PROPOSED PLAN

UXO 21 (Test Area 1)

U.S. NAVY ANNOUNCES THE UXO 21 PROPOSED PLAN

Naval Support Facility Indian Head
Indian Head, Maryland

1 INTRODUCTION

This **Proposed Plan** provides the rationale and basis for the final remedy of **No Action** at **Munitions Response Site (MRS) Unexploded Ordnance** (UXO) 21 (Test Area 1) at Naval Support Facility Indian Head (NSFIH), Maryland.

The U.S Department of the Navy, the lead agency for site activities, and the **U.S. Environmental Protection Agency Region 3 (EPA),** the lead regulatory agency, in consultation with the Maryland Department of Environment (MDE), propose **No Action** based on environmental investigation findings for UXO 21. No **chemicals of concern (COCs)** were retained for site soils, and there are no sources of **munitions and explosives of concern (MEC)** associated with UXO 21; therefore, the **human health risk assessment (HHRA)** and **ecological risk assessment (ERA)** performed during the **Remedial Investigation (RI)** indicated that risks to potential receptors are acceptable under an unlimited use and unrestricted exposure (UU/UE) scenario. This Proposed Plan summarizes the results of environmental investigations to support the No Action recommendation.

This Proposed Plan was prepared to satisfy the public participation requirements under Section 117(a) of the **Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA),** as amended, and Title 40 of the Code of Federal Regulations (CFR), Section 300.430(f)(2) of the **National Oil and Hazardous Substances Pollution Contingency Plan (NCP).** Environmental reports associated with UXO 21 are available for review in the **Administrative Record** for NSFIH.

The Navy and EPA, in consultation with MDE, will make a final decision on the No Action recommendation for UXO 21 after reviewing and evaluating comments submitted during the 30-day public **comment period**. Community involvement is crucial, and the public is strongly encouraged to review and comment on this Proposed Plan. The Navy will summarize and respond to key comments received during the comment period and during the in-person public meeting in a document called the **Responsiveness Summary,** which may influence the No Action recommendation. The Navy and EPA, in consultation with MDE, will document the final remedy in the **Record of Decision (ROD)**. The Responsiveness Summary will be included with the ROD.

MARK YOUR CALENDAR

Public Comment Period
April 1 – 30, 2024

Submit Written Comments
The Navy will accept written comments on the Proposed Plan for UXO 21 during this 30-day public comment period. To submit comments or obtain further information, reach out to the appropriate point of contact provided in Section 6.

Attend the In-Person Public Meeting
April 16, 2024, from 5:00 p.m. to 7:00 p.m.

Indian Head Senior Center
100 Cornwallis Square
Indian Head, MD 20640

The public comment period will include a public meeting poster session during which the Navy, EPA, and MDE will share background information and environmental report findings that support a no action recommendation for UXO 21.

FOR MORE INFORMATION, VISIT THE FOLLOWING INFORMATION REPOSITORIES

Indian Head Town Hall
4195 Indian Head Highway
Indian Head, MD 20640
301-743-5511
Hours: M-F 8:30 a.m. to 4:30 p.m.

Charles County Public Library
2 Garrett Avenue
La Plata, MD 20646-5959
301-934-9001
Hours: M-TH 9:00 a.m. to 8:00 p.m.
Friday 1:00 p.m. to 5:00 p.m.
Saturday 9:00 a.m. to 5:00 p.m.

NSFIH General Library
Building 620 / Library
4163 North Jackson Road
Indian Head, MD 20640-5117
301-744-4850
Hours: Monday 7:00 a.m. to 5:00 p.m.
T-F 7:00 a.m. to 3:00 p.m.

Note: **Boldfaced terms** are defined in Section 8.

2 SITE BACKGROUND

NSFIH is located in Charles County, Maryland, approximately 25 miles south of Washington, DC, and is comprised of two non-contiguous properties: the Indian Head Main Installation and Stump Neck Annex (Figure 1).

UXO 21 is an approximate 4.5-acre wooded MRS located near the center of Stump Neck Annex (Figure 2). The MRS is circumscribed by a fence with an entry point located on Roach Road. UXO 21 is presently overgrown with hardwood forest vegetation.

