Part 2 – Technical Presentation

Naval Station Newport

Munitions Response Program Site Inspection Geophysical Survey Preliminary Results

March 19, 2025

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Naval Station Newport (NAVSTA) Basewide Munitions Response Program (MRP) Site Inspection (SI) Geophysical Survey Summary

Presented by:

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March 19, 2025

Agenda

- 2022 Basewide MRP Preliminary Assessment (PA) Overview
- MRP Site Investigation (SI) Geophysical Survey Methods
- MRP SI Geophysical Survey Sites and Scopes
- 2024 MRP SI Geophysical Results Mapping
- MRP SI Geophysical Results Summary
- Questions or Comments

2022 Basewide MRP Preliminary Assessment Overview

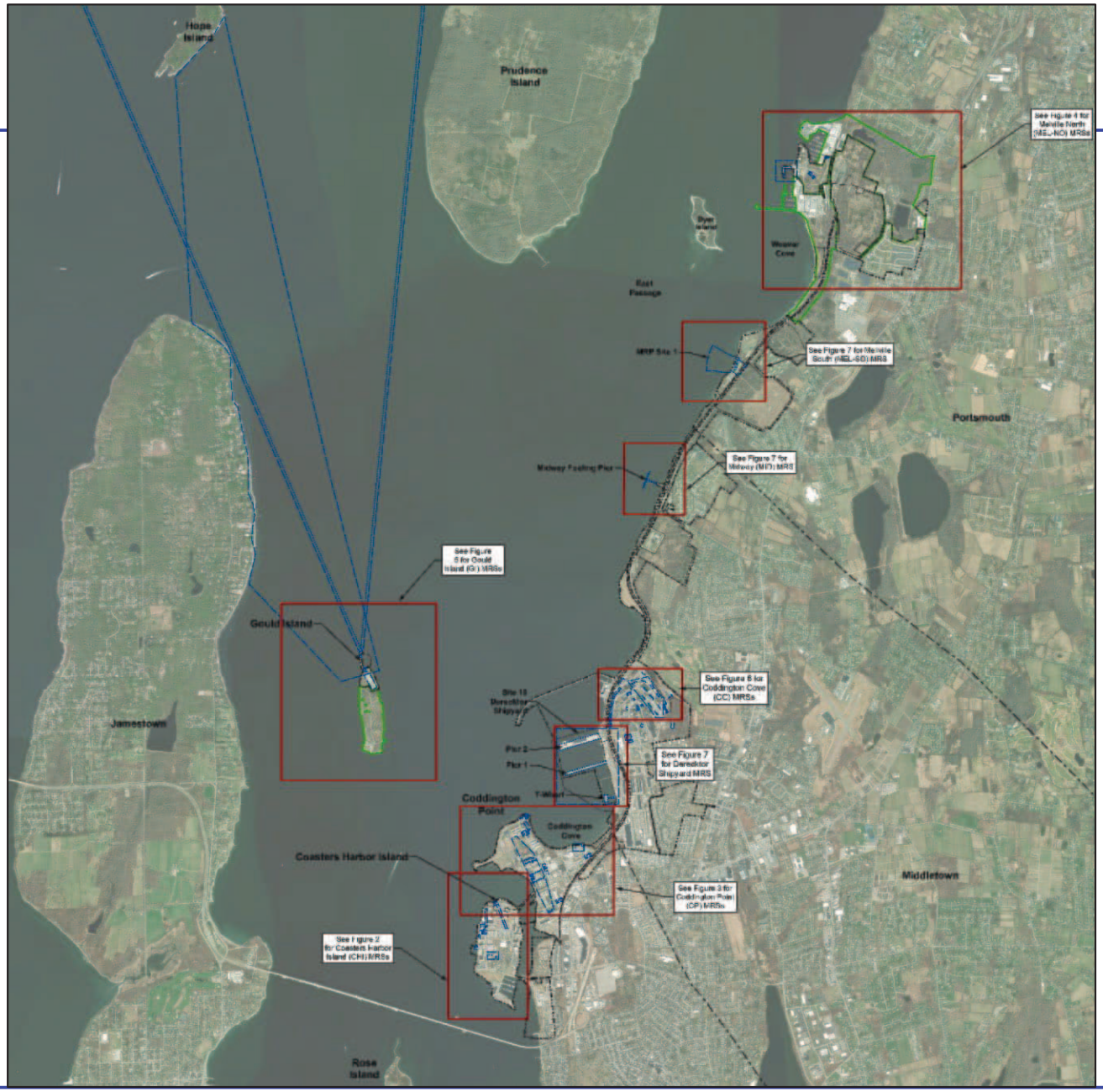
- MRP Basewide Preliminary Assessment (PA) was conducted to evaluate the potential for munitions and explosives of concern (MEC) and munitions constituents (MC) at 59 sites identified throughout NAVSTA Newport
- 28 sites were recommended for an MRP SI to evaluate the presence or absence of MEC or MC from past military use
- Final MRP PA Report was completed in September 2022
- Due to COVID restrictions (which did not allow for completion of PA research) and identification of additional sites, a PA Addendum is being prepared
- PA Addendum process still underway and under regulatory review and approval
- PA Addendum may result in the identification of additional sites and changes in findings, conclusions, and recommendations for sites identified in the Final 2022 Basewide MRP PA Report

