at the time of the removal action in 1995. However, data indicate concentrations are below the MTCA Method A cleanup level for industrial properties, established at 4,000 mg/kg for mineral spirits. Therefore, Site 45, TCE Tank, is documented as “response complete;” however, it does not appear that the site has achieved site closure. Therefore, Site 45, TCE Tank, requires LUCs to limit land use to industrial purposes (i.e., restricting residential use; Navy, 2015).

Because the LUC boundary was not specified in earlier documents, it has been selected to be the parcel formerly occupied by Building 14. This boundary was selected because:

- The extent of excavation and contamination identified in the 1995 Project Closure Report constitutes a small area in the northeastern portion of this boundary, and TPH concentrations decrease outwardly from the highest detected sample collected immediately below the tanks;
- The excavation extent abuts a steep hill such that the land to the north—currently serving as a parking lot—is situated more than 35 feet higher in elevation and upgradient in groundwater flow from the site, which is toward the south–southeast (Groundwater Technology Government Services, Inc., 1995), and as such is not likely to have been impacted; and
- The only LUC established for Site 45, TCE Tank, is to limit land use to industrial purposes, and this boundary best describes the real property with potential for land use change (e.g., a reasonable site on which a nonindustrial building might be constructed).

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Site Description and History



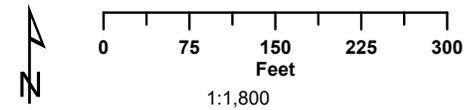
Legend

- CERCLA LUC Area
- NAS Whidbey Island Boundary

Notes:

CERCLA = Comprehensive Environmental Response,
 Compensation, and Liability Act
 LUC = Land Use Control
 NAS = Naval Air Station
 OU = Operable Unit

Basemap Source: ESRI Online Streaming Service 2024



2024 Land Use Controls Inspection Work Plan
 Naval Air Station Whidbey Island, Oak Harbor, Washington, and
 Naval Ocean Processing Facility Coos Head, Charleston, Oregon

**OU 1 Area 5
 Highway 20/Hoffman Road
 (Surface) Landfill**

PROJECT NO.:	N4425524F4113
DATE:	August 2024
DRAWN BY:	JP
CHECKED BY:	JS

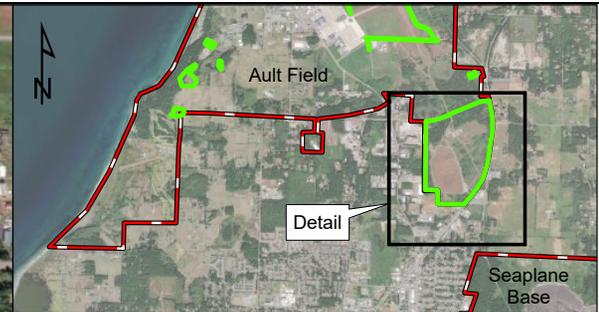


FIGURE

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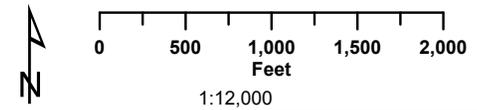
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- Monitoring Well
- CERCLA LUC Area
- Landfill Cap
- NAS Whidbey Island Boundary

Notes:

CERCLA = Comprehensive Environmental Response,
 Compensation, and Liability Act
 LUC = Land Use Control
 NAS = Naval Air Station
 OU = Operable Unit

Basemap Source: ESRI Online Streaming Service 2024



2024 Land Use Controls Inspection Work Plan
 Naval Air Station Whidbey Island, Oak Harbor, Washington, and
 Naval Ocean Processing Facility Coos Head, Charleston, Oregon

**OU 1 Area 6
 Current (1969-1980s) Landfill**

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DATE:	August 2024
DRAWN BY:	JP
CHECKED BY:	JS

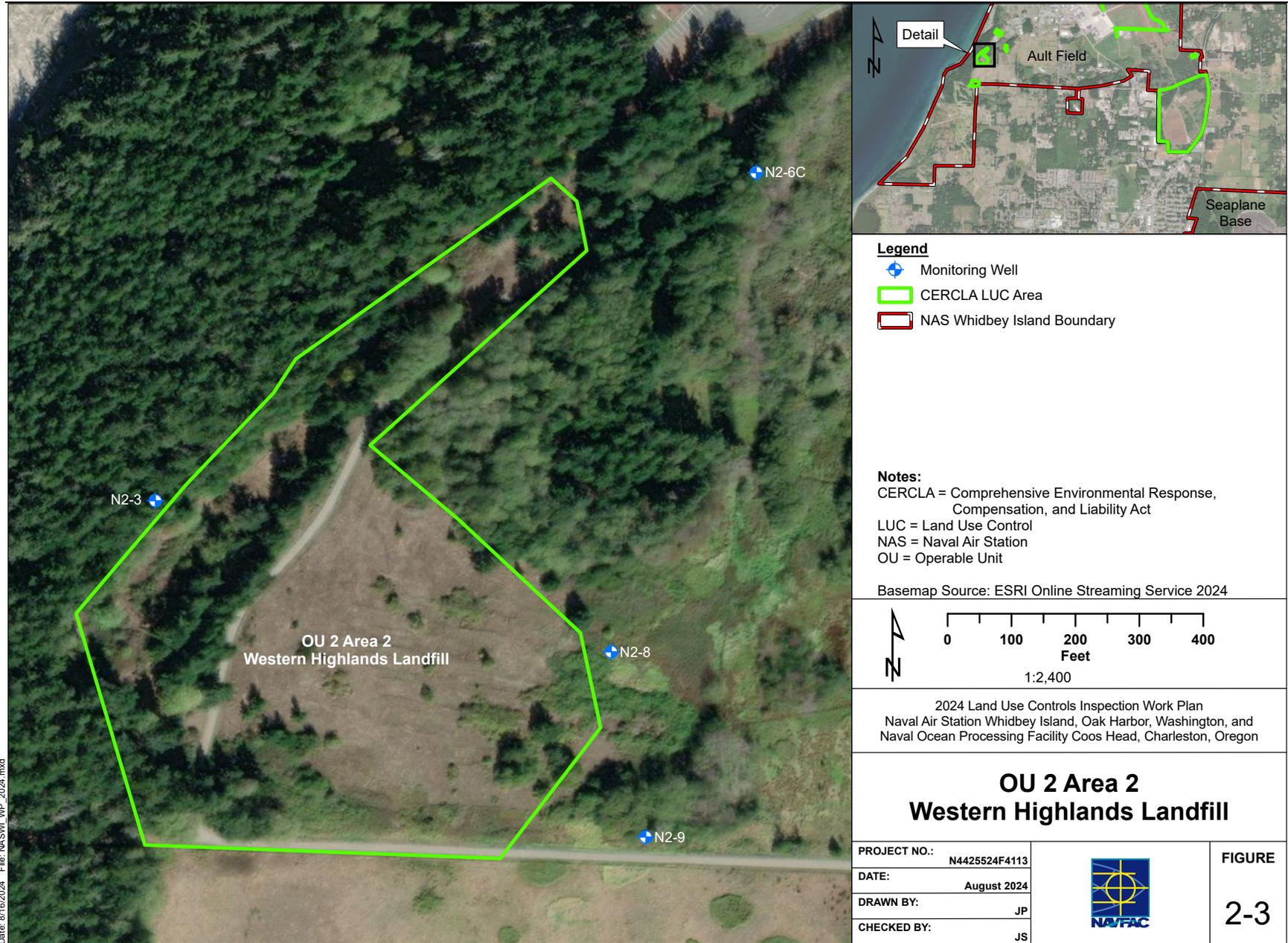


FIGURE

2-2

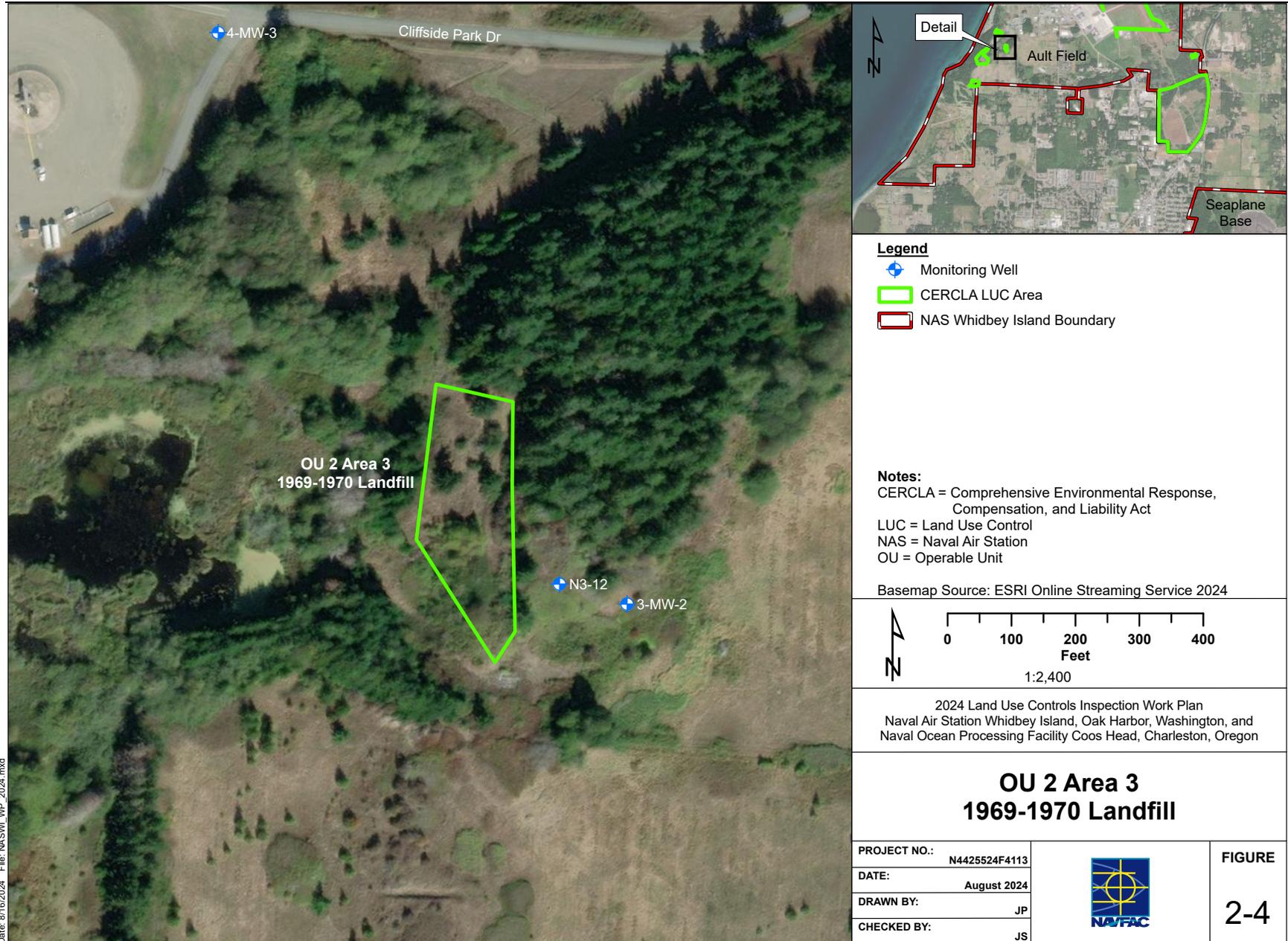
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Site Description and History



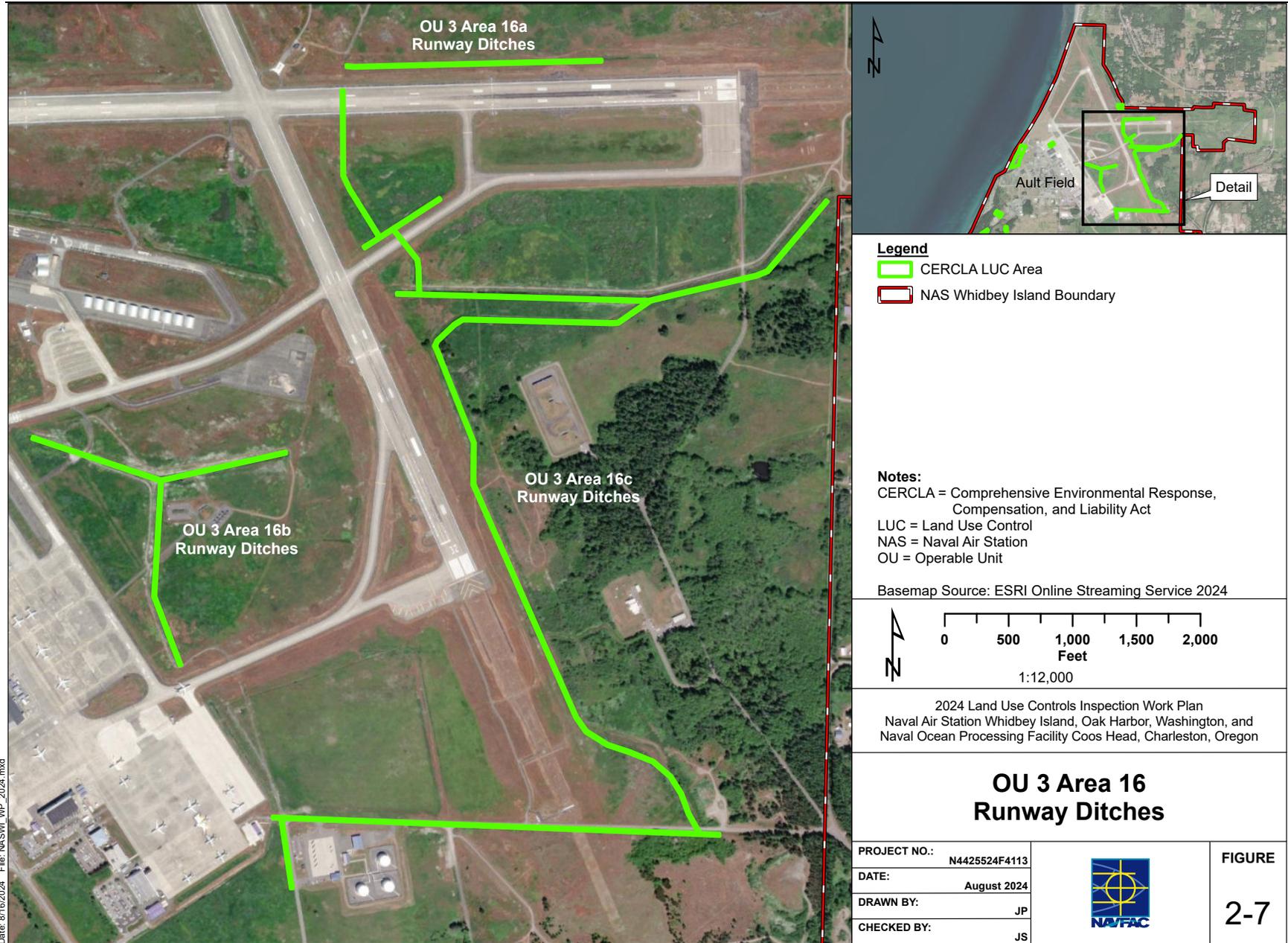
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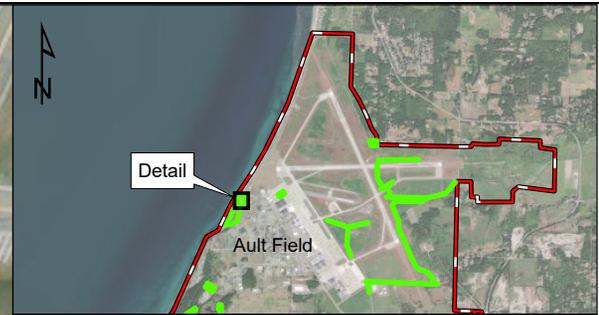
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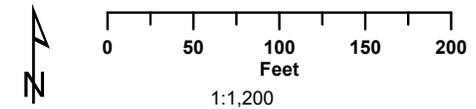
Legend

-  Monitoring Well
-  CERCLA LUC Area
-  NAS Whidbey Island Boundary

Notes:

CERCLA = Comprehensive Environmental Response,
 Compensation, and Liability Act
 LUC = Land Use Control
 NAS = Naval Air Station
 OU = Operable Unit

Basemap Source: ESRI Online Streaming Service 2024



2024 Land Use Controls Inspection Work Plan
 Naval Air Station Whidbey Island, Oak Harbor, Washington, and
 Naval Ocean Processing Facility Coos Head, Charleston, Oregon

**OU 5 Area 52
 Jet Engine Test Cell**

PROJECT NO.:	N4425524F4113
DATE:	August 2024
DRAWN BY:	JP
CHECKED BY:	JS



FIGURE
 2-11

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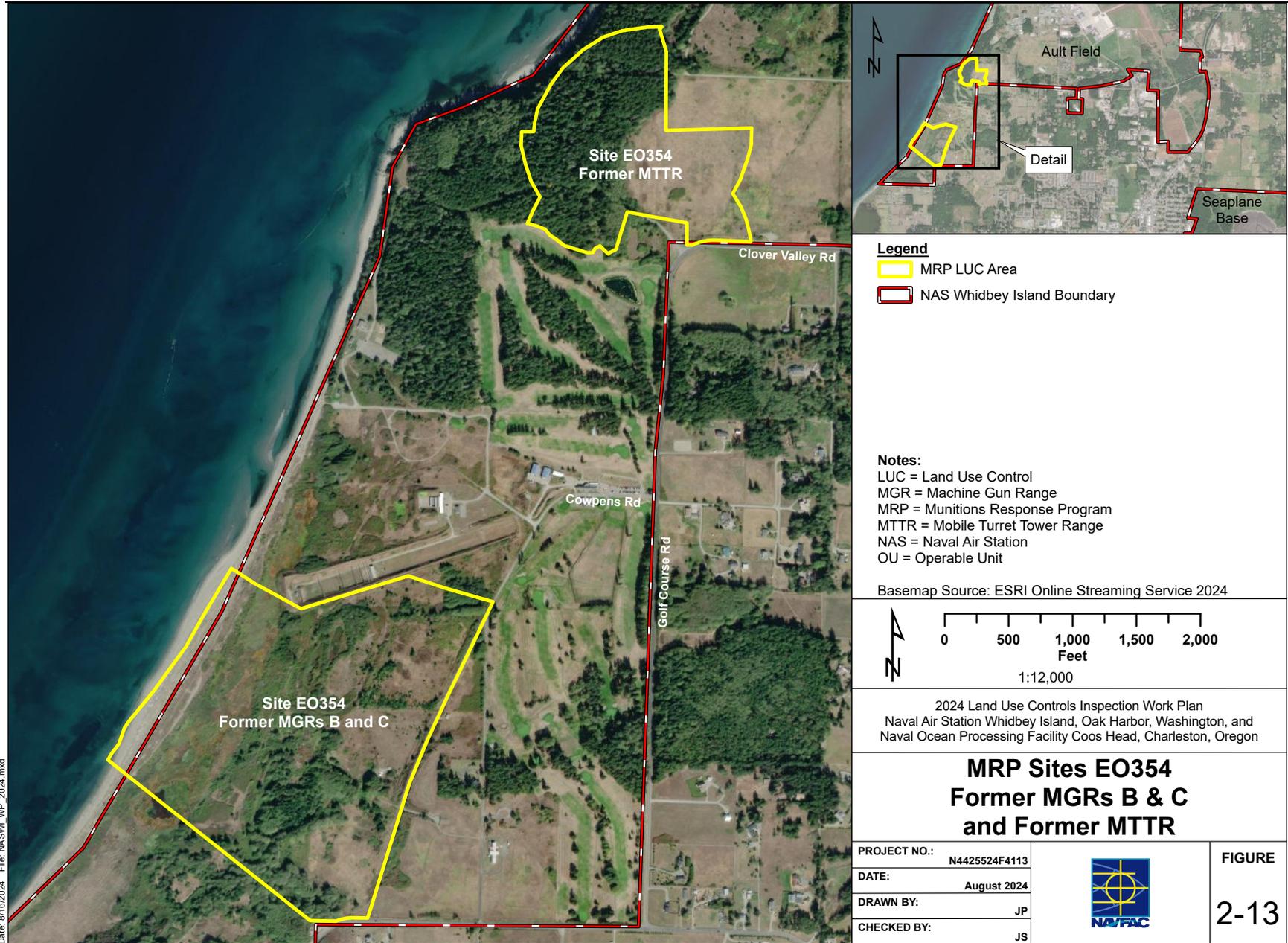
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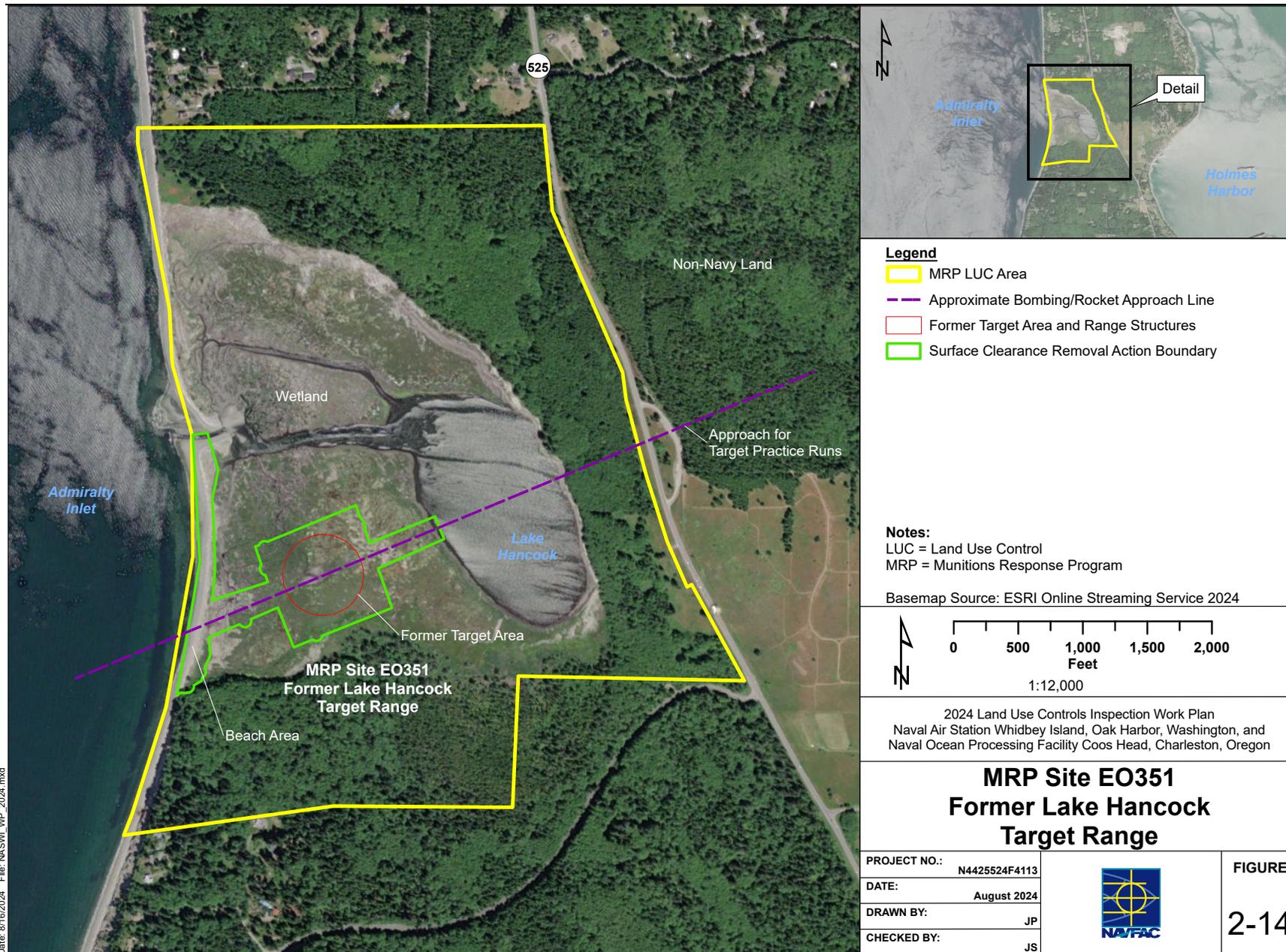
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Site Description and History



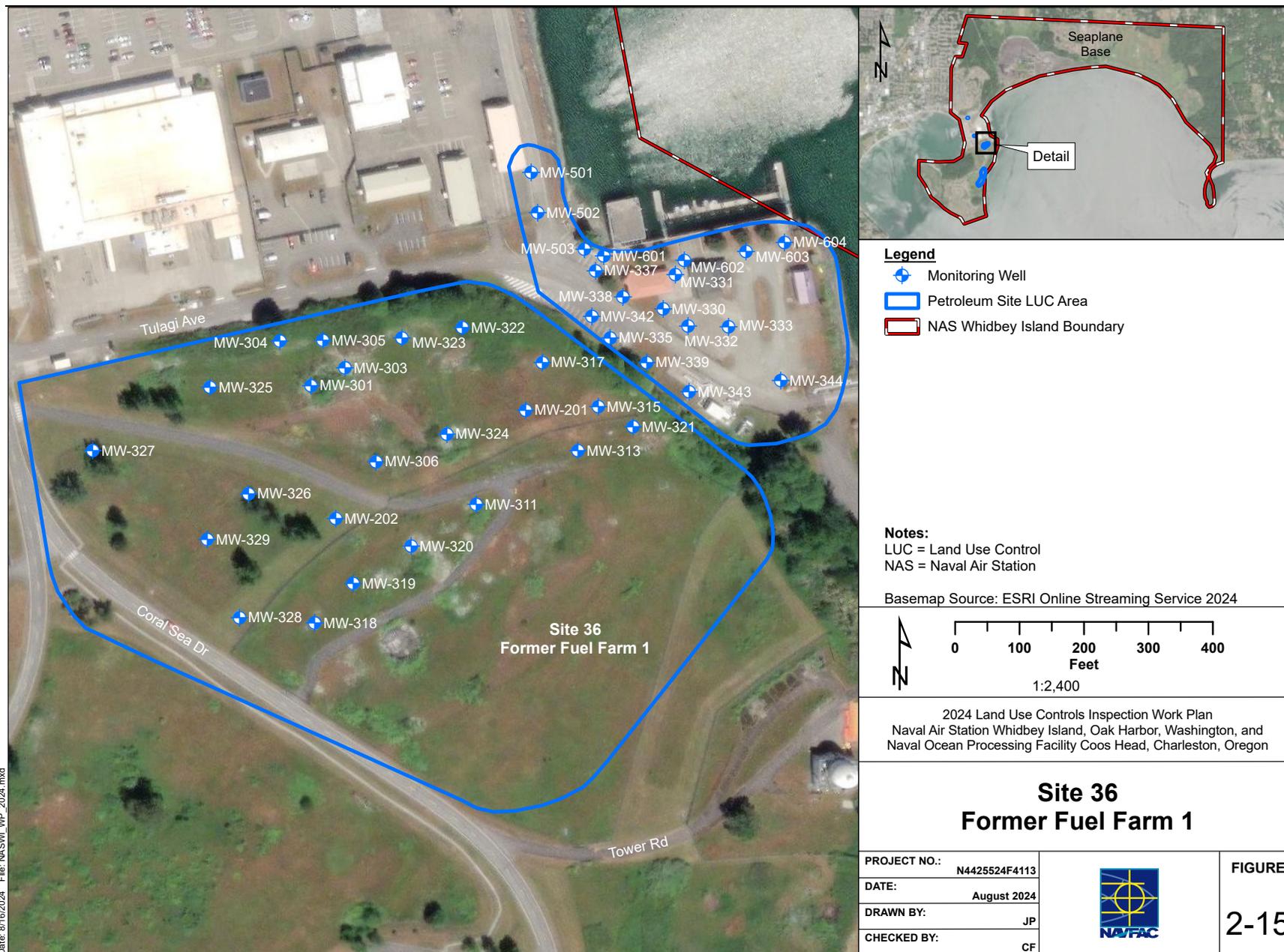
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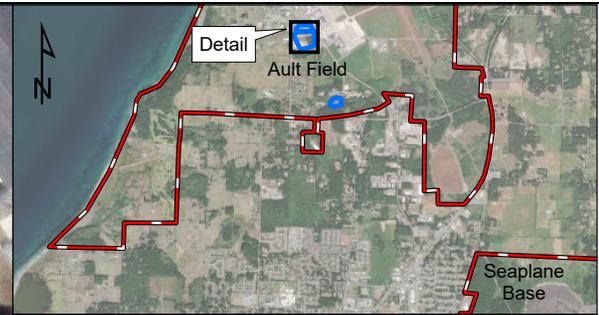
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Site Description and History