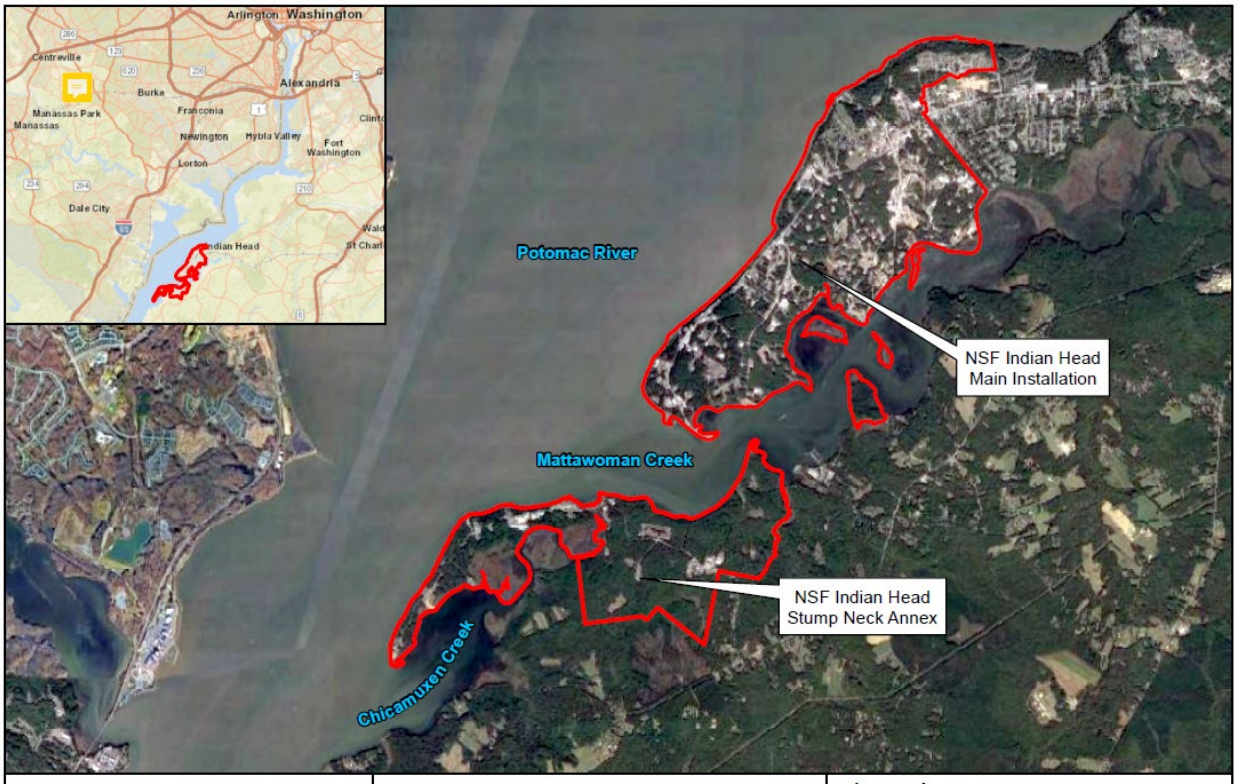
The area occupied by UXO 21 was used by the Naval Explosive Ordnance Disposal (EOD) Technical Center from 1953 through the 1990s. EOD Technicians used the area for testing and evaluating inert munitions configured with small charges of bulk explosives to simulate detonations. During the 1960s and 1970s, the area was used for Advanced Access and Disarmament Training. In the 1980s, the property was used for improvised explosive device and improvised nuclear device training. The training items were inert except for small charges located a short distance from the training item. During the 1990s, the area was used primarily for robotics testing.

