

Former Grosse Ile Naval Air Station, Grosse Ile, Michigan

AOC 24A, Debris Disposal Area, Proposed Plan

Final

July 2021

U.S. Army Corps of Engineers, Louisville District
600 Dr. Martin Luther King, Jr. Place
Room 351
Louisville, KY 40202-2239

FUDS Project Number E05MI012304



**US Army Corps
of Engineers®**

Statement of Independent Technical Review

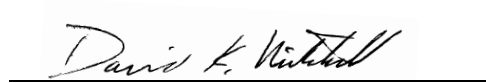
CH2M has completed the final Proposed Plan for Area of Concern 24A, Debris Disposal Area, at the former Grosse Ile Naval Air Station Grosse Ile (NASGI), located in Grosse Ile, Wayne County, Michigan, FUDS Project number E05MI012304 under contract number W912QR-16-D-0007, delivery order no. W912QR-18-F-0399.

Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of data quality objectives; technical assumptions; methods, procedures, and materials to be used; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing U.S. Army Corps policy. Significant concerns and explanation of the resolutions are documented within the project file. As noted above, all concerns resulting from independent technical review of the project have been considered.



Kimberly Amley
Project Manager, CH2M

Date: July 22, 2021



David Mitchell
Independent Technical Reviewer, CH2M

Date: July 22, 2021



**US Army Corps
of Engineers**

Proposed Plan

Area of Concern 24A, Debris Disposal Area, Former Naval Air Station Grosse Ile, Grosse Ile, Michigan

Louisville District

Formerly Used Defense Site Property Number: E05MI0123

July 2021

Introduction

The U.S. Army Corps of Engineers (USACE), in cooperation with the Michigan Department of Environment, Great Lakes, and Energy (EGLE; formerly Michigan Department of Environmental Quality), issues this **Proposed Plan** to solicit input from the public on the Proposed Plan to take no further action for Area of Concern (AOC) 24A, Debris Disposal Area (Site). AOC 24A is located within the Former Naval Air Station Grosse Ile (NASGI) in Wayne County, Grosse Ile, Michigan, approximately 14 miles southwest of Detroit. The former NASGI is located on the south end of Grosse Ile (Figure 1). Investigation activities for this project were completed under the **Defense Environmental Response Program (DERP)** (Department of Defense [DoD] 2018) and **Formerly Used Defense Sites (FUDS)** program policy ER 200-3-1 (USACE, 2004). FUDS properties are properties that were owned by, leased to, or otherwise possessed by the United States and under the jurisdiction of the Secretary of

Defense that were transferred from DoD control prior to October 17, 1986. AOC 24A was in use from approximately 1929 through the closure of former NASGI in 1969 under the jurisdiction of the Secretary of Defense. The property that includes AOC 24A was transferred from DoD control prior to October 17, 1986, and meets the definition of a FUDS property. The FUDS program policy stipulates that **hazardous substances, pollutants, or contaminants** are to be addressed in accordance with the provisions of the **Comprehensive Environmental Response, Compensation, and Liability Act of 1980**, as amended by the **Superfund Amendments and Reauthorization Act of 1986** 42 U.S.C. 9601 et seq. (CERCLA), the **National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR 300 (NCP)**, and applicable DoD and Army policies. (A glossary of specialized terms used in this Proposed Plan begins on page 8. Words included in the glossary are indicated in **bold type** the first time they appear in this Proposed Plan.)

Mark Your Calendar for the Public Comment Period

Public Comment Period: September 1, 2021, to October 5, 2021

Submit Written Comments



Comments on the Proposed Plan will be accepted during the public comment period.

Submit written comments to the addresses provided below (postmarked by October 5, 2021).

Charles Delano

Public Affairs Specialist

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Attend the Public Meeting: September 16, 2021, 6:00 p.m.

Merle Solomon Board Room on the second floor of the Grosse Ile Township Hall. During this public meeting, USACE will provide an overview of the AOC, investigation findings, and the preferred alternative; answer questions; and receive public comments.

Information Repository Locations

Copies of this document and other site-related materials are available online at <http://www.lrl.usace.army.mil/GrosseIleNavalAirStation/> and at:

**Bacon Memorial District
Library**
45 Vinewood Street
Wyandotte, MI
(734) 246-8357

**USACE Louisville District
Romano Mazzoli Federal
Building**
600 Martin Luther King, Jr. Place
Louisville, KY 40202-2232
(502) 315-3829

USACE has determined contamination resulting from historical DoD activities at AOC 24A does not pose an unacceptable risk to human health and the environment as defined by the NCP; therefore, USACE acting in accordance with Section 121 of CERCLA, as well as with the FUDS program policy, has determined that a No Further Action decision at AOC 24A is protective of human health and the environment, and **five-year reviews** are not required. This Proposed Plan provides the rationale for the No Further Action decision and explains how the public can participate in the decision-making process.

Information relied upon by USACE in making its decision may be found in the **Administrative Record**, copies of which may be found at the Information Repositories identified on page 1.

Comments on the Proposed Plan can be submitted during the **public comment period**, which runs from September 1, 2021, to October 5, 2021. USACE, with support from EGLE, will select the **remedy** or make a No Further Action decision for the Site after reviewing and considering information submitted during the public comment period. Community involvement is critical, and the public is encouraged to review and comment on this Proposed Plan.

