

GOULD ISLAND RESTORATION ADVISORY BOARD

Summer 2018 meeting
Gould Island RAB Committee
07 August 2018

“The views, opinions and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.”



US Army Corps
of Engineers®



INTRODUCTIONS

USACE Co-Chair : CPT Erik Patton

USACE FUDS Program Manager: Gary Morin, P.E.

RAB Community Co-Chair (pro tem) : Mr. David Sommers

RIDEM State Rep : Tanner Steeves (fish & wildlife)
Nick Noons (waste management)

Crederre, LLC : Rip Patten, PE, LSP, LEED-AP (vice president)
Sean McNamara, PhD (project manager)



US Army Corps
of Engineers[®]



AGENDA – 07 AUGUST 2018

Call to Order and Introductions

Administrative Announcements and Actions

- Co-Chair Comments
- Overview of Task Groups

Project Authority and Methodology

- FUDS Program, CERCLA, Excluded Sites, & Planned Future Use

Project Updates

- Community project overview and timeline
- Credere, LLC updates
 - Design of the Remedial Investigation
 - Remedial Investigation Activities (November 2017 to now)
 - Conceptual Site Model and Field Sampling Plan
 - Next Steps and Path Forward

Open Discussion and Agenda Development

- Extending community outreach
- Discussion of project work
- Discussion of meeting frequency and length and project documents availability

Vote to elect Community Co-Chair

- Vote to approve RAB Operating Procedures
- Vote to elect Community Co-Chair

Public Comments (Non-RAB members)

Wrap Up



COMMUNITY CO-CHAIR COMMENTS



RULES OF THE RAB

- All Views Are Valid
- Talk to The Chairman of the Meeting
- Suspend Judgment
- No Personal Accusations
- One Voice at a Time
- Maintain Relevance
- Adhere to Time Allocation
- Focus on The Job (Task is the Boss)
- Establish Conclusions and Recommendations
- Anything You Say Will Not Be Used Against You Later



US Army Corps
of Engineers ®



TASK GROUPS

- Outreach group: committee focused on the RAB's community education and involvement mission
- Technical comments group: committee focused on the RAB's technical documents review and comment mission
- Procedures: committee to review and nominate changes to the Operating Procedures and assist with internal dispute resolution



PROJECT AUTHORITY

CEMP-D DEPARTMENT OF THE ARMY ER 200-3-1
U.S. Army Corps of Engineers
Washington, D.C. 20314

Regulation No. 200-3-1 10 May 2004

Environmental Quality FORMERLY USED DEFENSE SITES (FUDS) PROGRAM POLICY

- 1. Purpose.** This regulation provides specific policy and guidance for management and execution of the Formerly Used Defense Sites (FUDS) program.
- 2. Applicability.** This Engineer Regulation (ER) applies to all U.S. Army Corps of Engineers (USACE) elements engaged in FUDS program activities.
- 3. Distribution.** Approved for public release; distribution is unlimited.
- 4. Reference.** See Appendix A.
- 5. Terms and Abbreviations.** See the Glossary.
- 6. Policy.** It is the policy of the USACE that the policies contained in this ER are the overarching USACE policy for management and execution of the FUDS program and takes precedence over previous USACE FUDS program policy and guidance.
- 7. Discussion.** This regulation provides policy and guidance within USACE for the planning, programming, budgeting, execution, management, and reporting of all activities associated with FUDS properties and projects. FUDS are defined as real property that was under the jurisdiction of the Secretary¹ and owned by, leased by, or otherwise possessed by the United States (including governmental entities that are the legal predecessors of Department of Defense [DoD] or the Components) and those real properties where accountability rested with DoD but where the activities at the property were conducted by contractors (i.e., government-owned, contractor-operated [GOCO] properties) that were transferred from DoD control prior to 17 October 1986. The FUDS eligibility status of former DoD property is not affected by its being the current responsibility of another federal agency.

¹ The term "Secretary" means the Secretary of Defense and the Secretaries of each of the Military Departments, as well as the Secretaries of any predecessor departments or agencies of DoD.

7. Discussion. This regulation provides policy and guidance within USACE for the planning, programming, budgeting, execution, management, and reporting of all activities associated with FUDS properties and projects. FUDS are defined as real property that was under the jurisdiction of the Secretary¹ and owned by, leased by, or otherwise possessed by the United States (including governmental entities that are the legal predecessors of Department of Defense [DoD] or the Components) and those real properties where accountability rested with DoD but where the activities at the property were conducted by contractors (i.e., government-owned, contractor-operated [GOCO] properties) that were transferred from DoD control prior to 17 October 1986. The FUDS eligibility status of former DoD property is not affected by its being the current responsibility of another federal agency.

1-1.2.1 *Installation Restoration (IR) Program.* For the FUDS, the IR program includes the Hazardous, Toxic, and Radioactive Waste (HTRW) and Containerized HTRW (CON/HTRW) project categories. IR program category is defined as the conduct of response actions (i.e., the identification, investigation, and remedial actions, or a combination of removal and remedial actions) to address releases of:

1-1.2.1.1 Hazardous substances or pollutants and contaminants (as defined in the CERCLA).

1-1.2.1.2 Petroleum, oil, or lubricants (POL). Under the *DoD Management Guidance for the DERP*, funding appropriated to the Environmental Restoration (ER)-FUDS account may be used to remediate releases of petroleum where the release poses an imminent and substantial endangerment to the public health or welfare or to the environment [10 USC 2701(b)(2)].

1-1.2.1.3 DoD-unique materials.

1-1.2.1.4 Hazardous wastes or hazardous waste constituents.