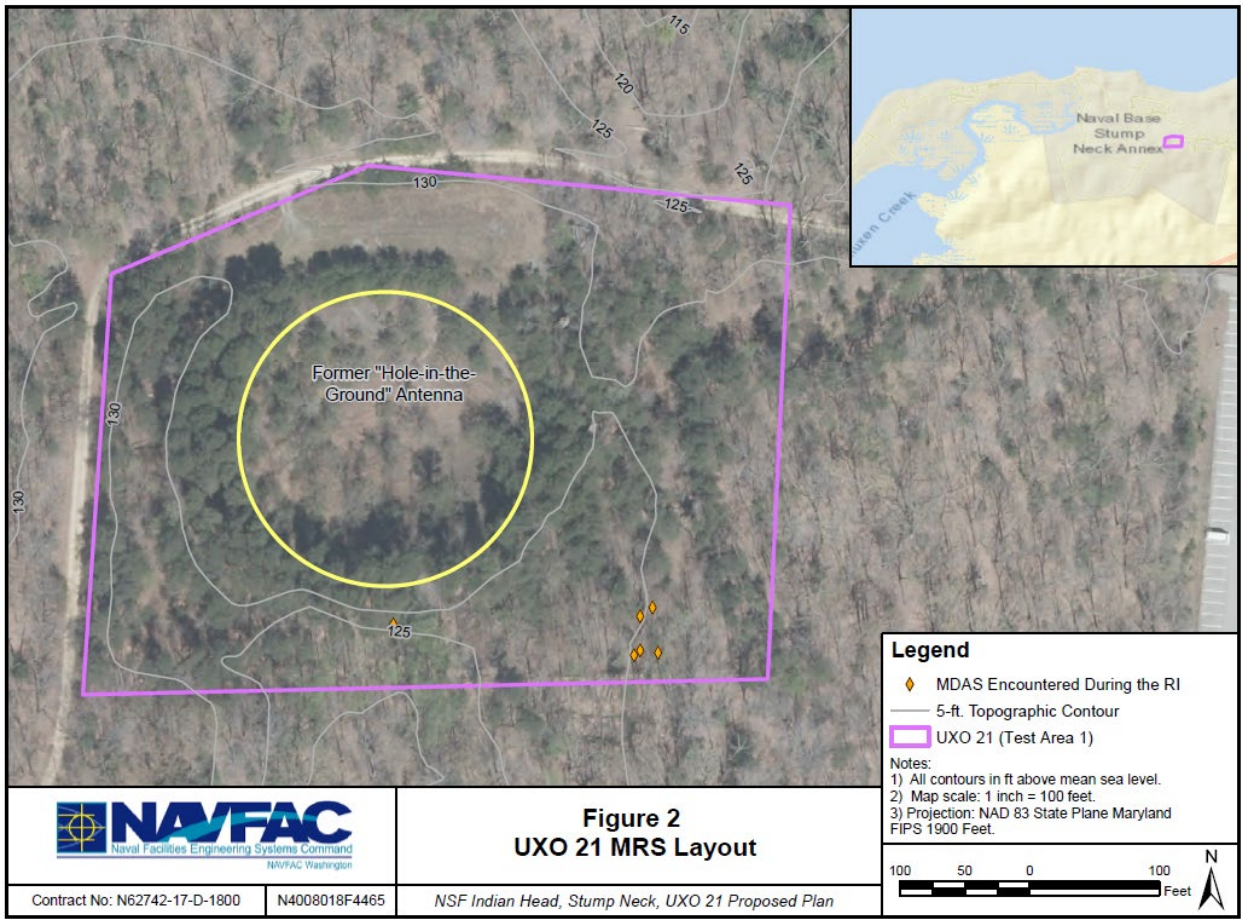
2.1 Environmental Investigation History

Four environmental investigations were conducted between 2005 and 2020 to evaluate UXO 21.

2.1.1 2005 Preliminary Assessment

In 2005, a non-intrusive survey was performed by walking around the perimeter of UXO 21; no MEC was observed on the ground surface (Malcolm Pirnie, Inc. 2005).





2.1.2 2010 Site Inspection

In 2010, a **Site Inspection (SI)** was performed at UXO 21 and consisted of a comprehensive investigation effort that included a geophysical survey, visual survey, and environmental sampling (TetraTech NUS, Inc. 2010).

A full coverage analog geophysical survey was performed for approximately 3.8 acres of the 4.5-acre site and a visual inspection for the remaining acreage. MEC was not recovered, but munitions-related items were encountered, which included:

- MK 7 dispenser (empty)
- MK 71 rocket motor casings (empty)

Forty-one composite surface soil samples were collected and analyzed for explosives; explosives were not detected in the composite surface soil samples.