2022 Basewide MRP Preliminary Assessment Area-Specific Recommendations

Group 2: Areas Needing Additional PA Research/Discussion[1]	
Area	**Associated Buildings**
Coasters Harbor Island Loading Machine	Building 119
Gould Island Torpedo Firing Pier and Range	NA
Gould Island Torpedo Shed	Building 41
Gould Island Penthouse and AA Gun Mount	Top of Building 35
Prohibited Area West of Gould Island	NA
Gould Island Torpedo Overhaul Shop	Building 32
Coddington Cove Naval Torpedo Storage Annex	Building 121
	Building 122
	Building 123
	Building 124
	Building 125
	Building 126
	Building 127
	Building 128
	Building 129
	Building 130
Coddington Cove Torpedo Propulsion Test Facility	Building 179
Coddington Cove Test Propulsion Facility Storage	Building 185
Coddington Cove Ship Weapon Systems Lab	Building 48
Coddington Cove UW Weapon Systems Lab	Building 115
Coddington Cove UW Weapon Systems Lab	Building 116
Coddington Cove UW Weapon Systems Lab	Building 117
Coddington Cove UW Weapon Systems Engineering	Building 126T
Coddington Cove Ship Weapon Systems Lab	Building 134
Coddington Cove UW Weapon Systems Lab	Building 149
Coddington Cove Propulsion Systems R&D Facility	Building 163
Coddington Cove Liquid Propulsion Pumping Facility	Building 164
Coddington Cove Component Test Facility	Building 178
Coddington Cove Propulsion Systems Lab	Building 182
Coddington Cove UW Weapon Systems Lab	Building 654
Coddington Cove Propulsion Fuel Lab	Building 1180
Coddington Cove Propulsion Systems Lab	Building 1192
Coddington Cove UW/Ship Weapon Systems Lab	Building 1246
Coddington Cove Propulsion Test Facility	Building 1301
Coddington Cove Propulsion Test Facility	Building 1303
Piers and Wharves (Dereckitor Shipyard, DFSP Melville, and Midway Piers and Wharves, etc.)	NA

