

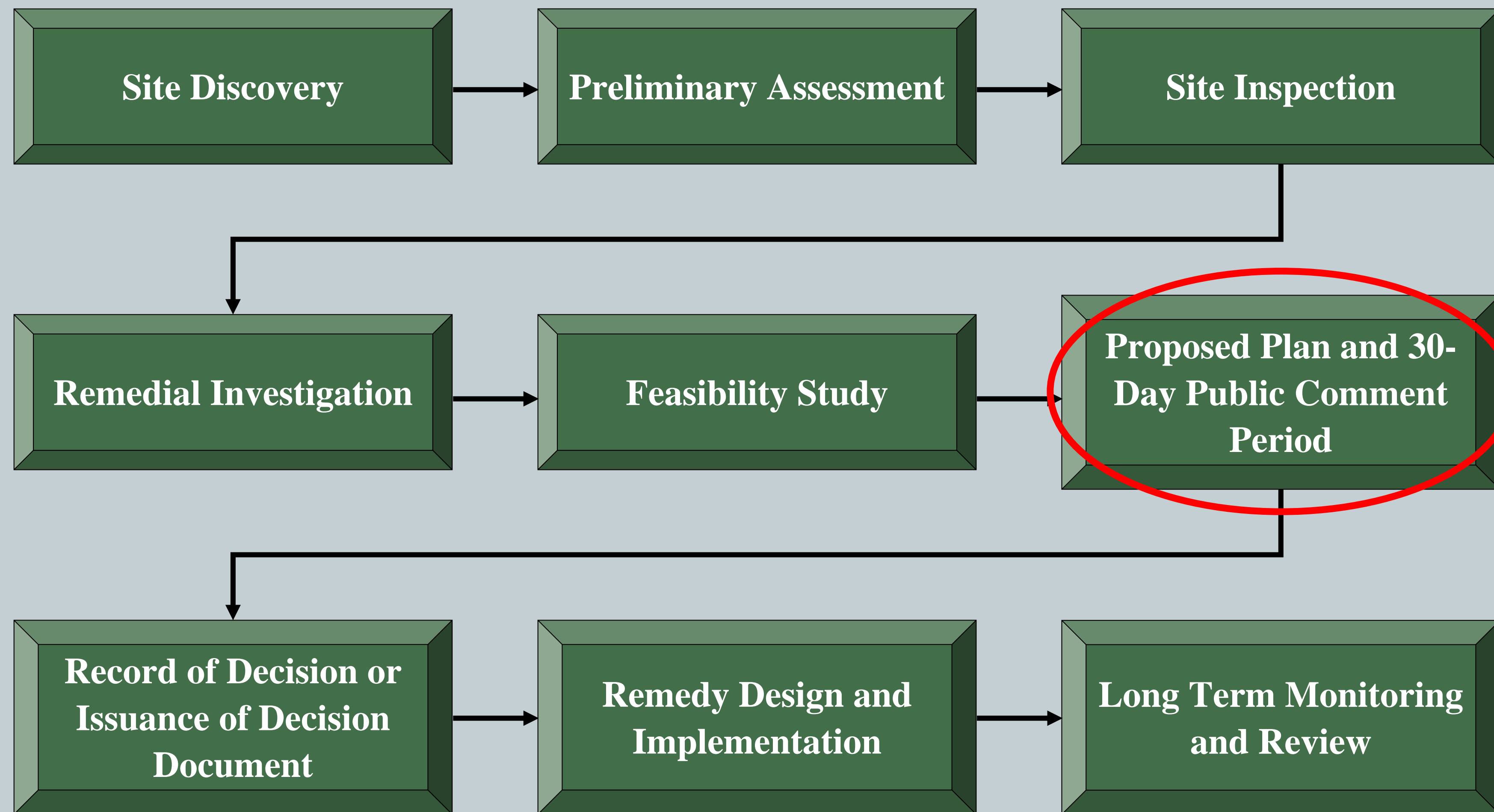


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Public Meeting – May 2, 2019

Assateague Island FUDS Proposed Plan

Environmental Response Process



Proposed Plan and Preferred Approach

This Proposed Plan identifies the preferred approach for the Assateague Island Formerly Used Defense Site (FUDS) and provides the rationale for this preference which can be found in greater detail in the Final Remedial Investigation Report (USACE 2019) and other documents contained in the **Information Repository**.

As a result of the Remedial Investigation completed at the Assateague Island FUDS, the current site conditions have been determined to be acceptable for Munitions Response Site (MRS) 01 and MRS 03. Therefore, as part of the CERCLA process for the FUDS, **No Further Action (NFA)** is recommended by USACE as the preferred approach.