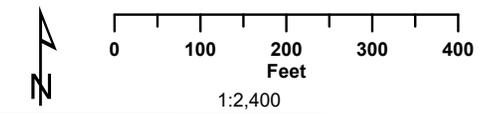
Legend

- Monitoring Well
- Petroleum Site LUC Area
- NAS Whidbey Island Boundary

Notes:

- LUC = Land Use Control
- NAS = Naval Air Station

Basemap Source: ESRI Online Streaming Service 2024



2024 Land Use Controls Inspection Work Plan
 Naval Air Station Whidbey Island, Oak Harbor, Washington, and
 Naval Ocean Processing Facility Coos Head, Charleston, Oregon

**Site 13
 Former Fuel Farm 3**

PROJECT NO.:	N4425524F4113
DATE:	August 2024
DRAWN BY:	JP
CHECKED BY:	CF

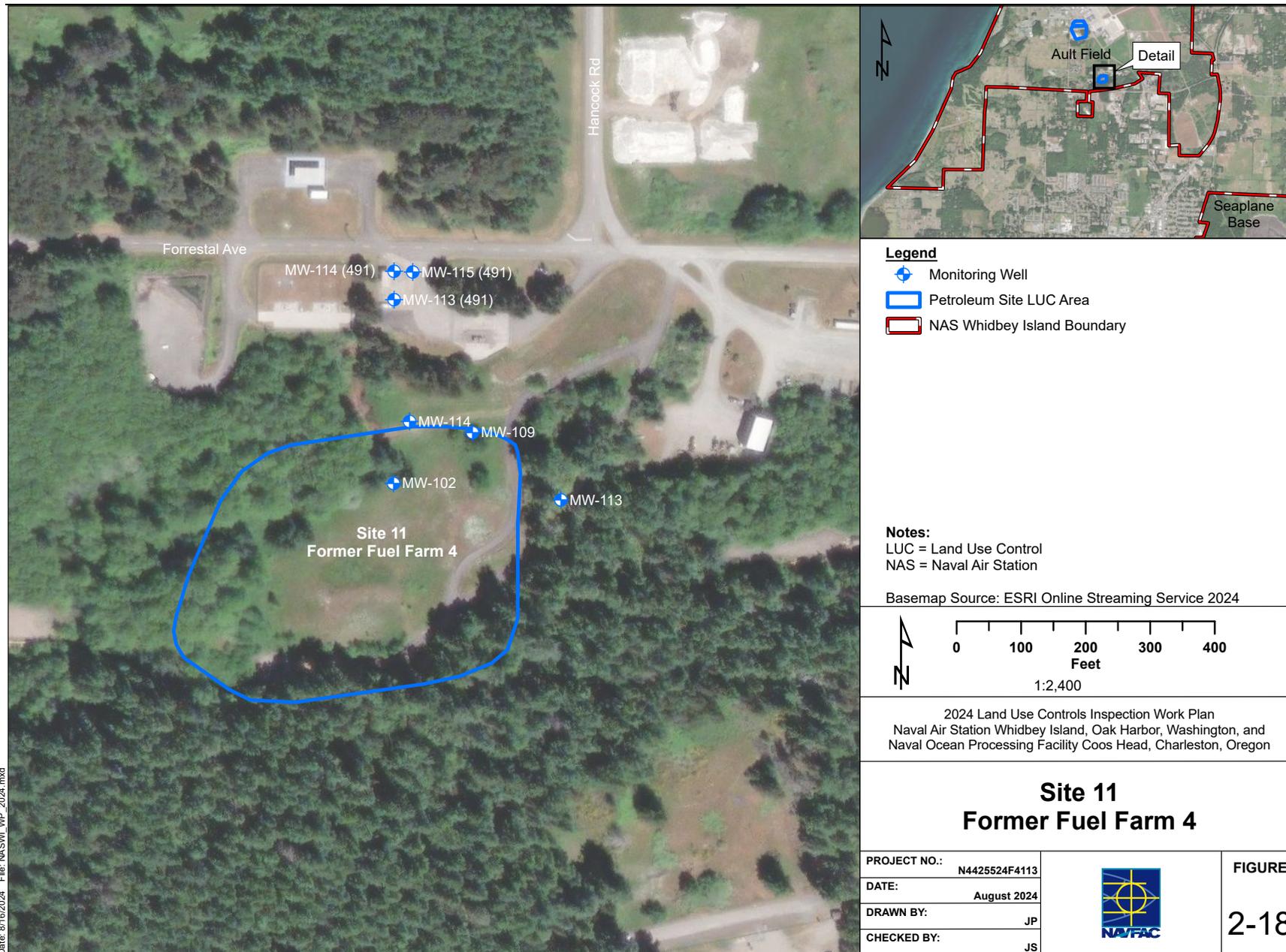


FIGURE
 2-17

Date: 8/16/2024 File: NASWI_WP_2024.mxd

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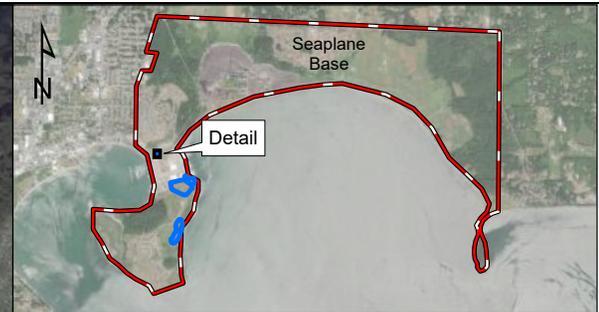
Site Description and History



Date: 8/16/2024 File: NASWI_WP_2024.mxd

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Site Description and History



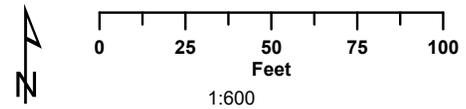
Legend

-  Petroleum Site LUC Area
-  NAS Whidbey Island Boundary

Notes:

- LUC = Land Use Control
- NAS = Naval Air Station
- TCE = Trichloroethene

Basemap Source: ESRI Online Streaming Service 2024



2024 Land Use Controls Inspection Work Plan
 Naval Air Station Whidbey Island, Oak Harbor, Washington, and
 Naval Ocean Processing Facility Coos Head, Charleston, Oregon

**Site 45
 TCE Tank**

PROJECT NO.:	N4425524F4113
DATE:	August 2024
DRAWN BY:	JP
CHECKED BY:	JS



FIGURE
 2-19

Date: 8/16/2024 File: NASWI_WP_2024.mxd

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3.0 Inspection Activities

Site inspections are an important element in ensuring the effectiveness of the LUCs in place at the 20 NAS Whidbey Island areas/sites listed in the LUCIP (Liberty JV, 2020). Site inspections are currently expected to occur on an annual basis, and the status of ICs and condition of ECs (e.g., monitoring wells, fences, gates, landfill caps/coverage, shoreline armoring, and signage) will be documented and evaluated in the annual LUC Inspection Report. The following subsections detail planned site LUC inspection activities.

The 2024 inspections will include 19 areas/sites within this scope of work at NAS Whidbey Island. EO351, Former LHTR, LUC inspections will be conducted in a separate effort by another contractor. This plan does not include inspections at NOPF Coos Head Former Tank #6 Site because this site is on a five-year inspection cycle; Navy conducted this inspection in 2023 and documented the results in the 2023 LUC Inspection Report (Liberty JV, 2024b).

3.1 Procurement and Mobilization of Equipment and Materials

The Liberty JV TOM and FOL will procure equipment and materials needed to accomplish the field activities within the anticipated schedule. Minimal equipment and materials will be required for the LUC inspections; therefore, a minimal amount of equipment and/or materials is anticipated to be mobilized to the area/site by field personnel on a daily basis.

Liberty JV will search the Island County Department of Public Health drinking water well database for wells installed within 1 mile of the Navy-owned property boundary. The review will be conducted twice as part of the 2024 LUC inspection activities: once prior to the LUC inspections and again during preparation of the LUC Inspection Report.

3.2 Pre-Inspection Kickoff Meeting

Key team members from NAVFAC Northwest (the RPM and NTR), Liberty JV (TOM, FOL, and SSHO), and applicable on-site contractors will attend a pre-inspection kickoff meeting to discuss the anticipated field schedule and obtaining specific area/site access for the LUC inspections.

3.3 Training

Prior to the start of the LUC inspections, all Liberty JV field personnel will be trained on the site-specific safety requirements identified in the APP (Appendix A) and EPP (Appendix B) as well as obtain/maintain certifications in Occupational Safety and Health Administration 40-hour Hazardous Waste Operations and Emergency Response (and

current annual 8-hour refresher training), first aid and adult cardiopulmonary resuscitation with automated external defibrillator, and bloodborne pathogens.

3.4 Access and Access Control

Badge requests will be prepared and provided to the appropriate Navy personnel prior to the initiation of field activities to ensure that Liberty JV field personnel are cleared for work on Ault Field and Seaplane Base of NAS Whidbey Island. Liberty JV will ensure that badge requests have been received and approved for pickup prior to the first day's inspections.

Areas/sites for which LUCs have been implemented are within the security-patrolled fence of NAS Whidbey Island, with the exception of four areas/sites. Access control on all Navy property is the responsibility of NAS Whidbey Island Base Security; however, OU 1, Area 6; OU 2, Area 29; Sites EO354, Former MGRs B and C, and EO354, Former MTTR, are not routinely patrolled by NAS Whidbey Island Base Security.

- *OU 1, Area 6* – Located within the NAS Whidbey Island property boundary and maintained by contractor personnel responsible for operating the GETR systems. NAS Whidbey Recycling also operates the composting facility within the fenced area for OU 1, Area 6. Liberty JV field personnel must coordinate access with the OU 1, Area 6, Site Manager or Plant Operator and identify themselves at the treatment plant office adjacent to the Southern GETR system, prior to initiating the LUC inspections at OU 1, Area 6.
- *OU 2, Area 29* – Located within the NAS Whidbey Island property boundary and adjacent to the golf course, a remediated site containing a constructed wetland. OU 2, Area 29, is fenced on all boundaries and access is restricted.

Both Sites EO354, Former MGRs B and C, and EO354, Former MTTR, are located within the NAS Whidbey Island property boundary but are not located within the security-patrolled fence. The sites are currently used for very limited recreational purposes (e.g., running, walking, nature observation). Implementation of the LUCs, which restrict residential development and impose soil excavation requirements, does not alter the current recreational uses or require strict access control.

- *Site EO354, Former MGRs B and C* – Except for a restricted area near a fenced transmitter array, access to this site is not restricted.
- *Site EO354, Former MTTR* – A barbed wire fence reduces access to the northern and western ends of this site, but access to the eastern end of the site is not restricted.

At sites with nonrestricted or limited access, warning signs are installed at site access points (including pedestrian and vehicle entry points) to assist with access control, prohibit disturbance without prior approval, and help delineate the area with LUC requirements.

3.5 Access to Restricted Sites

OU 1, Area 6; OU 3, Area 16; Site 22, Hangar 5; OU 5, Area 31; and Site 36, Former Fuel Farm 1 (i.e., a portion of the Upper Area), will require additional coordination efforts with contractor or NAS Whidbey Island personnel to ensure the LUC inspections can be completed without interruption of facility operations. Coordination is expected to occur via telephone at least one to two days prior to the actual field inspection.

- OU 1, Area 6 – The Liberty JV FOL will coordinate entry and egress with the contractor Site Manager or Plant Operator.
- OU 3, Area 16 – Field personnel are required to inspect the infield area of the active air station; therefore, the Liberty JV FOL will coordinate access to the runway ditches with the NTR, NAVFAC Northwest RPM, and NAS Whidbey Island Airfield Manager.
- Site 22, Hangar 5 – This site is located within the active air station; therefore, the Liberty JV FOL will coordinate access to the area northwest of Hangar 5 with the NTR, NAVFAC Northwest RPM, and NAS Whidbey Island Airfield Manager.
- OU 5, Area 31 – The Liberty JV FOL will coordinate with the NTR and NAS Whidbey Island Base Security to obtain access and unlock gate(s) for entry and egress, if necessary.
- Site 36, Former Fuel Farm 1 – The Liberty JV FOL will coordinate with the NAVFAC Northwest RPM, and the contractor site manager or plant operator for OU 1, Area 6, to obtain access at locked gate(s) for entry and egress, if necessary.

3.6 Description of Land Use Controls and Inspection Activities

Field activities will include conducting LUC inspections for the following 19 areas/sites at NAS Whidbey Island listed in the LUCIP (Liberty JV, 2020). As stated previously, LHTR LUC inspections will be conducted separately.

CERCLA Sites:

- OU 1, Area 5, Highway 20/Hoffman Road (Surface) Landfill
- OU 1, Area 6, Current (1969–1980s) Landfill

- OU 2, Area 2, Western Highlands Landfill
- OU 2, Area 3, 1969–1970 Landfill
- OU 2, Area 4, Walker Barn Storage Area
- OU 2, Area 29, Clover Valley Fire School
- OU 3, Area 16, Runway Ditches
- OU 4, Areas 48/49, Seaplane Base Landfill
- OU 5, Area 1, Former Beach Landfill
- OU 5, Area 31, Former Runway Fire Training School
- OU 5, Area 52, Jet Engine Test Cell
- Site 22, Hangar 5

MRP Sites:

- EO354, Former MGRs B and C
- EO354, Former MTTR

Petroleum Sites:

- Site 36, Former Fuel Farm 1
- Site 35, Former Fuel Farm 2
- Site 13, Former Fuel Farm 3
- Site 11, Former Fuel Farm 4
- Site 45, TCE Tank

The inspections will include: (1) documentation of the current land use at each area/site; (2) a field evaluation of the effectiveness of the LUCs implemented at each area/site; (3) photographs to document site conditions and visual evidence of any LUC deficiencies or failures; and (4) document or record reviews. The condition of ECs, including monitoring wells, fences, gates, landfill caps/coverage, shoreline armoring, and signage, will also be reviewed and reported during the inspections. The site-specific LUCs (both ICs and ECs) for the CERCLA sites, MRP sites, and petroleum sites are provided in Tables 3-1, 3-2, and 3-3, respectively. A list of the monitoring wells to be inspected during the LUC inspections, along with their location data, is provided as Table 3-4.

Site-specific checklists, based on the site-specific LUCs, will be used to guide the LUC inspections; assist in capture of all data necessary to assess and report on the effectiveness of the LUCs; and develop corrective actions, if necessary. These site-specific checklists are provided as Attachment 1. A general checklist for monitoring well

inspections that will be used to assess the protection and condition of existing monitoring wells at the pertinent sites is provided as Attachment 2. Data will be captured electronically or on hard copies of checklists in the field.

In addition to the site-specific LUCs, the Navy will ensure that site signage is intact, secure, and readable from all vehicular and pedestrian access points, helping to delineate the area with LUC requirements. The Navy will not modify or terminate LUCs or LUC implementation actions, nor modify land use, without approval by EPA and Ecology. The Navy will seek prior concurrence from EPA and Ecology before any anticipated action that may disrupt LUC effectiveness or any action that may alter or negate the need for LUCs.

In 2021, most of the monitoring wells within the LUC inspection scope were secured with new padlocks. Missing or damaged padlocks encountered during the 2024 inspection will be replaced with keyed-alike locks remaining from the 2021 lock replacement activity. Any monitoring well that cannot be secured with a padlock will be documented on the inspection checklist.

If any activity observed during the inspection is inconsistent with the LUC objectives or restrictions and/or is potentially compromising the effectiveness of LUCs, the following notification and corrective action process will be initiated (Liberty JV, 2020):

1. Liberty JV will report the observation to the NAVFAC Northwest RPM or NTR and NAS Whidbey Island Installation Environmental Department Director within 24 hours via email with a description and photograph(s) of the observed potential LUC compromise.
2. The NAVFAC Northwest RPM will then notify EPA and Ecology (as applicable) via email with a description of the potential LUC compromise no later than 10 calendar days after the inspection observation (see Table 1-1 for contact information).
3. The NAVFAC Northwest RPM will coordinate with EPA and Ecology to determine a corrective action plan and will also identify the cause for the observed compromise with the LUC process, evaluate how to correct the process to avoid future issues, and implement these changes after consulting with EPA and Ecology.
4. The NAVFAC Northwest RPM will notify EPA and Ecology (as applicable) regarding how NAS Whidbey Island has addressed, or will address, the activity within 10 days of sending EPA and Ecology notification of the activity.

NAS Whidbey Island has established site approval procedures (Navy Instruction 11013.2B) that require site approval when a project involves or is encumbered by

ammunition and explosive safety criteria, electromagnetic radiation, air safety, or Air Installations Compatible Use Zone criteria, and when the project changes or has the potential to change the land use or physical layout of the activity. This instruction requires NAVFAC Northwest review of all projects or construction identified by NAS Whidbey Island Public Works, Environmental Department, at or adjacent to any areas/sites identified as encumbered by LUCs.

The requirements for these annual LUC inspections will terminate once the Navy, EPA, and Ecology determine that inspections are no longer needed as a component of the selected remedy to maintain the protectiveness of the remedy, and that site conditions allow for unlimited use and unrestricted exposures.

3.7 Regulatory Agency Visits and Unauthorized Personnel Inquiries

In the event of unannounced visits by regulatory agencies (i.e., EPA and/or Ecology), the Liberty JV FOL will immediately contact the Liberty JV TOM, who will then notify the NAVFAC Northwest RPM. The Liberty JV SSHO will conduct a tailgate safety meeting with the regulatory agency personnel and then have them review and sign the appropriate health and safety forms (Appendix A) prior to continuing field activities.

The Liberty JV FOL or SSHO will not grant area/site access or answer questions from any unauthorized personnel (e.g., community members). Any unauthorized or outside personnel requesting access to inspect the area/site will be referred to the Liberty JV FOL, who will then initiate the appropriate notification to the Liberty JV TOM and NAVFAC Northwest RPM.

3.8 Field Documentation Logbook and Modification Forms

A digital field logbook or hard copy logbook will be maintained and completed by the Liberty JV FOL (or appropriate field personnel) for each day of field activities to ensure thorough documentation of the LUC inspections. Site observations (e.g., LUC conditions, potential deficiencies, and unusual activities), photographs, and description of activities will be documented by the appropriate field personnel in the logbook.

The Liberty JV FOL or appropriate field personnel will document any variances from the approved procedures, including NAVFAC Northwest-directed variances, on a Field Change Request form (see Attachment 3). The Field Change Request form will document any variances from the approved procedures due to unforeseen conditions that field personnel were unable to be prepared for ahead of time.

Table 3-1: CERCLA Sites – LUCs

Title	Site-Specific LUCs
Operable Unit 1 – Record of Decision, Operable Unit 1, Naval Air Station Whidbey Island, Oak Harbor, Washington (Navy, Ecology, and EPA, 1993a) and Explanation of Significant Differences to the Records of Decision for Operable Units 1, 2, 3, 4, & 5 at Naval Air Station Whidbey Island (Navy, 2007a)	
Area 5, Highway 20/Hoffman Road (Surface) Landfill (Figure 2-1)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation • Prevent installation of on-site drinking water wells • Deed restrictions in future property deeds
Area 6, Current (1969–1980s) Landfill (Figure 2-2)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • No use of groundwater from, or downgradient of, the area except for monitoring and remediation as approved by EPA and Ecology • Review the Island County Public Health Hydrogeology Datasystem biannually for well installation activities and/or groundwater use within the 1-mile buffer of Area 6 • Prevention of any disturbance to the landfill cap, except as necessary for authorized cap maintenance activities • Prevent installation of on-area drinking water wells by deed restrictions in future property deeds
Operable Unit 2 – Record of Decision, Ault Field, Operable Unit 2, Naval Air Station Whidbey Island (Navy, Ecology, and EPA, 1994) and Explanation of Significant Differences to the Records of Decision for Operable Units 1, 2, 3, 4, & 5 at Naval Air Station Whidbey Island (Navy, 2007a)	
Area 2, Western Highlands Landfill (Figure 2-3)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Use restrictions to prevent ground disturbance via digging and/or construction activities in the area of former construction debris landfill • Possible deed restrictions in future property deeds

Table 3-1: CERCLA Sites – LUCs (continued)

Title	Site-Specific LUCs
Area 3, 1969–1970 Landfill (Figure 2-4)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Use restrictions to prevent ground disturbance via digging and/or construction activities in the area of former construction debris landfill • Possible deed restrictions in future property deeds
Area 4, Walker Barn Storage Area (Figure 2- 5)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells
Area 29, Clover Valley Fire School (Figure 2-6)	<ul style="list-style-type: none"> • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells
Operable Unit 3 – Record of Decision, Ault Field, Operable Unit 3, Naval Air Station Whidbey Island (Navy, Ecology, and EPA, 1995) and Explanation of Significant Differences to the Records of Decision for Operable Units 1, 2, 3, 4, & 5 at Naval Air Station Whidbey Island (Navy, 2007a)	
Area 16, Runway Ditches (Figure 2-7)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • Limit adjoining ditch banks to disposal of dredged sediments meeting MTCA Industrial Soils criteria and/or industrial use • Deed restrictions for industrial use
Operable Unit 4 – Record of Decision, Seaplane Base, Operable Unit 4, Naval Air Station Whidbey Island (Navy, Ecology, and EPA, 1993b) and Explanation of Significant Differences to the Records of Decision for Operable Units 1, 2, 3, 4, & 5 at Naval Air Station Whidbey Island (Navy, 2007a)	
Areas 48/49, Seaplane Base Landfill (Figure 2-8)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • Use restrictions to prevent ground disturbance via excavation or other ground-disturbing activities in the area of former construction debris landfill
Operable Unit 5 – Record of Decision, Operable Unit 5, Naval Air Station Whidbey Island, Oak Harbor, Washington (Navy, Ecology, and EPA, 1996) and Explanation of Significant Differences to the Records of Decision for Operable Units 1, 2, 3, 4, & 5 at Naval Air Station Whidbey Island (Navy, 2007a)	

Table 3-1: CERCLA Sites – LUCs (continued)

Title	Site-Specific LUCs
Area 1, Former Beach Landfill (Figure 2-9)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Use restrictions to prevent ground disturbance via digging and/or construction activities in the area of former construction debris landfill • Ensure that shoreline armoring is in place and functioning as intended • Annual visual inspection of the shoreline armoring and perform repairs, if warranted
Area 31, Former Runway Fire Training School (Figure 2-10)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells
Area 52, Jet Engine Test Cell (Figure 2-11)	<ul style="list-style-type: none"> • Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • In the event of property transfer include (future) deed covenants to restrict land use and drinking water well construction
Site 22 – Soil and Groundwater Sampling Results, Hangar 5, Naval Air Station Whidbey Island, Oak Harbor, Washington (Multimedia Environmental Compliance Group and AECOM, 2016)	
Site 22, Hangar 5 (Figure 2-12)	<ul style="list-style-type: none"> • Ensure that land use remains industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation

Acronyms/Abbreviations:

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
 Ecology = Washington State Department of Ecology
 EPA = U.S. Environmental Protection Agency
 LUC = land use control

Table 3-2: MRP Sites – LUCs

Site	Title	Site-Specific LUCs
EO354 – Engineering Evaluation/Cost Analysis, Former Aviation Fleet Gunnery School, Naval Air Station Whidbey Island, Washington (Navy, 2013a), Action Memorandum, Former Aviation Fleet Gunnery School, Naval Air Station Whidbey Island, Washington (Navy, 2013b)		
354	Former MGRs B and C (Figure 2-13)	<ul style="list-style-type: none"> • Ensure that site is used for nonresidential purposes only; nonresidential land uses may include recreational, industrial, commercial, office, and educational uses • Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation
354	Former MTTR (Figure 2-13)	<ul style="list-style-type: none"> • Ensure that site is used for nonresidential purposes only; nonresidential land uses may include recreational, industrial, commercial, office, and educational uses • Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation
EO351 – Record of Decision for Former Lake Hancock Target Range, NAS Whidbey Island, Whidbey Island, Washington (Navy, 2016)		
351	Former Lake Hancock Target Range (Figure 2-14)	<ul style="list-style-type: none"> • Ensure that site is used for military purposes only • Ensure UXO support during intrusive/construction, ground-disturbing activities (up to 10 feet bgs) • Ensure perimeter fencing is intact to restrict access to site • Ensure signage is intact and readable, designating site as a restricted access area and potential UXO area

Acronyms/Abbreviations:

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

Ecology = Washington State Department of Ecology

EPA = U.S. Environmental Protection Agency

LUC = land use control

MGR = Machine Gun Range

MRP = Munitions Response Program

MTTR = Mobile Turret Tower Range

NAS = Naval Air Station

UXO = unexploded ordnance

Table 3-3: Petroleum Sites – LUCs

Site	Title	Site-Specific LUCs
Former Fuel Farms 1, 2, and 3 – Revised Cleanup Action Plan, NAS Whidbey Island, Closed Former Fuel Farms 1, 2, 3 and Fire Training Area (Navy, 2013c)		
36	Former Fuel Farm 1 (Figure 2-15)	<ul style="list-style-type: none"> • Ensure that land use remains industrial with restricted recreational land use limited to the Upper Area along paved footpaths with traffic confined to specific areas, signs, and barrier vegetation and along paved athletic areas • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation • Maintain controlled access and security fencing for Tank 226 and the Resource Conservation and Recovery Act satellite accumulation point • Deed restrictions placing limiting conditions on property conveyance; prohibiting well construction; restricting land use and construction activity; and requiring notification of EPA, Ecology, or their designees of intent to transfer interest in the property, modify land use, or implement construction activity and the requirement of agency approvals for such actions
35	Former Fuel Farm 2 (Figure 2-16)	<ul style="list-style-type: none"> • Ensure that site is used for nonresidential purposes only, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation • Deed restrictions placing limiting conditions on property conveyance; prohibiting well construction; restricting land use and construction activity; and requiring notification of EPA, Ecology, or their designees of intent to transfer interest in the property, modify land use, or implement construction activity and the requirement of agency approvals for such actions
13	Former Fuel Farm 3 (Figure 2-17)	<ul style="list-style-type: none"> • Ensure that land use remains industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation • Deed restrictions placing limiting conditions on property conveyance; prohibiting well construction; restricting land use and construction activity; and requiring notification of EPA, Ecology, or their designees of intent to transfer interest in the property, modify land use, or implement construction activity and the requirement of agency approvals for such actions
Former Fuel Farm 4 —Addendum, Independent Remedial Action Closure Reports NAS Whidbey Island: Former Fuel Farm 4 and Building 491, Site 11 (Navy, 2013d)		