The selected remedy or decision, along with responses to all comments received on the Proposed Plan, will be documented in a **Decision Document** for the Site.

USACE is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of CERCLA and Section 300.430(f)(3) of the NCP.

Site Description and History

AOC 24A is part of the Former NASGI, FUDS property number E05MI0123. The land used to develop the NASGI facility was formerly used for farming (Groh farm). In September 1929, a 346-acre Naval Reserve Aviation Base was constructed. In 1932, the State of Michigan purchased the airport and leased it to the Naval Reserve Aviation Base (Keisel, K.M. and the Grosse Ile Historical Society, 2011). The Navy purchased or appropriated approximately 602

acres previously owned by the State of Michigan and private landholders between 1940 and 1942. In 1942, the Navy changed the facility designation to "U.S. Naval Air Station." The Army acquired 52.53 acres from the Navy and an additional 10.55 acres from the surrounding landowners from 1954 through 1957 for use as a Nike Missile Site (Nike Site D-51) and used the site through 1963.

Current use of the former NASGI facility includes the Grosse Ile Commerce Park and Municipal Airport, the 40-acre Gibraltar Bay Unit of the Detroit River International Wildlife Refuge (part of former Nike Missile Site D-51), and the U.S. Environmental Protection Agency (EPA) Large Lakes Research Center, which occupies several former NASGI buildings. The airport leases buildings on 8 acres of land north of Groh Road to small, light-industrial companies.

AOC 24A is currently an undeveloped, vegetated area located adjacent to a wetland area associated with the Detroit River, east of the Grosse Ile Municipal Airport Runway 4/32 (southeast runway), and southwest of Quarry Lake (**Figure 2**). Land Use at AOC 24A is Nonresidential Land Use and zoned as Airport District, A-1. The future use of the former NASGI property is anticipated to remain as an airport. The future use of AOC 24A is anticipated to remain as a vegetated area.

AOC 24A was historically used to park watercraft and seaplanes (EEG, 2007). The seaplane hangar and associated road were constructed in 1927 with building demolition debris used as riprap to help stabilize the sides and foundation of the road. Based on historical aerial imagery, possible debris disposal into the embayment may have been conducted as early as 1951 (EEG, 2007). Shoreline disposal was conducted at several locations along the shoreline around the small embayment between the runways and the road to the seaplane hangar (AOC 9). Materials observed at ground surface included solid waste such as refrigerators, washing machines, airplane parts, building demolition debris, and rusted empty drums. The debris was removed on September 6, 2008, by an independent scrap metal recycler.

AOC 24A Characteristics

AOC 24A consists of both an approximately 9-acre embayment area historically used to park watercraft, and a debris disposal area, approximately 2 acres, located at the northern boundary of the AOC. AOC 24A is located east of southeast runway, southwest of Quarry Lake, south of the unnamed east-west access road, and within the fenced boundary of the airport (**Figure 2**). AOC 24A is east of and lower in elevation than southeast runway. The land surface across AOC 24A is predominately flat.

AOC 24A is bounded on all sides by land designated for airport use (i.e., Nonresidential Land Use). Access to the AOC is controlled, and visitors require an escort and/or communication with the airport tower. AOC 24A is a vegetated portion of land adjacent to Runway 4/32 (southeast runway). The grass adjacent to the southeast runway and extending east to between 100 and 140 feet is maintained. Beyond the 100 to 140 feet of the maintained grass area, taller swamp grasses, trees, and shrubs are present.

Several environmental investigation activities have been performed to determine the nature and extent of contamination and whether contaminant concentrations in site media pose an unacceptable risk to human health and the environment. The investigation activities included the initial contamination evaluation in 1990 and a phased **Remedial Investigation (RI)** completed between 2002 and 2006. A geophysical survey was conducted in February 2006 as part of the phased RI to establish the extent of buried debris. Although the 2007 RI concluded no further action was necessary, USACE determined that additional RI was warranted to be conservative and protective. In 2019, additional RI activities were conducted on previously collected data to characterize the nature and extent of **chemicals of potential concern (COPCs)** related to known or documented DoD activities. The findings are presented in the *Final AOC 24A Debris Disposal Area, Remedial Investigation Addendum Report* (Final RI Addendum Report) (USACE, 2020).

Debris removal was conducted on September 6, 2008, by an independent scrap metal recycler

with permission from the Grosse Ile Municipal Airport.

Soils at AOC 24A consist of clay with varying amounts of silt to approximately 20 feet below ground surface (bgs). Limestone **bedrock** is present at approximately 20 feet bgs (EEG, 2007). Surface sediments within the embayment area and other low-lying areas with standing water were predominantly sand and silt with pockets of clay. A cross sectional figure that shows the soil underlying AOC 24A is presented in the phased RI report (EEG, 2007).

Groundwater was encountered between 3 to 8.5 feet bgs at AOC 24A in soil borings, and temporary wells installed as part of the phased RI (EEG, 2007). Shallow groundwater was encountered within thin, disconnected lenses of sand and fine gravel within the clay lake (lacustrine) deposits. These thin lenses do not produce enough yield for a potable drinking water source (EEG, 2007). Groundwater was encountered at approximately 20 feet bgs in four groundwater monitoring wells installed in limestone bedrock on the western side of the AOC.