Group 1: Areas Warranting an SI Upon Completion of PA	
Area	**Associated Buildings**
Site Inspection To Be Completed[2]	
Coasters Harbor Island 200-Yard Rifle Range	NA
Coasters Harbor Island 300-Yard Rifle Range	NA
Coasters Harbor Island Magazines	NA
Coasters Harbor Island Revolver Range	NA
Coasters Harbor Island Small Arms Magazine	Building 26
Coasters Harbor Island Gas Instruction Building	Building 126
Coasters Harbor Island AA Battery and Magazines	NA
	Building 147
	Building 148
Coasters Harbor Island Rifle Galleries	Building 22
	Building 36
Coasters Harbor Island Saluting Battery	Building 286
Coasters Harbor Island Indoor Firing Range	Building 52
Coddington Point AA Battery	NA
Coddington Point Ordnance Buildings	Building 303
	Building 403
Coddington Point Powder Store House and Chemical Warfare Locker	Building AS 11
Coddington Point Gas Chambers	Building 1925
	Building 332
Coddington Point Rifle Range	NA
Coddington Point Pistol Range (1940)	NA
Coddington Point Pistol Range (1942)	NA
Coddington Point Indoor Firing Range	Building 440
Coddington Point Gunnery Buildings/Gunnery Training School	Building 1220
	Building 1230
	Building 1938
	Building 1941
	Building 1942
	Building 1943
	Building 1945
	Building 1946
	Building 1947
	Building 1948
	Building 1949
Coddington Point Skeet Range (1940)	NA
Coddington Point Ammunitions Storage Facility	Building 1287
Melville Torpedo Storehouse	Building 24
Coddington Cove Ordnance R&D and Test Facilities	Building 113
	Building 114
	Building 132
	Building 133
	Building 148
	Building 152
	Building 160
	Building 161
	Building 165
Coddington Cove Indoor Firing Range	Building 3
Coddington Cove UW Weapons System Lab	Building 110
Coddington Cove Explosive Test Facility	Building 180
Coddington Cove Explosives Storage Magazine	Building 1177
Coddington Cove Small Arms/Pyrotechnic Magazine	Building MC 10
Site Inspection Already Completed[3]	
Melville MTBSTC Indoor Rifle/Pistol Range[4]	Building 123
Melville MTBSTC Machine Gun Trainer Building[4]	Building 122
MRP Site 1 Carr Point Shooting Range[5]	NA
Melville MTBSTC Chemical Warfare Building/Gas Chamber[6]	Building 11

2022 MRP Preliminary Assessment Areas



- Coasters Harbor Island
- Coddington Point
- Coddington Cove
- Melville
- Gould Island

MRP SI Geophysical Survey Methods

Geophysical Survey Methods and Purpose:

Purpose of DGM Surveys: Detect and map subsurface anomalies potentially associated with MEC and apparent buried debris areas associated with the decommissioning of former buildings where MEC and/or MC releases may have occurred

Purpose of UXO Detector-Aided Visual Shoreline Surveys: Detect and map subsurface anomalies potentially associated with MEC and evaluate the potential presence of small arms ammunition and other debris indicative of potential munitions releases along the shorelines

GSV and QC tests: Geophysical system verification (GSV) and quality control (QC) tests performed to ensure the geophysical systems used were functioning properly

MRP SI Geophysical Survey Methods

- DGM surveys conducted using EM61-MK2 time domain electromagnetic all-metals detector and EM31-SH terrain electrical conductivity meter each with real-time kinematic (RTK) global positioning system (GPS)
  - EM61-MK2 DGM data collected along transects spaced 2.5 feet apart
  - EM31-SH DGM data collected along transects spaced 4 feet apart


EM61-MK2 DGM Data Collection


EM31-SH DGM Data Collection

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MRP SI Geophysical Survey Methods

- UXO detector-aided visual shoreline surveys performed along transects spaced 5 feet apart using a Vallon VMH3CS analog all-metals detector and differential global positioning system (DGPS)

