

PROPOSED PLAN

Waugoshance Point Target, Emmet County, Michigan

Formerly Used Defense Site Project Number: E05MI124001

August 2020

Text in bold italics indicates that a word or phrase is included in the glossary at the end of this Proposed Plan.

INTRODUCTION AND PURPOSE

The U.S. Army Corps of Engineers (Corps) is presenting this **Proposed Plan** to allow the public the opportunity to review and comment on the proposed decision for No Action for the former Waugoshance Point Target munitions response site and to encourage community participation in the environmental process. This **Formerly Used Defense Site**, comprising approximately 1,947 acres, is in the westernmost portion of Wilderness State Park in Emmet County, Michigan (refer to Figure 1 on the following page). The Department of Interior owns the property, and the Michigan Department of Natural Resources, Parks and Recreation manages it for recreation and natural resource conservation. The proposed future use is the same. Based on the findings of the **Remedial Investigation** and previous studies, the Corps has determined there is no unacceptable risk to people or the environment from **munitions** or **munitions constituents** (the metals and explosives that comprise munitions) associated with the former Waugoshance Point Target Formerly Used Defense Site.

This Proposed Plan provides a brief description of the Remedial Investigation. It also provides the basis for supporting the No Action decision. The Corps will review and consider the information submitted during the public comment period. The Corps may modify its proposed decision for No Action based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed decision for No Action presented in this Proposed Plan.

The Corps is required under the **Comprehensive Environmental Response, Compensation, and Liability Act** to issue this Proposed Plan and seek public comment and participation under Section 300.430(f)(2) of the **National Oil and Hazardous Substances Pollution Contingency Plan**. The fieldwork for the Remedial Investigation, which took place from September to November 2017 and August to September 2018, forms the basis for the Proposed Plan recommendation. This Proposed Plan summarizes information that can be found in greater detail in the Remedial Investigation report and other project documents available for review at the Mackinaw Area Public Library located at 528 West Central Avenue, Mackinaw City, Michigan.

IMPORTANT DATES AND LOCATIONS

Public Comment Period:

August 27, 2020 – September 28, 2020

The Corps will accept comments on the Proposed Plan during the public comment period. Please submit your comments by emailing shatara.r.riis@usace.army.mil, calling 502-315-6769, or mailing them to the following address:

U.S. Army Corps of Engineers
Attention: Ms. Shatara Riis
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202

Comments received by 5:00 p.m. September 28, 2020, or postmarked by that day, will be reviewed and considered.

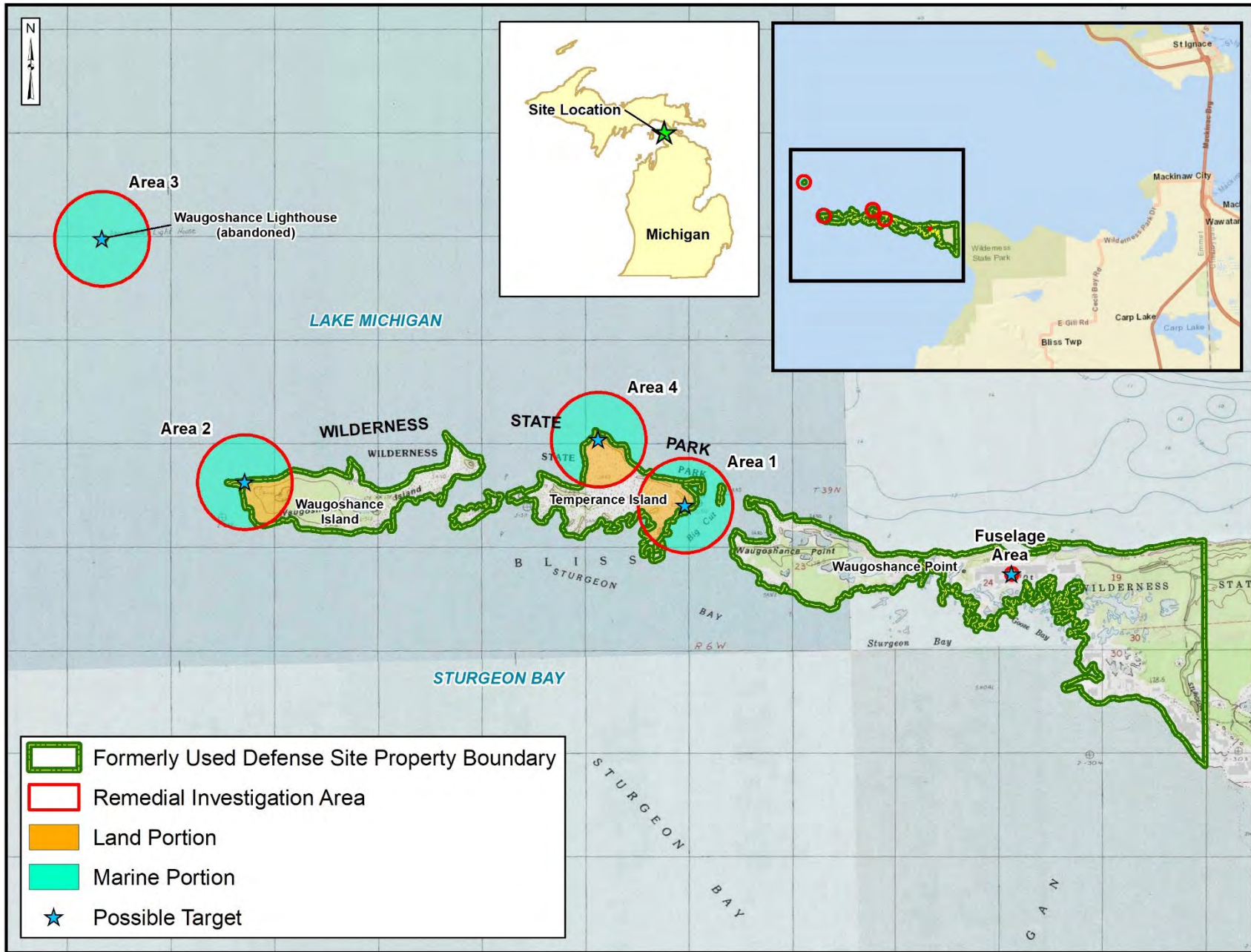
Public Meeting:

The Corps will present the Proposed Plan at a virtual public meeting on August 27, 2020 at 6 p.m. The presentation will be available following the meeting by emailing shatara.r.riis@usace.army.mil, calling 502-315-6769, or at the following website: <https://www.lrl.usace.army.mil/Missions/Environmental/Waugoshance-Point-Target/>

Oral and written comments will be accepted at the meeting. For more information and to view project documents, see the **Administrative Record** file at the following location:

Mackinaw Area Public Library
528 West Central Avenue
Mackinaw City, Michigan 49701

Figure 1: Waugoshance Point Target



PUBLIC INVOLVEMENT PROCESS

Community members and other interested parties are encouraged to review this Proposed Plan and submit comments. The Corps will consider public comments on the proposed decision for No Action before making a final determination for the former Waugoshance Point Target.

The Army is the lead agency for the Formerly Used Defense Sites Program. The Corps, on behalf of the Army and the Department of Defense, is the executing agent for the program and is responsible for environmental restoration of Formerly Used Defense Sites Program eligible properties as required by law. The Corps is responsible for investigating, reporting, and implementing remedial action related to Department of Defense activities at the former Waugoshance Point Target.

The Michigan Department of Environment, Great Lakes, and Energy (formerly referred to as the Michigan Department of Environmental Quality) and the Michigan Department of Natural Resources are the regulatory agencies for this project. Representatives from these agencies have been involved in the Remedial Investigation project and support the proposed decision for No Action.

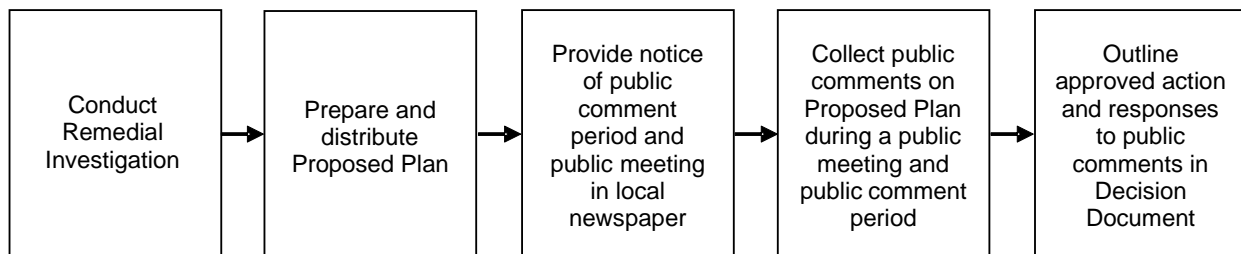
The Remedial Investigation report is part of the **Administrative Record** file that contains the documents used in making decisions for the former Waugoshance Point Target. The Administrative Record file is available for review at the Mackinaw Area Public Library located at 528 West Central Avenue, Mackinaw City, Michigan.

This Proposed Plan identifies and provides the basis for the proposed decision for No Action. The purposes of this Proposed Plan are to:

- Provide information about the site, its history, and current and future use.
- Identify and describe the proposed decision for No Action and explain the information supporting it.
- Encourage public review and comment on the proposed decision for No Action.
- Provide information on how the public can be involved in the environmental process.

The Corps will present its final decision in the **Decision Document**. Responses to public comments on this Proposed Plan will appear in the “Responsiveness Summary” section of the Decision Document. The flow chart shown below as Figure 2 summarizes the various steps in the development and approval process for the former Waugoshance Point Target Decision Document.

Figure 2: Public Participation Process



SITE BACKGROUND AND CHARACTERISTICS

Site Location and History

The former Waugoshance Point Target includes a peninsula of land that extends west into Lake Michigan, as well as a chain of small rock and gravel islands and an abandoned lighthouse. The site is located in the westernmost portion of Wilderness State Park, in Emmet County, Michigan, about 16 miles west of Mackinaw City and in the northeastern portion of Lake Michigan. The peninsula and chain of islands comprising the majority of the former Waugoshance Point Target separates the Straits of Mackinac to the north from Sturgeon Bay to the south. The Waugoshance Lighthouse is located northwest of the peninsula and chain of islands and marks the entrance to the Straits of Mackinac (refer to Figure 1).

The Navy used Waugoshance Point Target in support of Naval Air Station Traverse City, Michigan between 1944 and 1945. It was used as a target area for bomb tests and experiments with radio-controlled drone aircraft. Training activities, including equipment testing and scheduled bombing missions, as well as .30- and .50-caliber machine gun strafing practice from aircraft, were conducted within Waugoshance Point Target. Based on historical documentation, bombing training was conducted at the Waugoshance Point Target in four areas: the northern and eastern ends of Temperance Island, the western end of Waugoshance Island, and at the Waugoshance Lighthouse. For the machine gun training, two targets (i.e., shown in historical photographs as two upright rectangle-shaped objects with crosses appearing on them) were erected on opposite ends of Temperance Island. In October 1945, training activities ceased at the Naval Air Station Traverse City and the leased target areas, including Waugoshance Point Target, were no longer needed. In 1956, jurisdiction of the property was transferred to the Department of the Interior.

The areas formerly used for bombing and strafing, including the surrounding water, and the location of a drone fuselage are included in the area that was the focus of the Remedial Investigation. This Remedial Investigation Area includes a total of 652 acres (150.84 acres on land; 500.94 acres of water). Currently, the majority of the former Waugoshance Point Target is part of Wilderness State Park and is managed by the Michigan Department of Natural Resources, Parks and Recreation. Wilderness State Park offers visitors a variety of year-round recreational activities, as well as provides natural resource conservation. A number of recreational activities take place at the former Waugoshance Point Target include occasional hiking, hunting, fishing, boating, and swimming. The Waugoshance Lighthouse is abandoned, but efforts to preserve the lighthouse are planned by the Waugoshance Lighthouse Preservation Society who owns the lighthouse. The lighthouse has been listed on the National Register of Historic Places.