The regional groundwater flow direction in the area of AOC 24A is south-southeast towards the Detroit River (**Figure 3**) (EEG, 2003). The only drinking water source for Grosse Ile is surface water from a water treatment plant in Wyandotte, Michigan. The potable drinking water intake is located upgradient of and approximately 1 mile north of the former NASGI facility, in the Detroit River. Bedrock wells on Grosse Ile and most of Wayne County yield water that is too highly mineralized for human consumption. Township municipal code § 268-20 requires water outlets not sourced from the municipal system which could be used for potable or domestic purposes to be labelled "WATER UNSAFE FOR DRINKING."

AOC 24A includes an approximately 9-acre embayment area and is adjacent to Gibraltar Bay. In the vicinity of AOC 24A, surface water runoff flows to the embayment and empties south into Gibraltar Bay (EEG, 2007).

Description of Debris

The geophysical survey identified four areas with subsurface anomalies (**Figure 4**):

- Area A: Determined to be an underground pipeline.
- Area B: Interpreted as an area of higher-conductive fill and, to a lesser extent, metallic debris. Soils and groundwater were sampled within Area B. Material similar to fly ash was identified as buried in this area. Area B is approximately ¼ acre.
- Area C: An area of higher conductance. The area includes approximately ½ acre of surface debris. The area was not geophysically surveyed due to the density of metal at the ground surface. Two soil samples and one collocated sediment sample and surface water sample were collected in this area.
- Area D: An area of surface metal and demolition debris located on the western bank of the embayment area.

In April 2008, EGLE and USACE determined that the debris present in AOC 24A was a solid waste issue (Stantec, 2010), and the items of debris and any **release** of chemicals resulting from breakdown of the debris would not be regulated under CERCLA. Debris removal was conducted in 2008 by an independent scrap metal recycler with permission from the Grosse Ile Municipal Airport. No free liquids were observed in the scrap metal that was collected. No staining, pooled liquids, or stressed vegetation was observed on the ground where the scrap metal had been located prior to collection. Since no impacted soils were observed, no characterization of potential impacts was necessary, and no confirmatory samples were collected (Stantec, 2010).

Surface Soil

Surface soil samples at AOC 24A are defined as soil samples collected within 2 feet of ground surface. Twelve surface soil samples were collected at AOC 24A between 1990 and 2005. Samples were analyzed for **volatile organic compounds (VOCs)**, **semivolatile organic compounds (SVOCs)**, **polychlorinated biphenyls (PCBs)**, and metals. Surface soil analytical results were screened against Federally established EPA Residential Soil

Regional Screening Levels (RSLs) (EPA, 2019), EPA Region 5 Ecological Screening Values (EPA, 2003), and applicable State of Michigan Part 201 Criteria (MDEQ, 2018). Metals in surface soil were first compared to **regional background levels** presented in the 2015 State of Michigan Background Soil Survey for the Huron-Erie Lobe (MDEQ, 2015). There are no background levels established for organic compounds. If concentrations were greater than regional background levels, the concentrations were then compared to the EPA Residential Soil RSLs, Region 5 Ecological Screening Values, and applicable State of Michigan Part 201 Criteria. The surface soil sample locations are presented on **Figure 4**.

The metal COPCs detected in surface soil at levels greater than background levels, project action levels, and at least one applicable criterion were cadmium, chromium, lead, and silver. The organic COPCs detected in surface soil at levels greater than project action levels and at least one applicable criterion were benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, PCB Aroclor-1242, and PCB Aroclor-1254. The findings are presented in the Final RI Addendum Report (USACE, 2020).

Subsurface Soil

Subsurface soil samples at AOC 24A are defined as soil samples collected at depths greater than 2 feet bgs. Three subsurface soil samples were collected at AOC 24A during multiple investigations between 2003 and 2005. Samples were analyzed for VOCs, SVOCs, and metals. Subsurface soil analytical results were compared to Federally established EPA RSLs (EPA, 2019), EPA Region 5 Ecological Screening Values (EPA, 2003), and applicable State of Michigan Part 201 Criteria (MDEQ, 2018). Metals in subsurface soil were first assessed against regional background levels presented in the 2015 State of Michigan Background Soil Survey for the Huron-Erie Lobe (MDEQ, 2015). If concentrations were greater than regional background levels, the concentrations were then compared to the EPA Residential Soil RSLs, EPA Region 5 Ecological Screening Values, and applicable State of Michigan Part 201 Criteria. The subsurface soil sample locations are presented on **Figure 4**.

There were no metal COPCs detected in subsurface soil at levels greater than background levels (for metals) or applicable criteria. There were no organic COPCs detected in subsurface soil at levels greater than project action levels or applicable criteria. The findings are presented in the Final RI Addendum Report (USACE, 2020).