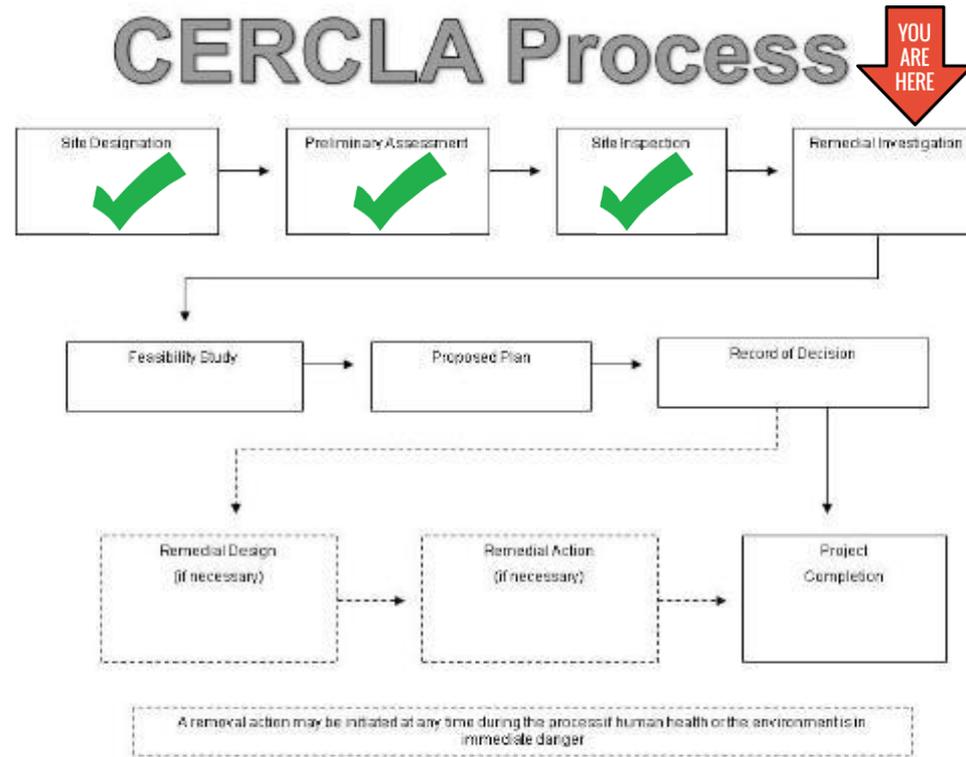
US Army Corps
of Engineers ®



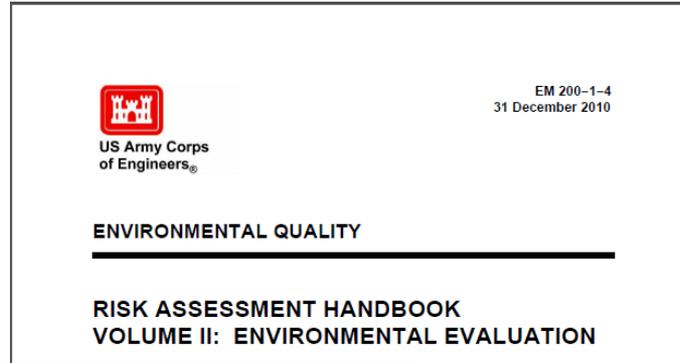
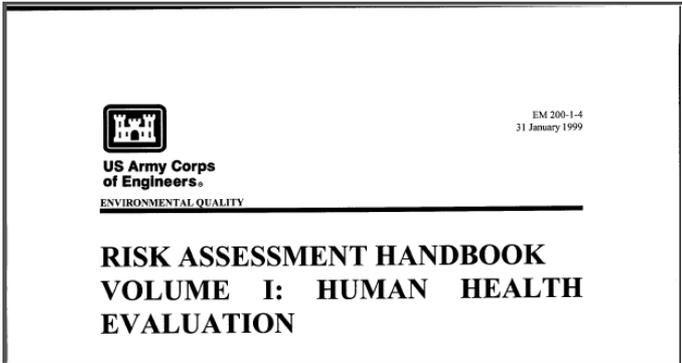
PROJECT AUTHORITY— COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA)

1-1 Defense Environmental Restoration Program (DERP).

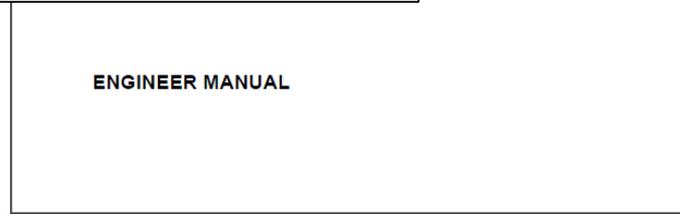
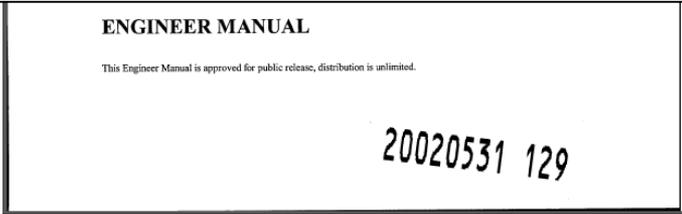
1-1.1 *Compliance with Statute and Policy.* The USACE must comply with the DERP statute (10 USC 2701 et seq.), the Comprehensive Environmental Response Compensation, and Liability Act (CERCLA, 42 USC § 9601 et seq., Executive Orders (EOs) 12580 and 13016, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and all applicable DoD (e.g., *DoD Management Guidance for the DERP [28 September 2001]*) and Army policies in managing and executing the FUDS program. Because of the linkages between the DERP and CERCLA and the delegation of certain Presidential authorities under CERCLA to DoD, **CERCLA is DoD's preferred framework for environmental restoration.** Where a regulatory agency seeks to use another framework, USACE Districts shall:



PROJECT METHODOLOGY– RISK BASED



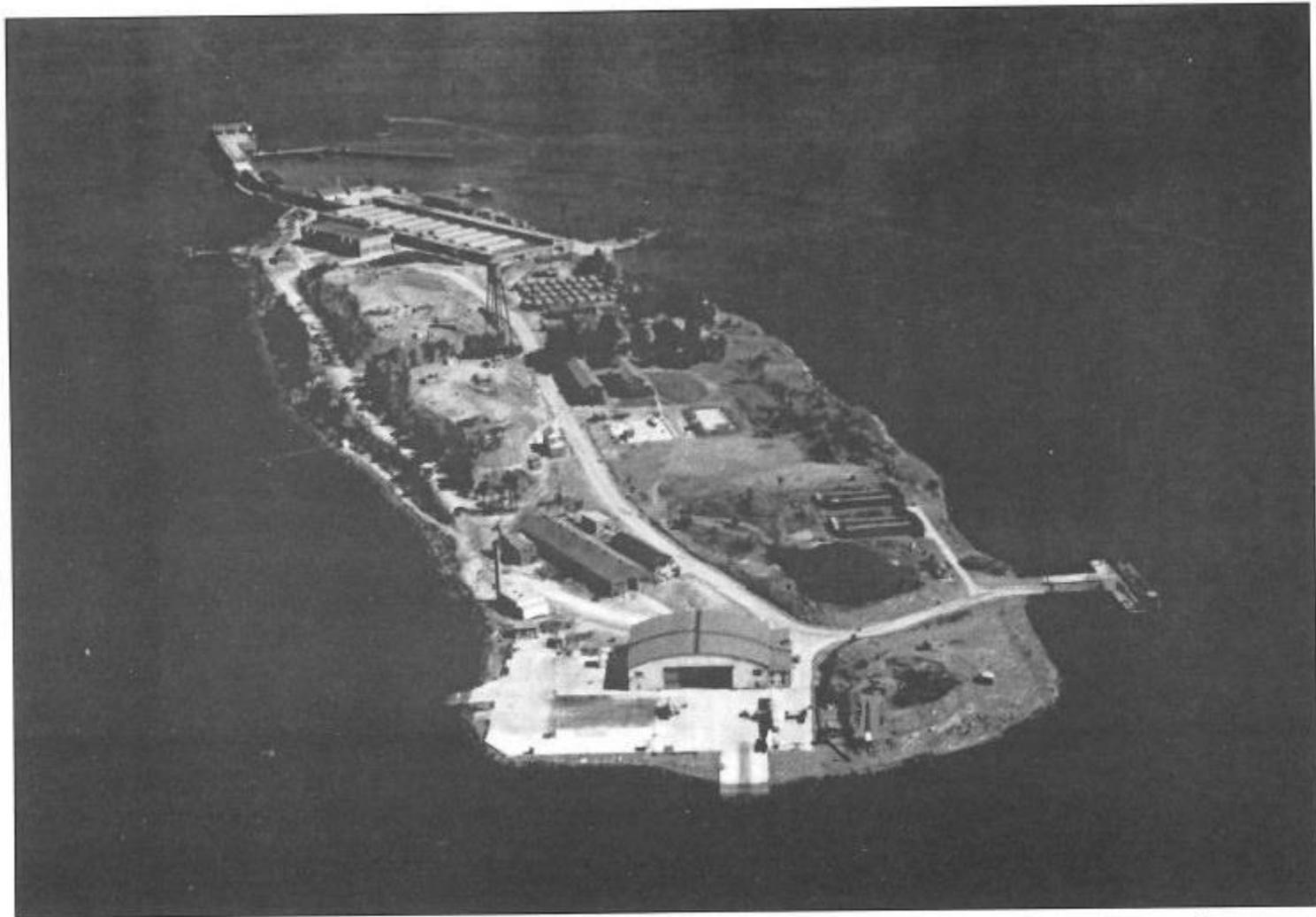
1.1.1. Risk characterization is a similar process for both human health and ecological risk assessments. The fundamental paradigm for human health risk characterization has four phases: (1) hazard identification, (2) dose-response assessment, (3) exposure assessment, and (4) risk characterization. Similarly, the fundamental framework for ecological risk characterization includes four analogous phases: (1) problem formulation, (2) exposure characterization, (3) ecological effects characterization, and (4) risk characterization.



From EPA OSWER Directive No. 9355.7-04

In order to ensure use of realistic assumptions regarding future land uses at a site, EPA should discuss reasonably anticipated future uses of the site with local land use planning authorities, local officials, and the public, as appropriate, as early as possible during the scoping phase of the [Remedial Investigation/Feasibility Study] RI/FS. EPA should gain an understanding of the reasonably anticipated future land uses at a particular Superfund site to perform the risk assessment and select the appropriate remedy.⁶

30-SECOND HISTORY LESSON



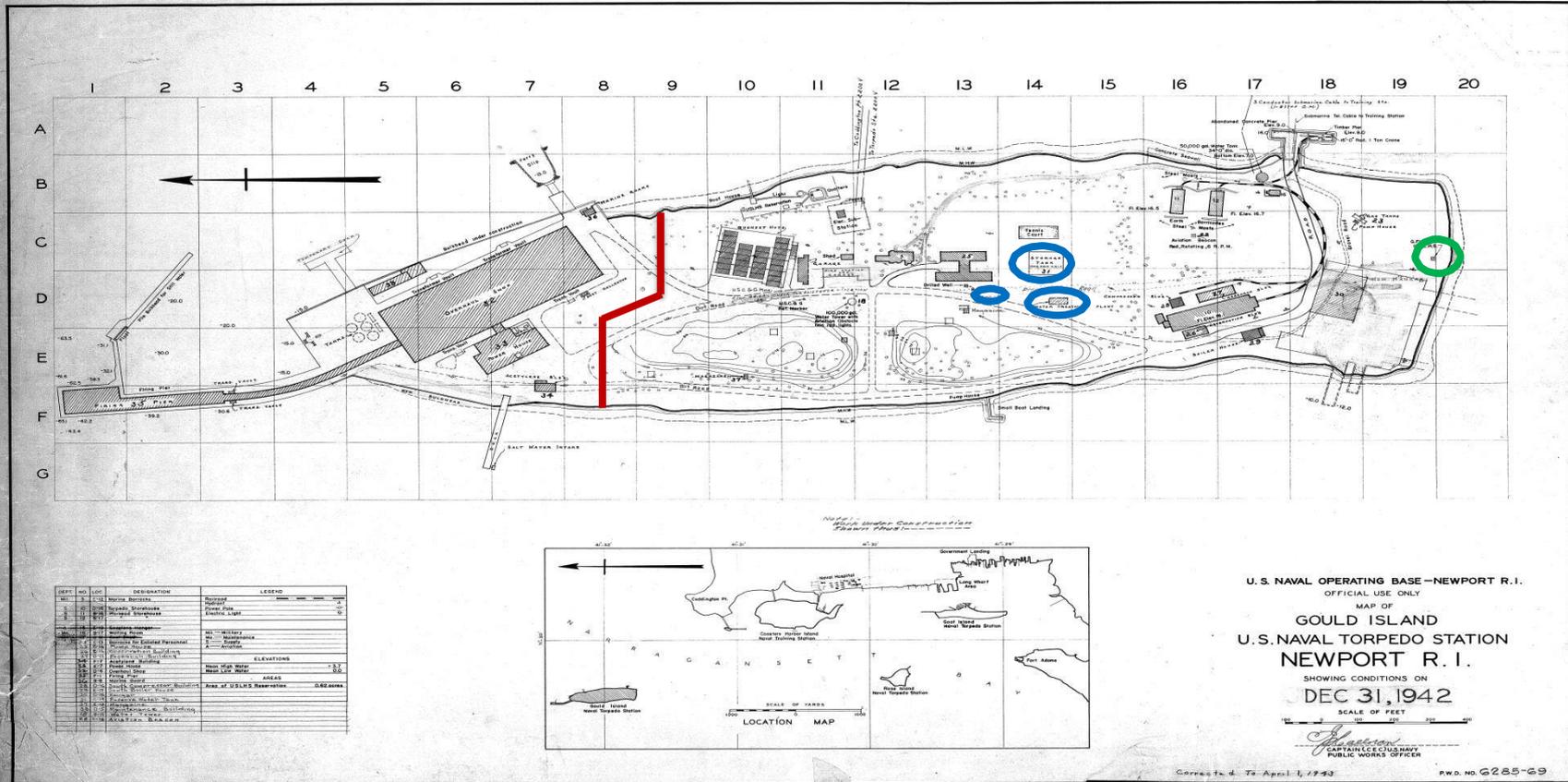
Gould Island, February 9, 1944, showing aviation improvement at the island's southern tip. (Naval War College Archives.)