Table 3-3: Petroleum Sites – LUCs (continued)

Site	Title	Site-Specific LUCs
11	Former Fuel Farm 4 (Figure 2-18)	<ul style="list-style-type: none"> • Ensure that land use remains industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds • No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by EPA and Ecology • No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by EPA and Ecology in approved plans • Protect existing monitoring wells • Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation
Site 45, TCE Tank – Memorandum to File, Documentation of Response Complete for Installation Restoration Site 45 at Naval Air Station Whidbey Island, Washington (Navy, 2015)		
45	TCE Tank (Figure 2-19)	<ul style="list-style-type: none"> • Ensure that land use remains industrial, restricting residential land use, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds

Acronyms/Abbreviations:

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
 Ecology = Washington State Department of Ecology
 EPA = U.S. Environmental Protection Agency
 LUC = land use control
 NAS = Naval Air Station
 TCE = trichloroethene

Table 3-4: NAS Whidbey Island Monitoring Wells for LUC Inspection

Well ID	Northing	Easting
OU 1, Area 6, Current (1969–1980s) Landfill (42 wells)		
Production Wells		
PW-1	487510.00	1200640.00
PW-2	485180.00	1201045.00
PW-3*	486734.828	1200409.726
PW-4*	484919.327	1201017.543
PW-5*	485475.157	1200440.757
PW-6	485485.00	1200675.00
PW-7*	485453.232	1200878.921
PW-8	485195.00	1201385.00
PW-9*	484913.794	1201515.322
PW-10*	485380.232	1201035.655
Monitoring Wells		
MW-3B*	483969.424	1200985.634
MW-5*	485277.249	1200715.752
MW-7	487090.00	1200440.00
MW-9*	485144.491	1201754.341
MW-10	486020.00	1200965.00
MW-13*	487459.108	1203129.564
6-DW-38**	483104.600	1201867.800
6-S-1	486064.300	1203139.00
6-S-2	488231.100	1203586.00
6-S-3	484800.00	1201913.00
6-S-6	486369.300	1200387.00
6-S-7	488637.200	1200542.00
6-S-9	487101.200	1201426.00
6-S-10	487873.200	1200810.00
6-S-14	486480.300	1200760.00
6-S-15	486877.900	1200840.00
6-S-16	485994.00	1202127.00
6-S-17	485524.400	1202048.00
6-S-19*	484795.354	1201474.280
6-S-24*	486179.525	1200119.074
6-S-25*	485495.387	1200381.586
6-S-26*	488335.748	1200909.457
6-S-27*	485091.939	1200399.970
6-S-29*	484808.454	1201178.203
6-S-30*	487849.337	1200431.417
6-S-31*	487408.929	1200414.862
N6-37	487499.200	1200709.00

Table 3-4: NAS Whidbey Island Monitoring Wells for LUC Inspection (continued)

Well ID	Northing	Easting
N6-38	487721.00	1200538.00
Resource Protection Wells		
6-S-40	485727.00	1203046.00
6-S-41	485062.00	1202556.00
6-S-42*	484226.857	1201987.500
6-S-43*	483610.019	1201483.926
OU 2, Area 2, Western Highlands Landfill (4 wells)		
N2-3	491030.200	1188592.00
N2-6C	491543.500	1189532.00
N2-8	490793.700	1189305.00
N2-9	490504.700	1189359.00
OU 2, Area 3, 1969–1970 Landfill (2 wells)		
3-MW-2	491368.700	1190681.00
N3-12	491400.00	1190575.00
OU 2, Area 4, Walker Barn Storage Area (2 wells)		
4-MW-1	492410.900	1190076.00
4-MW-3	492262.600	1190041.00
OU 2, Area 29, Clover Valley Fire School (3 wells)		
29-MW-4	489353.600	1188495.00
N29-20	489204.500	1188480.00
N29-22D	489251.200	1188284.00
OU 5, Area 1, Former Beach Landfill (3 wells)		
MW-18	496345.400	1191195.00
TP-101	496259.00	1191190.00
MW-103	495609.600	1190759.00
OU 5, Area 31, Former Runway Fire Training School (2 wells)		
OWS-1	499423.300	1197728.00
MW-31-9A	499465.300	1197737.00
Site 22, Hangar 5 (3 wells)		
H5-MW-1	496945.290	1193376.920
H5-MW-2	497041.790	1193372.170
H5-MW-3	497045.240	1193467.390
Petroleum Site 36, Former Fuel Farm 1 (40 wells)		
MW-328 U	473127.002	1203932.546
MW-318 U	473118.458	1204049.309
MW-329 U	473248.037	1203882.708
MW-319 U	473179.688	1204109.115
MW-320 U	473238.069	1204198.823
MW-202 U	473280.788	1204082.060

Table 3-4: NAS Whidbey Island Monitoring Wells for LUC Inspection (continued)

Well ID	Northing	Easting
MW-311 U	473302.147	1204299.923
MW-326 U	473319.234	1203946.786
MW-327	473386.159	1203704.716
MW-306 U	473369.072	1204144.713
MW-324 U	473411.790	1204254.357
MW-313 U	473386.159	1204457.981
MW-321 U	473423.182	1204543.417
MW-201	473448.813	1204376.816
MW-315 U	473454.509	1204489.307
MW-317	473522.858	1204402.447
MW-322 U	473576.967	1204278.564
MW-323 U	473561.304	1204184.584
MW-303 U	473514.314	1204096.299
MW-305 U	473557.032	1204062.125
MW-301 U	473487.259	1204043.614
MW-304 U	473555.608	1203995.200
MW-325	473484.411	1203886.980
MW-501 L	473817.614	1204385.360
MW-502 L	473754.960	1204395.327
MW-503	473698.002	1204467.948
MW-601 L	473688.035	1204497.851
MW-337 L	473665.252	1204485.035
MW-342	473594.055	1204479.340
MW-338 L	473623.958	1204527.754
MW-331 L	473659.556	1204608.918
MW-602 L	473699.426	1204711.442
MW-604 L	473709.394	1204778.367
MW-335	473561.304	1204507.818
MW-339 L	473522.858	1204564.776
MW-332 L	473579.815	1204628.854
MW-333 L	473578.391	1204691.507
MW-344 L	473494.379	1204772.672
MW-343 L	473477.292	1204630.277
MW-603 L	473695.155	1204718.562
Petroleum Site 35, Former Fuel Farm 2 (9 wells)		
MW-001	471180.172	1204168.295
MW-717	471247.486	1203982.061
MW-505	471321.531	1203973.085
MW-506	471312.556	1204029.180

Table 3-4: NAS Whidbey Island Monitoring Wells for LUC Inspection (continued)

Well ID	Northing	Easting
MW-507	471296.849	1204080.787
MW-716	471287.874	1204150.345
MW-307	471299.093	1204148.101
MW-306	471388.844	1204145.857
MW-508	471357.431	1204015.717
Petroleum Site13, Former Fuel Farm 3 (37 wells)		
MW-372 U	492323.299	1194376.397
MW-371 U	492344.161	1194537.607
MW-368 U	492488.302	1194911.234
MW-369 U	492634.339	1194640.022
MW-702 U	492588.821	1194471.226
MW-302 U	492774.686	1194171.565
MW-360 U	492734.858	1194313.810
MW-501 U	492736.755	1194328.982
MW-359 U	492732.962	1194456.054
MW-358 U	492744.341	1194560.366
MW-506 U	492765.204	1194547.090
MW-507 U	492778.480	1194602.091
MW-303 U	492808.825	1194514.848
MW-361 U	492892.275	1194065.357
MW-357 U	492884.689	1194755.714
MW-356 U	492932.103	1194878.992
MW-355 U	493055.381	1194941.580
MW-334 U	493000.380	1194751.921
MW-305 U	493019.346	1194490.192
MW-502 U	493013.656	1194450.364
MW-335 U	493017.450	1194205.704
MW-354 L	493163.487	1194911.234
MW-503 L	493182.453	1194689.334
MW-505 L	493161.590	1194355.534
MW-001 L	493167.280	1194253.119
MW-363 L	493154.004	1194154.496
MW-311 L	493317.110	1194258.808
MW-350 L	493269.696	1194385.880
MW-351 L	493226.074	1194488.296
MW-352 L	493197.625	1194632.436
MW-353 L	493209.005	1194740.542
MW-003 L	493243.143	1194835.371
MW-364 L	493339.869	1194844.854

Table 3-4: NAS Whidbey Island Monitoring Wells for LUC Inspection (continued)

Well ID	Northing	Easting
MW-365 L	493330.386	1194768.990
MW-002 L	493411.940	1194579.332
MW-701 L	493267.799	1194613.470
MW-504 L	493165.383	1194268.291
Petroleum Site 11, Former Fuel Farm 4 (5 wells)		
MW-109	489905.554	1196219.915
MW-114	489922.666	1196122.375
MW-115 (491)	490153.682	1196127.508
MW-114 (491)	490155.393	1196098.417
MW-113 (491)	490110.901	1196098.417

*Coordinates are corrected or made more accurate based on measurements taken during the 2015 LUC inspections.

**Coordinates are approximated.

Acronyms/Abbreviations:

ID = identification

LUC = land use control

NAS = Naval Air Station

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4.0 Schedule, Submittal, and File Management

This section describes the anticipated field schedule, required deliverables or submittals, and management of project files as part of the LUC inspections at NAS Whidbey Island.

4.1 Schedule

For the LUC inspections, the field activities are currently anticipated to start in September 2024 and are projected to require up to three weeks to complete. Because of the coordination to obtain access to the interior runway ditches at OU 3, Area 16, and access to Site 22, Hangar 5, time in the field may not be consecutive, ultimately requiring a total of up to 21 calendar days. Liberty JV will develop and submit a detailed field activity (for LUC inspection) schedule to NAVFAC Northwest for review and approval prior to initiating any field activities.

4.2 Submittals

After completion of the LUC inspections, the findings of the inspection will be discussed and evaluated in an annual LUC Inspection Report to be subsequently forwarded to EPA and Ecology. The LUC Inspection Report will assess the need for any additions to or reductions in inspection requirements, as well as determine whether the LUCs in place are effective. The LUC Inspection Report, at a minimum, will contain the following:

- A description of how the facility is meeting the facility-wide LUC requirements.
- A description of how the facility is meeting the area/site-specific LUC requirements, including results of visual field inspections of all sites subject to LUC restrictions.
- An evaluation of whether all the facility-wide and site-specific LUC requirements are being met.
- A description of any LUC deficiencies and what efforts or measures have been or shall be taken to correct any LUC deficiencies.

The report will document inspection results, observations, LUC deficiencies (if observed), current apparent land uses, and photographs. The report will provide an assessment of the LUC effectiveness on an area/site-specific basis. In the event of a potential deficiency, the report will identify potential corrective actions to ensure LUC effectiveness, as intended, to protect human health and the environment.

Liberty JV will prepare and submit the following documents, as required:

1. Internal Draft LUC Inspection Report
2. Draft LUC Inspection Report
3. Final LUC Inspection Report

Copies of all field logbook pages, photographs, and checklists will be provided as appendices to each version of the LUC Inspection Report.

Electronic files of the internal draft, draft, and final reports will be provided to NAVFAC Northwest as both native and Adobe Acrobat.pdf files. Electronic files of the draft and final reports will be provided to NAVFAC Northwest, EPA, and Ecology. Three hard copies and three electronic files of the final report will be provided to NAVFAC Northwest, EPA, and Ecology. An electronic "README" file, which describes the various files and provides a brief description of the deliverable, will be provided on the CD-ROM for each deliverable. All project submittals will be prepared and submitted in accordance with the Navy's Standard Operating Procedures for Electronic and Hard Copy Deliverables, Version 5.0.

4.3 File Management

Original project files, including field logbook pages, photographs, checklists, and Field Change Request forms (if needed), will be stored and maintained in the Liberty JV Redmond, Washington, office. The Liberty JV Quality Control Manager will be responsible for ensuring that all quality control documentation is incorporated into the project files. Liberty JV will coordinate for the Final LUC Inspection Report to be uploaded to Naval Installation Restoration Information Solution.

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**Appendix A:
Abbreviated Accident Prevention Plan
DCN: LBJV-5006-4067-0006.R1**

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**Naval Facilities Engineering Systems Command Northwest
Silverdale, WA**

Final

Abbreviated Accident Prevention Plan

Naval Air Station Whidbey Island, Oak Harbor,
Washington, and Naval Ocean Processing Facility
Coos Head, Charleston, Oregon

September 2023, Revised August 2024



Naval Facilities Engineering Systems Command Northwest Silverdale, WA

Final

Abbreviated Accident Prevention Plan

Naval Air Station Whidbey Island, Oak Harbor,
Washington, and Naval Ocean Processing Facility
Coos Head, Charleston, Oregon

September 2023, Revised August 2024

DCN: LBJV-5006-4067-0006.R1

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Contract Number: N44255-20-D-5006; Task Order No. N4425524F4113

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NOTICE

This Abbreviated Accident Prevention Plan has been prepared for the Naval Facilities Engineering Systems Command (NAVFAC) Northwest, Naval Air Station (NAS) Whidbey Island and Naval Ocean Processing Facility (NOPF) Coos Head, by Liberty Joint Venture (Liberty JV). This plan is not an endorsement of any product.

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Acronyms and Abbreviations

AED	automated external defibrillator
AHA	Activity Hazard Analysis
ANSI	American National Standards Institute
APP	Accident Prevention Plan
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CPR	cardiopulmonary resuscitation
COVID-19	Novel Coronavirus Disease, 2019
CIRS	Contractor Incident Report System
EM	Engineer Manual
EPA	U.S. Environmental Protection Agency
FOL	Field Operations Lead
GDA	Government Designated Authority
HAZWOPER	Hazardous Waste Operations and Emergency Response
HSM	Health and Safety Manager
LUC	land use control
MRP	munitions response program
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Systems Command
NEI	Nicklaus Engineering, Inc
NIOSH	National Institute for Occupational Safety and Health
No.	number
NOPF	Naval Ocean Processing Facility
NTR	Navy Technical Representative
OSHA	Occupational Safety and Health Administration
PG	Professional Geologist
POC	Point of Contact
RPM	Remedial Project Manager

Acronyms and Abbreviations (continued)

SDS	safety data sheet
SOH	safety and occupational health
SOW	scope of work
SSHO	Site Safety and Health Officer
TO	Task Order
TOM	Task Order Manager
USACE	United States Army Corps of Engineers
WSP	WSP USA Environment & Infrastructure, Inc.
Wood	Wood Environment & Infrastructure Solutions, Inc.

1.0 Introduction

Liberty JV, under contract with the Naval Facilities Engineering Systems Command (NAVFAC) Northwest, has been issued a task order (TO) for Land Use Control (LUC) Inspections/Monitoring at NAS Whidbey Island, Washington, and NOPF Coos Head, Oregon.

Specifically, the work under this TO will involve the following:

1. Project management/coordination and participating in a project kickoff meeting
2. Preparing a LUC Inspection Work Plan Update
3. Preparing an abbreviated Accident Prevention Plan
4. Conducting LUC field investigations at NAS Whidbey Island and office support as needed for NOPF Coos Head
5. Preparing an Inspection and Monitoring Report

This document presents Liberty JV's Abbreviated Accident Prevention Plan (APP) which will serve as a site-specific safety and health plan for this TO. It has been prepared in accordance with the U.S. Army Corps of Engineers (USACE) APP Template, EM 385-1-1, Appendix A.

This work is being completed under NAVFAC Northwest Contract N44255-20-D-5006, TO N4425524F4113.

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2.0 Background Information

2.1 Contractor

Liberty JV is a joint venture between WSP USA Environment & Infrastructure, Inc. (WSP) and Nicklaus Engineering, Inc. (NEI). Liberty JV has adopted WSP's Safety, Health, and Environment Program as the governing standard for Contract Number (No.) N44255-20-D-5006, TO No. N4425524F4113. All efforts conducted in support of this TO will be accomplished in accordance with WSP's health and safety policies and procedures.

2.2 Contract Number

NAVFAC Northwest No. N44255-20-D-5006, TO No. N4425524F4113

2.3 Project Name

2024 Land Use Control Inspections/Monitoring Naval Air Station Whidbey Island, Washington, and NOPF Coos Head, Oregon.

2.4 Project Description

Liberty JV, under contract with NAVFAC Northwest, has been issued a TO to provide field and office-based services to NAS Whidbey Island, and office-based services as needed for the NOPF Coos Head. Liberty JV will provide services for LUC monitoring and inspections.

2.5 Description of Work

In accordance with the scope of work (SOW), six tasks will be completed as part of this effort. One task will be completed in the field and the other five will be completed in the Liberty JV offices. This APP addresses the on-site field activities for each of the tasks described below.

2.5.1 LUC Field Inspections at NAS Whidbey Island

2.5.1.1 Onsite Field Work

Liberty JV will conduct site visits at 19 program areas/sites to evaluate the effectiveness of their LUCs, as presented on Figures 1-1 through 1-4. The program sites consist of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) sites, petroleum sites, and munitions response program (MRP) sites.

During onsite field work, Liberty JV will physically check in daily with the NAS Whidbey Island points of contact (POCs) and provide daily out briefs via phone.

2.5.1.2 Overview of Anticipated Hazards

Liberty JV will take all necessary steps to minimize risk of the following possible hazards that may be encountered during the field surveys:

- Motor vehicle travel: verify vehicle condition before use, obey all traffic laws, wear seatbelts, and do not use cell phones while driving.
- Slips, trips, and falls: wear appropriate foot protection (sturdy closed-toe boots or shoes with ankle support, unless safety-rated shoes are required by the installation/site), ensure proper footing, walk in designated pedestrian areas, ensure proper lighting is available, and pay close attention to walking surfaces for potential slippery or stumbling conditions. Do not use cell phone while walking on site.
- Accidental contact with hazardous materials: Liberty JV is not anticipating bringing hazardous materials to the field. If suspected hazardous materials are encountered, do not intentionally contact any hazardous materials. If work occurs in areas where hazardous material exposure is possible, coordinate a brief review of hazardous material information with the facility contact, who should have the safety data sheets (SDS). If accidental contact occurs, mitigate the exposure in accordance with procedures identified on the SDS.
- Working near operating vehicles or heavy equipment: follow station and Liberty JV policies concerning the use of hearing protection in designated areas, wear safety vests in areas where heavy equipment is being used and ensure heavy equipment operators are aware of your presence and location. Do not enter the red zone area (area where potential contact with machinery or extension of machinery may occur). Always get operator permission to approach equipment and only do so after equipment has been put in idle and when directed to do so by the operator.
- Diseases transmitted by insects or animals: avoid contact with animals; use appropriate repellants for skin. Follow all directions on repellants; some repellants should be applied to clothing only and not skin.
- Installation training areas: ensure access has been approved by the NAS Whidbey Island Base Safety prior to entering training areas.

- Heat or cold-related illness: Pace fieldwork or reschedule due to hot weather, dress appropriately for anticipated conditions in cold weather, and consider wind chill, as explained in Section 9.14 below.

After review of anticipated hazards associated with field activities for the 2024 LUC Inspections at NAS Whidbey Island, risk from high hazards is not anticipated.

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3.0 Statement of Safety and Health Policy

It is the policy of Liberty JV to provide all employees with a safe and healthful working environment. Liberty JV's goal is the prevention of all occupation-related accidents and illnesses. To assist in this goal, Liberty JV has implemented the Safety, Health, and Environment Program that is outlined in the WSP's Corporate Health, Safety, Security, and Environment Manual.

Accordingly, it is Liberty JV policy to:

- Provide safe working conditions;
- Conduct all company operations within the guidelines of established health and safety procedures;
- Comply with all government regulations related to employee health and safety; and
- Maintain high standards in the areas of industrial health, environmental protection, and safety.

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4.0 Responsibilities and Lines of Authorities

4.1 Statement of the Liberty JV's Responsibility for the Implementation of the Safety and Occupational Health Program

Liberty JV is responsible for implementing a Safety and Occupational Health program to provide safe work conditions for employees. Liberty JV has implemented the Safety, Health, and Environment Program that is outlined in the WSP Corporate Health, Safety, Security, and Environment Manual.

4.2 Identification and Accountability of Personnel Responsible for Safety at both Corporate and Project Level

The field inspection team, led by Field Operation Lead (FOL), Chelsea Foster, will be responsible for safety at the project level. Josh Sandige will be the Site Safety and Health Officer (SSHO). Trevon Wilson will be the Health and Safety Manager (HSM). The HSM provides technical guidance to ensure that all project activities are conducted in compliance with applicable federal, state, and local environmental, health, and safety statutes, regulations, and guidance. Ms. Foster and Mr. Sandige have first aid and CPR training.. The team will be briefed prior to the field survey on relevant safety topics and will conduct daily tailgate meetings to reinforce the safety issues onsite.

4.3 Names of Competent / Qualified Persons (Requirements to Meet OSHA Competent / Qualified Person(s) Must be Attached)

Liberty JV will not supply and does not require an Occupational Safety and Health Administration (OSHA) qualified person to conduct the field survey.

4.4 Requirements to Not Allow Work Unless a Designated Competent Person is Present on the Job Site

In accordance with tasks described in the SOW, an OSHA competent person is not required for this work.

4.5 Requirements for Pre-Task Safety and Health Analysis

Liberty JV's Task Order Manager (TOM) Ms. Foster will coordinate with the field team members, other project personnel, and installation personnel to identify safety issues associated with the project work prior to conducting the site visits. Each of these safety issues will be addressed in a site-specific activity hazard analysis (AHA). Attachment 1 presents the site-specific AHAs for this effort. All on-site personnel are required to read and adhere to the AHAs.

4.6 Lines of Authority

Attachment 2 to this document details corporate safety responsibilities and describes the lines of authority. Attachment 3 details employee safety responsibilities.

4.7 Policies / Procedures Regarding Noncompliance with Safety Requirements

Attachment 3 outlines disciplinary action to ensure employees comply with all safe and healthy work practices.

4.8 Written Company Procedures for Holding Managers and Supervisors Accountable for Safety

Attachment 2 details responsibilities for Liberty JV managers and supervisors.

5.0 Subcontractors and Suppliers

5.1 Identification of Subcontractors and Suppliers

No onsite subcontractors or suppliers have been identified for this project.

5.2 Safety Responsibilities of Subcontractors and Suppliers

If used, subcontractors are required to read and sign this APP and comply with its requirements. Subcontractors not in compliance will be immediately dismissed from the site.

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6.0 Training

6.1 New Hire Safety and Occupational Health (SOH) Training Requirements

All Liberty JV new hires must receive safety training and must acknowledge that they have completed such training by signing the document presented in Attachment 4. New hires must also complete and sign the document included in Attachment 3 as part of the orientation process.

6.2 Mandatory Training and Certifications Required for this Project

Field team members must read and understand the contents of the site-specific AHAs (Attachment 1). Team members receive training on project-specific safety issues prior to field work, as well as obtain/maintain certifications in OSHA 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) (and annual 8-hour refresher training), first aid, adult cardiopulmonary resuscitation (CPR) with automated external defibrillator (AED), and bloodborne pathogens.

6.3 Periodic Safety and Health Training for Supervisors and Employees

All project team members are trained monthly in various safety topics and are required to participate in daily safety training while onsite (i.e., tailgate meetings).

6.4 Emergency Response Training Requirements

All project team members are trained to notify the appropriate emergency responders in the event of an emergency. Ms. Foster and Mr. Sandige are 40-hour HAZWOPER certified, and maintain certifications in CPR with AED, first aid, and bloodborne pathogens. Attachment 5 of this document presents the certifications of the project team members.

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7.0 Safety and Health Inspections

7.1 Specific Assignment of Responsibilities for Daily Job Site Inspections

The FOL, Ms. Foster, and the SSHO, Mr. Sandige, will brief all team members daily on relevant safety topics, and document this pre-work briefing on a daily Tailgate field form or in the AHA daily renewal fields. Inspections will be made as required for any applicable safety equipment (e.g., personal protective equipment). Attachment 5 of this document presents the certifications of the field team leads.

7.2 Required External Inspections/Certifications

The following external inspections or certifications apply to this project.

As required, safety equipment will comply with appropriate regulations of OSHA, the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), the ASTM International, or other recognized certification organizations.

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8.0 Mishap, Reporting, and Investigation

8.1 Mishap and Reporting Procedures

A mishap is any unplanned, undesired event that occurs during the course of work being performed, in accordance with EM 385-1-1 Section 01.D. The term “mishap” includes accidents, incidents and near misses. All mishaps occurring incidentally to an operation, project, or facility shall be reported, investigated, and analyzed as prescribed below.

1. The FOL, Ms. Foster, and the SSHO, Mr. Sandige, are responsible for reporting all mishaps immediately to their employer or supervisor.
2. The Liberty JV TOM, Ms. Foster, and the Health and Safety Manager (HSM) corporate representative, Tre Wilson, are responsible for reporting all recordable mishaps to the Government Designated Authority (GDA) within 24-hours after notification from the affected employee.
3. No supervisor may decline to accept a report of a mishap from a subordinate.

The FOL, in coordination with the TOM/SSHO, are required to report any mishap (accident, incident, or near miss) to the GDA by completing and submitting a Contractor Incident Report System (CIRS) Form. The CIRS Form is available in Attachment 6.

In addition to the reporting requirements identified above, Liberty JV is required to report:

- a. Property damage (exceeding \$5,000 is recordable)
- b. Days Away Injuries
- c. Days Away Illnesses
- d. Restricted/Transfer Injuries

8.2 Boards of Investigation

Any incident/accident that has, or appears to have, any of the consequences listed below will be immediately reported to the GDA by Liberty JV. These accidents (as applicable) will be investigated in depth to identify all causes and to recommend hazard control measures. The GDA shall immediately notify the Liberty JV TOM and SSHO, when any of these occurs and subsequently follow-up with official accident reports as prescribed by regulation.

- a. Fatal injury/illness;

- b. Permanent totally disabling injury/illness;
- c. Permanent partial disabling injury/illness;
- d. One or more persons hospitalized as inpatients as a result of a single occurrence.
- e. \$500,000 or greater accidental property damage;
- f. Three or more individuals become ill or have a medical condition which is suspected to be related to a site condition, or a hazardous or toxic agent on the site;
- g. Navy/USACE aircraft destroyed or missing; and
- h. Contractors are responsible for notifying OSHA in accordance with 29 CFR 1904.39 within 8 hours when their employee(s) is fatally injured, or one or more persons are hospitalized as inpatients as a result of a single occurrence.

In addition to the above, any mishap occurring in any of the following high hazard areas will be immediately reported to the GDA by Liberty JV. These mishaps will be investigated in depth to identify all causes and to recommend hazard control measures. The GDA shall immediately notify OSHA when any one of these occurs and subsequently follow-up with official reports to Liberty JV as prescribed by the regulation. The GDA and NAVFAC Northwest Remedial Project Manager (RPM) must also be notified immediately (within 24 hours) and provided follow-up investigative findings within 10 days of occurrence.

- a. Electrical – to include Arc Flash, electrical shock, etc.
- b. Uncontrolled Release of Hazardous Energy (includes electrical and non-electrical).
- c. Load Handling Equipment (LHE) or Rigging.
- d. Fall-from-Height (any level other than same surface).
- e. Underwater Diving.

Note: The reporting and associated investigation of these mishaps is considered a leading indicator. As such, this information is to be used for data collection, data trending, and correction of hazards or program deficiencies before they result in an accident. To encourage reporting of these mishaps, for the betterment of all, this data is NOT to be used for any other reason.

Except for rescue and emergency measures, the mishap scene shall not be disturbed until it has been released by the investigating official.