Previous Investigations

The Corps completed a series of investigations at the site to determine the potential presence of munitions and munitions constituents following the Comprehensive Environmental Response, Compensation, and Liability Act process, including the following:

- Inventory Project Report (2010)
- Preliminary Assessment/Site Inspection (2013)

The Inventory Project Report summarizes the historical use of the former Waugoshance Point Target as an aviation bombing and machine gun target area. The report provides details regarding the site visit and investigations performed in 2004 and 2005. During the 2004 site visit, an old aircraft frame was found in the Fuselage Area, and it was unclear if it was used as a target. In the 2005 Underwater Ordnance Disposal Operation After Action Report included in the Inventory Project Report, a limited investigation was conducted in the waters of Lake Michigan by the Navy. Munitions found included a torpedo warhead, one 500-pound bomb, and one 750-pound bomb in five to 12 feet of water near the Waugoshance Lighthouse. These items were determined to be inert sand-filled practice munitions and posed no hazard.

As part of the Preliminary Assessment/Site Inspection, an archive search was conducted, as well as a meandering path visual survey of portions of the former Waugoshance Point Target using a magnetometer. Based on the historical information obtained, gunnery and/or bombing training was conducted in four areas at the site: the northern and eastern ends of Temperance Island, the western end of Waugoshance Island, and at the Waugoshance Lighthouse. Missions prior to April 1945 were only conducted to demonstrate the functionality of aircraft and drones. No test bombings took place within this timeframe. Munitions use at the site was limited to the time period from April 1945 to August 1945. As part of these training activities, several drone and bomb tests occurred. In addition to the drone and bomb tests, .30- and .50-caliber machine gun practice from aircraft took place. During the Preliminary Assessment/Site Inspection visual survey, munitions debris from 100-lb practice bombs was observed near the western end of Waugoshance Island in a wooded area along the northern shoreline. No small arms ammunition was found at the target areas on Temperance Island. The Preliminary Assessment/Site Inspection recommended a Remedial Investigation at the Waugoshance Point Target, to include geophysical characterization for potential **munitions and explosives of concerns** and munitions constituents sampling, if warranted.

Remedial Investigation

The investigation focused on determining the types and concentrations of munitions on land and in the water within the four target areas identified in the Preliminary Assessment/Site Inspection, as well as the area where the aircraft frame was observed during the Inventory Project Report site visit:

- Area 1 – eastern end of Temperance Island (57.13 acres on land; 105.09 acres of water);
- Area 2 – Waugoshance Island (43.20 acres on land; 119.02 acres of water),
- Area 3 – Waugoshance Lighthouse (162.23 acres of water);
- Area 4 – northern end of Temperance Island (47.63 acres on land; 114.60 acres of water); and
- Fuselage Area – east of Waugoshance Point (2.88 acres on land).

Land and water areas required different survey methods due to varying site conditions. The Corps collected data using the following survey methods:

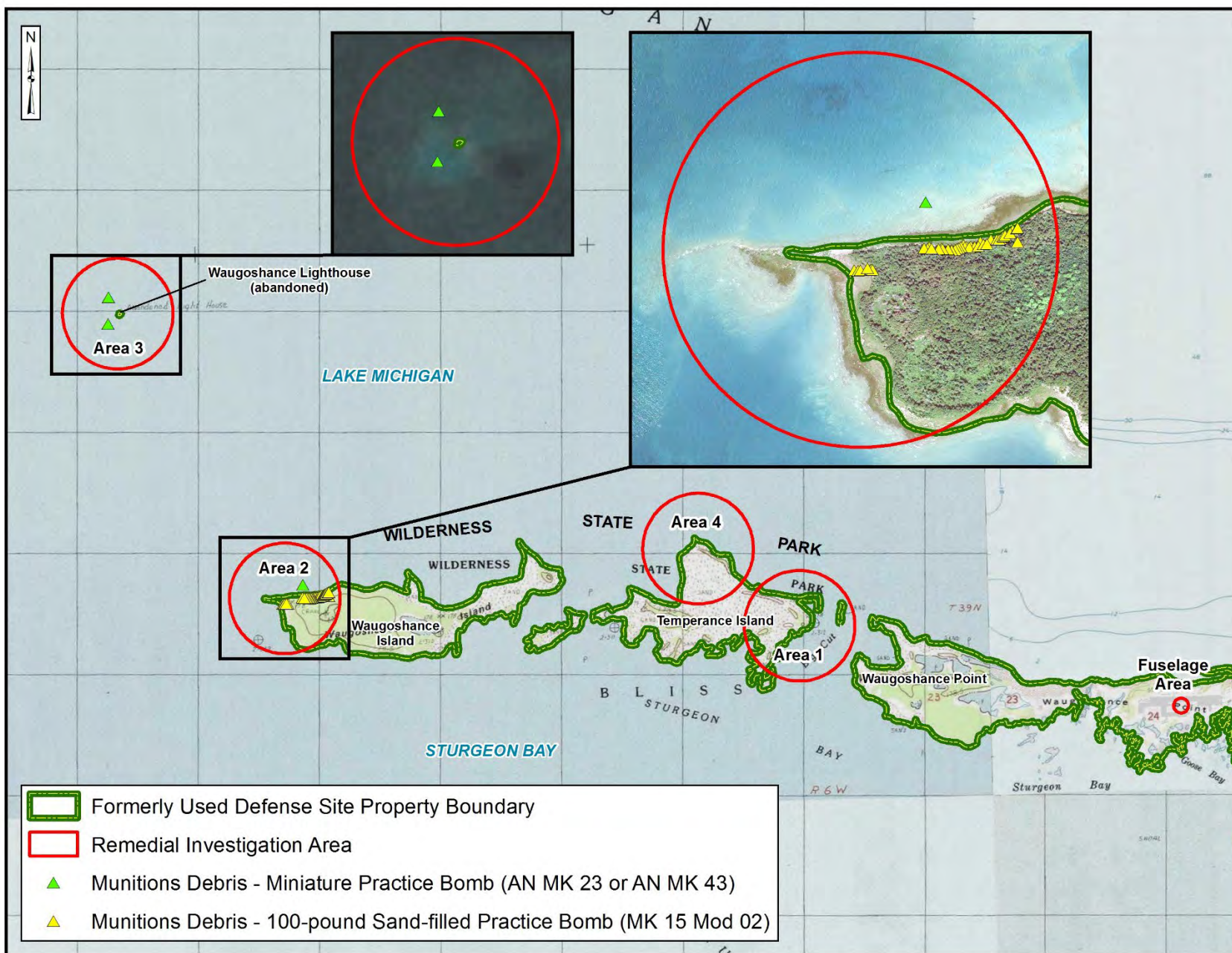
- Digital geophysical mapping surveys using boat-mounted equipment along paths (called transects) in the water areas; and
- Analog surveys using hand-held metal detectors along transects and in grids on the land and in the nearshore areas (i.e., shallow water) not accessible by boat. Analog surveys were used instead of digital geophysical mapping surveys on land due to the dense vegetation and restrictions on being able to remove vegetation within the designated wilderness area where the site is located. Analog surveys were also used in shallow water areas that were not accessible to the boat mounted equipment.