Gould Island Area In Scope

- 39 acres transferred from Fed Government to RI
 - South 2/3 of Gould
 - Deed restriction for conservation of wildlife
 - RIDEM is “owner” for State
- 4 South Gould parcels excluded from transfer and remain Federal property
- North 17 acres held by Navy for NUWC
 - Cleanup on-going for 20 years
 - Demolition, re-construction of pier building planned



1942 Navy Site Map



CONSIDERATIONS FOR JAMESTOWN RESIDENTS

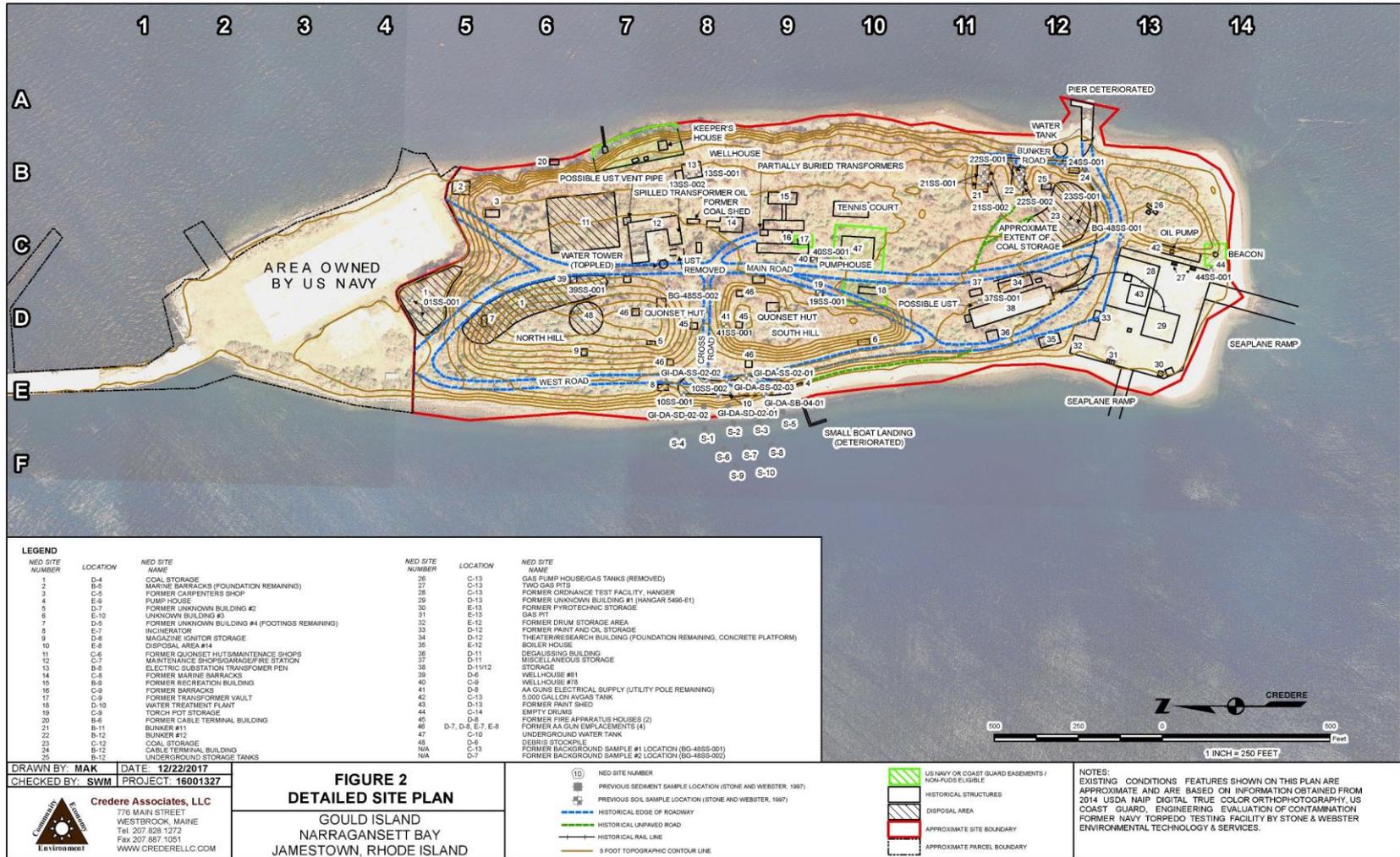
- Physical (non-contaminated) cleanup
 - USACE program authority: only structures/material unsafe at time of transfer (1975-1986)
 - No building/other debris safety hazard removal (RIDEM responsibility)
 - May be too hazardous for human presence
- Current RIDEM access policy
 - April – August: Human access prohibited during bird nesting season
 - September – March: Human access not prohibited
- Need alignment of future use plans: RIDEM, Town
- Possibility to have Navy and Coast Guard parcel transferred to State ownership



CREDERE UPDATES



CREDERE ASSOCIATES LLC.