Liberty JV is responsible for obtaining appropriate medical and emergency assistance and for notifying fire, law enforcement, and regulatory agencies. Liberty JV will assist and cooperate fully with the GDA conducting the Government investigation(s) of any mishap.

Records of all first aid treatments will be maintained and submitted to the GDA upon request.

- a. Records will include, at a minimum, the employee's name, job title, date and type of mishap, and causes and corrective actions taken (i.e., AHA review, process changes, establishment of controls, personnel qualifications, and training, etc.).
- b. This data will be reviewed and analyzed by the SSHO, and the HSM, Mr. Wilson, for corrective action as appropriate.

8.3 Person(s) Responsible for Providing Exposure Data

The Liberty JV FOL will track daily man-hours and exposure data (e.g., exposure hours, incident rates, lost time rates), which will be reported to the Liberty JV TOM and the HSM corporate representative, Mr. Wilson (WSP).

8.4 Person(s) Responsible for Providing Accident Investigations, Reports, and Logs

Official Liberty JV accident investigations, reports, and logs will be provided by a Liberty JV HSM corporate representative to the GDA as stated in Section 8.1.

8.5 Person(s) Responsible for Providing Immediate Accident Notification Of:

8.5.1 A Fatal Injury

The FOL (or if incapacitated, another team member) will immediately notify the Liberty JV HSM corporate representative, and the GDA/Navy Technical Representative (NTR) of an incident that results in a fatal injury, in accordance with Section 8.2. Subsequent notification to OSHA will be made by the Liberty JV HSM corporate representative in accordance with established procedures.

8.5.2 A Permanent Total Disability

The FOL (or if incapacitated, another team member) will immediately notify the Liberty JV HSM corporate representative, and the GDA/NTR of an incident that appears likely to result in a permanent total disability, in accordance with Section 8.2. Subsequent

notification to OSHA will be made by the Liberty JV HSM corporate representative in accordance with established procedures.

8.5.3 A Permanent Partial Disability

The FOL (or if incapacitated, another team member) will immediately notify the Liberty JV HSM corporate representative, and the GDA/NTR of an incident that appears likely to result in a permanent partial disability, in accordance with Section 8.2. Subsequent notification to OSHA will be made by the Liberty JV HSM corporate representative in accordance with established procedures.

8.5.4 Hospitalization of One or More People from Single Occurrence

The FOL (or if incapacitated, another team member) will immediately notify the Liberty JV HSM corporate representative, and the GDA/NTR of an incident that results in the hospitalization of one or more people from a single occurrence, in accordance with Section 8.2. Subsequent notification to OSHA will be made by the Liberty JV HSM corporate representative in accordance with established procedures.

8.5.5 Property Damage of \$500,000 or More

The FOL (or if incapacitated, another team member) will immediately notify the Liberty JV HSM corporate representative, and the GDA/NTR of an incident that results in property damage of \$500,000 or more, in accordance with Section 8.2. Subsequent notification to OSHA will be made by the Liberty JV HSM corporate representative in accordance with established procedures.

8.5.6 Other Accidents or Safety Incidents

In addition to procedures outlined in Sections 8.1, and 8.2, employees are responsible for responding to and reporting all injuries or occupationally related illnesses according to the following procedures:

Emergency Event:

1. FOL must immediately call the appropriate local emergency number (911) as identified in Attachment 7, Exhibit 1.
2. Once medical attention is sought and provided, the FOL must contact the TriageNow hotline at (877) 311-0038.
3. Immediately after contacting TriageNow, the FOL must contact an HSM corporate representative and the TOM.

4. FOL must contact the employee's immediate supervisor and local HSM coordinator.
5. The preceding calls should be completed within 1 hour of the incident occurring unless medical conditions delay the completion of these calls.
6. FOL must notify the NAS Whidbey Island POC within 24 hours of the incident.

Non-emergency Event:

1. Employee must contact their immediate supervisor and local HSM coordinator.
2. Employee must contact the TriageNow hotline at (877) 311-0038.
3. Immediately after contacting TriageNow, the employee must contact an HSM corporate representative.
4. The preceding calls should be completed within 1 hour of the incident occurring unless medical conditions delay the completion of these calls.
5. FOL must notify the NAS Whidbey Island POC within 24 hours of the incident.

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9.0 Plans (Programs, Procedures) Required by the Safety Manual

9.1 Layout Plans

Not applicable.

9.2 Emergency Response Plans

Liberty JV's emergency response plan is described below. All field team members must read and understand this plan prior to commencement of work at NAS Whidbey Island.

9.2.1 Procedures and Tests

Not applicable.

9.2.2 Spill Plans

Not applicable. Refer to the Environmental Protection Plan for Land Use Controls Inspection for information on spills encountered but not related to Liberty JV project operations.

9.2.3 Firefighting Plan

Not applicable.

9.2.4 Posting of Emergency Telephone Numbers

Emergency telephone numbers are presented in Attachment 7. Because Liberty JV personnel will be working in the field and may not have consistent access to a work space at the installations, each member of the field team will keep a printed copy of these numbers either on their person or in their vehicle at all times.

9.2.5 Medical Support

In the event of an accident or injury, Liberty JV personnel will follow the procedures identified in Section 8.3.

The Liberty JV FOL will be equipped with a first-aid kit to treat minor injuries sustained by Liberty JV personnel during field surveys. In the event that off-site medical support is required, the primary hospital is as follows:

NAS Whidbey Island:

Whidbey General Hospital
101 North Main Street
Coupeville, WA 98239
(360) 678-5151

Directions and maps from the work sites to the hospitals are provided in Attachment 7. All on-site staff will be briefed on the hospital location as part of the initial tailgate safety meeting. In the event of an emergency, Liberty JV personnel will call the appropriate number identified in Attachment 7.

9.3 Plan for Prevention of Alcohol and Drug Abuse

No employee shall report to work or be permitted to work while he/she is in any way unfit to perform his/her duties in a safe and efficient manner. Employees are not to report to work under the influence of alcohol, illegal drugs, or drugs for which the employees do not have a lawful prescription. Employees are not to consume alcohol, illegal drugs, or drugs for which they do not have a lawful prescription during the regular work hours.

While on duty, employees shall not use or be under the influence of alcohol, narcotics, intoxicants, or similar mind-altering substances.

1. Employees found to be under the influence of or consuming such substances will be immediately removed from the job site. Liberty JV will enforce the drug-free workplace requirements.
2. Any employee under a physician's treatment and taking prescribed narcotics or any medication that may prevent one being ready, willing, and able to safely perform position duties will provide a medical clearance statement to his/her supervisor.

9.4 Site Sanitation Plan

Not applicable.

9.5 Access and Haul Road Plan

Not applicable.

9.6 Respiratory Protection Plan

Not applicable.

9.7 Health Hazard Control Plan

Liberty JV identified safety issues associated with the project work, and each of these safety issues is addressed in a site-specific AHA. Attachment 1 presents the site-specific AHAs for this effort. All on-site personnel are required to read and adhere to the AHAs.

9.8 Hazard Communication Program

Liberty JV's Hazard Communication Program pertains to all employees potentially exposed to hazardous materials in the course of the performance of their job responsibilities (including office staff). Initial information and training are provided to employees prior to assignment to an area where there is a potential for exposure to a hazardous substance as defined by the Hazard Communication Standard.

Liberty JV provides initial Hazard Communication training as part of the New Hire orientation process. Hazard Communication training is regularly updated as new or different hazardous materials are introduced into the workplace. This ongoing training commitment is the responsibility of the supervisor in the work area. During the field survey, the FOL is responsible for ensuring that updated Hazard Communication training is provided during daily safety briefings to address any new hazardous material exposure issues that have been identified.

9.9 Process Safety Management Plan

Not applicable.

9.10 Lead Abatement Plan

Not applicable.

9.11 Asbestos Abatement Plan

Not applicable.

9.12 Radiation Safety Program

Not applicable.

9.13 Abrasive Blasting

Not applicable.

9.14 Heat/Cold Stress Monitoring Plan

Heat stress is caused by several interacting factors, including environmental conditions (temperature, radiant heat, humidity, and air velocity), clothing, PPE, workload, and individual characteristics. Personal characteristics such as age, weight, fitness, medical condition, and acclimatization to the heat also affect the level of stress. The human body has defenses to reduce the effects of heat stress on the body; however, under certain situations, body functions are not substantial enough to eliminate these problems. Physical reactions to heat stress range from mild reactions such as fatigue, physical discomfort or irritability, anxiety, loss of efficiency, personal illness/injury, and decreased concentration to death.

Factors that can cause heat stress include ambient temperature, humidity, radiant heat source, direct sun exposure, air movement, contact with hot objects, type of work required (light, moderate, or light), PPE (required work clothing), employee conditioning or acclimatization, and previous project experience.

Heat stress may be a potential factor in the summer at NAS Whidbey Island as the average high temperature in September 2023 was recorded at 67°F, with a maximum temperature of 79°F (Friday Harbor Station, WA [Weather Underground, 2024]). The project team will keep hydrated throughout the course of each day in accordance with EM 385-1-1 Section 06.J.03.

The major effects of heat stress include heat stroke, heat cramps, heat exhaustion, heat rash, and sunburn, as described below:

Heat Stroke

Heat stroke is an extreme failure of the body thermoregulatory system. Continuous exposure to extreme heat for as little as 3 hours can produce heat stroke. Factors that may magnify harmful effects of heat stroke include chemical exposures, altitude, inadequate acclimatization, fatigue, lack of sleep, consumption of alcohol, inadequate nutrition, cardiac and respiratory conditions, and certain medications.

Symptoms

- Hot and dry, red, mottled, or cyanotic (gray to blue) skin
- Nausea
- Dizziness
- Extremely high body temperature
- Rapid breathing and pulse rate
- Oral temperatures of 104°F and above

- Pounding heart and rapid heartbeat
- Confusion, deliriousness, loss of consciousness, or lapse into a coma, either slowly or rapidly

Treatment

- Call for immediate medical attention (Emergency Dispatch at 911).
- Remove and protect the victim from sunlight and other heat sources.
- Remove all PPE and clothing from the victim as decency permits.
- Begin treatment immediately. Rapid cooling of the body is imperative.
- Place ice packs, if available, on the forehead, behind the neck, and on the groin areas of the victim.
- Evacuate the victim to a safe area, or if evacuation is delayed, initiate additional treatment before reaching a safe area.
- If possible, wrap the unclothed body in wet sheets and fan vigorously with cool, dry air.
- Place the victim flat on his/her back, or slightly elevate the head/shoulders.
- Give the victim sips of cool water, if conscious, coherent, and not nauseated/or vomiting.

Heat Cramps

Heat cramps are caused by loss of body fluid through perspiration that is not balanced by adequate fluid intake. Heat cramps typically are the first sign of heat stress and can lead to heat stroke.

Symptoms

- Acute, painful spasms of voluntary muscles, particularly in the abdomen and the extremities. These spasms may also occur during rest.

Treatment

- Slowly rehydrate with small amounts of water and/or electrolyte solutions (begin with 4 ounces of water or electrolyte solution). With proper fluid and electrolyte replacement, heat cramps may be prevented. Salt tablets are not to be used.
- Initiate general motion, stretching, and massage of the affected muscles to relieve the cramps.
- If symptoms are not relieved or if spasms are severe and multiple, transport the victim to the nearest doctor for possible hydration by intravenous saline.

Heat Exhaustion

Heat exhaustion is a weakness caused by loss of fluids. This condition is the next sign after heat cramps that may lead to heat stroke.

Symptoms:

- Clammy skin
- Profuse perspiration
- Oral temperature below normal (98.6°F)
- Weak pulse and low blood pressure that can cause fainting, especially upon standing after sitting
- Rational thinking, but possible headache
- Extreme fatigue, weakness, giddiness, and nausea

Treatment:

- Protect the victim from sunlight and other heat sources and move to cool air, preferably an air-conditioned room.
- Remove all PPE from the victim and loosen clothing.
- Place the victim in a supine position with feet slightly elevated.
- Provide electrolyte solution to replenish both the salt and fluids lost from sweating.
- Provide cold water to drink and pour over face and head.
- Transport to definitive medical care (Attachment 3).

Heat Rash

Heat rash is a skin irritation caused by excessive sweating from continuous exposure to hot and humid air, which can be aggravated by chafing clothes. This condition decreases the ability to tolerate heat.

Symptoms:

- Red clusters of pimples or small blisters that are more likely to occur on the neck, arms, legs, upper chest, groin area, under the breast, and the elbow creases.

Treatment

- Provide a cooler, dry, and less humid working environment.
- Use dusting powder to increase comfort.
- Avoid the use of ointments and creams.

- Keep skin cool and dry. Warmth and moisture can worsen the condition.

Sunburn

Sunburn occurs when the skin is exposed to or gets too much ultraviolet radiation from the sun, resulting in damaged skin cells. Although most sunburns are not severe, a lifetime of sun exposure and/or frequent sunburns significantly increases the risk of skin cancer, wrinkles, and other cosmetic concerns. The project team should focus on covering skin with clothing and or PPE.

Symptoms:

- Changes in skin color ranging from pink to red and even purple
- Fever
- Fluid-filled blisters
- Severe pain and/or itching

Treatment:

- Avoid repeated sun exposure.
- Apply cold compresses or immerse the sunburned area in cool water.
- Apply moisturizing lotion to affected areas.
- Do not use salve, butter, or ointment.
- Do not break blisters.

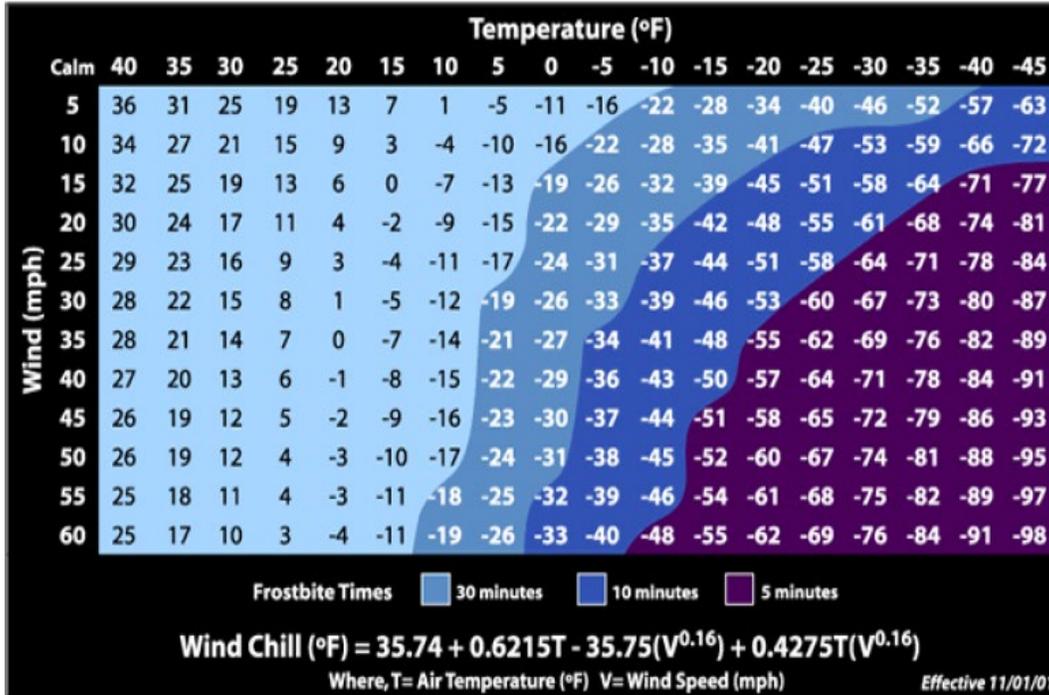
Cold stress may be a potential factor in the winter at NAS Whidbey Island as the average low temperature in February 2022 was recorded at 36°F, with a minimum low temperature of 21°F (Friday Harbor Station, WA [Weather Underground, 2024]). Proper cold weather protection must be worn when working in cold, wet, and windy conditions. To calculate wind chill (see Exhibit 1), local station reports of both the temperature and wind speed shall be monitored or checked every 4 hours. The Beaufort Wind Scale can be used in lieu of wind data. This data shall be recorded in the project logbook.

Employees who have a medical condition (e.g., cardiovascular disease, diabetes, hypertension) or are taking medication (e.g., drugs that act on the cardio-respiratory system) that interferes with normal body temperature or tolerance to the cold shall not be assigned to field work where temperatures are below 32°F.

A work-warm regimen (with breaks at least 10 minutes long) shall be instituted when work is being conducted in environments where the wind chill temperature is below

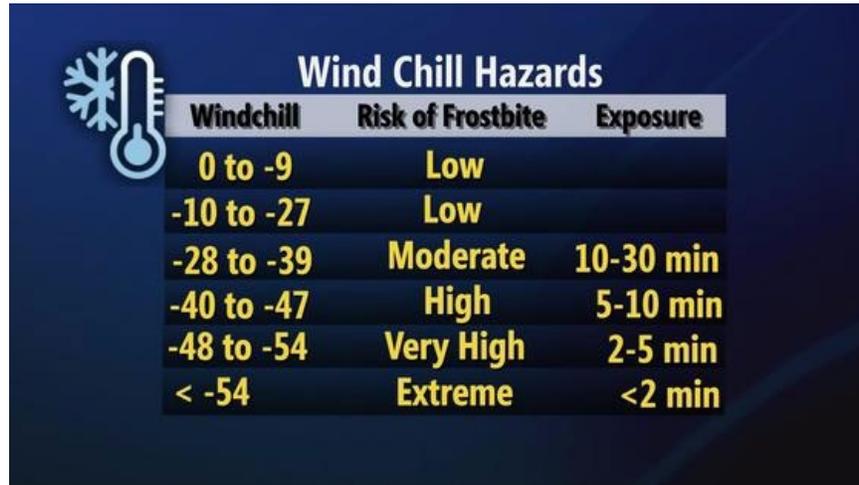
20°F. Heated warming shelters shall be available or provided on or nearby the work site, as appropriate.

Exhibit 1: Wind Chill Chart



10 – 30 minutes (blue) 5 – 10 minutes (dark blue) 0 – 5 minutes (purple)

A simplified interpretation of available wind chills (Celsius) is provided below.



Windchill	Risk of Frostbite	Exposure
0 to -9	Low	
-10 to -27	Low	
-28 to -39	Moderate	10-30 min
-40 to -47	High	5-10 min
-48 to -54	Very High	2-5 min
< -54	Extreme	<2 min

Exhibit 2 contains the requirements for the number of breaks per 4-hour shift for extremely low temperatures. An employee experiencing any of the following symptoms shall return immediately to the warming shelter: heavy shivering, frostbite, excessive fatigue, irritability, or euphoria. Employees should also use the buddy system and be alert for these symptoms in their co-workers as well.

Exhibit 2: Work/Warm Schedule for a 4-Hour Shift*

THRESHOLD LIMIT VALUE WORK/WARM-UP SCHEDULE FOR FOUR-HOUR SHIFT											
Air Temperature Sunny Sky		No Noticeable Wind		5 mph Wind		10 mph Win		15 mph Win		20 mph Wind	
°C (approx)	°F (approx)	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks
-26° to -28°	-15° to -19°	(Norm breaks) 1		(Norm breaks) 1		75 min	2	55 min	3	40 min	4
-29° to -31°	-20° to -24°	(Norm breaks) 1		75 min	2	55 min	3	40 min	4	30 min	5
-32° to -34°	-25° to -29°	75 min	2	55 min	3	40 min	4	30 min	5	Non-emergency work should cease	
-35° to -37°	-30° to -34°	55 min	3	40 min	4	30 min	5	Non-emergency work should cease			
-38° to -39°	-35° to -39°	40 min	4	30 min	5	Non-emergency work should cease					
-40° to -42°	-40° to -44°	30 min	5	Non-emergency work should cease							
-43° to below	-45° & below	Non-emergency work should cease				Non-emergency work should cease		Non-emergency work should cease		Non-emergency work should cease	

*ACGIH, 2008 based on the Occupational Health & Safety Division, Saskatchewan Department of Labor. Schedule applies to any 4-hour period with moderate to heavy work activity and an extended lunch break. For light to moderate work, apply one step lower. This applies to employees in dry clothing.

9.14.1 Controls

Heat Stress Controls

To minimize heat stress, Liberty JV employees must observe the following preventive and control measures in general:

- Frequently drink small amounts of water or electrolyte solution (4 ounces every 15 to 20 minutes) in accordance with EM 385-1-1 Section 06.J.03.
- Alternate work and take more frequent and longer breaks, if possible, in shaded and cooler areas.
- Schedule strenuous or heavy work at cooler times of the day.
- Reduce workload under extreme heat conditions.
- Wear light clothing that allows proper air circulation.
- Ensure adequate ventilation and air movement around the worksite.

If excessive heat persists in the work area and control measures do not adequately reduce the heat stress (heat stroke, heat exhaustion, heat cramps, heat rash) on the employees, work will be terminated until the condition subsides, or improves. If a worker experiences heat stress, medical attention will be sought if necessary, based on symptoms and severity of their heat stress.

Cold Stress Controls

For work in temperatures below 40°F (5°C) insulating clothing must be used. Employees should select their clothing based on the planned activities and the predicted air temperature and winds speed.

Wear wool or polypropylene underwear, covered with multiple layers of light, loose fitting clothing. Outer layer should be water resistant and consist of cold weather clothing appropriate for the temperature and type of activity. Wet clothing should be changed as soon as possible.

Wearing a hat and insulating gloves or mittens is highly recommended. A scarf or face mask should be worn when working in cold windy conditions. Hooded garments provide maximum protection from wind and cold. Hard hat liners or balaclavas should be used with hard hats. Hoods restrict peripheral vision and are not recommended and/or may

be prohibited at sites with heavy mobile equipment or where working in proximity to vehicular traffic.

Normally, outdoor field work shall be suspended when wind chill temperatures reach -49°F (-45°C) and would only proceed in the event of emergency response with additional emergency measures in place. Suspension of field work at temperatures greater than -49°F (-45 °C) may be required due client requirements or work conditions.

9.15 Crystalline Silica Monitoring Plan (Assessment)

Not applicable.

9.16 Night Operations Lighting Plan

Not applicable.

9.17 Fire Prevention Plan

Not applicable.

9.18 Wild Land Fire Management Plan

Not applicable.

9.19 Hazardous Energy Control Plan

Not applicable.

9.20 Critical Life Plan

Not applicable.

9.21 Contingency Plan for Severe Weather

Liberty JV employees will seek available shelter during severe weather. Outdoor field survey activities will be halted until weather conditions improve. If lightning is visible, outdoor work will not resume until 30 minutes after the last sighting of lightning or sound of thunder.

9.22 Site-Specific Fall Protection and Prevention Plan

Not applicable.

9.23 Demolition Plan (To Include Engineering Survey)

Not applicable.

9.24 Excavation / Trenching Plan

Not applicable.

9.25 Emergency Rescue (Tunneling)

Not applicable.

9.26 Underground Construction Fire Prevention and Protection Plan

Not applicable.

9.27 Compressed Air Plan

Not applicable.

9.28 Formwork and Shoring Erection and Removal Plans

Not applicable.

9.29 Precast Concrete Plan

Not applicable.

9.30 Lift Slab Plans

Not applicable.

9.31 Steel Erection Plan

Not applicable.

**9.32 Site Safety and Health Plan for Hazardous, Toxic, Radioactive
Waste Work**

Not applicable.

9.33 Blasting Safety Plan

Not applicable.

9.34 Diving Plan

Not applicable.

9.35 Confined Space Program

Not applicable.

9.36 Emergency Planning

Liberty JV employees working alone will be provided an effective means of emergency communication. This will be a cellular phone. The selected means of communication will be readily available and will be in working condition.

9.37 Drinking Water Provisions

Safe drinking water and water for toilets and washing are available at each of the installations.

9.38 First Aid

The Liberty JV FOL has first aid training and will be equipped with a first-aid kit to treat minor injuries sustained by Liberty JV personnel during the field survey.

9.39 Personal Protective Equipment

Work Clothing – Minimum Requirements. Employees shall wear clothing suitable for the weather; however, minimum requirements for work shall be long pants (excessively long or baggy pants are prohibited) and workwear t-shirt. If Base requires that safety-toed (or other protective) footwear is necessary, it shall be worn.

Eye and Face Protection – Eye protection shall be worn as determined by an analysis of the operations being performed.

Hearing Protection – Hearing protection must be worn by all those exposed to high noise activities.

Head Protection – Hard hats shall comply with ANSI Z89.1 and shall be worn by all workers when an overhead hazard exists, or as required.

High Visibility Apparel – High visibility apparel shall comply with ANSI/ISEA 107, Class 2 requirements at a minimum and shall be worn by all workers exposed to vehicular or equipment traffic.

Protective Leg Chaps – Not Applicable.

Gloves – Gloves of the proper type shall be worn by persons involved in activities that expose the hands to cuts, abrasions, punctures, burns, and chemical irritants.

Personal Floatation Device (PFD) – This project will not involve activities over or directly next to water. Therefore, the use of a PFD is not applicable.

9.40 Machine Guards and Safety Devices

Not applicable.

9.41 Hazardous Substances

Hazardous substances are not anticipated to be encountered during the field work at the installations. However, if any hazardous substances are procured, used, stored, or disposed, a chemical hazard communication program must be in effect and safety data sheets shall be available at the worksite. Liberty JV employees shall have received training in hazardous substances being used.

9.42 Traffic Control

Liberty JV employees may need to work in areas of vehicle traffic while performing field activities at NAS Whidbey Island. High visibility clothing shall be worn in addition to standard personal protective equipment. Traffic barricades (such as high visibility cones), positioning of support vehicles to minimize exposure to traffic hazards, and spotters will be utilized to set traffic control and establish a safe work area. When reasonable, we will attempt to perform work in or near roadways when traffic is light. The safe work area will be inspected regularly and established to minimize traffic disruption.

9.43 Control of Hazardous Energy

Not applicable.

9.44 Exposure Control Plan

The Novel-Corona Virus Disease of 2019 (COVID-19) Public Health Emergency officially ended on 11 May 2023. Considering that there is no longer a Public Health Emergency for COVID-19, precautions for infection of the common cold or a virus such as influenza (flu) should still be exercised. Frequent hand washing or use of hand sanitizer when restroom facilities are not available are good practices. Appropriate cough and sneeze etiquette (coughing or sneezing into the sleeve/elbow area) are critical components to limiting the spread of a virus such as the flu. Upon recognition of symptoms associated with a viral infection (sore throat, runny nose, coughing, sneezing,

body aches, fatigue, increased body temperature), affected employees will stay home or isolate themselves and limit the spread of infection.

OSHA 2024 Quick Facts for Seasonal Flu

- Seasonal flu can be transmitted year-round but is more common in the fall and winter seasons. Infections usually peak between December and February.
- Exposure to flu is more likely among certain occupations such as healthcare workers. General precautions are also recommended during flu season for non-healthcare workers.
- Getting a seasonal flu vaccination is one of the most effective ways to prevent infection, and it can also reduce the severity and duration of illness.
- Good hand hygiene, cough and sneeze etiquette, and staying home when sick are also critical components of prevention.
- Improving ventilation can also minimize the inhalation of influenza, COVID-19, and other respiratory viruses that may be circulating.
- Because influenza viruses change frequently, worldwide monitoring by public health agencies is necessary to determine the predominant circulating strains. The Center for Disease Control provides up-to-date information on U.S. flu activity.

Additional information may be found at the following OSHA website,
<https://www.osha.gov/seasonal-flu>.