Public Comment Period for Proposed Plan

➤ The Proposed Plan comment period is from April 29th through June 3rd, 2019. The USACE will consider all relevant comments prior to making the final decision. To submit comments or obtain further information please refer to the insert page at end of proposed plan.

Send written comments to:
Christopher Gardner
USACE Baltimore District
2 Hopkins Plaza Baltimore,
MD 21201
Email:
Christopher.P.Gardner@usace.army.mil
Phone: (410) 962-2626

Location of Information Repository

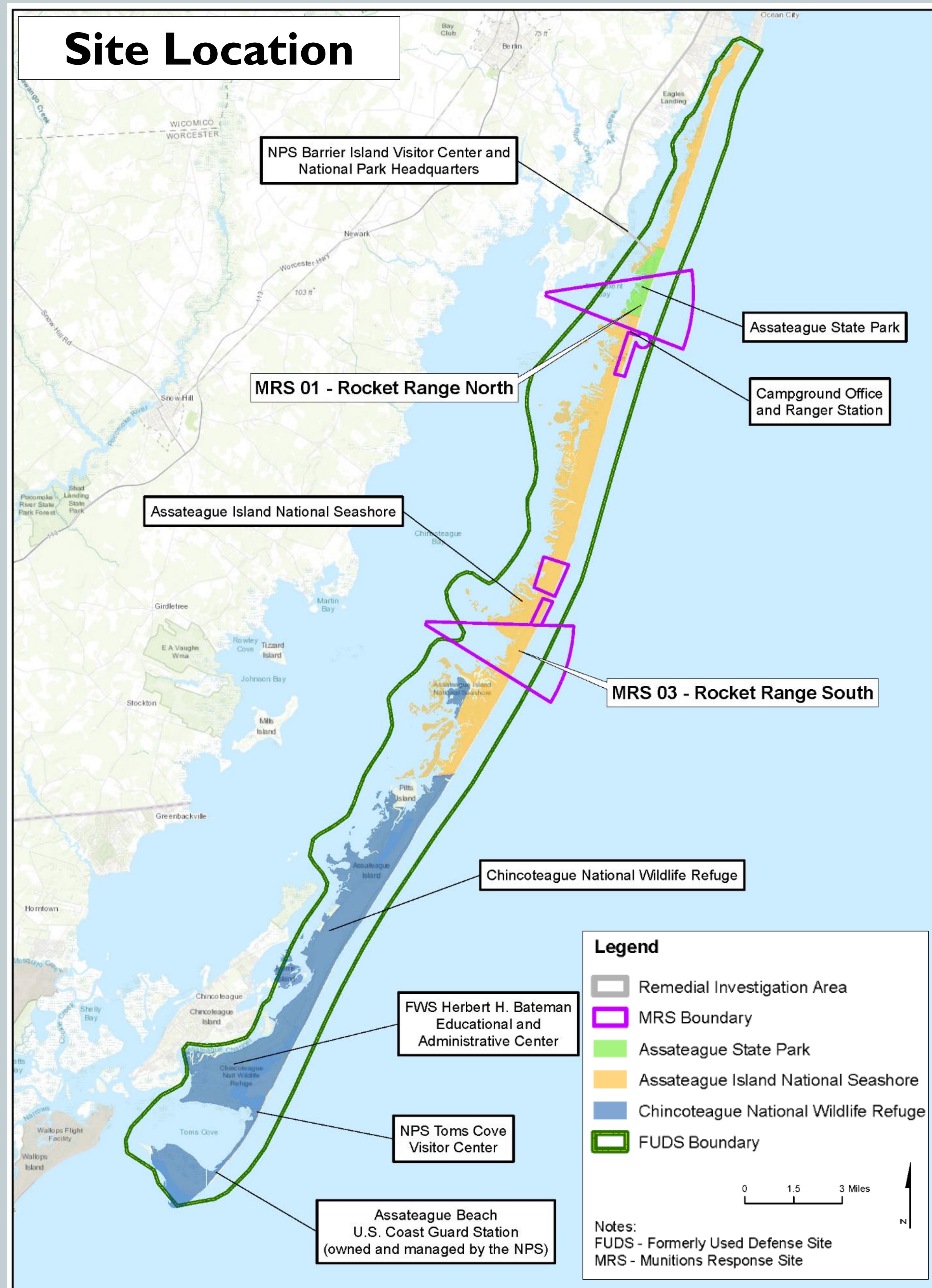
For more information about the Assateague Island FUDS, use <https://www.nab.usace.army.mil/Missions/Environmental/Formerly-Used-Defense-Sites/>

Or visit the Information Repository at the **Worcester County Library - Berlin Branch**
13 Harrison Ave, Berlin, MD 21811.