The transect paths using digital geophysical mapping equipment covered approximately 11.05 acres (13.89 miles) of water areas. Analog surveys in areas inaccessible to the digital geophysical mapping equipment (i.e., shallow water in the nearshore areas adjacent to the islands) were also conducted. Approximately 1.75 acres (2.91 miles) of analog transects were completed in these shallow water areas inaccessible to the digital geophysical mapping equipment. The land analog transect surveys covered approximately 2.35 acres (or 4 miles) and land analog grids covered approximately 3.73 acres.

For the transect paths using digital geophysical mapping equipment, the team used a Global Positioning System receiver to locate each **anomaly** selected for intrusive investigation. A total of 107 digital geophysical mapping anomalies were selected for intrusive investigation in the water areas and dug, and 13 anomalies were found and investigated along the shallow water analog transects. A total of 311 anomalies were found and investigated along the land analog transects and in the land analog grids. No munitions and explosives of concern were found at the site. The investigated anomalies were identified as either munitions debris, expended small arms ammunition, non-munitions related debris, quality control items (referred to as seeds), and other (i.e., geological noise [hot rocks], one anomaly embedded in roots, and three anomalies that were found but were deeper than could be dug due to the rocky lake bottom). Based on the dig results, no concentrated munitions use areas were identified.

The munitions debris items found during the Remedial Investigation consisted of MK 15 Mod 2 100-pound sand-filled practice bombs, two AN MK 23 practice bombs, and one AN MK 43 practice bomb. Refer to Figure 3. The AN MK 23 and AN MK 43 practice bombs are commonly referred to as miniature practice bombs due to their small size (i.e., 3- and 4.5-pounds, respectively). The munitions debris associated with the MK 15 Mod 2 100-pound sand-filled practice bombs were found at depths ranging from the ground surface to 28 inches below ground surface on land in Area 2 (i.e., the western end of Waugoshance Island). The identification of the MK 15 Mod 2 practice bombs was based on key identifying features consistent with the Mod 2 for this series of bombs (e.g., rounded front, or nose, of the practice bomb and presence of lugs attached to banding). The MK 15 Mod 2 practice bomb configuration, unlike the other practice bombs in this series, does not include a spotting charge and, therefore, does not possess an explosive hazard and is not munitions and explosives of concern.

Figure 3: Waugoshance Point Target Dig Results



The two AN MK 23 and one AN MK 43 practice bombs were configured for signal cartridges, even though none were present as verified by the UXO team based on field observations. There were no accumulations of munitions debris from miniature practice bombs. The three items were found dispersed on the lake bottom underwater at Area 2 (i.e., one AN MK 23) and on the lake bottom and four inches below the lake bottom underwater at Area 3 (i.e., the Waugoshance Lighthouse; one AN MK 23 and one AN MK 43). The water depths in these areas ranged from approximately two to ten feet deep.

Munitions debris was not found within Area 1, Area 4, or the Fuselage Area. While not found within the Fuselage Area, a limited number of expended small arms ammunition (e.g., .30- and .50-caliber bullets and casings) was found in Area 1 (i.e., the eastern end of Temperance Island) and Area 4 (i.e., the northern end of Temperance Island). These items were dispersed and, while their presence suggests strafing activities took place at the two target areas, there are no accumulations of expended small arms ammunition, indicating that the target areas received limited use. A total of 5.41 acres were investigated in Area 1, with an estimated rate of 2.68 expended small arms ammunition per acre. The expended small arms ammunition in Area 1 was primarily found underwater at depths ranging from three to 18 inches below the lake bottom. One item was found on land at a depth of four inches below ground surface. For Area 4, a total of 4.61 acres were investigated, with an estimated rate of 1.72 expended small arms ammunition per acre. The expended small arms ammunition was found at depths of one to eight inches below ground surface in areas that were submerged underwater.

All munitions debris, as well as small arms ammunition debris, were identified, inspected, and documented as safe during the Remedial Investigation field activities. These findings confirm previous site documentation presented in the Preliminary Assessment/Site Inspection that indicated practice bombs and small arms ammunition were used at the former Waugoshance Point Target. Most items found during the intrusive investigation at Area 1, Area 2, Area 3, Area 4, and the Fuselage Area were non-munitions related debris (e.g., nails, cans/can lids, wire, and scrap metal pieces). Munitions debris, non-munitions related debris, and small arms ammunition were inspected, certified as free of explosives, and recycled.

There were no munitions and explosives of concern, accumulations of munitions debris from miniature practice bombs (i.e., defined as more than five munitions debris co-located together), or accumulations of expended small arms ammunition identified during the Remedial Investigation at Area 1, Area 2, Area 3, Area 4, and the Fuselage Area. Since the densities of munitions debris from miniature practice bombs and small arms ammunition debris were below the thresholds to indicate a munitions constituents source was present, sampling was not necessary to characterize munitions constituents, and a risk assessment for munitions constituents was not needed.