The LUC Inspections at NAS Whidbey Island are planned to occur mainly outdoors on foot. For most sites, two individuals will travel together to conduct inspections. LUC Inspections on the NAS Whidbey Island Airfield will require escort by Navy personnel possessing a NAS Whidbey Island Flightline License. Liberty JV employees do not possess this license and therefore an additional person will need to travel with the group for these areas. If any field team member or escort feels unwell or exhibits signs or symptoms of an illness such as the flu, the affected employee will isolate themselves until symptoms improve. In accordance with the buddy system, LUC Inspections will not proceed until at least two appropriately trained and badged individuals are present on site.

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10.0 Risk Management Process (Activity Hazard Analysis)

Before beginning each work activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or sub-contractor is to perform the work, the contractor(s) performing that work activity must prepare an AHA in accordance with the following:

1. AHAs shall define the activities being performed and identify the work sequences, the specific anticipated hazards, site conditions, equipment, materials, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk.
2. Work shall not begin until the AHA for the work activity has been accepted by Liberty JV and discussed with all engaged in the activity, including the subcontractor(s), and site POC at preparatory and initial control phase meetings.
3. The names of the Competent/Qualified Person(s) required for a particular activity (e.g., excavations, scaffolding, fall protection, other activities as specified by OSHA) shall be identified and included in the AHA. Proof of their competency/qualification shall be submitted to Liberty JV for acceptance prior to the start of that work activity.
4. The AHA shall be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified person(s).
 - a. If more than one Competent/Qualified Person is used on the AHA activity, a list of names shall be submitted as an attachment to the AHA. Those listed must be Competent/Qualified for the type of work involved in the AHA and familiar with current site safety issues.
 - b. If a new Competent/Qualified Person (not on the original list) is added, the list shall be updated (an administrative action not requiring an updated AHA).
5. The new person shall acknowledge in writing that he or she has reviewed the AHA and is familiar with current site safety issues.
6. Liberty JV will use the USACE AHA format for their activity hazard analyses as a company standard unless prescribed differently by the local regulations or by a client.
7. An AHA shall be prepared and documented for each activity as warranted by the hazards associated with the activity. Generally, an AHA should be prepared for all field operations.

- a. The supervisor, using the recommendations of the SSHO, should determine the need for an AHA for each activity within his or her area of responsibility.
- b. In developing the AHA for a particular activity, supervisors should draw upon the knowledge and experience of employees in that activity as well as the safety professionals.

To ensure compliance with this program, Liberty JV and subcontractors may be required to review specific safety and occupational health submittal items. These submittal items may be specifically required by the USACE Engineer Manual (EM) 385-1-1, may be identified in the contract or by the Liberty JV Representative, or may be required by the Liberty JV HSM Department.

The designated representative shall immediately stop work when an employee is deemed to be in imminent danger of serious injury or loss of life.

No work activities outside the employee or subcontractor scope of work, job description, and tasks outlined in the AHA are permitted. Liberty JV employees and subcontractors are expressly prohibited to assist other employees and subcontractors in performing their designated tasks.

The site-specific AHAs presented in Attachment 1 were developed in accordance with these requirements.

11.0 References

29 CFR 1910.132; Title Occupational Safety and Health Standards; 1910 Subpart 1
Personal Protective Equipment; General Requirements

29 CFR 1910.134; Title Occupational Safety and Health Standards; 1910 Subpart 1
Personal Protective Equipment; Respiratory Protection, Appendix A; B-1; B-2;
C; D.

ANSI/ISEA 107; Class 2 – Hi Visibility Clothing Standard

ANSI Z89.1; Standard for performance and testing requirements for industrial helmets
(hardhats)

US Army Corps of Engineers (USACE). 2014, Safety and Health Requirements Manual,
EM 385-1-1, Washington, D. C., November 30

Occupational Safety and Health Administration. 2024. Seasonal Flu.
Available at: <https://www.osha.gov/seasonal-flu>.

Weather Underground. 2024. Historical Friday Harbor Station, WA, Data.

Available at: <https://www.wunderground.com/history/monthly/us/wa/friday-harbor/KFHR>

Wood Environment & Infrastructure Solutions, Inc. (Wood) 2019. E&IS HSSE
Management System and Injury and Illness Prevention Plan (AKA HSSE
Integrated Manual. October 13.

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Attachment 1: Activity Hazard Analyses

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Activity Hazard Analyses

- 001 General Vehicle Travel
- 002 General Site Hazards
- 003 Conduct Facility Audit

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AHA 001 - General Vehicle Travel

Activity / Task:	General Vehicle Travel (via car or truck)	Overall Risk Assessment Code (use highest code)	M	
Project Location:	Naval Air Facility Whidbey Island, Oak Harbor, Washington	Risk Assessment Code (RAC) Matrix		
Contract Number:	N44255-20-D-5006; N4425524F4113	Severity	Probability	
Date of Analysis / Update:	04 June 2024		AHA Revision No.:	0
Prepared by:	Josh Sandige, SSHO	Frequent	Likely	
Reviewed by:	Chelsea Foster, Field Lead	Occasional	Seldom	
		Unlikely		
		Catastrophic	E	
		Critical	E	
		Marginal	H	
		Negligible	M	
<p>Notes (Field Notes, Review Comments, etc.): This AHA involves the following:</p> <ul style="list-style-type: none"> Establishing general measures for Vehicle Travel (via car or truck) while on Company business. This AHA applies to all Liberty JV employees for whom operating a motor vehicle (personal, company—owned, leased or rented) for Company business is a function of their position. <p>This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site Abbreviated Accident Prevention Plan (APP) for additional requirements. Contractor to follow general site safety controls for Slips Trips and Falls, Biological hazards, cuts lacerations and pinch points, and emergency procedures.</p>		Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)		
		<p>"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.</p>		RAC Chart
		<p>"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible</p>		E = Extremely High Risk
		Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.		H = High Risk
		Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.		M = Moderate Risk
Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.		L = Low Risk		
Job Steps	Hazards	Controls		
1. Prepare for travel	Distractions - loss of focus	<ul style="list-style-type: none"> Ensure you have all materials with you necessary to conduct work effort. Determine training and medical monitoring needs and ensure all required Health and Safety training and medical monitoring has been received and is current. Ensure all workers are fit for duty (alert, well rested, and mentally and physically fit to perform work assignment). Familiarize yourself with route to destination. Ensure that a copy of the current insurance certificates and incident reporting procedures/forms are available during travel. 		
(continued)	Vehicle defects	<p>Refer to HSE-PRO-100316 Operation of Company Vehicles (current version), Attachment 3 - Vehicle Safety / Maintenance Checklist and inspect vehicle for defects such as:</p> <ul style="list-style-type: none"> Inadequate fluids (e.g., fuel, antifreeze, oil, windshield washer) Worn/flat tires Windshield wipers loose, worn, or torn Oil puddles under vehicle Headlights, brake lights, turn signals not working Exterior or interior damage (e.g., scratches, dents) 		
			L	
			L	

AHA 001 - General Vehicle Travel

Job Steps	Hazards	Controls	RAC
2. Operating vehicles (concluded)	On wet or slick roads	<ul style="list-style-type: none"> ▪ Drive slow and safe. 	M
	Animals on road	<ul style="list-style-type: none"> ▪ Drive slowly, watch for other animals nearby. ▪ Be alert for animals darting out of wooded areas 	M
	Vehicle accident	<ul style="list-style-type: none"> ▪ Employees should follow Company vehicle operation policy and be aware of all stationary and mobile vehicles. 	M
3. Parking at job site	Striking other vehicles, objects	<ul style="list-style-type: none"> ▪ Choose parking spot that is away from other vehicles, if possible. ▪ Choose a spot that will allow the driver to drive forward when leaving the site. ▪ Back into parking spots, or pull through when parking in perpendicular parking spaces (drive forward into angle/herring bone type parking spots). ▪ Place cones in front of and behind company-owned vehicles as applicable. 	M
	Leaving parking spaces	<ul style="list-style-type: none"> ▪ Walk around the vehicle before leaving and identify hazards (low lying objects, location of other vehicles or pedestrians, other vehicles with drivers that may be leaving at the same time, etc. ▪ Collect cones (Company vehicles only) and secure them into their holder. ▪ If backing is unavoidable, use a spotter if a second person is available; if no spotter available, back slowly, checking for other vehicles, pedestrians, etc. ▪ Keep alert! 	M
4. Driving back from the job site	See hazards listed for "Operating vehicles" Key Work Step	<ul style="list-style-type: none"> ▪ See safe work practices for "Operating vehicles" Key Work Step. 	M
5. Parking at office	Striking other vehicles, objects	<ul style="list-style-type: none"> ▪ See safe work practices for "Striking other vehicles, objects" Hazard/Potential Hazard for "Parking at job site" Key Work Step. 	M
6. End travel	Vehicle defects	<ul style="list-style-type: none"> ▪ Inspect vehicle. ▪ Repair or initiate repair of all vehicle deficiencies that occurred due to the trip. 	L

Equipment to be Used	Training Requirements/Competent or Qualified Personnel Name(s)	Inspection Requirements
<p>Standard PPE: None</p> <p>Job Step-specific PPE (as required): None</p> <p>Other Required Equipment: None</p>	<p>Competent / Qualified Personnel:</p> <ul style="list-style-type: none"> ▪ NA <p>Training Requirements:</p> <ul style="list-style-type: none"> ▪ Defensive Driving ▪ Motor Vehicle Safety Policy 	<ul style="list-style-type: none"> ▪ Pre-trip inspection [Refer to HSE-PRO-100316 Operation of Company Vehicles (current version), Attachment 3 - Vehicle Safety / Maintenance Checklist] ▪ Current vehicle annual inspection

AHA 002 - General Hazards						
Activity/Work Task: General health and safety hazard that may exist during fieldwork. These guidelines apply to all phases of the fieldwork.	Overall Risk Assessment Code (RAC) Use Highest Code					M
	RAC MATRIX					
Project Location: 2024 Land Use Control Inspections, Naval Air Station Whidbey Island, Oak Harbor, Washington	Severity	Probability				
		Frequent (A)	Reasonably Probable (B)	Occasional (C)	Remote (D)	Improbable (E)
Contract Number: N44255-20-D-5006, Task Order No. N4425524F4113	Catastrophic (I)	H	H	H	H	M
Date Prepared: 04 June 2024	Critical (II)	H	H	H	M	L
Prepared by: Josh Sandige, SSHO	Marginal (III)	H	M	M	L	L
Reviewed by: Chelsea Foster, Field Lead	Negligible (IV)	M	L	L	L	L
Notes: (Field Notes, Review Comments, etc.) This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site SSHP and the General Hazards AHA for additional requirements. Contractor to follow general site safety controls for slips trips and falls, biological hazards, cuts, lacerations and pinch points, and emergency procedures. This AHA is not an exhaustive summary of all hazards associated with the Project or activity. Refer to the site Abbreviated Accident Prevention Plan (APP) for additional requirements.	Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (see above).					
	"Probability" is the likelihood to cause an incident, near miss, or accident, and is identified as Frequent, Reasonably Probable, Occasional, Remote, or Improbable.				RAC Chart <div style="background-color: red; padding: 2px; text-align: center;">H = High Risk</div> <div style="background-color: yellow; padding: 2px; text-align: center;">M = Moderate Risk</div> <div style="background-color: lightgreen; padding: 2px; text-align: center;">L = Low Risk</div>	
	"Severity" is the outcome/degree if an incident, near miss, or accident did occur and is identified as Catastrophic, Critical, Marginal, or Negligible.					
	Step 2: Identify the RAC (Probability/Severity) as H, M, or L for each "Hazard" on the AHA. Annotate the overall highest RAC at the top of the AHA.					

Job Steps	Hazards	Controls	RAC
General Hazards Associated with All Phases of Fieldwork	Vehicular traffic	<ul style="list-style-type: none"> • Stay alert and obey all traffic laws. • Be aware of the traffic situation. Drive in a defensive manner. • Be aware of the road conditions. Adjust speed accordingly. • Wear a seat belt. • Be aware of vehicle operations in your area. • Wear a reflective safety vest or brightly colored raingear in traffic-prone areas. 	M (II/D)
	Slip, trip, fall, laceration, cut, abrasion to skin	<ul style="list-style-type: none"> • Inspect work area and equipment for hazardous conditions and correct situation before continuing with other work if possible. Always remain cautious and be aware of surface conditions. Beware of slippery surfaces and loose gravel or soil. • Do not carry objects that prevent or can obstruct view, especially when going up and down stairs. • Practice good housekeeping. Store tools, equipment, and instrumentation in an organized manner away from foot traffic. Flag trip hazards that cannot be moved. • Create awareness of site conditions and ongoing field activities. • Wear proper clothing and safety equipment (leather or cut-resistant outer gloves when handling rough or sharp objects, boots with ankle support, hard hats, eye protection, reflective safety vest [high-visibility orange or green]). • Ensure boots are slip resistant, especially in areas where it may be wet or slippery. • Have current certification for first aid and CPR. • Conduct daily health and safety briefings. • Ensure that all personnel are trained in proper emergency response procedures. 	L (III/D)
	Insect bites and bee stings	<ul style="list-style-type: none"> • Give instruction in recognition and identification of hazardous insects. • Wear protective clothing. • Apply insect repellants as needed. • Inspect closed or dark areas for insects and spiders before putting an ungloved hand inside. If necessary, treat infested area with insecticides. • Notify the field team leader and carry prescribed medication as warranted (e.g., antihistamine or epinephrine injector) if known to be allergic to bee stings. • First aid treatment for an insect bite/sting is to remove the stinger if present. Do not break the sac attached to the stinger. Wash the area of the bite/sting. Try to identify the insect, and, if serious reaction occurs, seek medical assistance. 	L (III/D)
General Hazards Associated with All Phases of Fieldwork (continued)	Poisonous plants	<ul style="list-style-type: none"> • Give instruction in recognition and identification of poisonous plants. • Wear protective clothing and do not touch other surfaces without doffing the contaminated clothing. • When practical, cover or remove poisonous plant. • Cleanse affected body area with soap and water. 	L (III/D)

Job Steps	Hazards	Controls	RAC
General Hazards Associated with All Phases of Fieldwork (continued)	Material in eyes, foot injuries, head injuries	<ul style="list-style-type: none"> • Use protective eyewear and wear steel-toed boots. • If foot puncture hazard exists, use puncture-resistant insoles. • Wear a hard hat conforming to ANSI Z89.1-1997 requirements when overhead hazards exist. 	L (III/D)
	Exposure to severe inclement weather	<ul style="list-style-type: none"> • Wear clothing suitable for weather and work conditions. • During warm weather conditions, the minimum clothing allowed is a short-sleeved shirt, long pants, and protective footwear. Monitor for signs of heat stress. Each employee should drink a minimum of one quart of water per hour during fieldwork activities. Conduct heart rate monitoring as necessary. • Apply sunscreen lotion. • During cold weather, dress in layers for appropriate level of warmth with the capability of providing protection from the effects of wind chill. 	L (III/D)
	Exposure to severe inclement weather – heat stress	<p>Take precautions to prevent heat stress (WAC 296-62-095)</p> <ul style="list-style-type: none"> • Remain constantly aware of the four basic factors that determine the degree of heat stress (air temperature, humidity, air movement, and heat radiation) relative to the surrounding work environmental heat load. • Know the signs and symptoms of heat exhaustion, heat cramps, and heat stroke. Heat stroke is a true medical emergency requiring immediate emergency response action. <p>NOTE: The severity of the effects of a given environmental heat stress is decreased by reducing the work load, increasing the frequency and/or duration of rest periods, and by introducing measures which will protect employees from hot environments.</p> <ul style="list-style-type: none"> • Maintain adequate water intake by drinking water periodically in small amounts throughout the day (flavoring water with citrus flavors or extracts enhances palatability). • Allow approximately 2 weeks with progressive degrees of heat exposure and physical exertion for substantial acclimatization. • Acclimatization is necessary regardless of an employee's physical condition (the better one's physical condition, the quicker the acclimatization). Tailor the work schedule to fit the climate, the physical condition of employees, and mission requirements. <ul style="list-style-type: none"> ○ A reduction of workload markedly decreases total heat stress. ○ Lessen workload and/or duration of physical exertion the first days of heat exposure to allow gradual acclimatization. • Alternate work and rest periods. More severe conditions may require longer rest periods and electrolyte fluid replacement. <p>Provide fresh, pure, cool water for each employee at quantity of one quart per hour per employee. Provide shade that blocks direct sunlight if temperature reaches 80 degrees Fahrenheit.</p>	L (III/D)

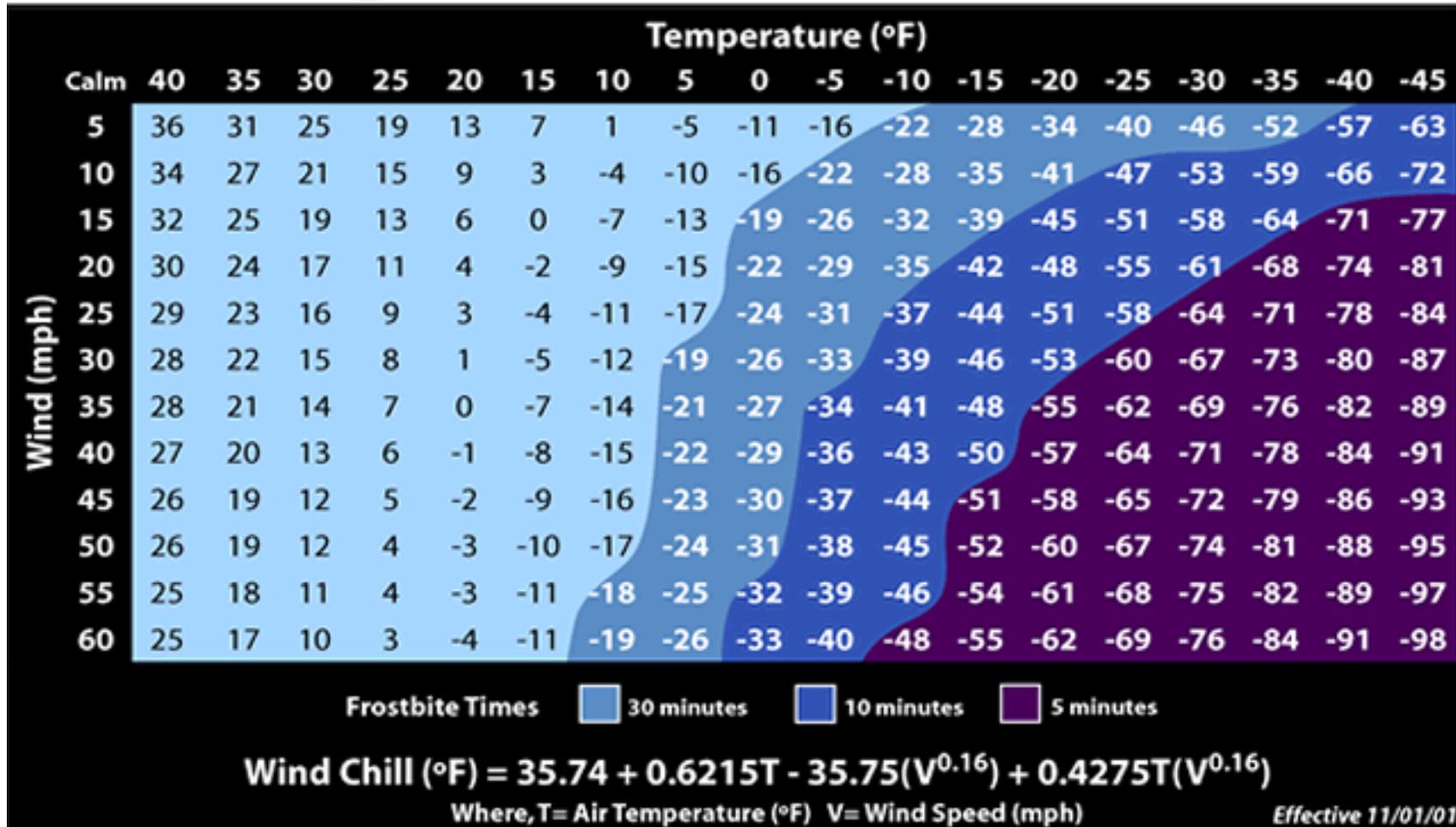
Job Steps	Hazards	Controls	RAC
General Hazards Associated with All Phases of Fieldwork (continued)	Exposure to severe inclement weather – heat stress (continued)	Wet Bulb Globe Temperature (WBGT) <ul style="list-style-type: none"> • Curtail or suspend physical work when conditions are extremely severe (see attached Heat Stress Index). 	L (III/D)
	Pinching fingers, dropping objects on feet, back strain	<ul style="list-style-type: none"> • Wear steel-toed boots and leather or work gloves to help prevent pinch points. • Stretch and warm up before exerting yourself. • Never lift more than 50 pounds without assistance. Use proper lifting techniques. Do not twist back. Stay balanced and use your legs.	L (III/D)
	Fires	<ul style="list-style-type: none"> • Keep fire extinguisher nearby and prepare to use it. • Do not park vehicles or equipment on dry grasses or brush. • Keep fuel in safety containers. • Do not place fuel containers on dry grasses. • Do not fuel equipment within 100 feet of flammables and combustibles. • Only smoke designated areas. • Obtain Hot Work Permits. Do not block fire hydrants or fire lanes.	L (III/D)

Equipment/ PPE to be Used	Inspection Requirements	Training Requirements/ Procedures
<ul style="list-style-type: none"> • First aid kit • Fire extinguisher 	<ul style="list-style-type: none"> • Daily, ensure that eyewash station contains appropriate volume of clean, fresh water. • Follow manufacturers' instructions. • Ensure that fire extinguisher is properly serviced annually and inspected monthly. 	Competent/Qualified Personnel: <ul style="list-style-type: none"> • Josh Sandige – Site Safety and Health Officer/Alternate Field Operations Lead • Chelsea Foster – Field Operations Lead Training Requirements: <ul style="list-style-type: none"> • All field personnel will have HAZWOPER 40-hour training and at least two will have first aid and CPR training (Josh Sandige and Chelsea Foster are currently first-aid/CPR certified). • At least one designated first aid responder on the field team will be current in the company Bloodborne Pathogens Exposure Control Plan. • At least one field team member will have HAZWOPER supervisor training. • Field personnel will be required to read and understand the Work Plan and Site Safety and Health Plan prior to start of field activities. • Liberty JV TOM (Chelsea Foster) and SSHO (Josh Sandige) will ensure that field personnel are specifically trained in the field tasks that they are required to perform. • Daily tailgate health and safety briefings will be conducted.
<ul style="list-style-type: none"> • <u>Level D:</u> Hard hat (if overhead hazards are present), workwear T-shirt, full-length pants, steel-toed boots, safety glasses, traffic safety vest, chemically protective gloves when collecting and handling samples. • Use standard cloth or leather gloves when handling equipment. 	<ul style="list-style-type: none"> • Inspect daily. 	

Heat Index Chart																		
		% Relative Humidity																
		15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	
T e m p e r a t u r e	110	108	112	117	123	130												
	105	102	105	108	113	117	122	130										
	100	97	98	102	104	107	110	115	120	126	132							
	95	91	93	95	96	98	100	104	106	109	113	119	124	130				
	90	86	87	88	90	91	92	95	97	98	100	103	106	110	114	117	121	
	85	81	82	83	84	85	86	87	88	89	90	92	94	96	97	100	102	
	80	76	77	78	78	79	79	80	81	82	83	84	85	86	87	88	89	
Legend																		
80-89 degrees		Fatigue is possible with prolonged exposure and/or physical activity.																
90-104 degrees		Sunstroke, heat cramps and heat exhaustion are possible with prolonged exposure and/or physical activity.																
105-129 degrees		Sunstroke, heat cramps and heat exhaustion are likely. Heat stroke is possible with prolonged exposure and/or physical activity.																
130+ degrees		Heatstroke/sunstroke is highly likely with continued exposure.																



Wind Chill Chart



AHA 003 - Conduct Facility Audit

Activity / Task:	Conduct Facility Site Audit/Inspection	Overall Risk Assessment Code (use highest code)	M	
Project Location:	Naval Air Facility Whidbey Island, Oak Harbor, Washington	Risk Assessment Code (RAC) Matrix		
Contract Number:	N44255-20-D-5006; N4425524F4113	Severity	Probability	
Date of Analysis / Update:	04 June 2024		AHA Revision No.:	0
Prepared by:	Josh Sandige, SSO	Frequent	Likely	
Reviewed by:	Chelsea Foster, Field Lead	Occasional	Seldom	
		Unlikely		
		Catastrophic	E	
		Critical	E	
		Marginal	H	
		Negligible	M	
Notes (Field Notes, Review Comments, etc.): This AHA involves the following:		Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)		
<ul style="list-style-type: none"> Company personnel will inspect/audit/inventory customer functions/shops/activities to assess compliance with regulatory and/or customer directives. <p>This AHA is not an exhaustive summary of all hazards associated with the Site. Refer to the site Abbreviated Accident Prevention Plan (APP) for additional requirements. Contractor to follow general site safety controls for Slips Trips and Falls, Biological hazards, cuts lacerations and pinch points, and emergency procedures.</p>		RAC Chart		
		<p>"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.</p>		E = Extremely High Risk
		<p>"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible</p>		H = High Risk
		<p>Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.</p>		M = Moderate Risk
		L = Low Risk		

Job Steps	Hazards	Controls	RAC
1. Is the use of a vehicle necessary? If yes,	Multiple (see specified AHA)	<ul style="list-style-type: none"> Review/comply with AHA 001 (General Vehicle Travel). 	M
2. Conduct audit/inspection	General hazards	<ul style="list-style-type: none"> Company personnel will follow all site-specific safety practices and procedures defined by the facility. 	L
	Slips and trips	<ul style="list-style-type: none"> Company personnel will only walk in designated pedestrian areas and will pay close attention to any possible slip/trip hazards. 	L
	Foot hazards	<ul style="list-style-type: none"> Company personnel will use foot protection (steel toed shoes) in all facility areas except admin spaces. 	L
	Airborne particles and liquids	<ul style="list-style-type: none"> Company personnel will use eye protection (safety glasses) in all facility areas except admin spaces. 	L
	Loud noise	<ul style="list-style-type: none"> Company personnel will use hearing protection (ear plugs) in any facility areas where high ambient noise levels are present. 	M
	Accidental contact with hazardous materials	<ul style="list-style-type: none"> Company personnel will not intentionally contact any hazardous materials. If accidental contact occurs, the exposure will be mitigated in accordance with procedures identified on the material's SDS. 	L
(continued)	Bio hazards	<ul style="list-style-type: none"> Review and comply with AHA 002 (General Site Hazards). 	M

AHA 003 - Conduct Facility Audit

Job Steps	Hazards	Controls	RAC
2. Conduct audit/ inspection (concluded)	Falling objects	<ul style="list-style-type: none"> ▪ Company personnel will use head protection (hard hats) in any facility areas where there is the potential for objects to fall on the employee from above. 	M
Equipment to be Used	Training Requirements/Competent or Qualified Personnel Name(s)	Inspection Requirements	
Standard PPE: Eye protection and foot protection Job Step-specific PPE (as required): Hearing protection and head protection Other Required Equipment: None	Competent / Qualified Personnel: <ul style="list-style-type: none"> ▪ None Training Requirements: <ul style="list-style-type: none"> ▪ Defensive Driving 	<ul style="list-style-type: none"> ▪ None 	

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Attachment 2: Roles and Responsibilities

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Appendix B: Roles and Responsibilities



Occupational Safety & Health Management System
Occupational Safety & Health
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Various WSP personnel are assigned specific responsibilities under the Health and Safety Program. They are, together with their associated responsibilities, as follows:

1. President and Chief Executive Officer (CEO) – Responsible for leading and ensuring that there are adequate resources and management support for the implementation of the Health and Safety Program in accordance with the WSP Expectations for Health and Safety Management. This includes a commitment to the Zero Harm culture and Make Safety Personal message.
2. Integration Manager – Responsible for coordinating with new acquisitions in the promotion of Zero Harm and achievement of certification to OHSAS 18001/ISO 45001 within two years of acquisition.
3. Sector President – Responsible for providing leadership, support and encouragement for the successful implementation of the health and safety program, including providing all necessary resources (human, technical and budget) within their business sector. Sectors shall be committed, through management support, to the Zero Harm culture and Make Safety Personal message.
4. Sector Management/Leadership – Responsible for implementation of the Health and Safety program throughout the business. Management provides the leadership, support and encouragement for the business to attain our Zero Harm Vision and meet the WSP Expectations for Managing Health and Safety. Sector management includes:
 - Directors
 - Executive Vice Presidents
 - Group Managers
 - General Managers
 - Regional Business Managers and Regional Construction Managers
 - Operations Manager

Within their own sector or geography, management shall:

- Provide for, to the extent reasonably practicable, a safe and healthful working environment
- Review the safety aspects of proposed contracts and work with the PM to mitigate exposure
- Ensure that Project Safety Plans (PSPs) are prepared and approved for field work
- Implement the OSHMS through motivation, training, counseling and enforcement

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- Work with the Safety Team, FAM and/or LOA to identify, mitigate and correct hazards in the work place
 - Conduct and document safety reviews of the office and projects for compliance to the Health and Safety program
 - Timely investigate and prepare reports of any workplace accidents, including any required follow-up corrective action
 - Designate and coordinate the necessary personnel to perform the requirements of the health and safety program
 - Ensure that personal protective measures and equipment are available at all times for employees whose job situations or tasks require specific protective items
 - Immediate notification (iSMS or phone call) of employee and non-employee (project related) events such as an accident involving a fatality, hospitalization or other significant trauma.
5. Area Manager (AM), Group Construction Manager (GCM), or Regional Manager (RM) – The AM/RMs are responsible for monitoring employee safety and health on projects. AM/RMs:
- Provide recommendations and work with the PM to control hazards during the business development phase and throughout the project lifecycle.
 - Work with the PM to make sure client Expectations for Health and Safety are understood.
 - Ensure compliance to SA 204 and review the PSP with the PM at the start of the project
 - Monitor the project staff in accordance with the approved PSP
 - Ensure employees have the needed safety equipment
 - Ensure employees are provided with the means to be training in accordance with the OSHMS and Project Safety Plans (PSP).
 - Maintain a list of project-related e-mail addresses (those not using a WSP e-mail) so that monthly meeting materials can be distributed.
 - Ensure all incidents are reported in iSMS on projects assigned to them.
6. Corporate Safety Director (SD) – Is responsible for the overall management of the health and safety management plan on a national basis in conjunction with sector management and the Safety Team. The SD shall specifically:
- Provide guidance on the implementation of the H&S management plan and certification to OHSAS 18001/ISO 45001.
 - Develop national safety and health goals and targets with leadership
 - Provide safety reports to senior management and employees on H&S trends, statistics, lessons learned, corrective actions and performance effectiveness.