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Assateague Island Site History



- Two practice ranges used by the Navy from approximately 1944 to 1947.
- Air-to-ground practice bombing, rocket, and strafing range.
- Surface debris in target areas was reported as cleaned up and buried.
- Assateague Island established as a national seashore in 1965.
- First Reported incident of munitions debris/EOD response in 1988.
- Multiple investigations over the years.
- Currently Assateague Island serves as public lands for recreation.

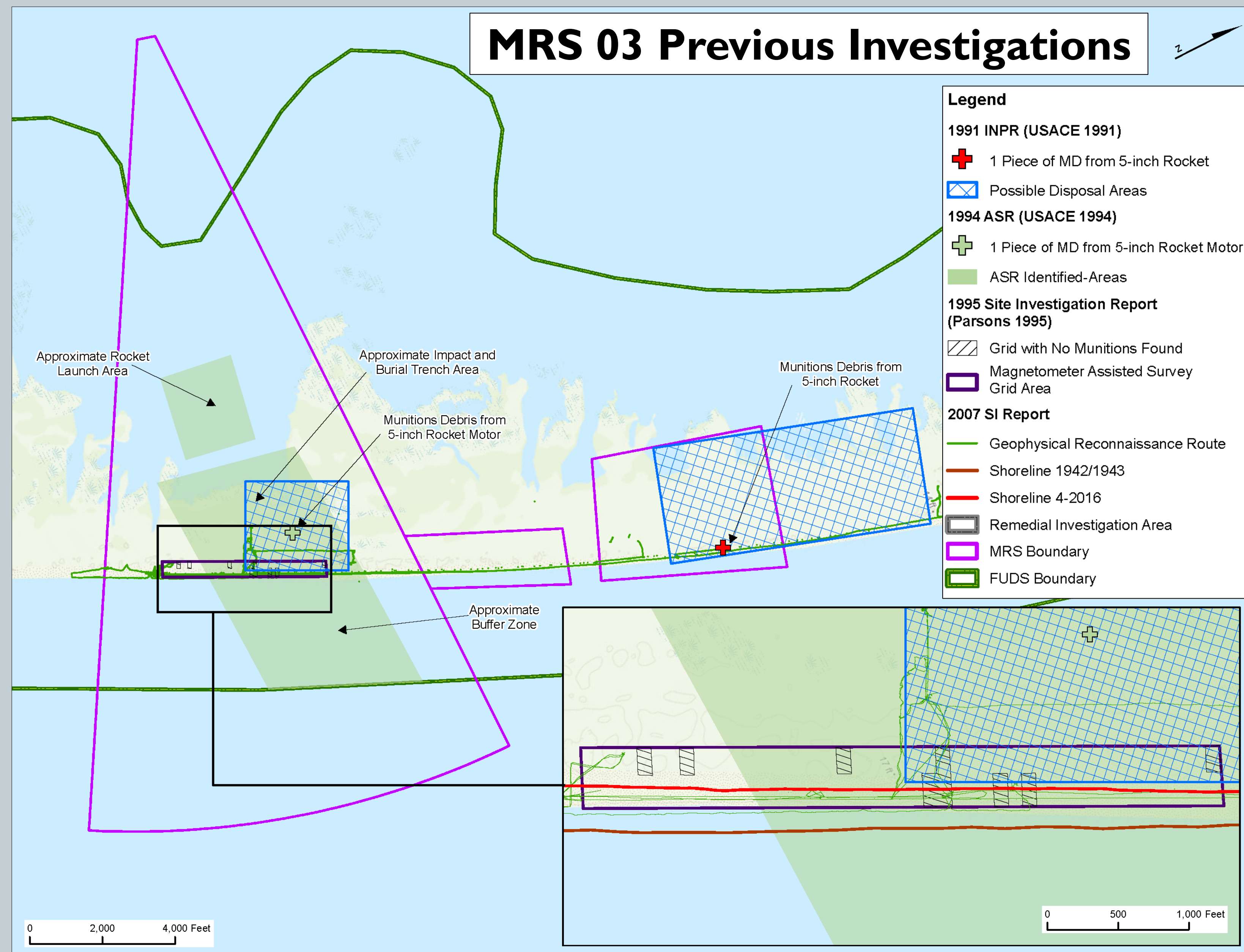
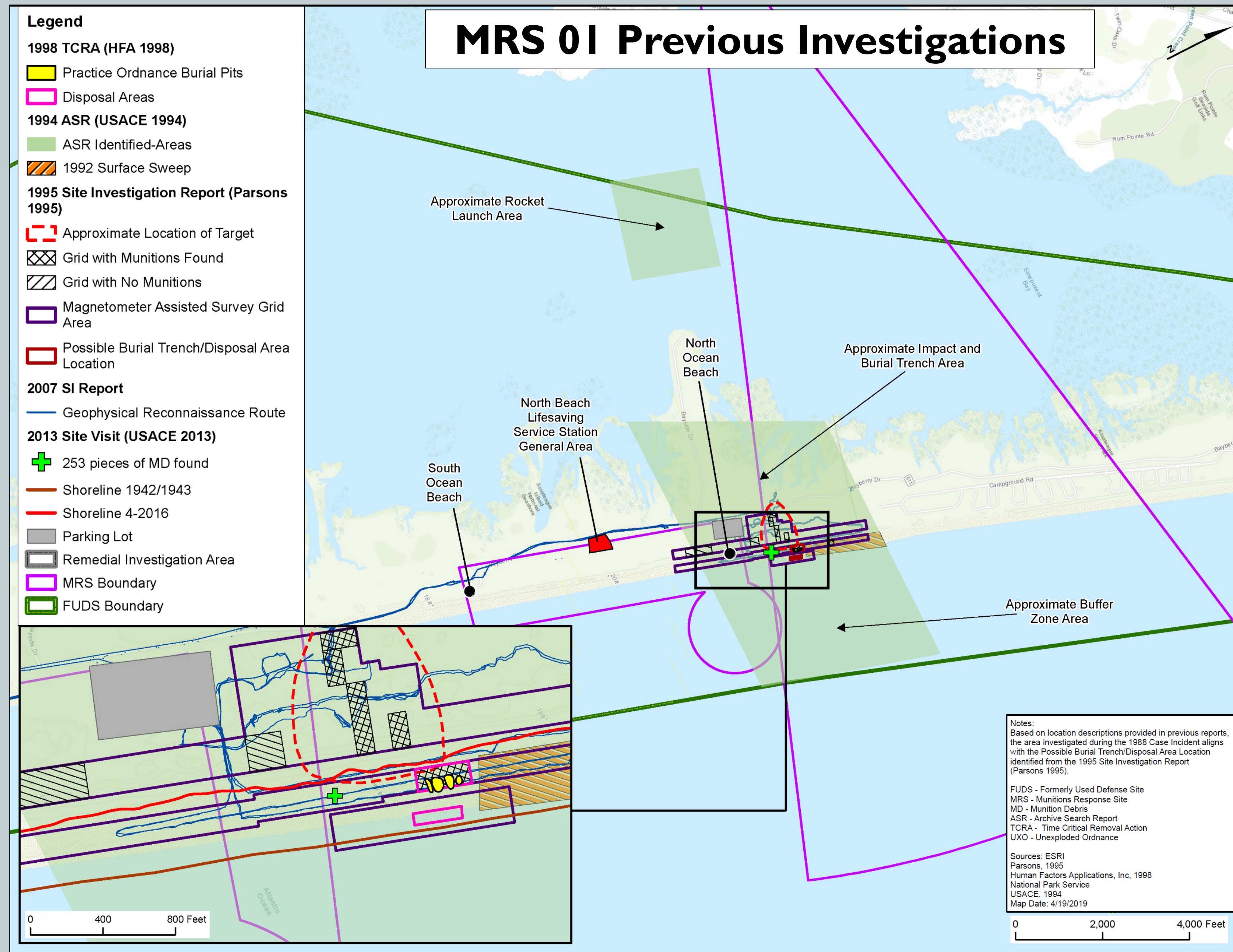


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Assateague Island Previous Investigations