In summary, no munitions and explosives of concern were found during the Remedial Investigation field work within the former Waugoshance Point Target. Munitions debris recovered was consistent with historical information. A total of 64 munitions debris items, consisting of MK 15 Mod 2 100-pound sand-filled practice bomb debris that are not indicative of munitions and explosives of concern because they do not have a spotting charge, were found on land at depths ranging from the surface to 28 inches below ground surface. Only two AN MK 23 practice bombs and one AN MK 43 practice bomb were found underwater in Areas 2 and 3 at depths ranging from the lake bottom to less than four inches below the lake bottom in water approximately two to ten feet deep. Areas 2 and 3 were confirmed as historical bombing targets and Areas 1 and 4 were confirmed as likely strafing targets; the Fuselage Area was not used as a bombing or strafing target.

Based on the Remedial Investigation findings, exposure pathways for receptors for munitions and explosives of concern are incomplete for Area 1, Area 4, and the Fuselage Area at the former Waugoshance Point Target because no munitions and explosives of concern, or munitions debris from miniature practice bombs, were identified in these areas in previous investigations or during the Remedial Investigation field activities. Exposure pathways for munitions and explosives of concern on the surface and in the subsurface at Area 2 and Area 3 are considered potentially complete for human receptors since a small number of munitions and explosives of concern (i.e., miniature practice bombs with signal cartridges) could potentially remain that human receptors might encounter that, depending on the interaction, could result in a risk to an explosive hazard. Exposure pathways for ecological receptors for munitions and explosives of concern on the surface and in the subsurface are incomplete for Area 2 and Area 3 because ecological receptors are not likely to interact with munitions and explosives of concern in a manner potentially resulting in a risk to an explosive

hazard. Based on the Remedial Investigation findings, no munitions constituent source areas exist, and exposure pathways are incomplete for human and ecological receptors for all environmental media.

While potentially complete exposure pathways for munitions and explosives of concern were identified for human receptors at Area 2 and Area 3, there are several key factors, discussed below, that limit the likelihood for an exposure.

- No munitions and explosives of concern were found at the site during the Site Inspection or Remedial Investigation and there are no historical or current reports of munitions and explosives of concern found or munitions incidents at Wilderness State Park or the Waugoshance Lighthouse. Additionally, no concentrated munitions use areas were identified during the Remedial Investigation. Refer to Figure 4, on the following page, showing the Site Inspection and Remedial Investigation findings, including areas investigated and munitions debris found.
- Only three of the 67 munitions debris (approximately 4%) found during the Remedial Investigation were identified as munitions debris from miniature practice bombs. The three munitions debris from miniature practice bombs represent less than 1.5% of the anomalies investigated in the water areas and 0.4% of the total anomalies investigated during the Remedial Investigation. More specifically, a total of 5.33 acres were investigated in Area 2, with only one munitions debris item found (i.e., one miniature practice bomb without a signal cartridge). This is an estimated rate of 0.19 munitions debris from miniature practice bombs per acre for Area 2. A total of 3.25 acres were investigated in Area 3, with only two munitions debris items found (i.e., two miniature practice bombs without signal cartridges). This is an estimated rate of 0.62 munitions debris from miniature practice bombs per acre. Figure 5 shows the practice bomb densities per acre for Area 2 and Area 3. There is a very low density resulting in a very low likelihood of encountering a miniature practice bomb at the site.
- While other munitions have historically been found at the former Waugoshance Point Target (i.e., several practice bomb casings found on land at Area 2 and one 500-lb sand-filled practice bomb, one 750-lb sand-filled practice bomb, and a practice torpedo warhead found in the water at Area 3), it was concluded that these were practice munitions configured without explosive payloads that do not represent an explosive hazard. This was also confirmed during the Remedial Investigation for the munition debris found at Area 2, which was from MK 15 Mod 2 100-lb sand-filled practice bombs. The MK 15 Mod 2 practice bomb configuration does not include a spotting charge and, therefore, does not possess an explosive hazard and is not munitions and explosives of concern.
- Miniature practice bombs are low sensitivity munitions and are not likely to present a risk to an explosive hazard if encountered unless significant force is applied. Since the miniature practice bomb signal cartridges had activated, the signal cartridges found during the Remedial Investigation were empty (i.e., expended) and there was no risk from an explosive hazard. Additionally, miniature practice bombs are comprised of a solid piece of metal not intended to fragment, and the signal cartridge is similar to a shotgun shell. The AN MK 23 and AN MK 43 practice bombs could have been configured with MK 4 signal cartridges or MK 5 dye cartridges. While neither is listed in the historical documents for the site or confirmed by the Remedial Investigation, the MK 4 signal cartridge was used as a worst-case scenario for evaluating risk.
- There is limited (intermittent) access by human receptors to Area 2 and Area 3 because of their remote location in Lake Michigan. There is also very limited potential for interaction since the miniature practice bombs found at the site were underwater and in relatively inaccessible areas. For example, a boat would be needed to get to the areas where the miniature practice bombs were found, and a receptor would then need to be underwater on the lake bottom for the interaction to be able to occur. The water areas at the site, including at the Waugoshance Lighthouse, are not self-contained underwater breathing apparatus diving destinations.