**FIGURE 2
DETAILED SITE PLAN**
GOULD ISLAND
NARRAGANSETT BAY
JAMESTOWN, RHODE ISLAND

NOTES:
EXISTING CONDITIONS FEATURES SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE BASED ON INFORMATION OBTAINED FROM 2014 USDA NAIP DIGITAL TRUE COLOR ORTHOPHOTOGRAPHY, US COAST GUARD, ENGINEERING EVALUATION OF CONTAMINATION FORMER NAVY TORPEDO TESTING FACILITY BY STONE & WEBSTER ENVIRONMENTAL TECHNOLOGY & SERVICES.



Design of Remedial Investigation (RI)

- **Preliminary Technical Memorandum**
 - Review of Site history, aerial photos, building and land use
 - Review of previous investigations (generally limited sampling data)
 - Preliminary determination of potential contaminants of concern (PCOCs) for each New England District (NED) site



US Army Corps
of Engineers[®]



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Design of Remedial Investigation (RI)

• Preliminary Technical Memorandum Site Summaries

Table 1
Comprehensive Data Gap Analysis
Gould Island (D01RI033800)
Narragansett Bay, Rhode Island

NED Site No.	Navy Structure Name/No./Building Description	Comments From 1994 Records Review (SWETS, 1997)	Visual Site Inspection Results (SWETS, 1997; Alion 2009)	Prior Investigation Sampling Results (SWETS, 1997; Alion 2009)	Creder Identified Data Gaps and Possible COPCs
10	Disposal Area #14	1983 (Envirodyne, 1983) and 1986 (Loureiro, 1986) reports indicate use from the World War II era until approximately the early 1950s. No waste known to have been transported back to mainland and was all disposed here. Possible outfall from electroplating building reported. Not shown on any site plans. Filling not discernable on 1942 or 1943 aerial photos.	Large amounts of metal, concrete, and wood debris located in several areas. Incinerator/boiler slag and several (rusted) torpedo drive-sections also identified. Two areas, each containing several empty, rusted 55-gallon drums (approximately 10 total), found on top of area. Portions of the open face of disposal area are in contact with Bay at high tide.	One composite soil sample collected near drums was analyzed for TPH, VOC, SVOC, pesticides, PCBs, RCRA metals, and cyanide. One additional sample collected due to one additional area of drums identified on the ground surface and was analyzed for TPH, VOC, SVOC, pesticide, PCB, RCRA metals, explosives, nitroglycerin, and cyanide. Nitroglycerin, PAHs, lead, chromium, and arsenic detected at concentrations higher than at least one of the current comparison criteria. Highest concentration previously detected. Lead, chromium, nickel, and copper above background control sample results in sediment and lead and copper in mussel tissue samples. Some prior sediment results exceed the current marine TEL/PEL. Extent of the disposal area was previously determined by magnetometry.	1. Vertical delineation of waste onshore. 2. Assessment of nature and extent of previously identified contamination including soil, groundwater, and sediment into the bay. 3. Removal of containers and solid waste. 4. Identify possible outfall from the electroplating building. 5. Explosives, nitroglycerin, VOCs, SVOCs, TPH, pH, priority pollutant metals.
11	Former Quonset Huts/Maintenance Shops	Shown on 1943 aerial photos. Shown on 1943 site plan. Fewer Quonset huts shown on 1945 site plan. Labeled as "Maintenance Shop" and "Heating Plant" on 1957 site plan. Not present on 1919, 1942, or 1963 site plans.	Structures no longer standing. Building and other debris, including wood, nails, and roofing materials found. No surficial evidence of contamination, USTs, or stressed vegetation.	No geophysical (metal detection) evidence of USTs. Location not sampled.	1. Soil and groundwater assessment for use as a maintenance and heating plant. 2. VOCs, SVOCs, TPH, and metals.
12	Maintenance Shop/Garage/Fire Station #39	Buildings not shown on 1919 site plan. Northernmost building shown as "Under Construction" on 1942 site plan. Northernmost structure shown on 1943 aerial photos and 1943 site plan. Eastern and southern attached buildings shown on 1945 site plan and subsequent plans. RIDEM records suggest a 5,000-gallon fuel oil UST was removed from southwest of the building.	Structures still present. Southernmost building collapsed. Possible UST vent pipe found on north side of northernmost building. Oil-fired boiler, manhole for electrical utilities, transformer with spilled contents, and maintenance pit in concrete floor located inside buildings. Sparse vegetation relative to surroundings observed in area of possible former UST southwest of the buildings at Site 12.	No prior data or confirmatory assessment associated with UST removal. Location not sampled. Magnetometer survey identified suspect additional UST anomaly unassociated with previously removed UST.	1. Possible additional UST northwest of building that would require assessment. Confirm with GPR survey. 2. Assessment of spilled transformer contents and impacted media for PCBs. 3. Assessment of vehicle maintenance pit contents despite concrete bottom for TPH, VOCs, SVOCs and metals. 4. General assessment for PFAS related to fire station. 5. Previously removed USTs were removed by the Navy and, therefore, are not covered under FUDS.



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Site Clearing / Reconnaissance: Nov 27 – Dec 15, 2017**
 - Many areas of island inaccessible prior to clearing



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Site Clearing / Reconnaissance: Nov 27 – Dec 15, 2017**
 - Many buildings collapsed and inaccessible



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Site Clearing / Reconnaissance: Nov 27 – Dec 15, 2017**
 - Additional areas identified for further investigation