Summary of Recovered Items during Previous Investigations

Investigation	Description	Surface		Subsurface		Total
		MEC	MD	MEC	MD	
1988 Case Incident	5-inch, 3.25-inch, and 2.25-inch practice rockets	0	5	0	14	19
1991 Inventory Project Report	Practice bomb (4.5 lb Mk 43)	0	1	0	0	1
	20-mm Projectile Casing (inert)	0	1	0	0	1
1994 Archive Search Report	3.25-inch practice rockets	0	1	0	0	1
1995 Site Investigation Report	5-inch, 3.25-inch, and 2.25-inch practice rockets	0	20	0	124	144
	"Old style" Practice bomb (type not specified)	0	0	0	1	1
1998 Time Critical Removal Action (TCRA)	5-inch, 3.25-inch, and 2.25-inch practice rockets	0	0	0	209	209
	Practice bomb (3 lb Mk 23)	0	0	0	3	3
2013 EOD Team Response	MD (type unknown)	0	234	0	0	234
2013 USACE Site Visit	MD (type unknown)	0	19	0	0	19
NPS MD Collection	MD (type unknown)	0	250	0	0	250
Total Items (found)		0	531	0	351	882



MRS 01:
Total live munitions (MEC) found: 0
Total munitions debris (MD) found: 880

MRS 03:
Total live munitions (MEC) found: 0
Total munitions debris (MD) found: 2

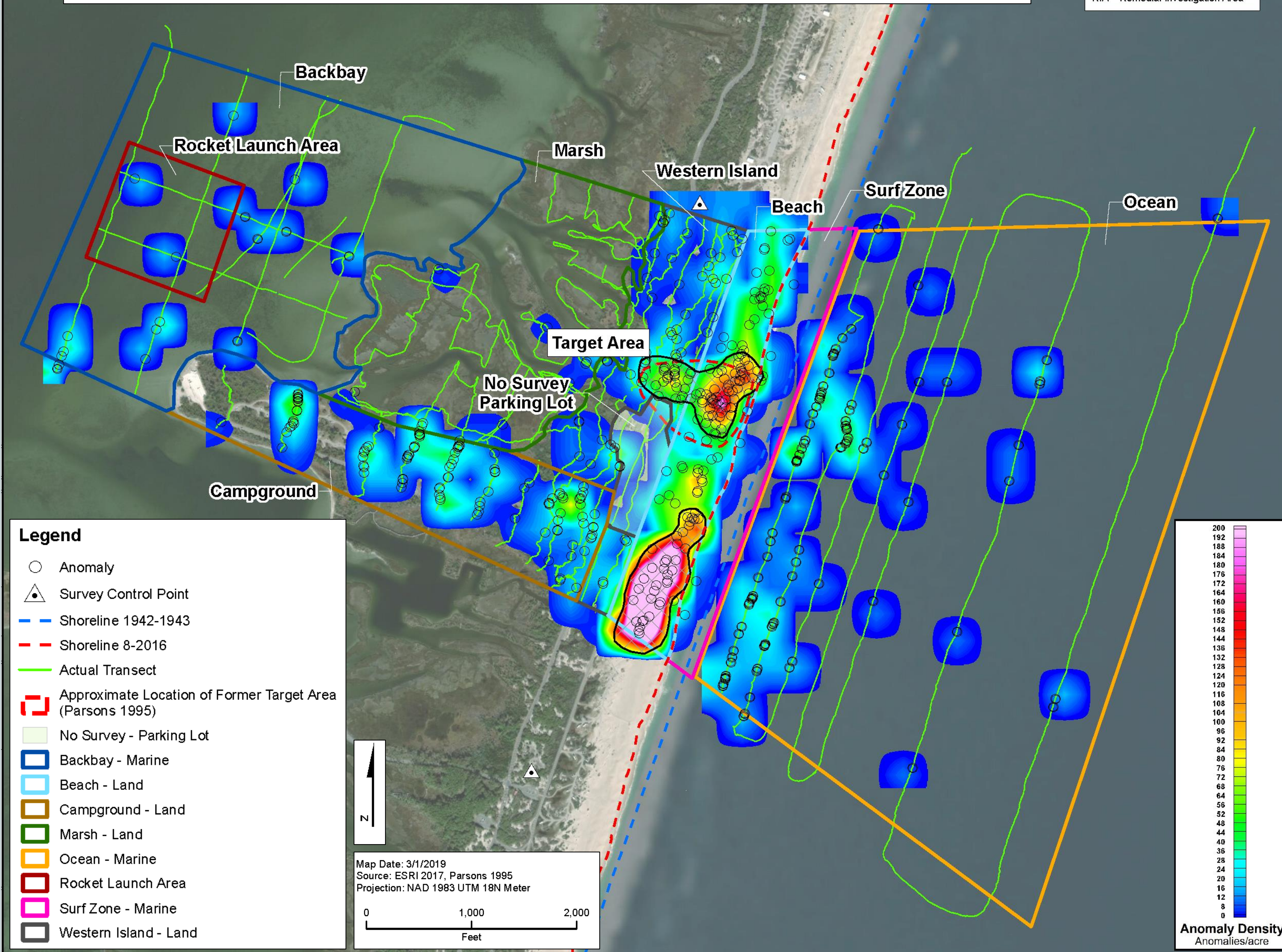


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Remedial Investigation Results – MRS-01