Figure 4: Remedial Investigation and Site Inspection Findings

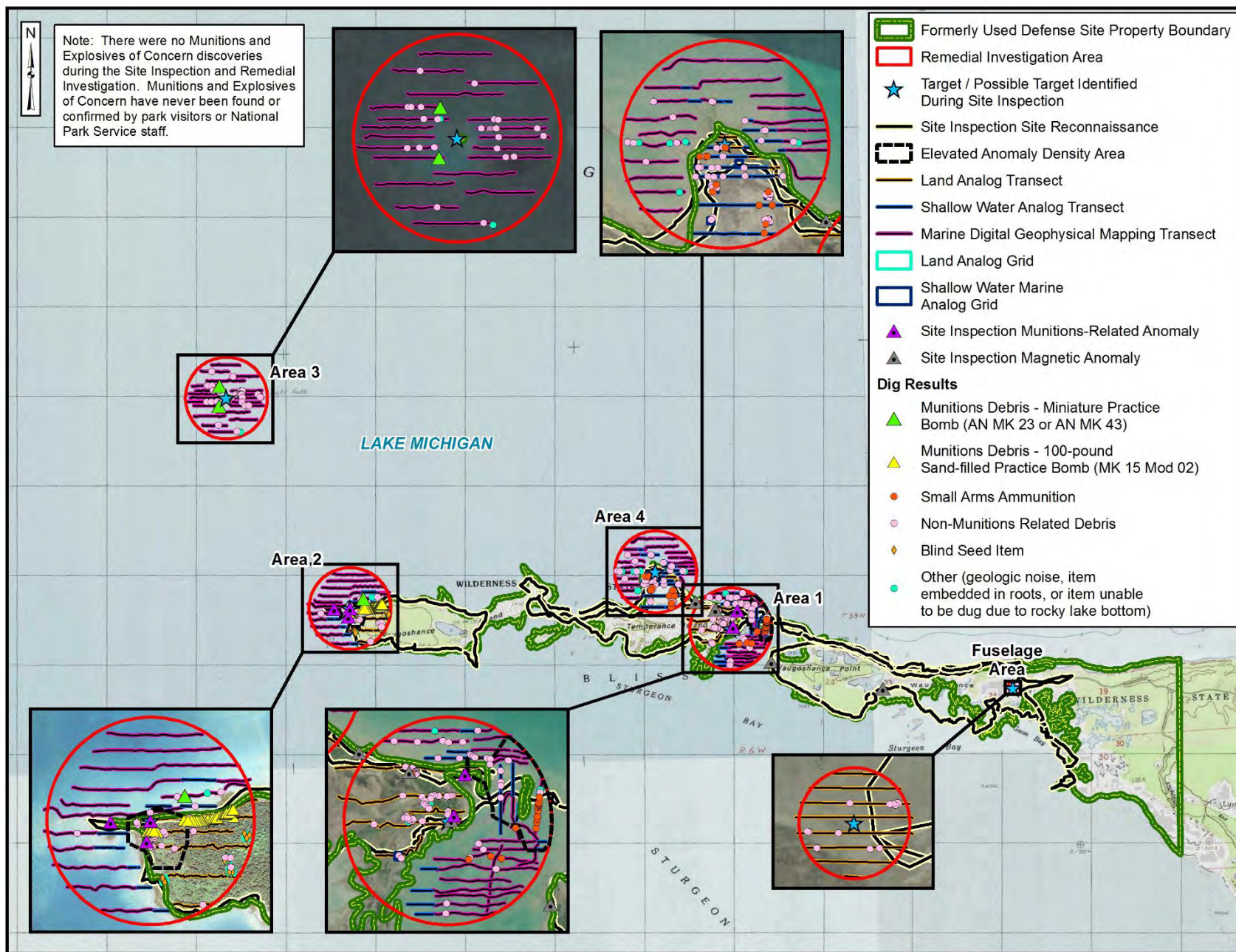
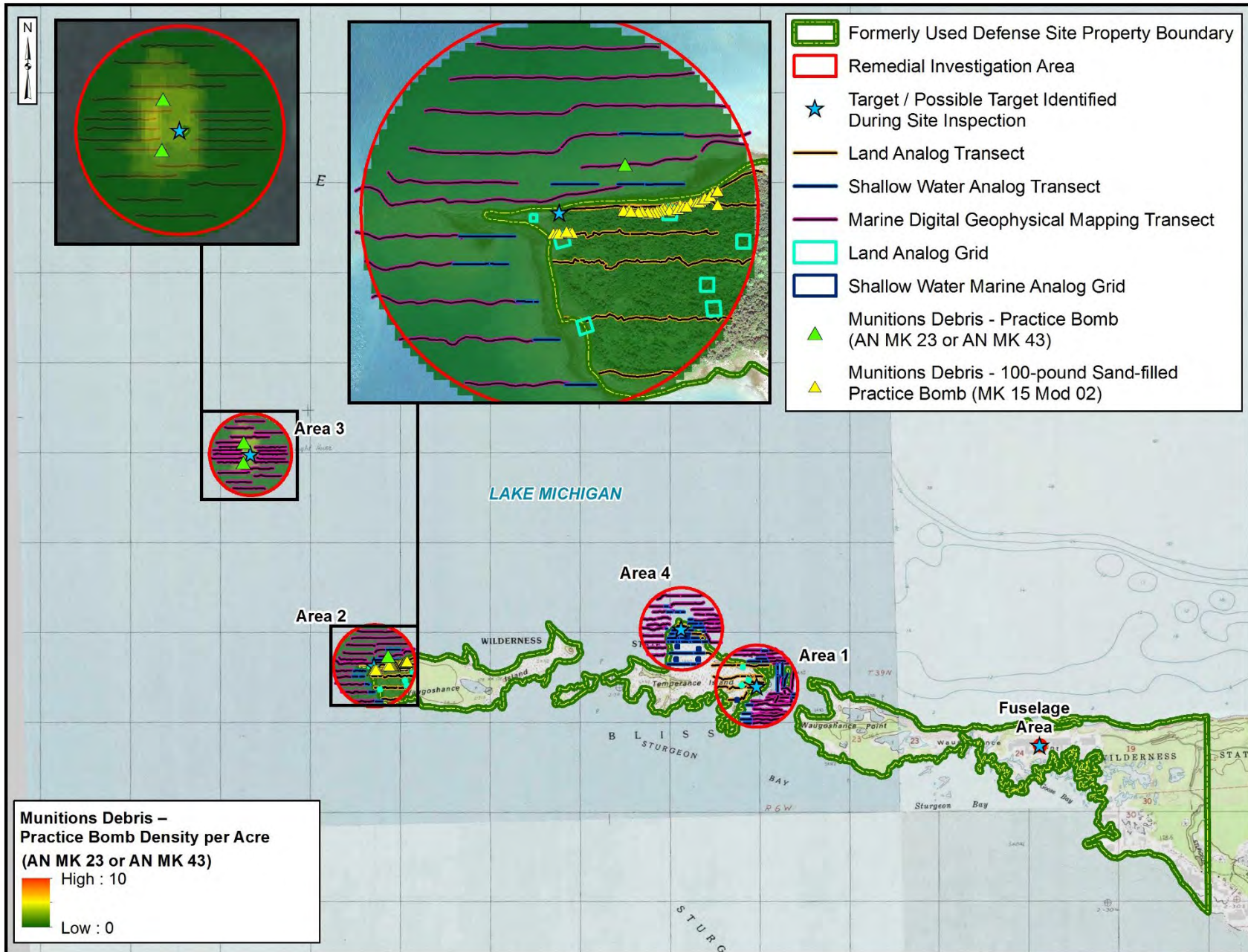


Figure 5: Practice Bomb Density



- Boats may occasionally visit the lighthouse in support of preservation activities but, due to the shallow water depths, would need to remain away from the structure itself in water deep enough to safely maneuver and/or anchor. This limits receptor activities and, thereby, interaction with munitions and explosives of concern because anchoring would occur away from the area where the miniature practice bombs were found. Furthermore, the water restricts access and there is very limited use of the site underwater by divers. Additionally, the water column would mitigate an explosive hazard in the extremely unlikely event a diver was to encounter, or a boat anchor were to strike, a miniature practice bomb with a signal cartridge.
- The low potential for exposure is supported by the (1) low density of munitions (i.e., small number of munitions debris found) and (2) limited accessibility (i.e., munitions found underwater and are not readily accessible).