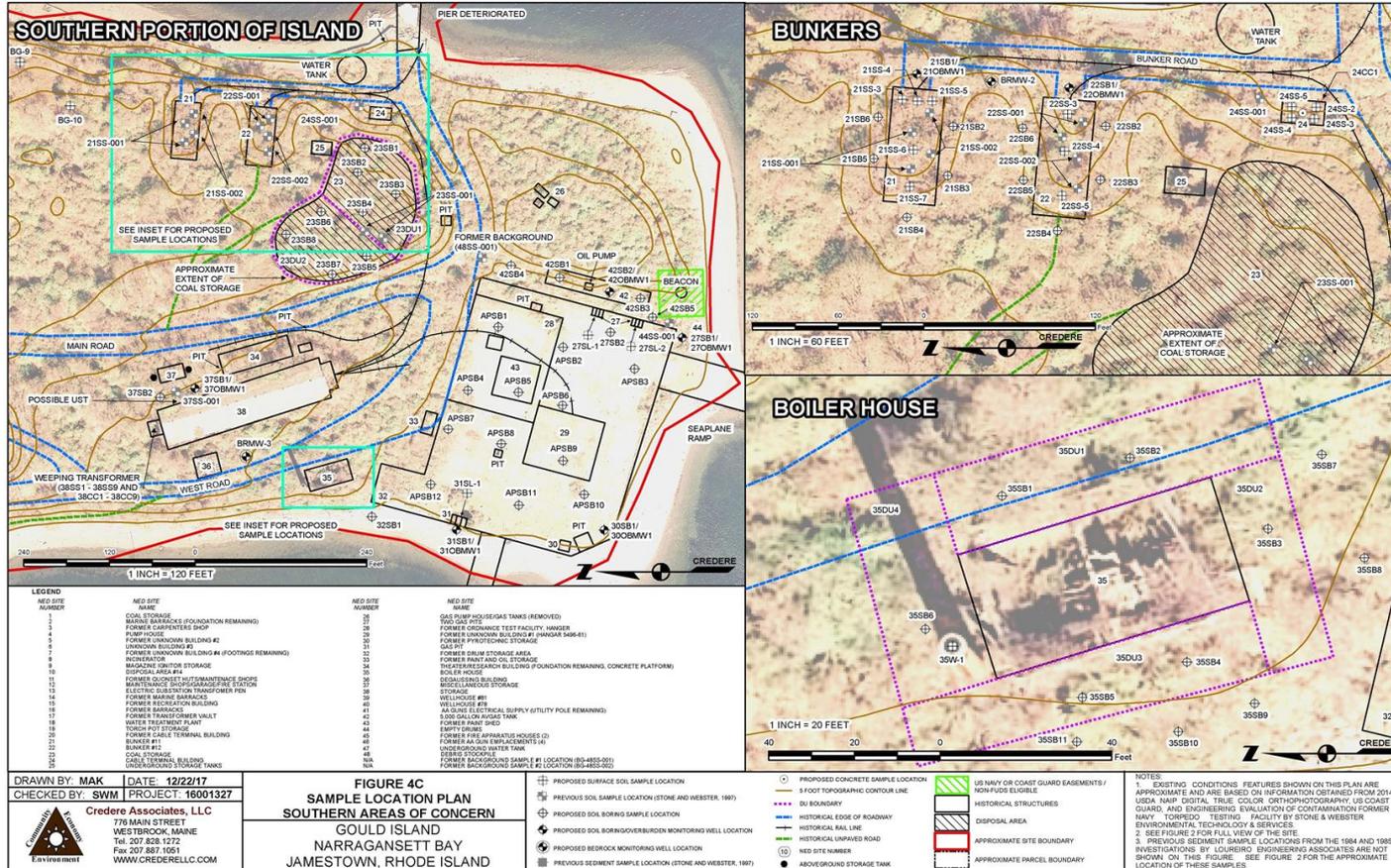


CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Field Sampling Plan

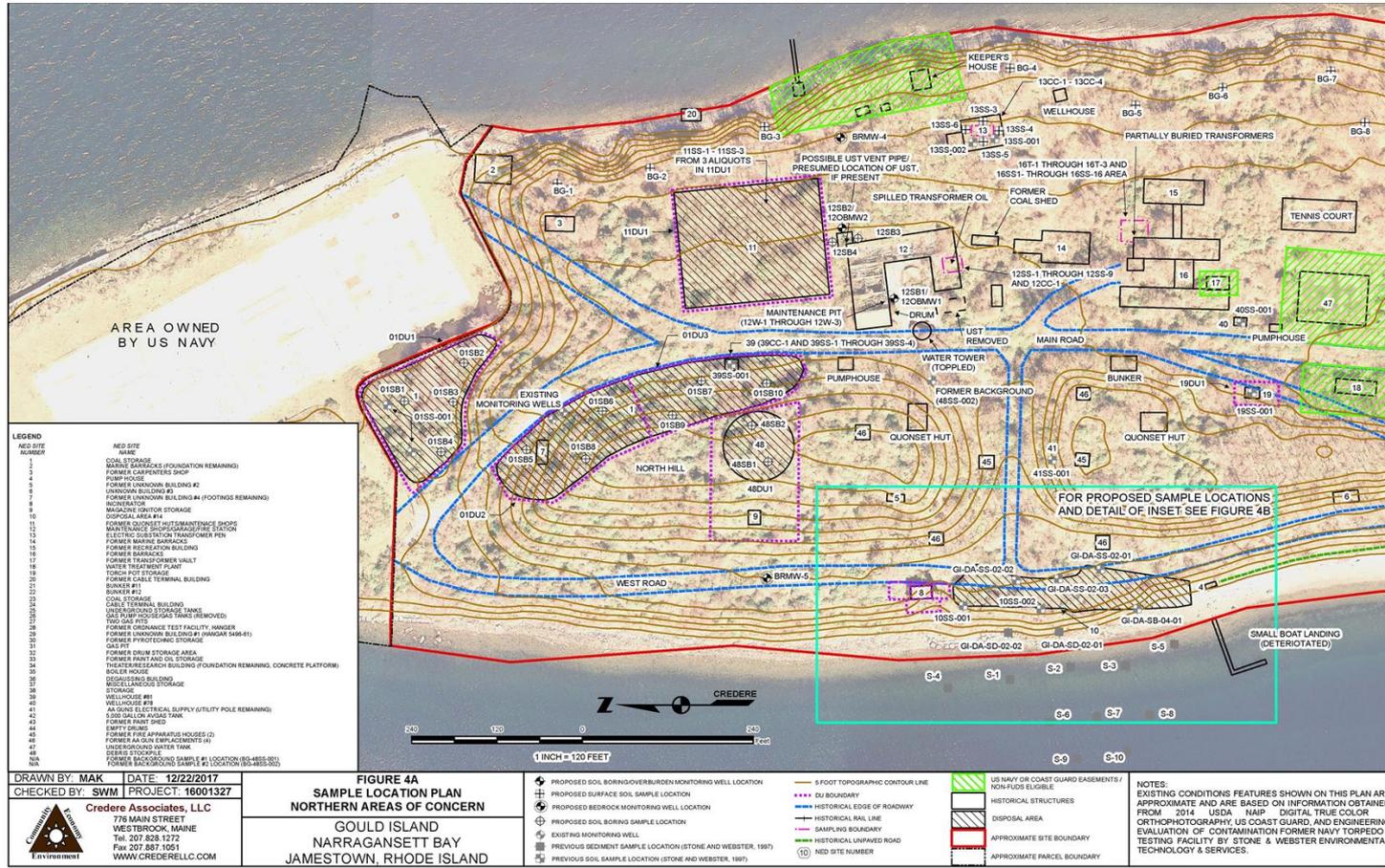


CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Field Sampling Plan

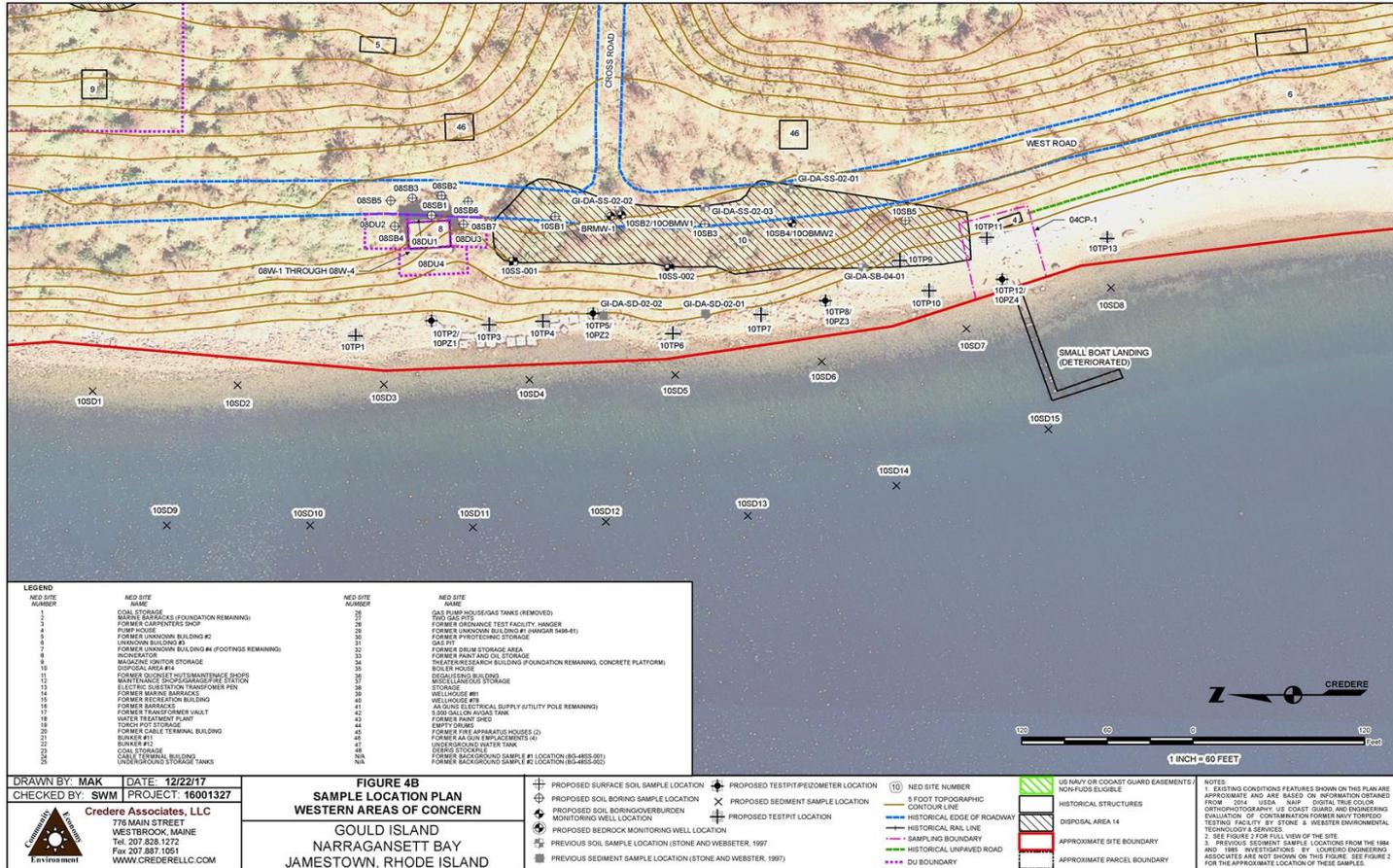


CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Field Sampling Plan

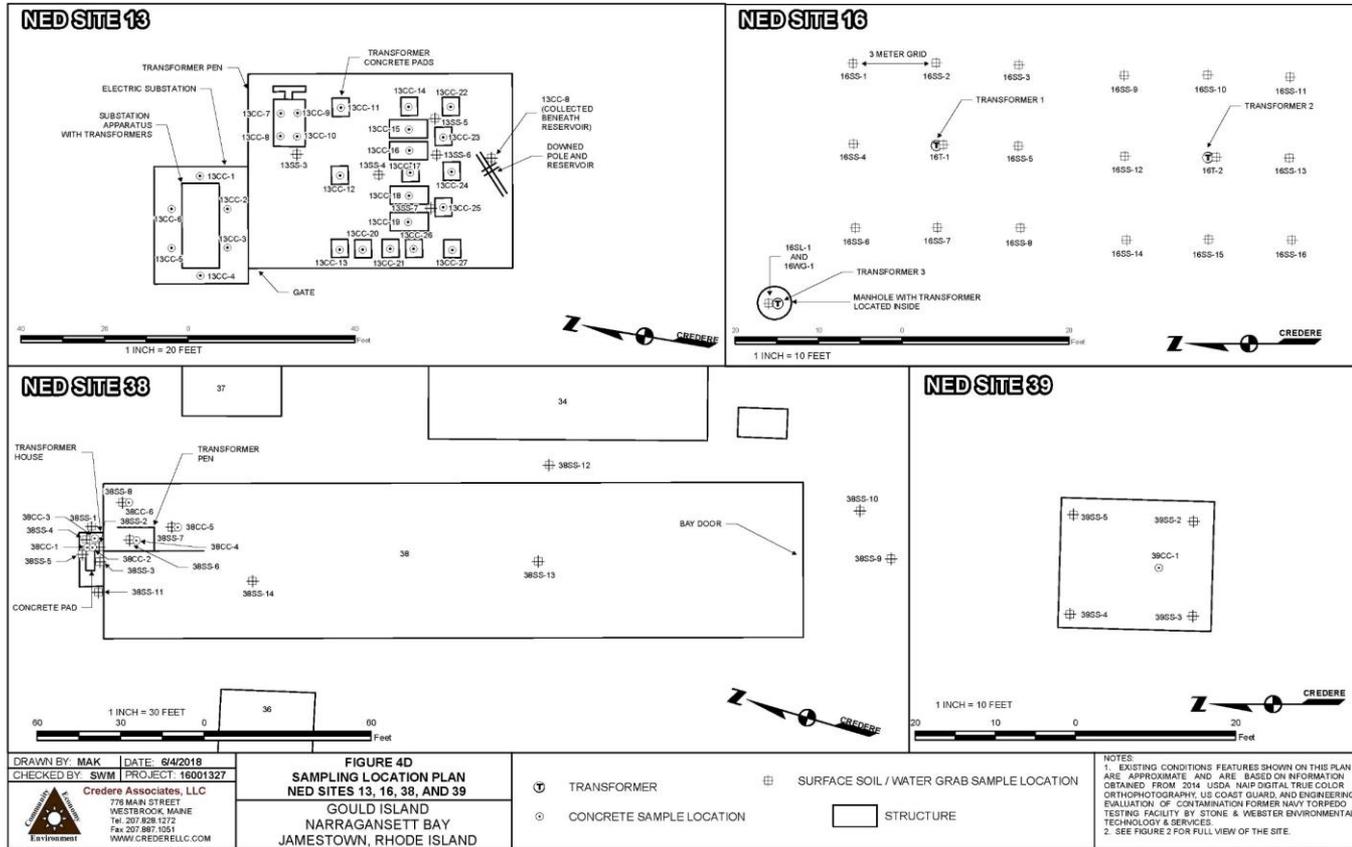


CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Field Sampling Plan



Document Path: I:\env\16001327\16001327 - Gould Island\Report\Spring 2010\plan 4D.rvt



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Field Mobilization: February 2018**
 - Transport of field equipment and personnel by landing craft or barge (no docks)



US Army Corps
of Engineers®



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Geophysical Surveys (GPR, Magnetometry)**
 - Identify and mark underground utilities and anomalies (e.g. USTs)
 - Map extent of Disposal Area 14



US Army Corps
of Engineers[®]



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Soil Borings**

- Advanced and characterized 124 soil borings with 2" Geoprobe track rig
- Sampled 83 locations for PCOCs



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

29

Remedial Investigation Activities

- **Bedrock Monitoring Well (BRMW) Installation**
 - BRMW installed at 5 locations to assess potential aquifer contamination
 - Wells drilled 29 – 91 feet below ground surface (bgs)



US Army Corps
of Engineers[®]



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Overburden Monitoring Well Installation**
 - Installed 7 overburden wells



US Army Corps
of Engineers[®]



CREDERE UPDATES



CREDERE ASSOCIATES LLC.

Remedial Investigation Activities

- **Test Pits**

- Investigate debris and PCOCs on beach below Disposal Area 14 and incinerator
- Piezometer installed at one test pit to sample pore water



US Army Corps
of Engineers®



Remedial Investigation Activities

- **Sediment Sampling**