MRS 01 Digital Geophysical Mapping Results

Acronyms:
MD = Munitions Debris
DGM = Digital Geophysical Mapping
MRS = Munitions Response Site
RIA = Remedial Investigation Area



Summary of Intrusive Results at MRS 01

Location	Total TOIs Investigated	MEC	MD	NMRD	No Find ^(b)	QC Seeds	RRD
Land	336	0	90 ^a	246	31	7	1
Back Bay	17	0	0	8	9	0	0
Ocean	92	0	13	26	53	0	0
Total	445	0	103	280	93	7	1

a. Multiple pieces of MD were identified at several locations where MD was found.

b. No finds also includes TOIs that were too deep to excavate.

NOTES: MD = Munitions debris.

MEC = Munitions and explosives of concern.

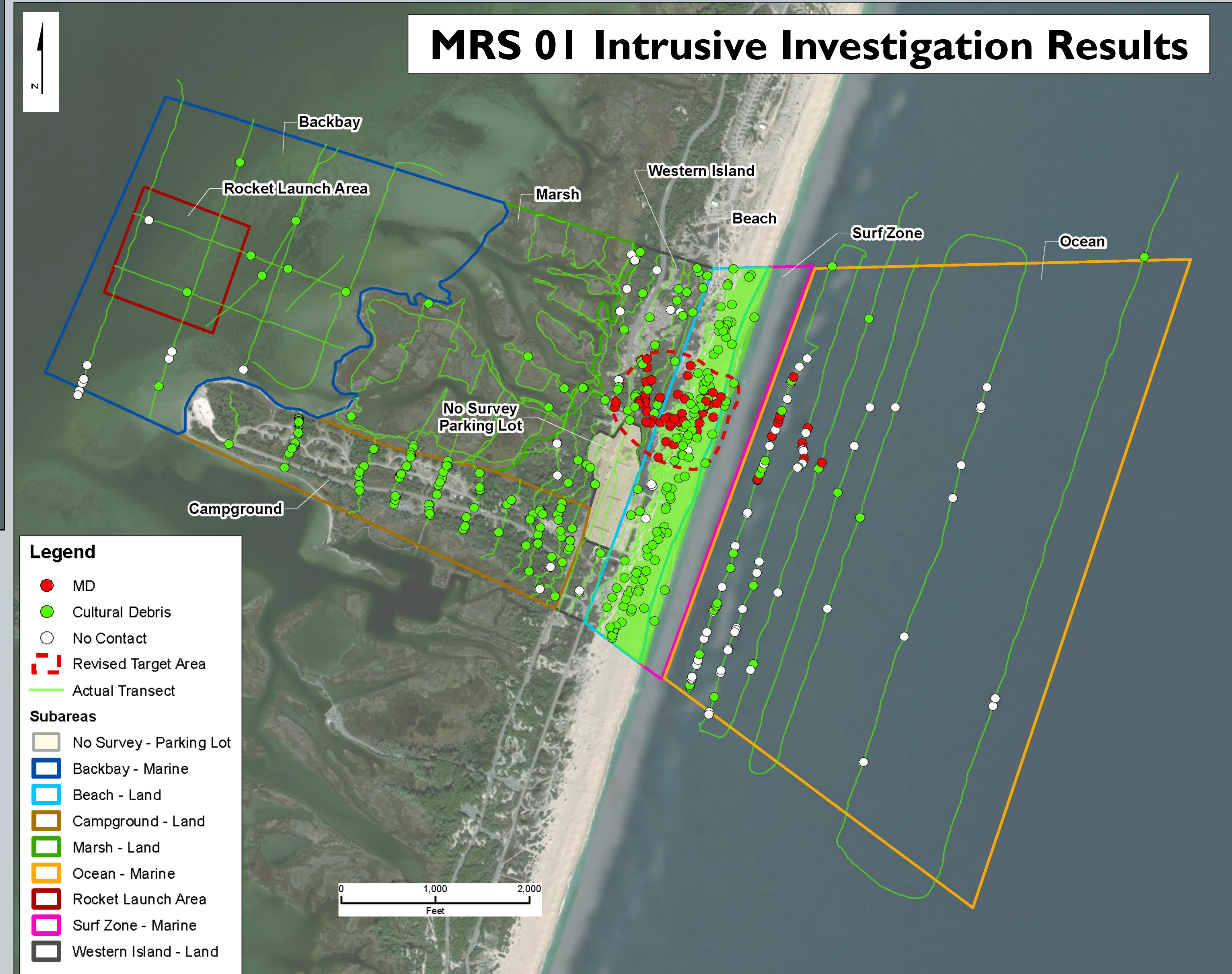
MRS = Munitions response site.