The multiple lines of evidence presented in the preceding paragraph were used in the risk assessment, which was performed pursuant to applicable Department of Defense policy, and determined that there are acceptable site conditions for Areas 2 and 3. A risk assessment was not needed for Areas 1, 4, and the Fuselage Area as no munitions and explosives of concern, or munitions debris from miniature practice bombs, have been found in these areas. As such, there is no explosive hazard and evaluation of site conditions was not needed to assess potential risk.

Current and reasonably anticipated future use is primarily recreational and includes activities such as hiking, hunting, fishing, boating, swimming, etc. Boats may occasionally visit the lighthouse in support of preservation activities, as well. The intrusive activities anticipated based on site use (e.g., digging a small hole on land or anchoring in the water) would not result in exposure below two feet below the ground surface on land or two feet below the lake bottom underwater given the rocky bottom encountered throughout the water investigation areas. As explained in the Remedial Investigation Report, the maximum depth of munitions debris found during the Remedial Investigation, including munitions debris from miniature practice bombs, is less than the depth of exposure and less than the detection depth of the geophysical instruments used during the Remedial Investigation geophysical surveys. The data quality objectives were achieved, the site has been characterized, and the vertical conceptual site model is well-defined; therefore, data is sufficient to determine whether an unacceptable risk for exposure exists relative to munitions and explosives of concern and munitions constituents.

Based on historical information and the Remedial Investigation findings, there is no unacceptable risk for exposure to munitions or munitions constituents at the five areas included in the Remedial Investigation Area at the former Waugoshance Point Target and no further action is required to address munitions or munitions constituents at the site. As such, a No Action determination is supported for the site and a **Feasibility Study** to develop and evaluate remedial alternatives is not needed.

SCOPE AND ROLE OF THE RESPONSE ACTION

For sites with no hazard or unacceptable risk, such as the former Waugoshance Point Target, risk management is not needed, and a decision for No Action is appropriate.

SUMMARY OF SITE RISKS

Hazards and risks were evaluated based on the potential for people and the environment to be exposed to munitions and munitions constituents. The potentially exposed population includes all those who pass through, work in, or visit the area. Based on historical information and the Remedial Investigation findings, there is no unacceptable risk for exposure to munitions or munitions constituents at the former Waugoshance Point Target. This is supported by the information presented in the Remedial Investigation section above.

REMEDIAL ACTION OBJECTIVE

For the former Waugoshance Point Target, remedial action is not needed because the Remedial Investigation findings indicate no unacceptable risk for exposure to munitions and explosives of concern and munitions constituents at the site. As such, **Remedial Action Objectives** are not necessary.

EVALUATION OF ALTERNATIVES

The proposed decision for this site is **No Action**. The Corps did not develop or evaluate other alternatives because there are no unacceptable risks for exposure to munitions or munitions constituents at the former Waugoshance Point Target. The No Action approach means that the Corps will not take any action, and if the proposed decision for No Action is implemented, the use of the site will continue in its current condition.

There are no unacceptable risks to human health or the environment attributable to the Department of Defense at the former Waugoshance Point Target. For this reason, the only recommended approach is No Action. Development or evaluation of other alternatives was not required.

PREFERRED APPROACH

The proposed decision for the former Waugoshance Point Target is No Action. It is appropriate because there are no unacceptable risks to human health or the environment. The Michigan Department of Environment, Great Lakes, and Energy, Michigan Department of Natural Resources, and Wilderness State Park have reviewed the Remedial Investigation report and agree with the Corps' analysis. Based on discussions during project meetings, the regulators have indicated that a No Action decision is acceptable for the site. The regulators and the public will have the opportunity to review and comment on this Proposed Plan and the proposed decision for No Action. Community acceptance of the proposed decision for No Action will be evaluated after the public comment period. The Corps may modify the proposed decision for No Action in response to public comments or new information.

COMMUNITY PARTICIPATION

The Corps is requesting public comments on this Proposed Plan. Comments will be accepted at a virtual public meeting, as well as throughout the public comment period. The virtual public meeting will be held on August 27, 2020, at 6 p.m. Representatives from the Corps will be present to explain the Proposed Plan, listen to concerns, answer questions, and accept public comments.

The Corps will consider comments received during the virtual public meeting and comment period. The final decision that the Corps makes will be presented in the Decision Document. The Corps' responses to public comments will be included in the Responsiveness Summary section of the Decision Document.

All reports and project documents are available for review in the Administrative Record file at the Mackinaw Area Public Library located at 528 West Central Avenue, Mackinaw City, Michigan.

Formerly Used Defense Site Program Contact Information

Telephone: 502-315-6769

Email: shatara.r.riis@usace.army.mil

Mail: U.S. Army Corps of Engineers
Attention: Ms. Shatara Riis
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202

Information Repository

The documents that comprise the Administrative Record file, including the Remedial Investigation report, are available for review at the following location:

Mackinaw Area Public Library
528 West Central Avenue
Mackinaw City, Michigan 49701

GLOSSARY OF TERMS

Administrative Record: The documents that form the basis for the selection of a response action compiled and maintained by the lead agency.

Anomaly: An item that is seen as a subsurface irregularity after geophysical investigation. This irregularity will deviate from the expected subsurface ferrous and non-ferrous material at a site (e.g., munitions, munitions debris, small arms ammunition, nails, cans/can lids, wire, scrap metal).