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- Encourage active leadership, communication, and employee involvement in H&S and the Zero Harm Vision
 - Develop, conduct and monitor H&S training throughout the Sectors
 - Provide guidance and consultation with PMs to enable them to carry out their safety obligations
 - Manage periodic safety audits of projects including reporting and findings closure
 - Review and recommend changes in the safety program annually and as needed
 - Perform external and internal research to investigate and develop industry leading practices and technologies.
 - Review injury and accident statistics to evaluate trends and make recommendations for program changes to reasonably prevent repeat incidents of the same nature
 - Review adequacy of incident reporting to include vehicle accidents and project-related incidents
 - Participate as a member of the Fleet Safety Committee
 - Organize and manage National Safety Management Committee (NSMC) meetings, including the preparation of agendas and meeting minutes
 - Identify and approve safety equipment for use by employees by working with procurement.
 - Conduct facility audits and hazard assessment in conjunction with facility management.
7. Safety Manager (SM) – Is responsible for overall management of the H&S activities within the assigned sectors. The SM shall:
- Report to the CSD on sector safety and health issues
 - Provide guidance to the group on all applicable local or state requirements (Appendix A)
 - Conduct, review and participate in incident investigations, prepare incident reports and oversee and implement follow-up corrective actions
 - Review and approve Project Safety Plans (PSP) and provide guidance to the PMs
 - Consult with PMs on site-specific safety plans and processes for their projects, office locations, or both
 - Conduct Health and Safety training as required.
 - Consult with the FAM/LOA/LOSC on the Health and Safety Plan as it relates to facility management safety issues
 - Conduct reviews and audits to ensure compliance, prepare audit reports and provide such reports to the CSD and others as needed
 - Conduct orientations and safety training where needed

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- Coordinate online safety training
 - Reviewing and monitoring of the facility ERPs
8. Sector Safety Manager (SSM) – The SSM is responsible for the overall management of the H&S program at the direction of Sector management or their direct report. The SSM shall have a direct line to the Sector President or Director if needed. The SSM shall have a dotted reporting line to the CSD. The SSM is specifically responsible for:
- The health and safety activities within the sector as well as the requirements of the WSP Expectations for Health and Safety Management.
 - Performing the functions of the SM as it applies to the sector.
9. Facility Manager (FAM) – The FAM is responsible for the day to day operational needs of their assigned offices in accordance with the OHSMS. The FAM shall:
- Provide guidance to the Local Office Safety Coordinator (LOSC) and Local Office Administrator (LOA) as it relates to the OSHMS facility requirements.
 - Monitor and report on (iSMS) facility compliance and non-compliance with the OSHMS within their geographical regions.
 - Lead emergency response planning
 - Be responsible for preparing, keeping up to date and coordinating the ERPs for the individual offices and coordinating the ERP with the business resumption plan.
 - Bring safety issues to the attention of the Safety Team and local management for resolution.
 - Lead annual facility audits with the LOA/LOSC and local management, document findings and corrective action where required.
 - Responsible for assuring that ergonomic assessments and corrective action are coordinated within the offices they manage.
 - Responsible for coordinating with Human Resources, Safety Team, and Corporate Risk Management/Insurance for ergonomic assessments through the insurance carrier.
10. Local Office Administrator (LOA): Responsible for the day to day needs of the office and employees within the office. The LOA shall be:
- Responsible for monitoring the office for compliance with the OHSMS and reporting to the FAM and through iSMS where required.
 - Responsible for coordinating pool vehicle use (where applicable) including verification of approved driver prior to vehicle use.
 - Responsible for coordinating with the employee, FAM and Human Resources for ergonomic assessment within the office.
 - Responsible for assuring that ergonomic assessments, corrective actions and employee requests are entered into iSMS.

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- Responsible for distributing and collecting the ergonomic self-assessment form for employees during the move-in phase for new offices or renovations.
 - Responsible for purchasing safety equipment for the office and projects through eProcurement.
11. Office Safety Coordinator (OSC) – The OSC provides assistance to employees within his or her assigned office at the direction and under the supervision of the FAM and/or Safety Director. The OSC is usually the LOA. The OSC shall:
- Review and monitor the emergency response plan (ERP) at least annually.
 - Know who the first-aid and CPR-trained employees are.
 - Coordinate local office safety training efforts.
 - Maintain all safety meeting documentation if conducted.
 - Maintain Material Safety Data Sheets (MSDS or SDS) when required.
 - Coordinate the control, use, and distribution of safety equipment within the office through logs and inspection.
 - Conduct office environment safety audits where required, prepare audit reports (iSMS) and provide such reports to the Safety Director and local office management.
 - Document employee safety concerns as they relate to the office environment through iSMS.
 - Report any employee feedback regarding employee safety and health using iSMS Observations.
12. Project Support Manager (PSM) – The PSM and FAM in each geography shall be responsible for (i) managing the fleet vehicles within the geography, (ii) obtaining and providing documents for all WSP leased vehicles, including incident reports for the insurance company, and (iii) providing guidance on transport, tags and insurance.
13. Project Support Manager/Local Office Administrators – Shall support the PM and employees in the procurement process to make sure safety equipment is ordered correctly through eProcurement. Equipment ordered for use by employees in an office shall be secured to prevent unauthorized use. A log of all equipment available to employees shall be kept in the office.
14. Project Manager (PM) – The PM has the responsibility of managing Health and Safety on the assigned project in accordance with the contract requirements, and the Occupational Safety & Health Management System (OHSMS). The PM will take into consideration risk management, identified hazards and exposures, communication and feedback. The PM is responsible for the health and safety of all employees working on their particular project and the safety of any third party directly affected by WSP performance on the project. For their assigned projects, PMs shall specifically:

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- Coordinate with project safety requirements with those that are contractually obligated to a business sector for project work.
- Review and monitor subcontractor/subconsultant safety programs that are submitted as part of the contract work. These safety programs should become part of the overall Project Safety Management Plan (PMSP).
- Provide support for all safety initiatives by exhibiting a commitment to and a positive reinforcement of such initiatives.
- Ensure that a Project Safety Plan (PSP) (SA 204) is prepared using RMIS and submitted to the SM or Sector SM for review, for their project and that all employees assigned to the project are aware of the PSP and its content, and revising the PSP based on field or project changes.
- Identify hazards (including hazardous substances) during the PSP process, assess the risks of such hazards and implement appropriate controls to reduce the risk of such hazards to a reasonably acceptable level using RMIS.
- Verify that proper safety orientations and safety training and information is appropriate to project employee responsibilities, abilities, literacy, language skills and the risks associated with their work. Such training must include emergency preparedness.
- Health and safety training requirements must be assessed periodically, to ensure that each individual or group is competent to perform their role. Delivery of training should be planned.
- Ensure that individuals are competent to undertake their duties and work activities, including relevant H&S competency. This applies to managers, supervisory, and support staff.
- Verify that safety equipment is available for project staff and that the staff has been instructed in its use, maintenance and inspection.
- Verify that incidents are reported (iSMS), investigated and followed up in accordance with the OSHMS in a timely manner
- Review safety meeting materials with their staff.
- Shall be responsible for ensuring their project office has an Emergency Response Plan.
- Ensuring that any mechanical equipment used on the site by employees is serviceable, capable of performing the required function, that employees are adequately trained on the use and operation of the equipment, that required inspections are performed, and that operators (vendor supplied or employee) are adequately trained.
- Shall conduct safety audits in accordance with the appropriate procedures prescribed by the OSHMS.
- Shall be responsible for (i) ensuring project-related vehicles are maintained appropriately, (ii) ensuring prompt attention to required repairs, (iii) periodic monitoring of employee project drivers to ensure proper vehicle use, and (iv) ensuring

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that all vehicle incidents are reported. Incident reports must be filed within 24 hours of the incident.

15. Employee – WSP deems the promotion of and compliance with safety and health programs as a responsibility of both management and employees. All employees shall:
- Be aware of and Comply with (i) the Occupational Safety & Health Management System, (ii) all applicable federal, state and local safety, health and environmental regulations, and (iii) any safety, health and environmental job directives, rules or specifications directly applicable to the work.
 - Be responsible for completing the mandatory training and following the training provided to them. Employees are encouraged to seek additional guidance where they are unsure about the hazards that they might encounter.
 - Support the company in providing a safe place to work by, among other things, protecting themselves and co-workers against injuries or illnesses
 - Report all known safety and health hazards to their supervisor and take all actions necessary to establish an immediate temporary control of the known hazard until permanent control can be established.
 - Report unsafe conditions and observed safe practices using an observation in iSMS when encountered.
 - Immediately report any injury or occupational illness to their supervisor, human resources and iSMS.
 - Immediately report any motor vehicle violations as they pertain to the operation of assigned/pool vehicles or their driver agreement within 24 hours of occurrence using iSMS and the Wheels process.
 - Maintain assigned vehicle, ensuring the standard safety equipment and documents are in the vehicle, and operating vehicles in a responsible manner.
 - Cooperate and assist, to the extent requested, in the investigation of all accidents or incidents.
 - Use all PPE provided in accordance with the manufacturer's requirements, maintain PPE, and inspect prior to use
 - Be responsible for (i) performing their job-related functions and duties in accordance with the PSP and Safe Work Method Statement (SWMS) applicable to them, and (ii) assisting in the preparation and modification of PSPs under the supervision of the assigned PM.
 - Offer safety suggestions to appropriate personnel where such suggestions may contribute to a safer work environment
 - Be responsible for following safe work procedures and stopping work when they encounter changes to the approved procedures or encounter hazards not identified during hazard assessment.

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- Employee operators are responsible for operating equipment in accordance with the manufacturer's safe operating recommendations.
16. Human Resources Manager (HRM) – HR shall be responsible for providing newly hired employees with an initial orientation to WSP's safety and health requirements. Human Resources shall be responsible for:
- Coordinating with the worker's compensation insurance carrier for injured worker(s).
 - (i) Providing information to the (US) insurance carrier in connection with worker's compensation matters and claims, and (ii) assisting injured (US) employees in their processing of worker's compensation claims.
 - Consulting with employees and the safety managers to ensure that proper disciplinary actions are taken in response to safety violations.
 - Communicating with the employee regarding worker's compensation or any other medical requirements required by the employee.
 - Coordinating with the US Safety Team, FAM, LOA regarding ergonomic assessments.
17. Safety Management Committee (SMC) – The SMC shall oversee the OSHMS and shall make recommendations to the senior management to institute changes in the OSHMS. Senior management shall have a presence on the SMC. The specific process and requirements are detailed in the procedure for "Safety Management Committee" (SA 205). Shall review safety audit documentation and resolutions implemented based on such reports. When required, the SMC shall also recommend resolutions of identified hazards to management.

**Attachment 3:
HSSE Orientation Packet**

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WSP USA Environment & Infrastructure Inc. Health, Safety and Environment Orientation



It is the policy of WSP Environment & Infrastructure (WSP) to provide all employees with a safe and healthful working environment. WSP's goal is the prevention of all occupation-related accidents and illnesses. To assist in this goal, WSP has implemented the Health, Safety, and Environment (HSE) Program as is outlined in the WSP's Corporate Health, Safety and Environment Manual. As a new employee, it will be your responsibility to follow the established procedures for your own personal protection and also the protection of coworkers.

WSP Global Health, Safety and Wellbeing Policy

Making Health and Safety Personal means that each of us is accountable for the wellbeing of ourselves and others who may be affected by our activities. Pursuing our Zero Harm vision and effectively managing Health and Safety risks is the responsibility of our regional businesses and their leadership teams, which are expected to:

- Promote a positive Health and Safety culture by providing visible and tangible leadership.
- Ensure their Health and Safety management system is maintained and implemented such that it meets or exceeds the requirements of this Policy, local legislation and our "Expectations for Health and Safety Management", and adequately addresses local Health and Safety risks.
- Make Health and Safety integral to everything we do, by ensuring it is an agenda item at all leadership meetings and given equal importance to other operational items.
- Set Health and Safety objectives annually, communicate these to all employees, and monitor and report progress to the Corporation's Board of Directors on a quarterly basis.
- Seek to continuously improve by encouraging the sharing of best practices and lessons learned across our global operations.
- Ensure that acquired businesses are integrated into our way of working.
- Ensure an appropriate level of resources and funding to support this Policy.
- Communicate with employees on any Health and Safety matters which may affect them.
- Provide feedback and recognition to employees who positively contribute to reducing Health and Safety risks.

Employees have a duty of care to themselves and others, potentially affected by our activities, and are expected to be aware of, and encouraged to contribute to the delivery of this Policy, by:

- Knowing where they can access suitably qualified and experienced Health and Safety advisors for guidance and advice.
- Making Health and Safety Personal by reporting any accidents, incidents, unsafe acts, near misses or observations where Health and Safety performance could be improved.
- Challenging the status quo, suggesting improvements, and proposing innovative ideas which can remove or reduce risk from our activities.
- Keeping Health and Safety a priority in our offices, on our sites and at home

WSP E&I Health, Safety, and Environment Rules

WSP has safety rules that are to be adhered to at all times while an employee is involved in WSP business. They are as follows:

- No employee shall report to work or be permitted to work while he/she is in any way unfit to perform his/her duties in a safe and efficient manner.
- All injuries and accidents (even near misses) must be reported to your supervisor immediately.

WSP USA Environment & Infrastructure Inc. Health, Safety and Environment Orientation



- Immediately report all unsafe or unhealthful conditions in the workplace, including defective tools or other equipment to your supervisor.
- Take all reasonable precautions to ensure your own safety and the safety of fellow workers during the course of employment.
- All threats, intimidation, harassment, or acts of violence shall be reported to your supervisor; Human Resources; or the HSE Coordinator.
- No person shall engage in any improper activity or behavior that might create or constitute a hazard to him/herself or any other worker. For the purposes of this rule, improper activities include horseplay, fighting, practical jokes, unnecessary running or jumping, or similar conduct.
- Established safe job procedures must be followed by all employees.
- Changes in regular job procedures require the approval of your immediate supervisor.
- If unsure how to perform any assigned task or operate any equipment, ask your supervisor before proceeding.
- Do not remove guards from machines.
- Personal protective equipment (PPE) must be worn or used in any area where it is required.
- Disposal of hazardous materials and wastes must be in accordance with applicable environmental regulations. If there is any doubt about proper disposal, discuss this with your supervisor.
- Report all spills of hazardous wastes or materials to your supervisor. Consult the safety data sheet for appropriate cleanup procedures.
- Use only the proper tool for the job. Do not use defective tools or equipment. If the proper tool is not available, ask for help from your supervisor before doing the job.
- When required to clean, repair, or adjust machinery, the machinery shall be shut off and locked out both mechanically and/or electrically to prevent operation of the equipment.
- Get help in lifting any item that is so bulky, awkward, or heavy that you feel you cannot lift it safely.
- If a repetitive task causes you discomfort, or you feel it is unsafe or unhealthy, report it to your supervisor immediately.
- Employees are not to report to work under the influence of alcohol, illegal drugs, or drugs for which the employees do not have a lawful prescription, or drugs that affect the employee's ability to drive safely. Employees are not to consume alcohol, illegal drugs, or drugs for which they do not have a lawful prescription during the working day.
- Employees must conduct themselves in a safe manner to prevent injury to themselves and others and to minimize damage to WSP property. Each employee is responsible for the care and safe operation of Amec FW equipment.
- Obey all safety warning signs and signals. Do not remove any safety warning signs or signals until the danger is eliminated.
- Maintain good housekeeping in your work area.
- Employees are responsible for safe use of any vehicles, machines, and equipment that they may operate, and for the quality of the work they produce.
- Wear seat belts at all times when in vehicles used for company business. This includes drivers and passengers in rental cars, personal vehicles used for business activities, and company-provided vehicles.
- Do not engage in any activities that interfere with your ability to operate a vehicle safely.

WSP USA Environment & Infrastructure Inc.
Health, Safety and Environment Orientation



Disciplinary Action

OSHA regulations require employers to have “a system for ensuring that employees comply with all safe and healthy work practices, which may include disciplinary action.” WSP has a disciplinary policy that all levels of management are expected to apply uniformly and without exception. WSP's disciplinary policy states: “All supervisors are to enforce the WSP safety rules and ensure that employees comply with established safe work practices (including use of personal protective equipment).” WSP's system of ensuring compliance starts with this policy. The system relies on good management practices and resorts to disciplinary action as a last alternative. The company will normally follow the progressive discipline procedure outlined below; however, the company reserves the right to determine the action to be taken, from verbal reprimand up to and including dismissal, as circumstances warrant. The sequence of steps is a guideline, not a rigid requirement, and must be applied, if at all, commensurate with the circumstances of each situation. When disciplinary action must be taken, one or more of the following steps will normally be followed:

1. The first time an infraction (unsafe behavior) is noted, the supervisor shall:
 - a. Meet with the employee to discuss the matter
 - b. Inform the employee of the nature of the infraction
 - c. Inform the employee of the action necessary to correct the infraction
 - d. If warranted, document the meeting for the employee's personnel file
2. Should a second violation occur, the supervisor shall take the following actions:
 - a. Hold a second meeting with the employee
 - b. Issue a written reprimand covering the nature of the infraction and the actions to correct it
 - c. Place the employee on probation
 - d. Warn the employee that a third incident will result in more severe disciplinary action and could result in dismissal
 - e. Prepare and forward to People & Organization (P&O) a written report documenting verbal or written warnings or reprimands given to the employee
3. Should additional incidents occur, the supervisor shall place the employee on probation or suspension. The supervisor may recommend dismissal. These actions must be taken in cooperation with Human Resources.

Incident Reporting

If you or one of your coworkers should be involved in an incident/injury while on WSP E&I business, after seeking medical treatment, immediately report the following information to your supervisor:

- Date, time, location, and description of the incident/injury
- Names of other persons involved in the incident/injury
- Extent of the injury
- Medical treatment that was administered
- Names of any witnesses
- Description of any property damage

WSP USA Environment & Infrastructure Inc.
Health, Safety and Environment Orientation



Acknowledgement

By my signature below, I acknowledge that I have participated in the WSP E&I Health, Safety and Environment Orientation. The WSP E&I Health, Safety and Wellbeing Policy; WSP E&I Health, Safety and Environment Rules; Disciplinary Action procedure; and Incident Reporting procedure have been explained to me. I have had the opportunity to ask questions and received adequate answers.

Name (print)

Signature

Date



WSP USA Environment & Infrastructure Inc.
Health, Safety and Environment Orientation Checklist

Name _____ Date Employed _____
 (Print) Last First Middle

Department Assigned _____ Type of Work _____

Past Work Experience _____

The following items have been discussed and are understood:

Reviewed

- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------------|-----------------------------|--------------------------|---|--------------------------|--|--------------------------|---|--------------------------|--|--------------------------|---------------------------------|--------------------------|---|--------------------------|---|--------------------------|--|--------------------------|---|--------------------------|--------------|--------------------------|------------------------------------|--------------------------|-----------------------------|--------------------------|---------------------------------------|--------------------------|------------------|--------------------------|------------------------------------|--------------------------|------------------------------------|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|--|--------------------------|---|
| <ol style="list-style-type: none"> 1. Company safety policies and program 2. Safety rules, both general and specific to job assignment 3. Safety rules enforcement procedures 4. When, where and how to report injuries 5. When, where and how to report incidents* 6. When, where and how to report unsafe conditions 7. Review of fire and emergency evacuation plan 8. Location and use of Fire Extinguishers 9. Fire Prevention and Protection* 10. Ergonomic review of workstation / Proper lifting* 11. Safe work clothing 12. Assignment, use and care of Personal Protective Equipment (PPE)* 13. Importance of housekeeping, e.g., cleaning up spills, etc. 14. HAZCOM / WHMS Program, including Safety Data Sheets (SDS)* 15. Special hazards of job 16. Driving Standard* 17. Driver Fatigue* 18. Workplace Violence and Harassment* 19. Radiation Awareness as applicable* 20. Electrical Hazards as applicable* 21. Employee certified in the following 22. Additional training required | <table border="0"> <tr><td><input type="checkbox"/></td><td>Field Safety Handbook (FSH)</td></tr> <tr><td><input type="checkbox"/></td><td>Office & On the Job Training (OTJ), HASP & AHAs</td></tr> <tr><td><input type="checkbox"/></td><td>Field Safety Handbook, Just and Fair Culture</td></tr> <tr><td><input type="checkbox"/></td><td>TriageNow (USA) / WorkCare (Canada) (send poster/input into Cell Phone)</td></tr> <tr><td><input type="checkbox"/></td><td>Report to Supervisor and local HSE Coord. / Incident Reporting and Injury Management Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>HEART Link (send poster & link)</td></tr> <tr><td><input type="checkbox"/></td><td>Office Safe Gathering Point and Shelter in Place location(s), local EAP</td></tr> <tr><td><input type="checkbox"/></td><td>Pull-Aim-Squeeze-Sweep & nearest fire extinguisher location</td></tr> <tr><td><input type="checkbox"/></td><td>Fire Prevention and Protection Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>ERGO Training for the office or Industrial Athlete Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Office/Field</td></tr> <tr><td><input type="checkbox"/></td><td>PPE training and quiz; HASP & AHAs</td></tr> <tr><td><input type="checkbox"/></td><td>Field work/company vehicles</td></tr> <tr><td><input type="checkbox"/></td><td>HAZCOM/WHMIS online training and quiz</td></tr> <tr><td><input type="checkbox"/></td><td>OJT, HASP & AHAs</td></tr> <tr><td><input type="checkbox"/></td><td>Driving Standard Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Fatigued Driving Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Workplace Violence and Harassment Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Troxler Gauge Storage / Radiation Awareness Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Office / Field Electrical Hazards Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>i.e. First Aid CPR, Certified Rigger, Excavation and Trenching</td></tr> <tr><td><input type="checkbox"/></td><td>Mandatory monthly Safety training and quizzes when applicable</td></tr> </table> | <input type="checkbox"/> | Field Safety Handbook (FSH) | <input type="checkbox"/> | Office & On the Job Training (OTJ), HASP & AHAs | <input type="checkbox"/> | Field Safety Handbook, Just and Fair Culture | <input type="checkbox"/> | TriageNow (USA) / WorkCare (Canada) (send poster/input into Cell Phone) | <input type="checkbox"/> | Report to Supervisor and local HSE Coord. / Incident Reporting and Injury Management Training and Quiz | <input type="checkbox"/> | HEART Link (send poster & link) | <input type="checkbox"/> | Office Safe Gathering Point and Shelter in Place location(s), local EAP | <input type="checkbox"/> | Pull-Aim-Squeeze-Sweep & nearest fire extinguisher location | <input type="checkbox"/> | Fire Prevention and Protection Training and Quiz | <input type="checkbox"/> | ERGO Training for the office or Industrial Athlete Training and Quiz | <input type="checkbox"/> | Office/Field | <input type="checkbox"/> | PPE training and quiz; HASP & AHAs | <input type="checkbox"/> | Field work/company vehicles | <input type="checkbox"/> | HAZCOM/WHMIS online training and quiz | <input type="checkbox"/> | OJT, HASP & AHAs | <input type="checkbox"/> | Driving Standard Training and Quiz | <input type="checkbox"/> | Fatigued Driving Training and Quiz | <input type="checkbox"/> | Workplace Violence and Harassment Training and Quiz | <input type="checkbox"/> | Troxler Gauge Storage / Radiation Awareness Training and Quiz | <input type="checkbox"/> | Office / Field Electrical Hazards Training and Quiz | <input type="checkbox"/> | i.e. First Aid CPR, Certified Rigger, Excavation and Trenching | <input type="checkbox"/> | Mandatory monthly Safety training and quizzes when applicable |
| <input type="checkbox"/> | Field Safety Handbook (FSH) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office & On the Job Training (OTJ), HASP & AHAs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Field Safety Handbook, Just and Fair Culture | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | TriageNow (USA) / WorkCare (Canada) (send poster/input into Cell Phone) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Report to Supervisor and local HSE Coord. / Incident Reporting and Injury Management Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | HEART Link (send poster & link) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office Safe Gathering Point and Shelter in Place location(s), local EAP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Pull-Aim-Squeeze-Sweep & nearest fire extinguisher location | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Fire Prevention and Protection Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | ERGO Training for the office or Industrial Athlete Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office/Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | PPE training and quiz; HASP & AHAs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Field work/company vehicles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | HAZCOM/WHMIS online training and quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | OJT, HASP & AHAs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Driving Standard Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Fatigued Driving Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Workplace Violence and Harassment Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Troxler Gauge Storage / Radiation Awareness Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office / Field Electrical Hazards Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | i.e. First Aid CPR, Certified Rigger, Excavation and Trenching | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Mandatory monthly Safety training and quizzes when applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*Core HSE New Hire Safety Orientation Training

IMPORTANT: If this employee is transferred to another job, a new Personal HSE Training Profile should be completed.