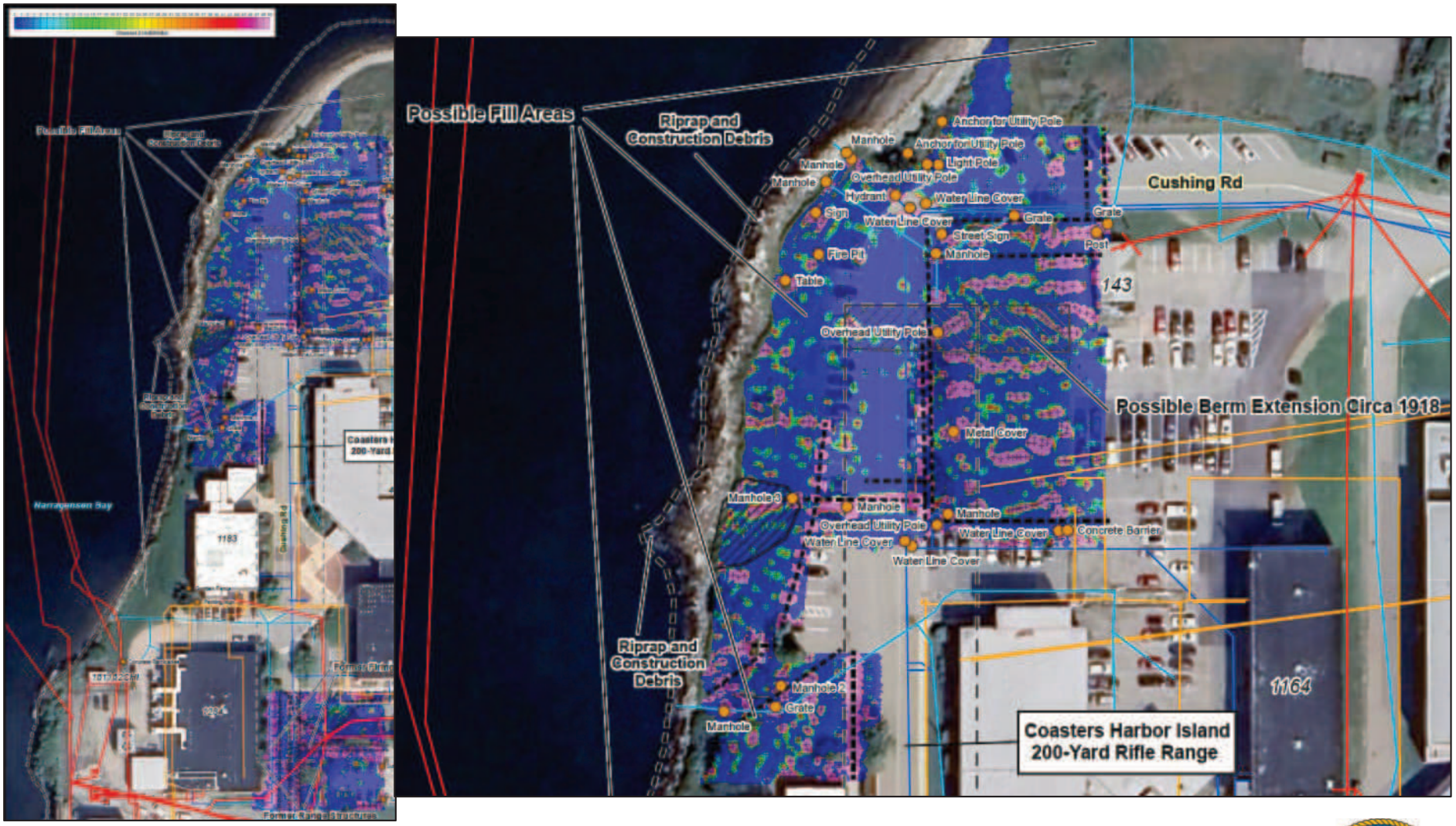
UXO Detector-Aided Shoreline Survey

MRP SI Geophysical Survey Sites and Scopes

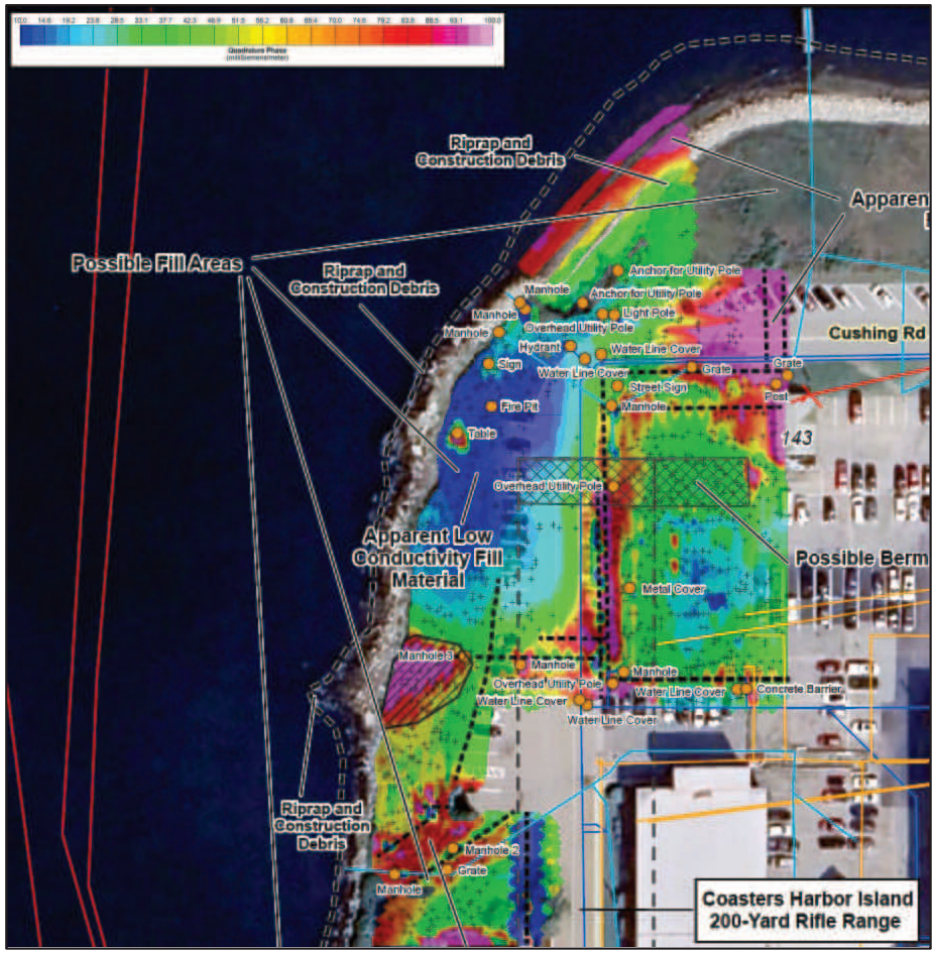
- **Coasters Harbor Island 200-Yard Rifle Range:** Digital geophysical mapping (DGM) survey and unexploded ordnance (UXO) detector-aided visual shoreline survey
- **Coasters Harbor Island 300-Yard Rifle Range and Magazine Building 38:** DGM survey and UXO detector-aided visual shoreline survey
- **Coasters Harbor Island Revolver Range and Magazine Building 37:** DGM survey and UXO detector-aided visual shoreline survey
- **Coasters Harbor Island Small Arms Magazine (Building 26):** UXO detector-aided visual shoreline survey
- **Coasters Harbor Island Gas Instruction Building (Building 126):** DGM survey and UXO detector-aided visual shoreline survey
- **Coddington Point Gas Chambers:** DGM survey and UXO detector-aided visual shoreline survey
- **Coddington Point Store House and Chemical Warfare Locker (Building AS 11):** DGM survey and UXO detector-aided visual shoreline survey