Comprehensive Environmental Response, Compensation, and Liability Act: This federal law was passed in 1980, amended by the Superfund Amendments and Reauthorization Act of 1986, and is commonly referred to as “**Superfund**.” It provides for liability, compensation, assessment, remediation, and emergency response in connection with the cleanup of inactive sites that endanger public health and safety or the environment.

Decision Document: This legal document is signed by the Army and reviewed by the Michigan Department of Environment, Great Lakes, and Energy, Michigan Department of Natural Resources, and Wilderness State Park. It provides the response action selected for a site, the basis for selecting that response action, public comments, responses to comments, and the estimated cost of the response action.

Digital Geophysical Mapping: A data collection process that employs a metal detector system to digitally record sensor and position data for subsequent data analysis and presentation.

Feasibility Study: A study undertaken by the lead agency to develop and evaluate options for remedial action. The Remedial Investigation data is used to define the objectives of the response action, to develop remedial action alternatives, and to undertake an initial screening and detailed analysis of the alternatives. The term also refers to a report that describes the results of the study.

Formerly Used Defense Sites: A facility or site that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances, for which the Secretary of Defense shall carry out all response actions with respect to release of hazardous substance from that facility or site.

Military Munitions: All ammunition products and components produced for or used by armed forces for national defense and security, including ammunition products or components under the control of the Department of Defense, the U.S. Coast Guard, the U.S. Department of Energy, and the National Guard. The term includes: confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof. The term does not include wholly inert items; improvised explosive devices; and nuclear weapons, nuclear devices, and nuclear components, other than nonnuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C 2011 et seq.) have been completed.

Munitions Constituents: Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions. Munitions constituents are the metals, explosives, and related products that comprise munitions.

Munitions Debris: Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

Munitions and Explosives of Concern: A term that distinguishes specific categories of military munitions that may pose unique explosives safety risks, such as:

- (1) Unexploded ordnance (i.e., military munitions that have been primed, fused, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and remain unexploded, whether by malfunction, design, or any other cause);
- (2) Discarded military munitions (i.e., military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal); or
- (3) Munitions constituents present in high enough concentrations to pose an explosive hazard.

National Oil and Hazardous Substances Pollution Contingency Plan: The plan revised pursuant to 42 United States Code 9605 and found at 40 Code of Federal Regulation 300 that sets out the plan for hazardous substance remediation under the Comprehensive Environmental Response, Compensation, and Liability Act. These regulations, often referred to as the National Contingency Plan, provide the federal government the authority to respond to the problems of abandoned or uncontrolled hazardous waste disposal sites, as well as to certain incidents involving hazardous wastes (e.g., spills).

No Action: A No Action response is selected for a site when information indicates that no additional investigation/remediation is required by the Department of Defense and no unacceptable risk to human health and/or the environment from the former military use exists or remains.

Proposed Plan: This is a plan that identifies the proposed decision for a site and is made available to the public for comment.

Remedial Action Objective: A Remedial Action Objective is a site-specific, initial clean-up objective that is established based on the nature and extent of impacts, the resources that are currently and potentially threatened, and the potential for human and environmental exposure.

Remedial Investigation: A process undertaken by the lead agency to determine the nature and extent of the problem presented by a potential release. The Remedial Investigation emphasizes site characterization and is generally performed concurrently and in an interactive fashion with the Feasibility Study, if one is needed. The Remedial Investigation includes gathering sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives, if necessary.

Superfund Amendments and Reauthorization Act: In addition to certain free-standing provisions of law, it includes amendments to the Comprehensive Environmental Response, Compensation, and Liability Act, the Solid Waste Disposal Act, and the Internal Revenue Code. Among the free-standing provisions of law is Title III of Superfund Amendments and Reauthorization Act, also known as the "Emergency Planning and Community Right-to-Know Act of 1986;" title IV of Superfund Amendments and Reauthorization Act, also known as the "Radon Gas and Indoor Air Quality Research Act of 1986;" and title V of Superfund Amendments and Reauthorization Act amending the Internal Revenue Code, also known as the "Superfund Revenue Act of 1986."

REFERENCES

- 40 Code of Federal Regulations. Part 300. National Oil and Hazardous Substances Pollution Contingency Plan. 1993.
- 42 United States Code. Section 9601-11050. Comprehensive Environmental Response, Compensation, and Liability Act.
- Department of Defense, 2009. *Final United States Army Military Munitions Response Program Remedial Investigation / Feasibility Study Guidance*. November 2009.
- U.S. Army Corps of Engineers, 2004. *Formerly Used Defense Sites Program Policy*, Engineer Regulation 200-3-1, 10 May 2004.
- U.S. Army Corps of Engineers, 2010. *Defense Environmental Restoration Program, Formerly Used Defense Sites, Inventory Project Report (INPR), Waugoshance Point Target*, Site Number E05MI1240. 30 April 2010.
- U.S. Army Corps of Engineers, 2013. *Final Preliminary Assessment/Site Inspection, Former Waugoshance Point Target, Emmet County, Michigan*. Formerly Used Defense Site Property Number E05MI1240. Prepared for the U.S. Army Corps of Engineers by HydroGeoLogic, Inc. June 2013.
- U.S. Army Corps of Engineers, 2015. *Technical Guidance for Military Munitions Response Actions*, Engineer Manual 200-1-15, 30 October 2015.
- U.S. Army Corps of Engineers, 2016. Worldwide Environmental Remediation Services Contract Number W912DY-10-D-0025, Task Order 0040, Remedial Investigation/Feasibility Study for the Waugoshance Point Target, Emmet County, Michigan. 29 July 2016.
- U.S. Army Corps of Engineers, 2020. Remedial Investigation Report for the Waugoshance Point Target, Emmet County, Michigan. Formerly Used Defense Site Property Number E05MI1240. Prepared for the U.S. Army Corp of Engineers by PIKA-Pirnie JV. August 2020.
- U.S. Army Engineering and Support Center, Huntsville, 2010. Data Item Description, Worldwide Environmental Remediation Services. April 2010.
- United States Environmental Protection Agency, 1999. *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (EPA 540-R-98-031).