Sediment

Thirteen sediment samples were collected at AOC 24A between 2003 and 2005. Sediment sample depths were between 0 to 0.5 feet bgs. Samples were analyzed for VOCs, SVOCs, PCBs, and metals. Sediment analytical results were compared to Federally established EPA Residential Soil RSLs (EPA, 2019) and EPA Region 5 RCRA Corrective Action Sediment Screening Values (SSVs) (Region 5 SSVs) (EPA, 2004). Metals in sediment were first compared to regional background levels presented in the 2015 State of Michigan Background Soil Survey for the Huron-Erie Lobe (MDEQ, 2015). If concentrations were greater than regional background levels, the concentrations were then compared to the EPA Residential Soil RSLs and Region 5 SSV. The sediment sample locations are presented on **Figure 4**.

The metal COPCs detected in sediment at levels greater than background levels and at least one applicable criterion were arsenic, cadmium, chromium, lead, and mercury. The organic COPCs detected in sediment at levels greater than at least one applicable criterion were acetone, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, phenol, pyrene, Aroclor-1248, Aroclor-1254, and Aroclor-1260. The findings are presented in the Final RI Addendum Report (USACE, 2020). Sediment concentrations at the AOC may also have been affected by non-DoD activities that have been noted to have degraded sediment quality throughout the Detroit River (USGS, 2008).

Surface Water

Two surface water samples were collected from AOC 24A. Samples were analyzed for

VOCs, SVOCs, PCBs, and metals. Surface water analytical results were screened against State of Michigan Part 201 **groundwater-surface water interface (GSI)** criteria (MDEQ, 2018) and State of Michigan Rule 57 Surface Water Quality, final chronic values. The surface water sample locations are presented on **Figure 4**.

The COPCs detected in surface water at concentrations greater than the applicable criterion were cadmium, lead, and mercury. The findings are presented in the Final RI Addendum Report (USACE, 2020).

Groundwater

Fourteen groundwater samples were collected from AOC 24A. Samples were analyzed for VOCs, SVOCs, PCBs, and metals. Groundwater at AOC 24A is encountered within silty clay with disconnected sand seams and limestone bedrock, is highly mineralized, and there is insufficient yield to sustain a potable source. Therefore, the drinking water pathway is not relevant. Because a surface water body is present within the AOC, the State of Michigan Part 201 GSI pathway is relevant. Groundwater analytical results were compared to State of Michigan Part 201 GSI criteria (MDEQ, 2018) and State of Michigan Rule 57 Surface Water Quality final chronic values. The groundwater sample locations are presented on **Figure 4**.

The COPCs detected in groundwater were bis(2-ethylhexyl)phthalate, barium, cadmium, chromium, and lead. However, no metals were detected in field-filtered (dissolved) groundwater samples at concentrations greater than project action levels, and bis(2-ethylhexyl)phthalate is a common laboratory contaminant. The findings are presented in the Final RI Addendum Report (USACE, 2020).

Pore Water

Five **pore water** samples were collected from AOC 24A. Sample analyses included VOCs, SVOCs, PCBs, and metals. A surface water body is present within the AOC. Therefore, the State of Michigan Part 201 GSI pathway is relevant. Pore water analytical results were screened against State of Michigan Part 201 GSI criteria (MDEQ, 2018) and State of Michigan Rule 57 Surface Water Quality, final

chronic values. The pore water sample locations are presented on **Figure 4**.

No COPCs were detected in pore water at concentrations greater than applicable criteria. The findings are presented in the Final RI Addendum Report (USACE, 2020).

Summary of Risks

A baseline risk assessment was conducted as part of the RI Addendum to characterize potential risks to human health and ecological populations (plants and animals). This section summarizes the findings of the human health and ecological risk assessments.

Human Health Risks

While no DoD, CERCLA-regulated source or release of hazardous substances has been identified at AOC 24A, and the debris items and associated chemicals were identified as solid waste not regulated under CERCLA, a qualitative human health risk assessment was conducted as part of the RI Addendum for AOC 24A to evaluate potential risks to human health associated with exposures to chemicals detected in soil, sediment, and surface water to aid in closing out AOC 24A. Based on the current and potential future Land Use activities on AOC 24A, and to evaluate baseline conditions for unlimited use and unrestricted exposure for all Receptor/Land Uses, the following potential receptors were identified:

- Current and future trespassers (adults and youths ages 7-16; including hunters) through direct contact and dust emissions.
- Current and future maintenance workers (conducting landscaping) through direct contact and dust emissions.
- Current and future utility workers (if utility lines in the 0- to 3-foot interval were installed/need to be repaired) through direct contact and dust emissions.
- Hypothetical future residents through dermal contact and dust emissions.

Based on the baseline human health risk assessment presented in the Final RI Addendum Report (USACE, 2020), the maximum detected concentrations of arsenic,

cadmium, chromium, lead, silver, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, PCB Aroclor-1242, and PCB Aroclor-1254 that are greater than EPA Residential Soil RSLs in soil are within EPA-acceptable risk levels, and therefore were not identified as **chemicals of concern (COCs)** for the Residential Receptor.

The maximum detected concentrations of acetone, benzo(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, Aroclor-1248, Aroclor-1254, Aroclor-1260, arsenic, cadmium, chromium, lead, and mercury that are greater than EPA Soil Residential RSLs in sediment are within EPA-acceptable levels, and therefore were not identified as COCs for the Residential Receptor.