MRP Site Inspection Geophysical Survey Areas

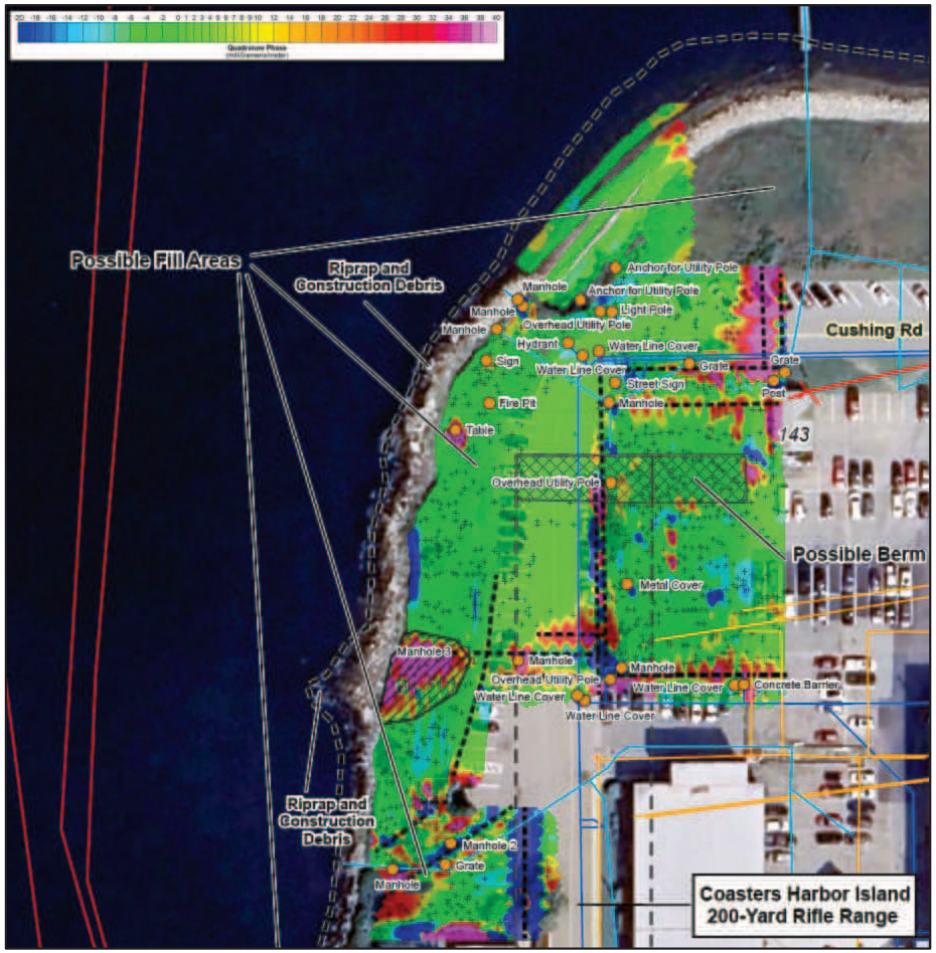
Former 200-Yard Rifle Range EM61-MK2 DGM Results