SIGNED: _____
 Employee Signature

DATE: _____

SIGNED: _____
 Supervisor Signature

DATE: _____

SIGNED: _____
 Local HSE Coord. Signature

DATE: _____

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Attachment 4: HSSE Orientation Checklist

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WSP USA Environment & Infrastructure Inc.
Health, Safety and Environment Orientation Checklist

Name _____ Date Employed _____
 (Print) Last First Middle

Department Assigned _____ Type of Work _____

Past Work Experience _____

The following items have been discussed and are understood:

Reviewed

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|---|--|--------------------------|-----------------------------|--------------------------|---|--------------------------|--|--------------------------|---|--------------------------|--|--------------------------|---------------------------------|--------------------------|---|--------------------------|---|--------------------------|--|--------------------------|---|--------------------------|--------------|--------------------------|------------------------------------|--------------------------|-----------------------------|--------------------------|---------------------------------------|--------------------------|------------------|--------------------------|------------------------------------|--------------------------|------------------------------------|--------------------------|---|--------------------------|---|--------------------------|---|--------------------------|--|--------------------------|---|
| <ol style="list-style-type: none"> 1. Company safety policies and program 2. Safety rules, both general and specific to job assignment 3. Safety rules enforcement procedures 4. When, where and how to report injuries 5. When, where and how to report incidents* 6. When, where and how to report unsafe conditions 7. Review of fire and emergency evacuation plan 8. Location and use of Fire Extinguishers 9. Fire Prevention and Protection* 10. Ergonomic review of workstation / Proper lifting* 11. Safe work clothing 12. Assignment, use and care of Personal Protective Equipment (PPE)* 13. Importance of housekeeping, e.g., cleaning up spills, etc. 14. HAZCOM / WHMS Program, including Safety Data Sheets (SDS)* 15. Special hazards of job 16. Driving Standard* 17. Driver Fatigue* 18. Workplace Violence and Harassment* 19. Radiation Awareness as applicable* 20. Electrical Hazards as applicable* 21. Employee certified in the following 22. Additional training required | <table border="0"> <tr><td><input type="checkbox"/></td><td>Field Safety Handbook (FSH)</td></tr> <tr><td><input type="checkbox"/></td><td>Office & On the Job Training (OTJ), HASP & AHAs</td></tr> <tr><td><input type="checkbox"/></td><td>Field Safety Handbook, Just and Fair Culture</td></tr> <tr><td><input type="checkbox"/></td><td>TriageNow (USA) / WorkCare (Canada) (send poster/input into Cell Phone)</td></tr> <tr><td><input type="checkbox"/></td><td>Report to Supervisor and local HSE Coord. / Incident Reporting and Injury Management Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>HEART Link (send poster & link)</td></tr> <tr><td><input type="checkbox"/></td><td>Office Safe Gathering Point and Shelter in Place location(s), local EAP</td></tr> <tr><td><input type="checkbox"/></td><td>Pull-Aim-Squeeze-Sweep & nearest fire extinguisher location</td></tr> <tr><td><input type="checkbox"/></td><td>Fire Prevention and Protection Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>ERGO Training for the office or Industrial Athlete Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Office/Field</td></tr> <tr><td><input type="checkbox"/></td><td>PPE training and quiz; HASP & AHAs</td></tr> <tr><td><input type="checkbox"/></td><td>Field work/company vehicles</td></tr> <tr><td><input type="checkbox"/></td><td>HAZCOM/WHMIS online training and quiz</td></tr> <tr><td><input type="checkbox"/></td><td>OJT, HASP & AHAs</td></tr> <tr><td><input type="checkbox"/></td><td>Driving Standard Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Fatigued Driving Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Workplace Violence and Harassment Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Troxler Gauge Storage / Radiation Awareness Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>Office / Field Electrical Hazards Training and Quiz</td></tr> <tr><td><input type="checkbox"/></td><td>i.e. First Aid CPR, Certified Rigger, Excavation and Trenching</td></tr> <tr><td><input type="checkbox"/></td><td>Mandatory monthly Safety training and quizzes when applicable</td></tr> </table> | <input type="checkbox"/> | Field Safety Handbook (FSH) | <input type="checkbox"/> | Office & On the Job Training (OTJ), HASP & AHAs | <input type="checkbox"/> | Field Safety Handbook, Just and Fair Culture | <input type="checkbox"/> | TriageNow (USA) / WorkCare (Canada) (send poster/input into Cell Phone) | <input type="checkbox"/> | Report to Supervisor and local HSE Coord. / Incident Reporting and Injury Management Training and Quiz | <input type="checkbox"/> | HEART Link (send poster & link) | <input type="checkbox"/> | Office Safe Gathering Point and Shelter in Place location(s), local EAP | <input type="checkbox"/> | Pull-Aim-Squeeze-Sweep & nearest fire extinguisher location | <input type="checkbox"/> | Fire Prevention and Protection Training and Quiz | <input type="checkbox"/> | ERGO Training for the office or Industrial Athlete Training and Quiz | <input type="checkbox"/> | Office/Field | <input type="checkbox"/> | PPE training and quiz; HASP & AHAs | <input type="checkbox"/> | Field work/company vehicles | <input type="checkbox"/> | HAZCOM/WHMIS online training and quiz | <input type="checkbox"/> | OJT, HASP & AHAs | <input type="checkbox"/> | Driving Standard Training and Quiz | <input type="checkbox"/> | Fatigued Driving Training and Quiz | <input type="checkbox"/> | Workplace Violence and Harassment Training and Quiz | <input type="checkbox"/> | Troxler Gauge Storage / Radiation Awareness Training and Quiz | <input type="checkbox"/> | Office / Field Electrical Hazards Training and Quiz | <input type="checkbox"/> | i.e. First Aid CPR, Certified Rigger, Excavation and Trenching | <input type="checkbox"/> | Mandatory monthly Safety training and quizzes when applicable |
| <input type="checkbox"/> | Field Safety Handbook (FSH) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office & On the Job Training (OTJ), HASP & AHAs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Field Safety Handbook, Just and Fair Culture | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | TriageNow (USA) / WorkCare (Canada) (send poster/input into Cell Phone) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Report to Supervisor and local HSE Coord. / Incident Reporting and Injury Management Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | HEART Link (send poster & link) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office Safe Gathering Point and Shelter in Place location(s), local EAP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Pull-Aim-Squeeze-Sweep & nearest fire extinguisher location | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Fire Prevention and Protection Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | ERGO Training for the office or Industrial Athlete Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office/Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | PPE training and quiz; HASP & AHAs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Field work/company vehicles | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | HAZCOM/WHMIS online training and quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | OJT, HASP & AHAs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Driving Standard Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Fatigued Driving Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Workplace Violence and Harassment Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Troxler Gauge Storage / Radiation Awareness Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Office / Field Electrical Hazards Training and Quiz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | i.e. First Aid CPR, Certified Rigger, Excavation and Trenching | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Mandatory monthly Safety training and quizzes when applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*Core HSE New Hire Safety Orientation Training

IMPORTANT: If this employee is transferred to another job, a new Personal HSE Training Profile should be completed.

SIGNED: _____
 Employee Signature

DATE: _____

SIGNED: _____
 Supervisor Signature

DATE: _____

SIGNED: _____
 Local HSE Coord. Signature

DATE: _____

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Attachment 5: Certifications

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14247

Compliance Solutions Occupational Trainers, Inc.
Certificate of Completion

Student Name: Chelsea Eyer
Company: Storb Environmental Inc

I Certify the above named student has been tested and trained for:

40-Hour HAZWOPER
as per 29 CFR 1910.120(e)

Date of Issue: 9/9/2016

By:  President

Certificate of Completion

awarded to

Chelsea Foster

**8-Hour Hazardous Waste Operations and Emergency Response
(HAZWOPER) Refresher**

Trained in accordance with OSHA Standard 29 CFR 1910.120 & 29 CFR 1926.65

April 19, 2024

presented by



A handwritten signature in blue ink that reads "Kirby Lastinger".

Kirby Lastinger, CSP, CHMM, CIT
Assistant Vice President HSE, E&E
Instructor

A handwritten signature in black ink that reads "Tré Wilson".

Tré Wilson, RPIH, WSO-RSD, WSO-CST
HSE Manager, E&E
Instructor



certifies that

CHELSEA FOSTER

has successfully completed ClickSafety's web-based training course:

C4 Hazwoper Supervisor

In accordance with the requirements of 29 CFR 1910.120(e)

This course was developed and presented by ClickSafety.com, Inc.

This online training course was designed and presented to provide generic classroom skills training to meet the requirements of 29 CFR, 1910.120(e)(4)



I confirm that I personally took the course listed above.

27224619
SERIAL NUMBER

11/21/2018
COMPLETION DATE

8 HOURS
COURSE DURATION

STUDENT SIGNATURE

27224619



TRAINING. COMPLIANCE. YOUR FUTURE.

certifies that

CHELSEA FOSTER

has successfully completed

Bloodborne Pathogens for Construction

and 0.10 CEUs

and 1.00 Contact Hours.

This course was developed and
presented by ClickSafety.com, Inc.



I confirm that I personally took the
course listed above.

1230583999

Serial Number

05/22/2023

Completion Date

0.67 Hours

Course Duration

Student Signature

AMERICAN TRAUMA EVENT MANAGEMENT
This certifies that
Chelsea Foster

Has successfully completed the training requirements consistent with the most current AHA ECC guidelines for:

	YES	NO		YES	NO
Adult CPR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Standard First Aid	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Child CPR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Essential First Aid	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Infant CPR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AED	<input checked="" type="checkbox"/>	<input type="checkbox"/>

12.7.23 DEC. 2025
Date Completed *Expiration Date*

CPR
AED
First Aid

Kyle Havens
Authorized Instructor (print name)

Chelsea Foster
Holder's Signature

425-772-6429 Snelling CPR
Training Center Phone Number *Training Center Name*

Successful completion verifies that the card holder has met the requirements for the cognitive knowledge and skill objectives of the curriculum as based on the recommendations of the ECC, AHA and ILCOR 2020 Guidelines

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Certificate of Completion

This certifies that

Joshua Sandige

has successfully completed

OSHA 40 Hour HAZWOPER Training

Annual Refresher Training Required

In Accordance With Federal OSHA Regulation 29 CFR 1910.120(e)

And State OSHA/EPA Regulations as well including 29 CFR 1926.65(e)

This course is approved for 40 Contact Hours (4 CEUs) of continuing education per the California Department of Public Health for Registered Environmental Health Specialist (REHS) (Accreditation # 044)

Julius P. Griggs

Julius P. Griggs
Instructor #892

1906261288695

Certificate Number

6/26/2019

Issue Date



UNLIMITED, Inc.
OSHA Compliant Safety Training Since 1993



Scan this code or visit [safetyunlimited.com/v](https://www.safetyunlimited.com/v) to verify certificate.

Annual Refresher Training Required

2139 Tapo St., Suite 228 Simi Valley, CA 93063
(855) 784-2677 or 805 306-8027
<https://www.safetyunlimited.com>

Certificate of Completion

This certifies that

Joshua Sandige

has successfully completed

8 Hour HAZWOPER Supervisor Refresher Training

This certification alone does NOT indicate INITIAL 8 Hour OSHA Supervisor Training

In Accordance With Federal OSHA Regulation 29 CFR 1910.120(e)(8)

And all State OSHA/EPA Regulations as well including 29 CFR 1926.65 for Construction.

This course (Version 1) is approved for 8 Contact Hours (0.8 CEUs) of continuing education per the California Department of Public Health for Registered Environmental Health Specialist (REHS) (Accreditation # 044)

Safety Unlimited, Inc., Provider #5660170-2, is accredited by the International Association for Continuing Education and Training (IACET) and is accredited to issue the IACET CEU. As an IACET Accredited Provider, Safety Unlimited, Inc. offers CEUs for its programs that qualify under the ANSI/IACET Standard. Safety Unlimited, Inc. is authorized by IACET to offer 0.8 CEUs for this program.

Julius P. Griggs

Julius P. Griggs
Instructor #892

2406175288695

Certificate Number

6/17/2024

Issue Date



2139 Tapo St., Suite 228 Simi Valley, CA 93063
(855) 784-2677 or 805 306-8027
<https://www.safetyunlimited.com>

Scan this code or visit [safetyunlimited.com/v](https://www.safetyunlimited.com/v) to verify certificate.

Proof of initial certification and subsequent refresher training is NOT required to take refresher training



American Red Cross
Training Services

Certificate of Completion

Joshua Sandige

has successfully completed requirements for

Adult and Pediatric First Aid/CPR/AED

Date Completed: 5/24/2023

Validity Period: 2 Years

Conducted by: Heart CPR



To verify certificate, scan code or visit redcross.org/digitalcertificate and enter ID.

Learn and be inspired at LifesavingAwards.org



0170OCL



American Red Cross
Training Services

Certificate of Completion

Joshua Sandige

has successfully completed requirements for

Bloodborne Pathogens Training

Date Completed: 10/13/2022

Validity Period: 1 Years

Conducted by: American Red Cross



To verify certificate, scan code or visit redcross.org/digitalcertificate and enter ID.

Learn and be inspired at LifesavingAwards.org



011MLB5



CERTIFICATE OF COMPLETION

This certifies that

Joshua Sandige

has successfully completed the course

40-hour EM 385-1-1 USACE Safety & Health



Course Duration
40.0



Completion Date
10/03/2021



Certificate #
000019431364

A handwritten signature in black ink, appearing to read 'Sarah M. Ford'.

Official Signature



6801 N Capital of Texas Hwy, Bldg 1, Suite 250 | Austin, TX 78731 | 877.881.2235 | www.360training.com

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**Attachment 6:
Contractor Incident Report System (CIRS)**

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Contractor Incident Report System (CIRS)

Report Type (REQUIRED)		
<input type="checkbox"/> Injured	<input type="checkbox"/> Property	<input type="checkbox"/> Injured & Property
<input type="checkbox"/> Near Miss		
1. Contract Information		Incident Information
Prime Contractor: <input style="width: 100%;" type="text"/>		Cage Code: <input style="width: 100%;" type="text"/>
Contract Number: <input style="width: 100%;" type="text"/>		Occurred On Base: <input type="checkbox"/> Yes <input type="checkbox"/> No
Task Order #:		
Contractor Contact Information		
Last Name <input style="width: 100%;" type="text"/>	First Name <input style="width: 100%;" type="text"/>	Phone #: <input style="width: 100%;" type="text"/>
Email Address: <input style="width: 100%;" type="text"/>		Date Notified: <small>Ex: MM/DD/YYYY</small> <input style="width: 100%;" type="text"/>
2. Incident Type (REQUIRED)		(Please Check All That Apply)
<input type="checkbox"/> Assault/Violent Act	<input type="checkbox"/> Extreme Environmental Exposure	<input type="checkbox"/> Man over the side (No water entry)
<input type="checkbox"/> Diving	<input type="checkbox"/> Falls, slip, trip, or bodily exertion	<input type="checkbox"/> Man Overboard - Water Entry
<input type="checkbox"/> Electrical Shock/Burns	<input type="checkbox"/> Fires - All Types	<input type="checkbox"/> Material Handling Equipment
<input type="checkbox"/> Equipment Installation/Repair	<input type="checkbox"/> Hazardous Material (any type)	<input type="checkbox"/> Ordnance-Related (Explosive)
<input type="checkbox"/> Explosion, Non-Ordnance	<input type="checkbox"/> Industrial (Select Additional Below)	<input type="checkbox"/> Vehicle (Government or Private)
Industrial Incident Additional Information		(Please Check All That Apply)
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Hand and Power Tools	<input type="checkbox"/> Work Platforms and Scaffolding
<input type="checkbox"/> Demolition/Renovation	<input type="checkbox"/> Rigging	<input type="checkbox"/> Underground Construction, Shafts, and Caissons
<input type="checkbox"/> Trenching/Entrapment	<input type="checkbox"/> Cranes and Hoisting Equipment	<input type="checkbox"/> Concrete, Masonry, Steel Erection and Residential Construction
<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Floating Plant and Marine Activities	<input type="checkbox"/> Tree Maintenance and Removal
<input type="checkbox"/> Welding and Cutting	<input type="checkbox"/> Pressurized Equipment and System	<input type="checkbox"/> Airfield and Aircraft Operations
<input type="checkbox"/> Control of Hazardous Energy	<input type="checkbox"/> Fall Protection	

3. General Information		Incident Information
Date of Incident: Ex: MM/DD/YYYY		Time of Incident: HH : MM
Describe the incident in detail in your words:		
Exact Location of Incident:		
Was Hazardous Material(s) Involved: <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Explain What Hazardous Materials Were Involved and Why:		
Activity at Time of Incident:		
Personal Protective Equipment: <input type="checkbox"/> Available and used <input type="checkbox"/> Available and not used <input type="checkbox"/> Not Required <input type="checkbox"/> Not related to Mishap <input type="checkbox"/> Wrong PPE for job <input type="checkbox"/> List PPE List PPE Used: (required only if List PPE checked)		
Who Provided Cleanup? <input type="checkbox"/> Onsite <input type="checkbox"/> Base <input type="checkbox"/> Public		

4. Fully Explain What Allowed or Caused the Incident		Incident Information
Direct Cause:		
Indirect Cause:		
Additional Action Taken: (Please Include a Begin Date and Est. End Date in Description)		
5. Contributing Factors		
Was Visibility Restricted? <input type="checkbox"/> Yes <input type="checkbox"/> No		Distance Visibility was restricted:
Unit of Measure: <input type="checkbox"/> Feet <input type="checkbox"/> Yards <input type="checkbox"/> Meters <input type="checkbox"/> Miles <input type="checkbox"/> Nautical Miles		
Visibility Restricted By: <input type="checkbox"/> Fog <input type="checkbox"/> Smoke <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Snow <input type="checkbox"/> Mist <input type="checkbox"/> Dust <input type="checkbox"/> Sandstorm <input type="checkbox"/> Unknown Object Other:		
Lighting Conditions at Incident Site: <input type="checkbox"/> Adequate <input type="checkbox"/> Inadequate <input type="checkbox"/> Unknown	Was Noise Level a Factor: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	Was Carbon Monoxide (CO) a Factor: <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, CO Alarm Manufacturer:
Other Contributing Factors:		

1. Injured Data		Person (if applicable)
Age:	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female	Subcontractor Company Name:
2. General Information		
Drug or Alcohol Involved: <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/> Alcohol <input type="checkbox"/> Drugs <input type="checkbox"/> Alcohol and Drugs		
Who Provided First Aid? <input type="checkbox"/> Onsite <input type="checkbox"/> Base <input type="checkbox"/> Public		
Was Ergonomics a Factor: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Type of Ergonomic Injury: <input type="checkbox"/> Lifting <input type="checkbox"/> Equipment Placement Office <input type="checkbox"/> Repetitive Motion <input type="checkbox"/> Positioning <input type="checkbox"/> Bending <input type="checkbox"/> Equipment Placement Industrial <input type="checkbox"/> Impact Strain		
3. Injury Illness/Fatality Information		
Severity of Injury/Illness: <input type="checkbox"/> Fatality <input type="checkbox"/> Lost Workday Case Involving Days Away From Work <input type="checkbox"/> Permanent Total Disability <input type="checkbox"/> Light/Limited Duty or Restricted Work (No Lost Work Days) <input type="checkbox"/> Permanent Partial Disability <input type="checkbox"/> Other Reportable & Medical Treatment/No Lost Time <input type="checkbox"/> First Aid Treatment Only/First Aid Case		
Were There Days Lost: <input type="checkbox"/> Yes <input type="checkbox"/> No	Were There Days Hospitalized: <input type="checkbox"/> Yes <input type="checkbox"/> No	Were There Days Restricted Duty: <input type="checkbox"/> Yes <input type="checkbox"/> No
Part of Body Affected:		
Nature of Injury or Illness:		
Event or Exposure:		
Source of Injury or Illness:		
Injury Activity Code:		

4. License	Person (if applicable)
Are Appropriate License and Certification/Medical Current: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, explain:	
5. Training	
Was all the contract-required training provided to the employee: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, explain:	

1. Involved Person Data	(if applicable) Property Damage	
Age:	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female	Subcontractor Company Name:

3. Property Damaged	
Was Anyone Injured: <input type="checkbox"/> Yes <input type="checkbox"/> No	Was A Government Motor Vehicle Involved: <input type="checkbox"/> Yes <input type="checkbox"/> No

Property Type	Property ID #	Detailed Description	Owned By	Est. Cost USD	Lost Use Days
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
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-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		
-- select --			-- select --		

4. License	(if applicable) Property Damage
<p>Are Appropriate License and Certification/Medical Current: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, explain:</p>	
5. Training	
<p>Was all the contract-required training provided to the employee? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, explain:</p>	

**Attachment 7:
Emergency Contacts and Hospital Route Map**

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Exhibit 1. Emergency Contact Information

Organization		Contact Information
Fire Department/Ambulance		911
Police Department		911
Hospital: Whidbey General Hospital		(360) 678-5151
WorkCare (early case management)		(844) 268-1852
Name & Title	Organization	Contact Information
Christie Kroskie RPM, COR	NAVFAC Northwest	(352) 364-7522 christi.l.kroskie.civ@us.navy.mil
Steven Skeeahan NTR		(360) 396-1114 (office) (253) 279-0212 (mobile) steven.b.skeeahan.civ@us.navy.mil
Laura Muhs Installation Environmental Department Director	NAS Whidbey Island Public Works, Environmental Division	(360) 257-4025 laura.r.muhs.civ@us.navy.mil
Chan Pongkhamsing U.S. EPA RPM	U.S. EPA Region 10 SCU4, Superfund and Emergency Management Division	(206) 553-1806 Pongkhamsing.Chan@epa.gov
Binod Chardhary Ecology Project Coordinator	Ecology	(564) 669-3015 bcha461@ECY.WA.GOV
Teresa Wilson Liberty JV Program Manager	Liberty JV	(503) 207-9660 (office) (360) 936-8639 (mobile) teresa.wilson@wsp.com
Chelsea Foster Liberty JV Task Order Manager and FOL		(360) 820-3400 (mobile) cheslea.foster@wsp.com
Tim Reinhardt, CIH Liberty JV HSM		(206) 838-8464 (office direct) (425) 241-5816 (mobile) tim.reinhardt@wsp.com
Josh Sandige Liberty JV SSO		(707) 954-3607 (mobile) jsandige@neiaw.com



Do you know what to do if there's a work-related injury or illness?



Either/Or

Step 1: Injury Emergency
For life threatening injury or illness,
immediately call 911

Step 1: Injury Non-Emergency
For non-emergency work-related injury or illness,
call WorkCare (844) 268-1852

Step 2: All - Notify
Notify Supervisors / Project Manager / HSE
Manager within two hours of incident

Step 3: All - iSMS
Enter the incident into iSMS within 24 hours



(844) 268-1852
24/7 Telehealth Consultations

WorkCare is our new trusted occupational health services provider



Scan QR code to
add WorkCare to
your contacts



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**Appendix B:
Environmental Protection Plan for Land Use Controls Inspection
DCN: LBJV-5006-4289-0013.R2**

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**Naval Facilities Engineering Command Northwest
Silverdale, WA**

Final

**Environmental Protection Plan for Land Use
Controls Inspection**

Naval Air Station Whidbey Island, Oak Harbor,
Washington, and Naval Ocean Processing Facility
Coos Head, Charleston, Oregon

December 2020, Revised June 2024



**Naval Facilities Engineering Command Northwest
Silverdale, WA**

Final

Environmental Protection Plan for Land Use Controls Inspection

Naval Air Station Whidbey Island, Oak Harbor,
Washington, and Naval Ocean Processing Facility
Coos Head, Charleston, Oregon

December 2020, Revised June 2024

DCN: LBJV-5006-4289-0013.R2

Prepared for:

United States Department of the Navy
Naval Facilities Engineering Command Northwest
1101 Tautog Circle
Silverdale, WA 98315

Prepared by:

Liberty JV
15862 SW 72nd Avenue, Suite 150
Portland, OR 97224
503-639-3400



Contract Number: N44255-20-D-5006; Task Order No. N4425524F4113

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**FINAL
ENVIRONMENTAL PROTECTION PLAN FOR LAND USE CONTROLS INSPECTION
FOR
NAVAL AIR STATION WHIDBEY ISLAND, OAK HARBOR, WASHINGTON, AND
NAVAL OCEAN PROCESSING FACILITY COOS HEAD, CHARLESTON, OREGON**

December 2020, Revised June 2024

**Prepared for
United States Department of the Navy
Naval Facilities Engineering Command Northwest**

Silverdale, WA 98315

REVIEW AND APPROVAL

Task Order Manager:

Chelsea Foster, LG
Liberty JV

Date

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Acronyms and Abbreviations

Ecology.....	Washington State Department of Ecology
EPP	Environmental Protection Plan
FOL	Field Operations Lead
LUC	land use control
NAS	Naval Air Station
NAVFAC.....	Naval Facilities Engineering Systems Command
NOPF	Naval Ocean Processing Facility
NTR.....	Navy Technical Representative
OU.....	operable unit
PPE	personal protective equipment
RPM	Remedial Project Manager
SSHO	Site Safety and Health Officer
TOM	Task Order Manager

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1.0 Introduction

This Environmental Protection Plan (EPP) has been prepared to document the environmental management activities to be implemented as part of the land use control (LUC) inspections at Naval Air Station (NAS) Whidbey Island, Oak Harbor, Washington, and Naval Ocean Processing Facility (NOPF) Coos Head, Charleston, Oregon. Annual LUC inspections are required at a total of 20 specified areas/sites listed in the *Final Land Use Controls Implementation Plan, Naval Air Station Whidbey Island, Oak Harbor, Washington and Naval Ocean Processing Facility Coos Head, Charleston, Oregon* (Liberty JV, 2020); NOPF Coos Head Former Tank #6 Site will not be inspected in 2024 because it is on a five-year inspection schedule and was inspected by the Navy in 2023. This EPP was prepared by Liberty JV under U.S. Navy Contract No. N44255-20-D-5006, Task Order No. N44255-20-F-4289 for Naval Facilities Engineering Systems Command (NAVFAC) Northwest. This document was completed in 2020 under TO N44255-20-F-4289 and has been updated for use during the 2024 LUC Inspections/Monitoring (TO N4425524F4113).

LUCs are implemented at 20 specified areas and/or sites of NAS Whidbey Island located at Ault Field, Seaplane Base, and Former Lake Hancock Target Range (LHTR), as well as at NOPF Coos Head. LHTR LUC inspection is not part of the contracted scope for the 2024 LUC inspections, and will be conducted by a different contractor. The results of the LHTR LUC inspections will be included in the 2024 LUC Inspection Report. These sites are listed in Table 1 along with their respective regulatory program and location.