The maximum concentration of one chemical (mercury) in surface water was greater than the State of Michigan Rule 57 Surface Water Quality Human Health Value (Non-drink). However, mercury concentrations in surface water are expected to be naturally occurring and unrelated to former Department of Defense activities because the detected mercury concentrations in sediments were concluded to be variations in naturally occurring levels and consistent with background concentrations. Therefore, mercury was not identified as a COC for the Residential Receptor.

No COCs were identified for the Residential Receptor. Therefore, the site meets Residential Land Use and unlimited use and unrestricted exposure conditions. No further actions are required from a human health perspective.

Ecological Risks

The debris previously disposed of at AOC 24A, identified as the source area, was removed in 2008. While no DoD, CERCLA-regulated source or release of hazardous substances has been identified at AOC 24A, and the debris items and associated chemicals were identified as solid waste not regulated under CERCLA, an ecological screening was conducted to evaluate the ecologically relevant pathways associated with exposures to chemicals detected in soils, sediment, surface water, and

groundwater samples to aid in closing out AOC 24A.

Soil screening results indicate the frequency of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, fluoranthene, indeno(1,2,3-c,d)pyrene, pyrene, cadmium, and lead exceeding a screening level was greater than 30 percent (range from 33 percent of samples for cadmium in subsurface soils to 83 percent of samples for cadmium and lead in surface soils).

Sediment screening results indicate the frequency of two SVOCs, benzo(a)pyrene and dibenz(a,h)anthracene, and arsenic exceeding a screening level was greater than 30 percent. However, 92 percent of the arsenic exceedances were below background soil concentrations. Only one of 13 samples, a duplicate, had an arsenic concentration greater than the regional background level indicating a “nugget” effect occurred in the duplicate sample. The overall mean of the AOC data was less than the regional background level. Therefore, arsenic concentrations are characteristic of naturally occurring variations in local soil which does not indicate a release of arsenic from DoD activities. Sediment concentrations at the AOC may have been affected by non-DoD activities that have been noted to have degraded sediment quality throughout the Detroit River (USGS, 2008).

Groundwater and surface water screening results indicated no surface water samples were greater than screening values, and the frequency groundwater samples exceeded screening values was less than 15 percent.

Results of the ecological screening indicate that, given the generally low frequency of exceedances of the screening values and their conservative nature, no ecologically relevant pathways are anticipated at AOC 24A.

■ Remedial Action Objectives

Typically, under the CERCLA process, **remedial action** objectives are developed for protection of human health and the environment. Based on the findings and conclusions of the Final RI Addendum Report (USACE 2020), no COCs were identified for

the Residential Receptor or ecological receptors, and no further action is necessary to protect human health or the environment at AOC 24A. Therefore, no remedial action objectives need to be developed for AOC 24A.

■ Summary of Remedial Alternatives

The findings and conclusions in the Final RI Addendum Report (USACE, 2020) demonstrate no COCs identified for the Residential Receptor or ecological receptors, indicating no further action is necessary to protect human health or the environment at AOC 24A. Therefore, development of remedial alternatives for AOC 24A is not required.

■ Evaluation of Remedial Alternatives

A **feasibility study**, including an evaluation of alternatives, was not conducted because it was determined no further action was necessary to protect human health and the environment at AOC 24A.

■ Preferred Alternative

The Final RI Addendum Report (USACE, 2020) results support the determination that there are no unacceptable risks to human health and the environment as defined by the NCP at AOC 24A. Therefore, there are no COCs. As no COCs have been identified, USACE, in coordination with EGLE, is recommending no further DoD action as the preferred alternative for AOC 24A at the former NASGI. EGLE concurs with USACE’s recommendation for no further action as the preferred alternative. The preferred alternative may change in response to public comment. If the recommendation is selected, no additional environmental investigation or environmental response action associated with AOC 24A will be performed, and USACE’s environmental actions will be considered complete.

■ Community Participation

Public participation is a component of **remedy** selection. USACE and EGLE are requesting input from the community on the Proposed Plan to take no further action. The comment

period extends from September 1, 2021 to October 5, 2021.

The comment period provides an opportunity for public involvement in the decision-making process for the proposed action. USACE and EGLE will consider all public comments before selecting the remedy or making a No Further Action decision. The public is encouraged to review and comment on this Proposed Plan. During the public comment period, the public is encouraged to review documents located in the Administrative Record pertinent to the investigation and development of the proposed remedy for the site.

If the public would like to comment in writing on the Proposed Plan, please mail or email written comments (postmarked or emailed no later than October 5, 2021) to the address provided on Page 1 of this Proposed Plan.

USACE plans to hold a public meeting at 6:00 p.m., September 16, 2021. The meeting will provide an opportunity for the public to verbally comment on the Proposed Plan.

■ Key References

Ellis Environmental Group, LC (EEG). 2003. *Interim Remedial Investigation Report for Former Nike Site D-51, Grosse Ile, MI*. November.

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■ Glossary

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

Bedrock: Unbroken, solid rock overlain by soils and rock fragments.

Chemical of Concern (COC): Chemical detected in environmental media that causes unacceptable risk to human health or ecological receptors.