2.1.3 2020 Remedial Investigation

From 2017 to 2019, an RI was performed to characterize the nature and extent of MEC and assess explosive hazards, if present (AECOM 2020b). The RI included a surface clearance, a geophysical survey to identify subsurface anomalies indicative of **material potentially presenting an explosive hazard (MPPEH)**, and intrusive investigation of subsurface anomalies to determine item deposition.

The geophysical survey identified 991 subsurface anomalies targeted for investigation over the 2.7-acre investigation footprint. Of the investigated anomalies, approximately 87 percent were categorized as non-munitions-related and non-hazardous. The 14 rocket motor casings initially identified during the 2010 SI were located in the southeastern area, determined to be empty and free of explosive material, and removed from the site. Five MPPEH items (including a practice blasting cap) were identified during the 2020 RI from the southeastern corner of UXO 21 and were inspected and determined to be free of explosive materials (Figure 2). One hundred percent of the MPPEH items encountered across UXO 21 were determined to

be free of explosives and documented as **material designated as safe (MDAS)**. All MDAS material was transported and disposed offsite.

Additionally, soil and **groundwater** samples were proposed for collection to determine whether historical activities resulted in the release of **munitions constituents (MC)** contamination. Because munitions were not encountered during the MEC investigation, environmental samples were not collected during the RI phase at UXO 21.

2.1.4 2020 Final Feasibility Study Technical Memorandum

The **Feasibility Study (FS)** Technical Memorandum established the basis for a No Action determination related to MEC and MC at UXO 21 (AECOM 2020a). Acceptable risks identified in the RI were summarized in the FS Technical Memorandum. The basis for No Action was supported because there were no unacceptable risks to receptors.

3 SITE CHARACTERISTICS

3.1 Physiography

The majority of UXO 21 consists of an abandoned moon relay communication antenna and two towers. The antenna is located within a man-made depression (Figure 2). The storage buildings and several other small structures used for robotics training have been demolished.

The geology of UXO 21 is a mixture of very fine sand, silt, and clay with some pebbles from the 0 to 2-foot below ground surface (bgs) interval. The closest surface waterbody is Mattawoman Creek, which lies approximately 2,000 feet to the north. **Surface water** runoff likely follows surface topography by flowing radially outward from the depression's rim and radially inward toward the center of the depression.

3.2 Nature and Extent of Contamination

3.2.1 Explosives

During the 2010 SI, 41 composite soil samples were collected at UXO 21 to characterize the extent of MC contamination in shallow soil. Samples were collected from 21 locations from two depth intervals: 0 to 0.5-foot bgs and 0 to 2 feet bgs. Explosives were not detected in shallow soils.

3.2.2 Munitions and Explosives of Concern

During the 2020 RI, a MEC clearance was performed to evaluate and remove MPPEH items from UXO 21. The surface clearance recovered 14 rocket motor casings, whereas the subsurface clearance investigated 991 anomalies. Eighty-seven percent of the subsurface anomalies were considered non-munitions-related materials, whereas the remaining anomalies were categorized as **material documented as safe (MDAS),** including the practice blasting cap. No MEC was encountered during the clearance activities.

4 SUMMARY OF SITE RISKS

4.1 Human Health Risk Assessment

Current on-site receptors evaluated in the HHRA include Navy personnel, site visitors, outdoor maintenance worker/contractors, utility workers, recreational users (child and adult), and youth and adult trespassers. Future on-site receptors evaluated include a construction worker and hypothetical resident (child and adult).

The HHRA performed in the RI phase did not identify unacceptable risks to potential receptors due to exposure from soils at UXO 21. The results of the HHRA indicate that the property is suitable for UU/UE.

4.2 Ecological Risk Assessment

The ERA concluded that there is adequate information to determine that ecological risks within UXO 21 are negligible to terrestrial wildlife communities and to soil macroinvertebrates.