Table 1: NAS Whidbey Island Sites with LUCs

Site	Regulatory Program	Location
NAS Whidbey Island		
OU 1, Area 5, Highway 20/Hoffman Road (Surface) Landfill	Comprehensive Environmental Response, Compensation and Liability Act	Ault Field
OU 1, Area 6, Current (1969 – 1980s) Landfill		Ault Field
OU 2, Area 2, Western Highlands Landfill		Ault Field
OU 2, Area 3, 1969 – 1970 Landfill		Ault Field
OU 2, Area 4, Walker Barn Storage Area		Ault Field
OU 2, Area 29, Clover Valley Fire School		Ault Field
OU 3, Area 16, Runway Ditches		Ault Field
OU 4, Areas 48/49, Seaplane Base Landfill		Seaplane Base
OU 5, Area 1, Former Beach Landfill		Ault Field
OU 5, Area 31, Former Runway Fire Training School		Ault Field
OU 5, Area 52, Jet Engine Test Cell		Ault Field
Site 22, Hangar 5		Ault Field

Table 1: NAS Whidbey Island Sites with LUCs (continued)

Site	Regulatory Program	Location
Site EO354, Former Machine Gun Ranges B and C	Munitions Response Program	Ault Field
Site EO354, Former Mobile Turret Tower Range		Ault Field
Site EO351, Former Lake Hancock Target Range		Former Lake Hancock Target Range
Former Fuel Farm 1, Site 36	Petroleum	Seaplane Base
Former Fuel Farm 2, Site 35		Seaplane Base
Former Fuel Farm 3, Site 13		Ault Field
Former Fuel Farm 4, Site 11		Ault Field
Site 45, TCE Tank		Seaplane Base
Former Tank #6 Site, UST002		NOPF Coos Head

The NOPF Coos Head Former Tank #6 Site is on a five-year inspection schedule, and the next inspection of NOPF Coos Head will be conducted in 2028. This plan does not include inspections at NOPF Coos Head Tank #6 Site as this task will be performed by the U.S. Navy. Waste streams and characterization procedures, as well as spill or release notification procedures, are included for NAS Whidbey Island sites only.

The purpose of this EPP is to describe procedures for compliance with environmental protection requirements, including waste management and spill/release notification, during field activities. Overall, the field activities will be limited to LUC inspections. These activities are not anticipated to generate any wastes (i.e., other than sanitary wastes and used personal protective equipment [PPE] that will be disposed of with the common trash) or any spills/releases. Regardless, it is the intent of this EPP to prevent environmental pollution or damage during and/or as a result of the LUC inspections.

The Liberty JV Task Order Manager (TOM) and/or the Liberty JV Field Operations Lead (FOL) are responsible for ensuring implementation of the EPP. The Liberty JV FOL will record and maintain field reports documenting any issues in complying with environmental laws, regulations, and ordinances. Immediate corrective actions will be taken to remediate pollution of or damage to the environment due to accident, natural causes, or failure to follow the procedures established in this EPP.

2.0 Waste Streams and Characterization

During the LUC inspections, it is anticipated that there will potentially be three waste streams: 1) common trash; 2) used PPE; and 3) miscellaneous debris. All waste streams are anticipated to be non-hazardous; therefore, no hazardous waste handling procedures are provided in this EPP. If hazardous waste is found during the LUC inspection activities, then Liberty JV will follow the requirements as designated by the NAS Whidbey Island HAZWASTE Program and the Liberty JV FOL will immediately notify the Liberty JV TOM, who will then notify the NAVFAC Northwest Remedial Project Manager (RPM) and Navy Technical Representative (NTR), so that the waste can be managed and disposed of properly. If additional waste streams or hazardous wastes are identified during the LUC inspections, then these wastes, along with their approved waste handling procedures, will be added to this EPP via the Field Change Request Process.

2.1 Common Trash

Common trash, including sanitary waste, may be generated and/or encountered during the LUC inspections. This waste stream will be containerized or bagged and disposed of in on-site general waste dumpsters at the U.S. Navy's Operable Unit (OU) 1 Area 6 Treatment Facility.

2.2 Personal Protective Equipment

PPE will be disposed of at the completion of the field activities. PPE is not anticipated to be contaminated with hazardous materials and is not considered hazardous waste. PPE (even if lightly contaminated) will be containerized or bagged and disposed of in on-site general waste dumpsters (i.e., with the common trash) at the U.S. Navy's OU 1 Area 6 Treatment Facility.

2.3 Miscellaneous Debris

Miscellaneous debris, including but not limited to wood, metal debris, and garbage, may be encountered during the LUC inspections. If practicable, the debris material will be placed in an available general trash dumpster or stored in a designated collection container and brought to the U.S. Navy's OU 1 Area 6 Treatment Facility for disposal.

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3.0 Spills or Release Notification Procedures

The spill or release notification procedure applies to a spill of any hazardous substance (including any petroleum, oil, or lubricants) of any quantity that occurs during the LUC inspections.

It is not anticipated that a spill or release will be observed during the LUC inspections, as no intrusive work is planned as part of the inspections. In the event that a spill is observed, the procedures discussed below will be followed.

3.1 Emergency Spills Event

An emergency spill event is defined as a spill that:

- Presents an immediate threat to human health, property, or the environment;
- Is a substance that is unknown to the person discovering the spill;
- Has entered or has the immediate potential to enter a waterway or drain (e.g., storm drain, sewer manhole, gradient path);
- Requires the cleanup assistance of an outside source or government agency; and/or
- Is greater than 55 gallons.

If the spill is an **emergency spill event**, then on-site personnel must immediately notify the Liberty JV FOL or Site Safety and Health Officer (SSHO). If the physical and/or chemical properties of the spilled material are unknown or there is a threat to human health or the environment, then the area will be evacuated immediately. Personnel will be restricted from the immediate area and instructed to remain upwind. If fuel is spilled, then the spill will be treated as having a flammable atmosphere, any introduction of an ignition source will be controlled, and ventilation will be used as a control measure during cleanup. Initial spill containment and cleanup will be attempted only if activities can be conducted without endangering the health and safety of personnel.

Immediately after the initial emergency spill is controlled, the Liberty JV TOM (or designee) will notify the NAVFAC Northwest RPM and NTR, who will notify the NAS Whidbey Island Environmental Department Manager and HAZWASTE Program Manager. Liberty JV will assist the U.S. Navy in reporting the spill to the appropriate regulatory agency (i.e., Washington State Department of Ecology [Ecology] or National Response Center).

Table 2 provides the contact information for notification of an emergency spill. This contact information and associated emergency spill procedures will be posted on site or in an on-site vehicle and discussed during each tailgate safety meeting.

Table 2: Contact Information for Emergency Spill Notifications

Contact	Title	Affiliation	Telephone Number
Teresa Wilson	Program Manager	Liberty JV	(360) 936-8639 (mobile)
Chelsea Foster	TOM/FOL		(360) 820-3400 (mobile)
Josh Sandige	SSHO		(707) 954-3607 (mobile)
Tre Wilson	Health, Safety, and Environment Representative		(316) 202-9030 (mobile)
Christie Kroskie	RPM	NAVFAC Northwest	(360) 364-7522 (mobile)
Steven Skeehan	NTR		(360) 396-1114 (office) (253) 279-0212 (mobile)
Laura Muhs	Installation Environmental Department Director	NAS Whidbey Island	(360) 257-4025

Spill reporting and notification requirements are as follows:

- **Hazardous Substance Releases:** Any release of a hazardous substance must be reported as soon as the person has knowledge of the discharge.
- **Petroleum, Oil, or Lubricants Releases:**
 - To water: Any release to water must be reported as soon as the person has knowledge of the discharge.
 - To land: Any release greater than 55 gallons must be reported as soon as the person has knowledge of the discharge. Any release greater than 10 gallons, but less than 55 gallons, must be reported within 48 hours of the time when the person first has knowledge of the discharge. A person in charge of a facility or operation shall maintain a written record of any discharge from 1 to 10 gallons and provide it to Ecology on a monthly basis.
 - To impermeable secondary containment areas: Any release greater than 55 gallons must be reported within 48 hours of the time when the person first has knowledge of the discharge.

The telephone numbers for the regulatory agencies are listed below:

Ecology: (800) 258-5990
National Response Center: (800) 424-8802

The report to the agencies should indicate the following:

- Name, address, and United States Environmental Protection Agency identification number (if applicable) of the generator;
- Date, time, and type of incident;
- Quantity and type of hazardous waste involved;
- Extent of injuries, if any; and
- Quantity and properties or characteristics of any recovered materials.

3.2 Non-Emergency Spills Event

A non-emergency spill event is defined as follows:

- Spill that is not an immediate threat to human health, property, or the environment;
- Spill of a material known to the person discovering the spill;
- Spill that has not entered (and does not have the immediate potential of entering) a waterway or drain;
- Spill that can be cleaned up safely by site personnel without assistance from a government agency; and/or
- Spill that is less than 55 gallons of a known substance.

If the spill is a non-emergency spill event, site personnel will identify and secure the source of the spill to prevent further discharge. The person discovering the spill will notify the Liberty JV FOL or SSHO as soon as possible after initiating spill response procedures and controlling the situation. Spilled material will be contained and diverted away from all waterways and drains. Proper PPE will be worn while containing and cleaning up any spilled material. All contaminated materials (e.g., PPE, sorbents, boom, etc.) and any free product will be containerized or bagged for proper disposal.

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4.0 References

Liberty JV. 2020. Final Land Use Controls Implementation Plan, Naval Air Station Whidbey Island, Oak Harbor, Washington and Naval Ocean Processing Facility Coos Head, Charleston, Oregon. December. Contract No. N44255-20-D-5006; Task Order No. N44255-20-F-4289.

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**Attachment 1:
Land Use Controls Inspection Checklists**

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**NAS Whidbey Island
 Oak Harbor, WA
 OU 1, Area 5: Highway 20/
 Hoffman Road (Surface) Landfill**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities and playgrounds.

Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation.

Prevent installation of on-site drinking water wells.

Deed restrictions in future property deeds.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN FOLLOWED. YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)? YES NO NA
 IS SIGNAGE INTACT AND READABLE? YES NO NA
 INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 1, Area 6: Current (1969-
 1980s) Landfill**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities and playgrounds.
 No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans. Protect existing monitoring wells.
 No use of groundwater from, or downgradient of, the area except for monitoring and remediation as approved by U.S. EPA and Ecology.
 Review the Island County Public Health Hydrogeology Datasystem biannually for well installation activities and/or groundwater use within the 1-mile buffer of Area 6.
 Prevention of any disturbance to the landfill cap, except as necessary for authorized cap maintenance activities.
 Prevent installation of on-area drinking water wells by deed restrictions in future property deeds.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR DOWNGRADIANT WELL INSTALLATION OR GROUNDWATER USE? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ SECURITY CHECK OTHER WELL INSPECTIONS SEE WELL INSPECTION LOGS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIANT OF THE SITE? (ISLAND COUNTY CONTACT REQUIRED) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ SECURITY CHECK OTHER WELL INSPECTIONS SEE WELL INSPECTION LOGS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE? (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR ANNUAL ON-SITE INSPECTIONS) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ SECURITY CHECK OTHER WELL INSPECTIONS SEE WELL INSPECTION LOGS

FINDINGS:

NAS Whidbey Island, Oak Harbor, WA

OU 1, Area 6: Current (1969-1980s) Landfill

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN FOLLOWED.

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

- YES
- NO
- SITE WALK
- INTERVIEW W/
- SECURITY CHECK
- OTHER

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE THAT THE LNDIFILL CAP INTEGRITY HAS BEEN COMPROMISED?

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

- YES
- NO
- SITE WALK
- INTERVIEW W/
- SECURITY CHECK
- OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)?

IS SIGNAGE INTACT AND READABLE?

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

- YES
- NO
- NA
- YES
- NO
- NA
- SITE WALK
- INTERVIEW W/
- SECURITY CHECK
- OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 2, Area 2: Western
 Highlands Landfill**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Use restrictions to prevent ground disturbance via digging and/or construction activities in the area of former construction debris landfill.

Possible deed restrictions in future property deeds.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADEMENT WELL INSTALLATION OR GROUNDWATER USE?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADEMENT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL
 DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN
 FOLLOWED.

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 2, Area 3: 1969-1970 Landfill**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Use restrictions to prevent ground disturbance via digging and/or construction activities in the area of former construction debris landfill.

Possible deed restrictions in future property deeds.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADIANT WELL INSTALLATION OR GROUNDWATER USE? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIANT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL
 DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN
 FOLLOWED. YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)? YES NO NA
 IS SIGNAGE INTACT AND READABLE? YES NO NA
 INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 2, Area 4: Walker Barn Storage
 Area**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.
 No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.
 No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.
 Protect existing monitoring wells.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADIANT WELL INSTALLATION OR GROUNDWATER USE? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIANT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)? YES NO NA
 IS SIGNAGE INTACT AND READABLE? YES NO NA
 INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 2, Area 29: Clover Valley Fire
 School**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.
 No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.
 Protect existing monitoring wells.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADIENT WELL INSTALLATION OR GROUNDWATER USE? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIENT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL
 DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN
 FOLLOWED. YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)? YES NO NA
 IS SIGNAGE INTACT AND READABLE? YES NO NA
 INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



NAS Whidbey Island
Oak Harbor, WA
OU 3, Area 16: Runway Ditches

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

Limit adjoining ditch banks to disposal of dredged sediments meeting MTCA Industrial Soils criteria and/or industrial use.

Deed restrictions for industrial use.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
Oak Harbor, WA
OU 4, Areas 48/49: Seaplane Base
Landfill**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities and playgrounds.

Use restrictions to prevent ground disturbance via excavation or other ground disturbing activities in the area of former construction debris landfill.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN FOLLOWED.

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 5, Area 1: Former Beach Landfill**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Use restrictions to prevent ground disturbance via disturbance and/or construction activities in the area of former debris landfill.

Ensure that shoreline armoring is in place and functioning as intended.

Annual visual inspection of the shoreline armoring and perform repairs, if warranted.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR DOWNGRADIENT WELL INSTALLATION OR GROUNDWATER USE? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIENT OF THE SITE? (ISLAND COUNTY CONTACT REQUIRED) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE? (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR ANNUAL ON-SITE INSPECTIONS) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)? YES NO NA
 IS SIGNAGE INTACT AND READABLE? YES NO NA
 INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

SECURITY CHECK OTHER _____

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 5, Area 31: Former Runway Fire
 Training School**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.
 No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.
 No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.
 Protect existing monitoring wells.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR DOWNGRADIENT WELL INSTALLATION OR GROUNDWATER USE? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIENT OF THE SITE? (ISLAND COUNTY CONTACT REQUIRED) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE? (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR ANNUAL ON-SITE INSPECTIONS) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____
 WELL INSPECTIONS _____
 SEE WELL INSPECTION LOGS _____

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)? YES NO NA
 IS SIGNAGE INTACT AND READABLE? YES NO NA
 INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/ _____
 SECURITY CHECK OTHER _____

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 OU 5, Area 52: Jet Engine Test Cell**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

In the event of property transfer include (future) deed covenants to restrict land use and drinking water well construction.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADIANT WELL INSTALLATION OR GROUNDWATER USE? YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS

FINDINGS: SEE WELL INSPECTION LOGS

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIANT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS

FINDINGS: SEE WELL INSPECTION LOGS

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS) YES NO
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS

FINDINGS: SEE WELL INSPECTION LOGS

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)? YES NO NA
 IS SIGNAGE INTACT AND READABLE? YES NO NA
 INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 Site 22, Hangar 5**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL
 DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN
 FOLLOWED.
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADE WELL INSTALLATION OR GROUNDWATER USE?
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADE OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED)
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS)
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)?
 IS SIGNAGE INTACT AND READABLE?
 INSPECTION PERFORMED (CHECK ALL THAT APPLY)

YES NO NA
 YES NO NA
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 MRP Site: Site EO354, Former
 MGRs B & C**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that site is used for non-residential purposes only; non-residential land uses may include recreational, industrial, commercial, office, and educational uses.

Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN FOLLOWED.

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



NAS Whidbey Island
Oak Harbor, WA
MRP Site: Site EO354, Former MTTR

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that site is used for non-residential purposes only; non-residential land uses may include recreational, industrial, commercial, office, and educational uses.

Ensure that all disturbed or excavated soils at or from the area are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION? YES NO
INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN FOLLOWED. YES NO
INSPECTION PERFORMED? (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)? YES NO NA
IS SIGNAGE INTACT AND READABLE? YES NO NA
INSPECTION PERFORMED (CHECK ALL THAT APPLY) SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 Site 36, Former Fuel Farm 1**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains industrial with restricted recreational land use limited to the Upper Area along paved footpaths with traffic confined to specific areas, signs, and barrier vegetation and along paved athletic areas.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation

Maintain controlled access and security fencing for Tank 226 and the Resource Conservation and Recovery Act satellite accumulation point.

Deed restrictions placing limiting conditions on property conveyance; prohibiting well construction; restricting land use and construction activity; and requiring notification of EPA, Ecology, or their designees of intent to transfer interest in the property, modify land use, or implement construction activity and the requirement of agency approvals for such actions.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADIANT WELL INSTALLATION OR GROUNDWATER USE?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIANT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL
 DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN
 FOLLOWED.

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 Site 35, Former Fuel Farm 2**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that site is used for non-residential purposes only, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation

Deed restrictions placing limiting conditions on property conveyance; prohibiting well construction; restricting land use and construction activity; and requiring notification of EPA, Ecology, or their designees of intent to transfer interest in the property, modify land use, or implement construction activity and the requirement of agency approvals for such actions.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRAIENT WELL INSTALLATION OR GROUNDWATER USE?
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRAIENT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED)
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS)
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL
 DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN
 FOLLOWED.
 INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

YES NO
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)?
 IS SIGNAGE INTACT AND READABLE?
 INSPECTION PERFORMED (CHECK ALL THAT APPLY)

YES NO NA
 YES NO NA
 SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 Site 13, Former Fuel Farm 3**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or excavation

Deed restrictions placing limiting conditions on property conveyance; prohibiting well construction; restricting land use and construction activity; and requiring notification of EPA, Ecology, or their designees of intent to transfer interest in the property, modify land use, or implement construction activity and the requirement of agency approvals for

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR DOWNGRAIDENT WELL INSTALLATION OR GROUNDWATER USE?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRAIDENT OF THE SITE? (ISLAND COUNTY CONTACT REQUIRED)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE? (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR ANNUAL ON-SITE INSPECTIONS)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN FOLLOWED.

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
 Oak Harbor, WA
 Site 11, Former Fuel Farm 4**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

No use of groundwater from, or downgradient of, the area except for monitoring and remediation, except as approved by U.S. EPA and Ecology.

No downgradient well drilling except for monitoring wells and/or remediation system wells authorized by U.S. EPA and Ecology in approved plans.

Protect existing monitoring wells.

Ensure that all disturbed or excavated soils at or from the site are properly categorized and disposed of, and that workers are protected during any such disturbance or

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

IS THERE VISUAL EVIDENCE OF UNAUTHORIZED ON-SITE OR
 DOWNGRADIENT WELL INSTALLATION OR GROUNDWATER USE?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

HAVE ANY WELL CONSTRUCTION APPLICATIONS BEEN SUBMITTED TO OR
 APPROVED BY ISLAND YES NO COUNTY IN AREAS DOWNGRADIENT OF THE
 SITE? (ISLAND COUNTY CONTACT REQUIRED)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

ARE ALL MONITORING WELLS IN GOOD CONDITION AND ACCESSIBLE?
 (REFER TO COMPLETED MONITORING WELL INSPECTION CHECKLISTS OR
 ANNUAL ON-SITE INSPECTIONS)

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER
 WELL INSPECTIONS
 SEE WELL INSPECTION LOGS

FINDINGS:

IS THERE VISUAL OR ADMINISTRATIVE EVIDENCE OF EXCAVATION OR SOIL
 DISTURBANCE? IF SO, DETERMINE IF SITE APPROVAL PROCESS HAS BEEN
 FOLLOWED.

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT
 REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:



**NAS Whidbey Island
Oak Harbor, WA
Site 45, TCE Tank**

LAND USE CONTROLS (LUCs) INSPECTION CHECKLIST

DATE(S) (MM|DD|YY):

INSPECTOR(S):

COMPANY:

LAND USE CONTROLS:

Ensure that land use remains commercial and/or industrial, which includes a prohibition on development and use of this property for residential housing, elementary and secondary schools, child-care facilities, and playgrounds.

INSPECTION CHECKLIST

HAS SITE OR ADJACENT LAND USE CHANGED SINCE LAST INSPECTION?

YES NO

INSPECTION PERFORMED? (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

HAS ACCESS CONTROL BEEN MAINTAINED (REFER TO SECURITY INCIDENT REPORTS)?

YES NO NA

IS SIGNAGE INTACT AND READABLE?

YES NO NA

INSPECTION PERFORMED (CHECK ALL THAT APPLY)

SITE WALK INTERVIEW W/
 SECURITY CHECK OTHER

FINDINGS:

ADDITIONAL COMMENTS:

I CERTIFY THAT THE CONDITIONS OF THE AREA ON THE INSPECTION DATES(S) WERE AS REPORTED ABOVE.

INSPECTOR SIGNATURE:

DATE:

**Attachment 2:
Groundwater Monitoring Well Visual Inspection Checklist**

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**NAS Whidbey Island
 Oak Harbor, WA
 Naval Facilities Engineering Command Northwest**

GROUNDWATER MONITORING WELL VISUAL INSPECTION CHECKLIST

DATE(S) (MM DD YY):	TIME (HH:MM):	WEATHER/TEMPERATURE:
INSPECTOR(S):		COMPANY:
OU AND SITE:	DESCRIPTION:	
WELL ID:	NORTHING:	EASTING:

INSPECTION CHECKLIST

MONITORING WELL LOCATED?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
WELL CLEARLY LABELED?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
MONUMENT IN GOOD CONDITION?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
TYPE OF WELL CASING:	<input type="checkbox"/> STICK-UP	<input type="checkbox"/> FLUSH-MOUNT	<input type="checkbox"/> OTHER:
SIZE & NUMBER OF BOLTS ON FLUSH-MOUNT LID:	_____		
SURROUNDING SURFACE MATERIAL:	<input type="checkbox"/> CONCRETE	<input type="checkbox"/> ASPHALT	<input type="checkbox"/> SOIL
	<input type="checkbox"/> OTHER: _____		
CONCRETE APRON:	<input type="checkbox"/> NOT PRESENT	<input type="checkbox"/> SLOPING AWAY	<input type="checkbox"/> SUNKEN
LID CONDITION (STICKUP WELL ONLY):	<input type="checkbox"/> INTACT AND LOCKABLE	<input type="checkbox"/> DAMAGED	
NUMBER OF BOLLARDS:	_____		
BOLLARD CONDITION:	<input type="checkbox"/> NOT PRESENT	<input type="checkbox"/> STILL PLUMB	<input type="checkbox"/> DAMAGED: _____
CASING DIAMETER:	<input type="checkbox"/> 2"	<input type="checkbox"/> 4"	<input type="checkbox"/> 6"
	<input type="checkbox"/> 8"	<input type="checkbox"/> OTHER: _____	
IS THE CASING IN GOOD CONDITION?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
IS THERE A CAP ON THE MONITORING WELL?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
TYPE OF CAP:	<input type="checkbox"/> PVC SLIP CAP	<input type="checkbox"/> J-PLUG	<input type="checkbox"/> EXPANSION
	<input type="checkbox"/> PRODUCTION W/TUBING	<input type="checkbox"/> OTHER: _____	
LOCK MATERIAL:	<input type="checkbox"/> BRASS	<input type="checkbox"/> STAINLESS STEEL	<input type="checkbox"/> OTHER: _____
LOCK SHANK LENGTH (estimated):	_____ INCHES		
LOCK LOCATION:	<input type="checkbox"/> WELL CAP	<input type="checkbox"/> MONUMENT	<input type="checkbox"/> BOTH
ANY EVIDENCE OF TAMPERING WITH THE WELL CASING OR CAP?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
ANY ODORS?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
IF YES, DESCRIBE ODOR:	<input type="checkbox"/> SOLVENT	<input type="checkbox"/> HYDROGEN SULFIDE/ROTTEN EGGS	
	<input type="checkbox"/> PETROLEUM	<input type="checkbox"/> OTHER: _____	
WERE PICTURES TAKEN?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

COMMON DEFICIENCIES

COMMON DEFICIENCIES:	<input type="checkbox"/> MISSING LOCK	<input type="checkbox"/> RUSTY STICK-UP
	<input type="checkbox"/> RUSTY BOLLARDS	<input type="checkbox"/> MISSING BOLTS
		NUMBER OF BOLTS MISSING: _____

ADDITIONAL NOTES OR COMMENTS ON CONDITION

GENERAL CONDITION (CHECK ONE):

GOOD MODERATE POOR

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**Attachment 3:
Field Change Request Form**

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 NAS Whidbey Island Oak Harbor, WA Naval Facilities Engineering Command Northwest		
FIELD CHANGE REQUEST FORM		
DELIVERY ORDER NAME:	DELIVERY ORDER NUMBER:	CHANGE REQUEST NUMBER:
TO NAVY NTR/RPM/COR:	LOCATION:	DATE:
DESCRIPTION:		
<input type="checkbox"/> MINOR CHANGE <input type="checkbox"/> MAJOR CHANGE		
REASON FOR CHANGE:		
RECOMMENDED DISPOSITION (SUBMIT SKETCH, IF APPLICABLE):		
PREPARER (SIGNATURE):	TITLE:	DATE:
SITE SUPERINTENDENT (SIGNATURE):	DATE:	
DISPOSITION:		
<input type="checkbox"/> NOT APPROVED (PROVIDE REASON) <input type="checkbox"/> CONSIDERED MINOR CHANGE (APPROVED PER RECOMMENDED DISPOSITION) <input type="checkbox"/> CONSIDERED MAJOR CHANGE - NAVY APPROVAL REQUIRED VIA CONTRACT MODIFICATION		
CONTRACTOR PROJECT MANAGER (SIGNATURE):		DATE:
<input type="checkbox"/> NO COMMENT <input type="checkbox"/> COMMENTS ATTACHED		
CONTRACTOR HEALTH AND SAFETY MANAGER (SIGNATURE):		DATE:
<input type="checkbox"/> NO COMMENT <input type="checkbox"/> COMMENTS ATTACHED		
CONTRACTOR QC REVIEWER (SIGNATURE):		DATE:
<input type="checkbox"/> NO COMMENT <input type="checkbox"/> COMMENTS ATTACHED		
NAVFAC NW NTR (SIGNATURE):		DATE:
<input type="checkbox"/> NO COMMENT <input type="checkbox"/> COMMENTS ATTACHED		
NAVFAC NW RPM (SIGNATURE):		DATE:
<input type="checkbox"/> NO COMMENT <input type="checkbox"/> COMMENTS ATTACHED		

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**Attachment 4:
Responses to EPA Comments on Draft**

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

SUPERFUND &
EMERGENCY
MANAGEMENT DIVISION

August 12, 2024

**USEPA Region 10
Review/Comments**

Project Site: NAS Whidbey Island

DOCUMENTS: Draft 2024 Land Use Controls Inspection Work Plan
Naval Air Station Whidbey Island, Oak Harbor, Washington, and Naval Ocean
Processing Facility Coos Head, Charleston, Oregon July 2024

USEPA Reviewer: Chan Pongkhamsing

General Comment:

This Land Use Control Inspection Work Plan is congruent with the December 2020 Final Land Use Controls Implementation Plan (LUCIP). EPA does not have further comments.

However, the 2020 LUCIP does state, "This LUCIP will be reviewed annually and revised as required by NAS Whidbey Island and/or NAVFAC Northwest to maintain compliance with LUCs." I don't think that we've updated the LUCIP since 2020 and therefore, I think we may need to review and perhaps, update as necessary.

Furthermore, EPA is only reviewing LUCs for NAS Whidbey Island. Therefore, EPA recommends having a stand alone LUC Implementation Plan, LUC Inspection Work Plan, and LUC Inspection Report for NASWI.

**CHAN
PONGKHAMSI
NG**

Digitally signed by
CHAN PONGKHAMSI
Date: 2024.08.12
16:29:30 -07'00'

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