Chemical of Potential Concern (COPC): Chemicals detected in environmental media that may cause unacceptable risk to human health or ecological receptors.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

A federal law established in 1980 and modified in 1986, also known as “Superfund.” CERCLA established a nationwide process for cleaning up hazardous waste sites that potentially endanger public health and the environment.

Decision Document: A CERCLA requirement that documents the final cleanup decision for a site, provides the rationale for selecting the cleanup remedy, and establishes performance goals for achieving cleanup.

Defense Environmental Response Program (DERP):

A program authorized by the Congress in 1986 that promotes and coordinates efforts for the evaluation and cleanup of contamination at Department of Defense installations and Formerly Used Defense Sites.

Feasibility Study: A study undertaken by the lead agency to develop and evaluate options for remedial action. The RI data are 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.

Five-Year Reviews. Under CERCLA, periodic reviews are required to evaluate whether a remedy selected for a contaminated site, where hazardous substances remain at levels that potentially pose an unacceptable risk, remains protective of human health and the environment. Such reviews must be conducted every 5 years or may be conducted more frequently, if necessary, regardless of the alternative selected.

Formerly Used Defense Site (FUDS): A facility or site which was under the jurisdiction of the Department of Defense before October 17, 1986 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 Department of Defense shall carry out all response actions with respect to releases of hazardous substance from that facility or site.

Groundwater: Water in a saturated zone or stratum beneath the surface of land or water.

Groundwater–Surface Water Interface (GSI):

The location at which groundwater enters surface water.

Hazardous Substance:

- any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act [33 U.S.C. 1321 (b)(2)(A)],
- any element, compound, mixture, solution, or substance designated pursuant to section 9602 of CERCLA,
- any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act [42 U.S.C. 6921] (but not including any waste the regulation of which under the Solid Waste Disposal Act [42 U.S.C. 6901 et seq.] has been suspended by Act of Congress),
- any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act [33 U.S.C. 1317 (a)],
- any hazardous air pollutant listed under section 112 of the Clean Air Act [42 U.S.C. 7412], and
- any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act [15 U.S.C. 2606].

The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Michigan Department of Environment, Great Lakes, and Energy (EGLE; formerly Michigan Department of Environmental Quality): The state agency in Michigan responsible for

enforcing state laws protecting the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): The plan revised pursuant to 42 USC 9605 and found at 40 CFR 300 that sets out the plan for hazardous substance remediation under CERCLA.

Pollutant or Contaminant: any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring; except that the term “pollutant or contaminant” shall not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of paragraph (14) and shall not include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas).

Polychlorinated Biphenyls (PCBs): A group of manufactured chemicals used widely in industry, commonly in electrical equipment, until 1979, when their production was banned in the United States.

Pore Water: The water occupying the spaces between sediment particles.

Proposed Plan: A document required by CERCLA that informs the public about alternatives that are considered for cleanup of a contaminated soil and identifies a preferred cleanup alternative.

Public Comment Period: A reasonable period of time, of at least 30 days, for the public to review and comment on various documents and actions.

Regional Background Level: The State of Michigan has established background metals concentrations based on the range of metals naturally occurring in geologically similar

areas of the state. The levels are based on soil types (topsoil, sand, or clay) and the geographic locations (glacial lobes) presented in the 2015 Michigan Background Soil Survey (EGLE, 2015). The background metals concentrations are not related to a release of hazardous substances due to site activities. The glacial lobes have varying points of origin and traverse differing types of bedrock; therefore, the resulting glacial sediments have varying chemical characteristics based on the source-rock. The Huron-Erie Glacial Lobe background values are considered applicable for the former NASGI facility.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), but excludes

- any release which results in exposure to persons solely within a workplace,
- release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. 2011 et seq, and
- the normal application of fertilizer.

Remedial Action: Those actions consistent with a permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health, welfare, or the environment. The term includes, but is not limited to, such actions at the location of the release as storage; confinement; perimeter protection using dikes, trenches, or ditches; clay cover; neutralization; cleanup of released hazardous substances and associated contaminated materials; recycling or reuse; diversion; destruction; segregation of reactive wastes; dredging or excavations; repair or replacement of leaking containers; collection of leachate and runoff; onsite

treatment or incineration; provision of alternative water supplies; and any monitoring reasonably required to assure that such actions protect the public health, welfare, and the environment.

Remedial Investigation (RI): A process undertaken by the lead agency to determine the nature and extent of the problem presented by the release. The RI emphasizes data collection and site characterization and is generally performed concurrently and in an interactive fashion with the feasibility study. The RI includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives.

Remedy: The selected remedial action.

Semivolatile Organic Compounds (SVOCs): A group of organic compounds that tend to have a higher molecular weight and higher boiling point temperature. The health effects of these chemicals depend on their chemical nature and on the degree of exposure.