NMRD = Non-munitions related debris.

RRD = Range related debris.

TOI = Target of interest.

MRS 01 Intrusive Investigation Results



• Digital geophysical mapping (DGM) data collected:

➤ On land: 50.2 miles (20.0 acres)

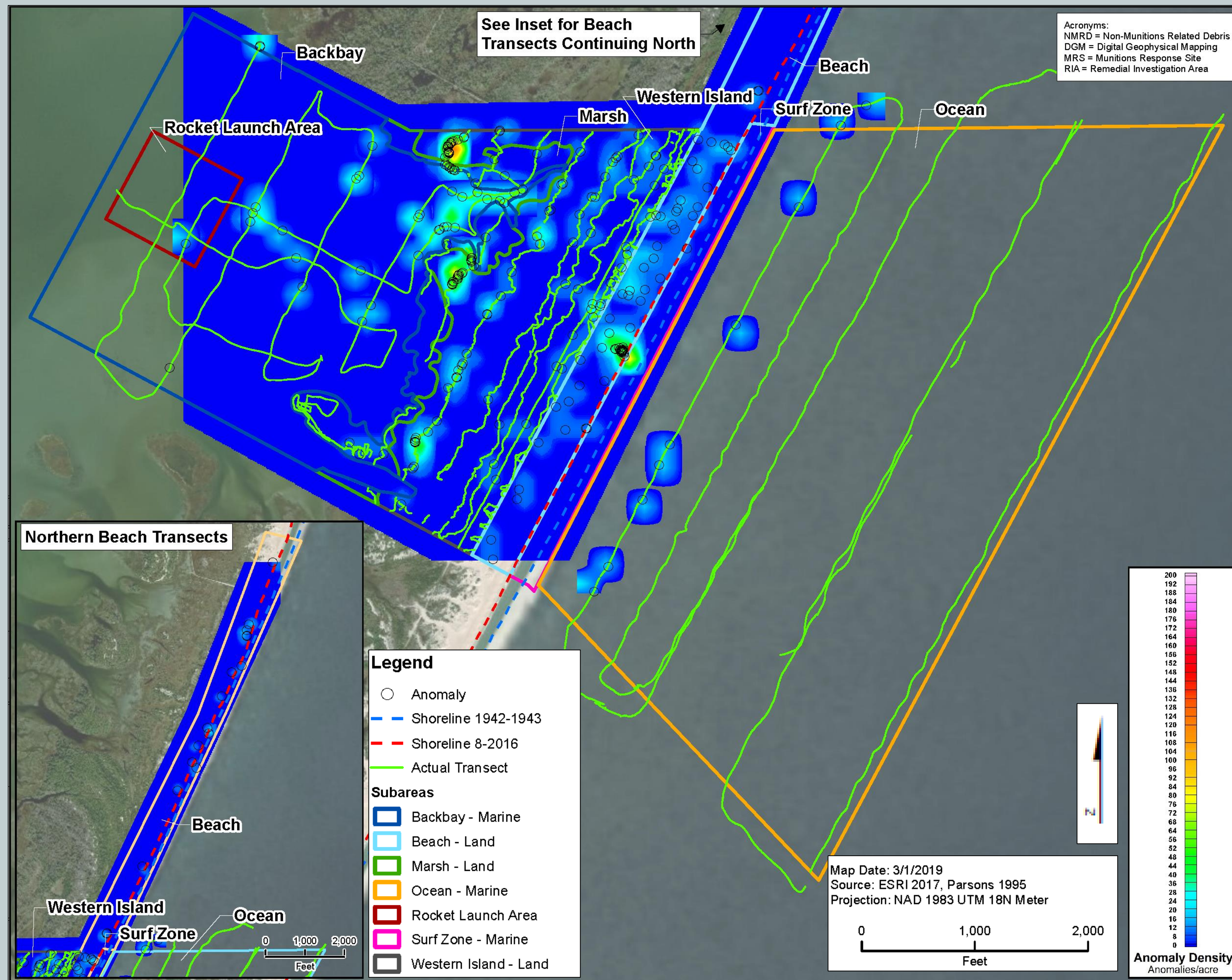
➤ In water: 13.0 miles (10.4 acres)



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Remedial Investigation Results – MRS-03

MRS 03 Digital Geophysical Mapping Results



Summary of Intrusive Results at MRS 03

Location	Total TOIs Investigated	MEC	MD	NMRD	No Find ^(a)	QC Seeds	RRD
Land	219	0	0	148	62	9	0
Back Bay	32	0	0	23	9	0	0
Ocean	9	0	0	2	7	0	0
Total	260	0	0	173	78	9	0

a. No finds also includes TOIs that were too deep to excavate.