- Attempted deeper water sampling at 7 locations. Diver will be required due to hardpack conditions
- Collected tidal zone sediment samples at 7 locations



Remedial Investigation Activities

- **Surface Soil Sampling**

- Collected 56 discrete soil samples to analyze for PCOCs
- Collected 10 surface soil samples from areas presumed to be clean to establish background concentration of arsenic
- Incremental Sampling Method (ISM) performed at 12 Decision Units (DUs) to assess surface soil risk over larger areas (e.g. former coal pile area)

- **Sludge / Stormwater Sampling**

- Collected from storm sewer containing transformer

- **Concrete Sampling**

- Collected 35 concrete samples in areas around transformers to test for PCBs

Next Steps

- **Screening Level Ecological Risk Assessment (SLERA)**
 - Determine which areas are below / above CERCLA risk criteria
- **Data Gaps**
 - Identify areas requiring additional sampling and analysis to meet project DQOs
- **QAPP / FSP Addendum**
 - Specifications for additional field sampling
- **Additional Field Investigations**
 - Spring 2018?
- **Repeat SLERA**
- **Comprehensive Risk Assessment**
- **Submit RI Report**

NEXT MEETING AGENDA DEVELOPMENT

35

- Extending community outreach
- Frequency and length of project meetings
- Project document availability



OPERATING PROCEDURES VOTE

Operating Procedures
Gould Island Restoration Advisory Board
11-April-2018

1. Mission Statement of Gould Island Restoration Advisory Board (RAB). The mission of the Gould Island RAB is to establish and maintain a forum with all stakeholders for the exchange of information in an open and interactive dialogue concerning the environmental restoration activities at Gould Island. The RAB will review technical documents and provide comments and advice to the U.S. Army Corps of Engineers (USACE), New England District (NAE), on the proposed environmental restoration activities.
2. Responsibilities of the RAB. Responsibilities of the RAB are as follows
 - a. Provide advice on environmental restoration issues to USACE and regulatory agencies.