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

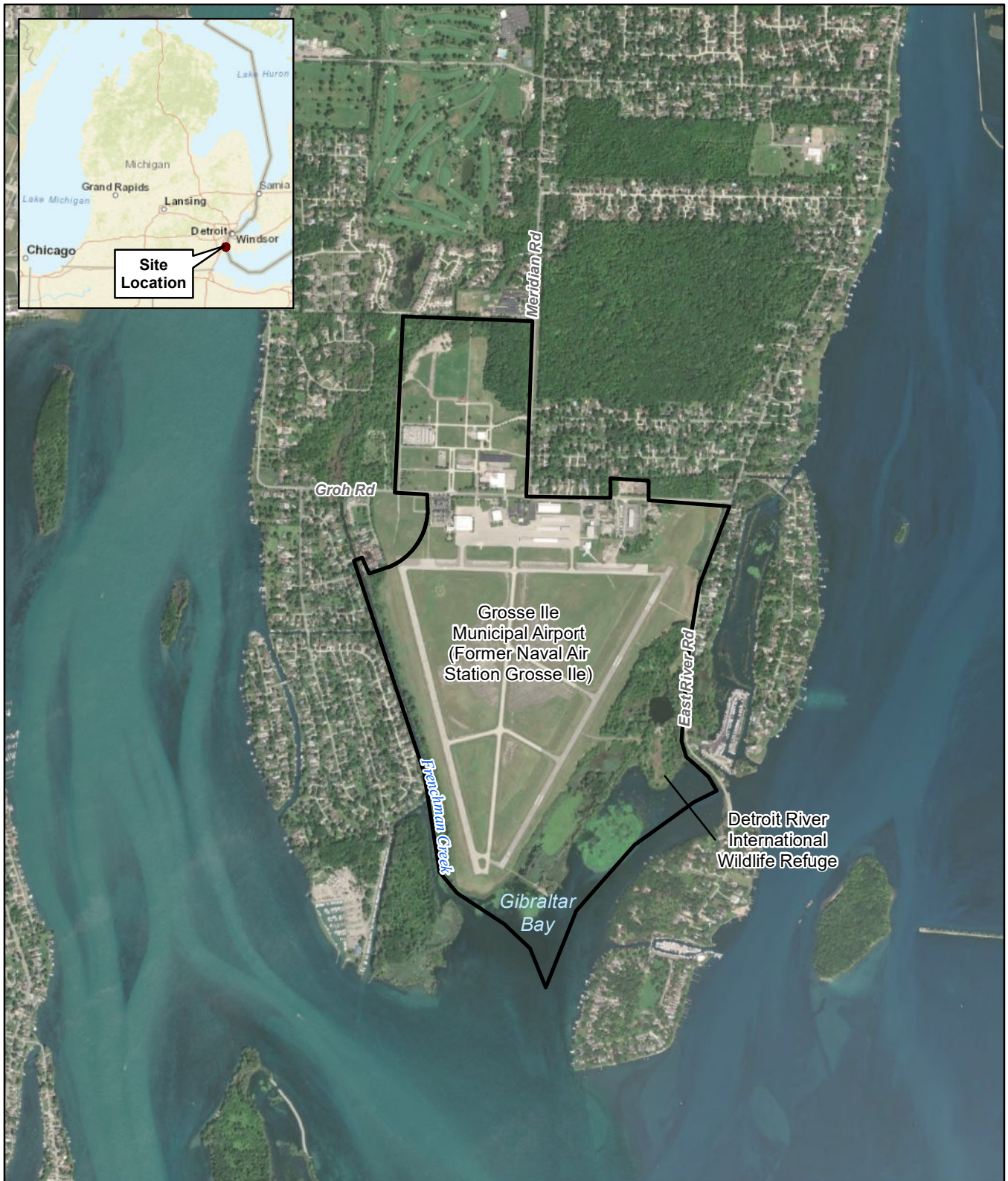
U.S. Army Corps of Engineers (USACE): The lead agency for implementing the Formerly Used Defense Site Program in Michigan for the Department of Defense.

Volatile Organic Compounds (VOCs): A group of organic chemicals that readily


produce vapors at ambient temperatures. Some of these chemicals may have short- and long-term adverse health effects.

Abbreviations

| | |
|--------|---|
| AOC | Area of Concern |
| bgs | below ground surface |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| COC | chemical of concern |
| COPC | chemical of potential concern |
| DERP | Defense Environmental Response Program |
| DoD | U.S. Department of Defense |
| EGLE | Michigan Department of Environment, Great Lakes, and Energy |
| EPA | U.S. Environmental Protection Agency |
| FUDS | Formerly Used Defense Site |
| GSI | groundwater-surface water interface |
| MDEQ | Michigan Department of Environmental Quality |
| NASGI | Naval Air Station Grosse Ile |
| NCP | National Oil and Hazardous Substances Pollution Contingency Plan |
| PCB | polychlorinated biphenyl |
| RI | remedial investigation |
| RSL | Regional Screening Level |
| SSV | Sediment Screening Value |
| SVOC | semivolatile organic compound |
| USACE | U.S. Army Corps of Engineers |
| USGS | U.S. Geological Survey |
| VOC | volatile organic compound |



LEGEND

 Property Boundary

Source: Ellis Environmental Group, LC (EEG), 2007. Remedial Investigation Report, Phases I and II, Former Naval Air Station Grosse Ile, MI. May.