5 BASIS FOR NO ACTION

The Navy and EPA, with concurrence from MDE, have determined that No Action is necessary to protect public health or welfare or the environment. The No Action recommendation meets the statutory requirements of CERCLA for protection of human health and the environment. Under this alternative, no response action will be performed at UXO 21, and no restrictions on land use are necessary.

UXO 21 is part of a comprehensive environmental investigation and cleanup program currently being performed at NSFIH under CERCLA. Investigation and assessments are being conducted for other Installation Restoration Program and Munitions Response Program sites at NSFIH in accordance with CERCLA, and separate CERCLA decision documents have

been or will be prepared for the other sites. This Proposed Plan addresses the evaluation of UXO 21 only and does not include or affect the investigation and/or cleanup of other sites at NSFIH under the CERCLA process.

6 COMMUNITY PARTICIPATION

The Navy and EPA share information regarding UXO 21 through public meetings, the Administrative Record, Information Repositories, and announcements published in newspaper(s) and social media. The Navy and EPA encourage the public to gain a more comprehensive understanding of UXO 21 and the investigation activities that have been conducted at the site since 2005.

The 30-day public comment period runs from April 1 through April 30, 2024. The public meeting poster session will be held on April 16, 2024, from 5:00 p.m. to 7:00 p.m. at the Indian Head Senior Center, 100 Cornwallis Square, Indian Head, Maryland. During the public meeting poster session information will be available regarding the UXO 21 investigation findings and the basis for No Action.

A record of the public meeting will be included in the Administrative Record file. Substantive comments received during the public meeting and 30-day public comment period will be summarized, and responses will be provided in the Responsiveness Summary section of the ROD. The ROD will state the final remedy for UXO 21 and will be included in the Administrative Record.

Written comments can be submitted via mail or email, and should be sent to the following Navy Public Affairs Officer:

Public Affairs Officer
Naval Support Facility South Potomac
Attn: Andrew Revelos
6509 Sampson Road, Building 101
Dahlgren, VA 22448-5176
Phone: 540-653-6012
Email: andrew.j.revelos.civ@us.navy.mil

For further information, please contact the following Remedial Project Managers for NSFIH:

Mr. Joseph Rail – Remedial Project Manager
Naval Facilities Engineering Systems Command Washington
1314 Harwood Street, SE
Washington Navy Yard, DC
20374-5018 Phone: 202-685-3123
Email: joseph.p.rail.civ@us.navy.mil

Mr. Andrew Louder – MRP Manager
Naval Support Facility Indian Head
Environmental Program Office (Building 554)
3972 Ward Road, Suite 101
Indian Head, MD 20640-5157
Phone: 301-744-2262
Email: andrew.r.louder.civ@us.navy.mil

Mr. Robert Thomson – Remedial Project Manager
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Four Penn Center
1600 John F. Kennedy Boulevard
Federal Facilities, (3SD11).
Philadelphia, PA 19103-2852
Phone: 215-814-3357
Email: thomson.bob@epa.gov

Mr. Russell Ashley, P.G.– Remedial Project Manager
Federal Facilities Installation Restoration Program
Land and Materials Administration
Maryland Department of the Environment
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Baltimore, MD 21230-1719
Phone: 410-537-3418
Email: russell.ashley@maryland.gov

7 REFERENCES

AECOM. 2020. *Feasibility Study Report, Munitions Response Program Site, Unexploded Ordnance (UXO) 21, Stump Neck Annex, Naval Support Facility Indian Head, Maryland*. November.

Malcolm Pirnie, Inc. 2005. *Final Preliminary Assessment, Stump Neck Annex, Naval District Washington, Indian Head, Maryland*. September.

TetraTech NUS, Inc. 2010. *Site Inspection Report for Munitions Response Program MEC Site Inspections at Ten Munitions Ranges, Naval Support Facility Indian Head-Stump Neck Annex, Indian Head, Maryland*. September.

Resolution Consultants. 2020. *Remedial Investigation Report, Nine Munitions Response Program Sites, Stump Neck Annex, Naval Support Facility Indian Head, Maryland*. May.

8 GLOSSARY OF TERMS

Administrative Record: A record made available to the public that includes all information considered and relied upon in selecting a remedy for a site. The Administrative Record for NSFIH is available for review in the Information Repositories listed on page 1.