Former 200-Yard Rifle Range EM31-SH DGM Results



Raw (Unleveled) Electrical Conductivity Data



Leveled Electrical Conductivity Data

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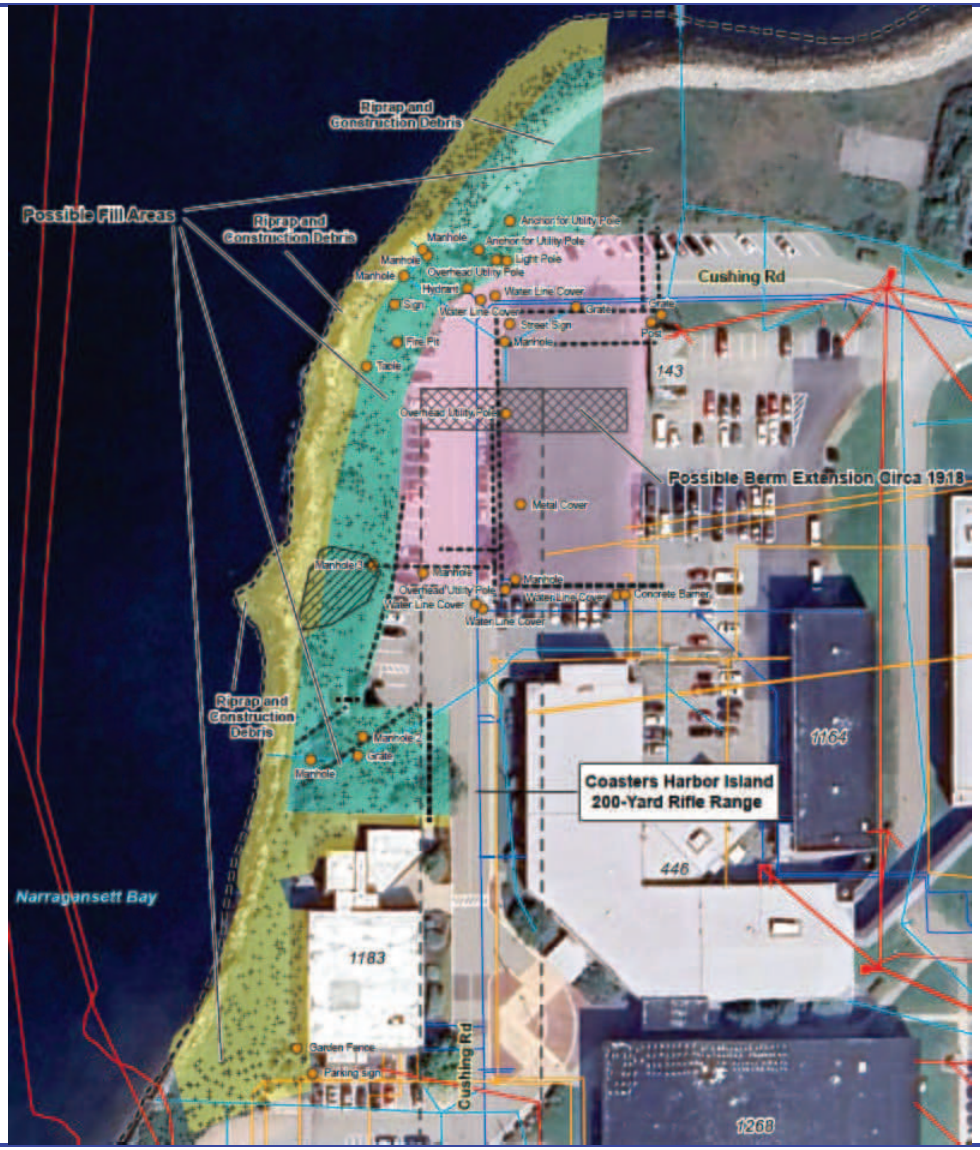
Former 200-Yard Rifle Range UXO Detector-Aided Visual Shoreline Survey Results



MRP SI Geophysical Results Summary

DGM Survey:

- EM61-MK2 DGM detected a total of 4,500 target anomalies over the various sites
- EM61-MK2 and the EM31-SH DGM detected one apparent buried debris or anomaly area at the Coaster Harbor Island 200-Yard Rifle Range
- EM61-MK2 and EM31-SH DGM detected several known underground utility lines and unidentified underground lines or other linear features
- EM31-SH DGM detected areas of apparent high and low conductivity fill material at several sites:
    - High conductivity fill areas may be attributed to greater soil moisture content, perched groundwater, and/or more fines in the soil compared to the surrounding soil
    - Low conductivity fill areas may be attributed to less soil moisture content and/or less fines in the soil compared to the surrounding soil

MRP SI Geophysical Results Summary

UXO Detector-Aided Visual Shoreline Survey:

- Detected a total of 3,752 target anomalies over the various sites
- No MEC, small arms ammunition, or munitions-related debris were observed during the surveys
- Riprap, reinforced concrete, construction debris, and other non-munitions-related debris were observed during the surveys

➢ Based of the geophysical survey results, the project team will determine the next steps for the MRP SI which may include test pitting for MEC evaluation and MC sampling

Questions or Comments?

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Thank You