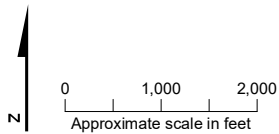


Figure 1. NASGI Site Location Map
Former Naval Air Station Grosse Ile
Grosse Ile, Wayne County, Michigan



LEGEND

- Area of Concern (AOC)
- Property Boundary
- Approximate Extent of Burial Debris
- Surface Debris

Source: Ellis Environmental Group, LC (EEG), 2007. Remedial Investigation Report, Phases I and II, Former Naval Air Station Grosse Ile, MI. May.

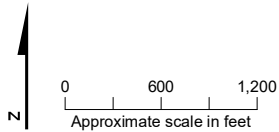


Figure 2. AOC 24A Site Location Map
Former Naval Air Station Grosse Ile
Grosse Ile, Wayne County, Michigan

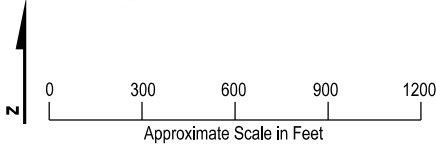


Figure 3. Regional Groundwater Flow Map
 Former Naval Air Station Grosse Ile
 Grosse Ile, Wayne County, Michigan

Source: Ellis Environmental Group (EEG), 2007

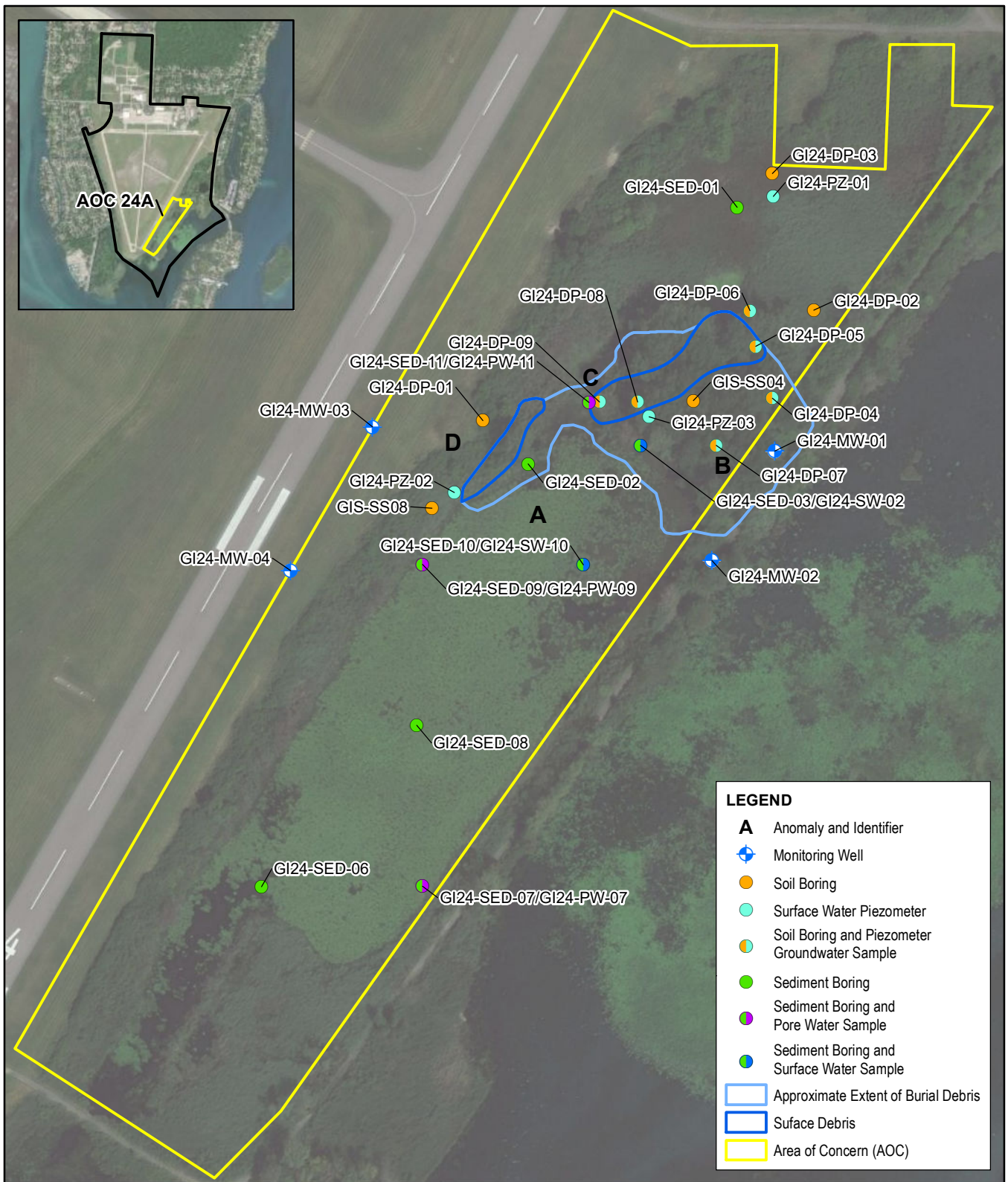


Figure 4. Historical Sampling Locations
Former Naval Air Station Grosse Ile Grosse Ile, Wayne County, Michigan

Source: Ellis Environmental Group (EEG), Grosse Ile, Grosse Ile, Michigan. October 2006. Remedial Investigation, Former Naval Air Station. 2007