 - b. Hold regularly scheduled meetings that are open to the public and held at convenient times and locations, normally after duty hours.
 - c. Prepare public notices to promote public participation in RAB meetings.
 - d. Review, evaluate, and provide comments to the New England District, USACE, on documents related to environmental restoration activities.
 - e. Identify applicable cleanup standards presented in the Comprehensive Environmental Response, Compensation, and Liability Act and other applicable city, county, state, and Federal law and recommend cleanup levels consistent with planned reuse.
 - f. Recommend priorities among MMRP/HTRW projects (note: Gould Island is currently only a HTRW project).
 - g. Record minutes of RAB meetings and make them available to interested parties.
 - h. Develop RAB mission statement and operating procedures.
 - i. Provide a representative on the project delivery team (PDT) during the technical project planning (TPP) process.
3. RAB Membership: RAB membership will consist of members from USACE, other Federal, state, and local regulatory agencies, and the local community. RAB membership will reflect the diversity of the community.
 - a. Community members may be drawn from, but are not limited to, the local community (including residents; various local government agencies; businesses; school districts; local environmental groups (including activist groups); civic/public interest organizations; religious groups; local regulatory agencies; Homeowners Associations; the medical community; the economically disadvantaged; African-American, Native American, Hispanic, and other minority groups; other state and Federal governments; trustees; and local and tribal governments). Community members will provide information, seek independent technical advice when



VOTE TO ELECT COMMUNITY CO-CHAIR



PUBLIC COMMENTS



WRAP UP

- Next meeting scheduled for November 2018 and will include discussion of validated laboratory analysis results.