Chemical of Concern (COC): Chemicals that are retained after completion of an HHRA that may result in unacceptable risks to a receptor.

Comment Period: A time for the public to review and comment on various documents issued and actions taken, either by the Navy, EPA, or MDE. A minimum 30-day comment period is held to allow community members to review the Administrative Record file and provide comments on the Proposed Plan.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A federal law also known as "Superfund." CERCLA provides the authority and procedures for responding to releases of hazardous substances, pollutants, and contaminants from inactive hazardous waste disposal sites.

Ecological Risk Assessment (ERA): A conservative, scientific evaluation of the potential adverse effects on plants and animals if they are exposed to contamination at a site.

Feasibility Study: Environmental document that is prepared after an RI report and summarizes risks, develops remedial action objectives, and identifies and evaluates remedial alternatives to select a preferred alternative that when implemented would address site risks.

Groundwater: Water beneath the ground surface that fills pore spaces between materials such as sand, soil, or gravel to the point of saturation. In aquifers, groundwater can occur in quantities sufficient for drinking water, irrigation, and other uses. Groundwater may transport substances that have percolated downward from the ground surface as it flows toward its point of discharge.

Human Health Risk Assessment (HHRA): A conservative, scientific estimate of the potential adverse health effects on people if they are exposed to contamination at a site.

Material Documented as Safe (MDAS): MPPEH that has been assessed and documented as not presenting an explosive hazard and for which the chain of custody has been established and maintained. This material is no longer considered to be MPPEH.

Material Potentially Presenting an Explosive Hazard (MPPEH): Material that may contain explosives or munitions, or material containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g., equipment drainage systems, holding tanks, piping, or ventilation ducts associated with munitions production, demilitarization, or disposal operations).

Munition Response Site (MRS): A discrete area that is known to require a munitions response.

Munitions and Explosives of Concern (MEC): This term, which distinguishes specific categories of military munitions that may pose unique explosive safety risk, means: (a) UXO; (b) discarded military munitions; or (c) explosive MC (e.g., TNT) present in high enough concentrations to pose an explosive hazard.

Munitions Constituents (MC): Any materials originating from UXO, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The purpose of the National Oil and Hazardous Substances Pollution Contingency Plan is to enforce CERCLA, as amended. That is, to provide the organizational structure and procedures for preparing for, and responding to, discharges of oil and releases of hazardous substances, pollutants, or contaminants.

No Action: Cleanup actions are not necessary to be protective of human health and the environment.

Proposed Plan: A public participation requirement of CERCLA in which the lead government agency (the Navy in this case) summarizes the preferred cleanup strategy and rationale for the public. This agency also reviews the alternatives evaluated in the FS. The Proposed Plan may be prepared either as a fact sheet or as a separate document. In either case, it must actively solicit public review and comment on all alternatives under consideration.

Record of Decision (ROD): An official public document that explains which cleanup alternative(s) will be used at a National Priorities List site. The ROD is based on information and

technical analysis generated during the RI/FS and consideration of public comments and community concerns. The ROD explains the remedy selection process and is issued by the lead agency following the public comment period.

Remedial Investigation (RI): A study of a site that supports a final decision for a site where hazardous substances have potentially been disposed of or released. The RI identifies the nature and extent of contamination at the site and the associated risks.

Responsiveness Summary: Document that provides a comprehensive response to all major comments and concerns raised by the public about a site.

Site Inspection: An investigation that evaluates the extent to which a site presents a threat to human health or the environment by collecting and analyzing wastes and environmental media samples to determine whether hazardous substances are present at the site and are migrating to the surrounding environment.

Surface Water: Water naturally open to the atmosphere, including estuaries, lakes, ponds, reservoirs, rivers, and seas.

Unexploded Ordnance (UXO): Military munitions that (a) have been primed, fuzed, armed, or otherwise prepared for action; (b) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and (c) remain unexploded either by malfunction, design, or any other cause.

United States Environmental Protection Agency (EPA): The federal agency responsible for administration and enforcement of CERCLA (and other Federal environmental regulations) and has the final approval authority for the ROD.