NOTES: MD = Munitions debris.

MEC = Munitions and explosives of concern.

MRS = Munitions response site.

NMRD = Non-munitions related debris.

RRD = Range related debris.

TOI = Target of interest.

MRS 03 Intrusive Investigation Results



- Digital geophysical mapping (DGM) data collected:

- On land: 83.4 miles (33.1 acres)

- In water: 17.0 miles (13.6 acres)



Risk Management Methodology and Remedial Investigation Conclusions

MRS 01

- Only training activities with practice munitions occurred at MRS 01.
- Over 99% munitions debris was from practice rockets.
- No propellant nor spotting charges were found in any items.
- **No live munitions identified.**

Table 1: Evaluation for MRS 01

Matrix	Evaluation	Risk
#1 Likelihood of Encounter	Amount of Live Munitions - None Found	Seldom
#2 Severity of Incident	Encounters with Live Munitions Items - None	Rare Occurrence - Modest Injury
#3 Likelihood of Detonation	Sensitivity of Detonation - Low	Low
# 4 Site Conditions	Seldom to Encounter, Rare Occurrence of Injury, Low Sensitivity	ACCEPTABLE SITE CONDITIONS

MRS 03

- Historically only 2 pieces of munitions debris from 5-in. practice rockets identified.
- Area not likely continued use as Rocket Range.
- **No live munitions identified.**

Table 2: Evaluation for MRS 03

Matrix	Evaluation	Risk
#1 Likelihood of Encounter	Amount of Live Munitions - None Found	Unlikely
#2 Severity of Incident	Encounters with Live Munitions Items - None	Improbable - No Injury Anticipated
#3 Likelihood of Detonation	Sensitivity of Detonation - Not Sensitive	Inconsequential - Not Likely to Impart Energy
# 4 Site Conditions	Unlikely, Improbable, Not Sensitive	ACCEPTABLE SITE CONDITIONS

No MEC Found at MRS 01 and MRS 03 = Acceptable Site Conditions = No Further Action

MRS 01

- **Matrix 1. Likelihood of Encounter = Seldom**
 - Access Conditions: Regular Access
 - Amount of MEC: Is only suspected based on historical evidence of munitions use only – No MEC encountered on site.
- **Matrix 2. Severity of Incident = C**
 - Likelihood of Encounter: Seldom (from Matrix 1)
 - Severity Associated with Specific Munitions Items: Modest
- **Matrix 3. Likelihood of Detonation = 3**
 - Sensitivity/Susceptibility to Detonation: Low
 - Likelihood to impart Energy on an Item: Modest
- **Matrix 4. Site Conditions = Acceptable**
 - Results from Matrix 2: C
 - Results from Matrix 3: 3

MRS 03

- **Matrix 1. Likelihood of Encounter = Unlikely**
 - Access Conditions: Regular Access
 - Amount of MEC: Investigations (including RI) did not identify evidence of MEC presence
- **Matrix 2. Severity of Incident = D**
 - Likelihood of Encounter: Unlikely (from Matrix 1)
 - Severity Associated with Specific Munitions Items: Improbable
- **Matrix 3. Likelihood of Detonation = 3**
 - Sensitivity/ Susceptibility to Detonation: Not Sensitive
 - Likelihood to impart Energy on an Item: Modest
- **Matrix 4. Site Conditions = Acceptable**
 - Results from Matrix 2: D
 - Results from Matrix 3: 3



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Munitions Debris Identified at Assateague Island



Summary of Recovered Items at MRS 01 During the RI

Description	Surface		Subsurface		Total
	MEC	MD	MEC	MD	
Land					
20-mm Training Practice Projectile	0	1	0	0	1
2.25-in. practice rockets	0	0	0	88	88
Practice bomb (3-Pound Mark 23)	0	0	0	1	1
Water					
2.25-in. practice rockets	0	0	0	13	13
Total	0	1	0	102	103

No MD or MEC was identified at MRS 03 during the Remedial Investigation.

NOTES:

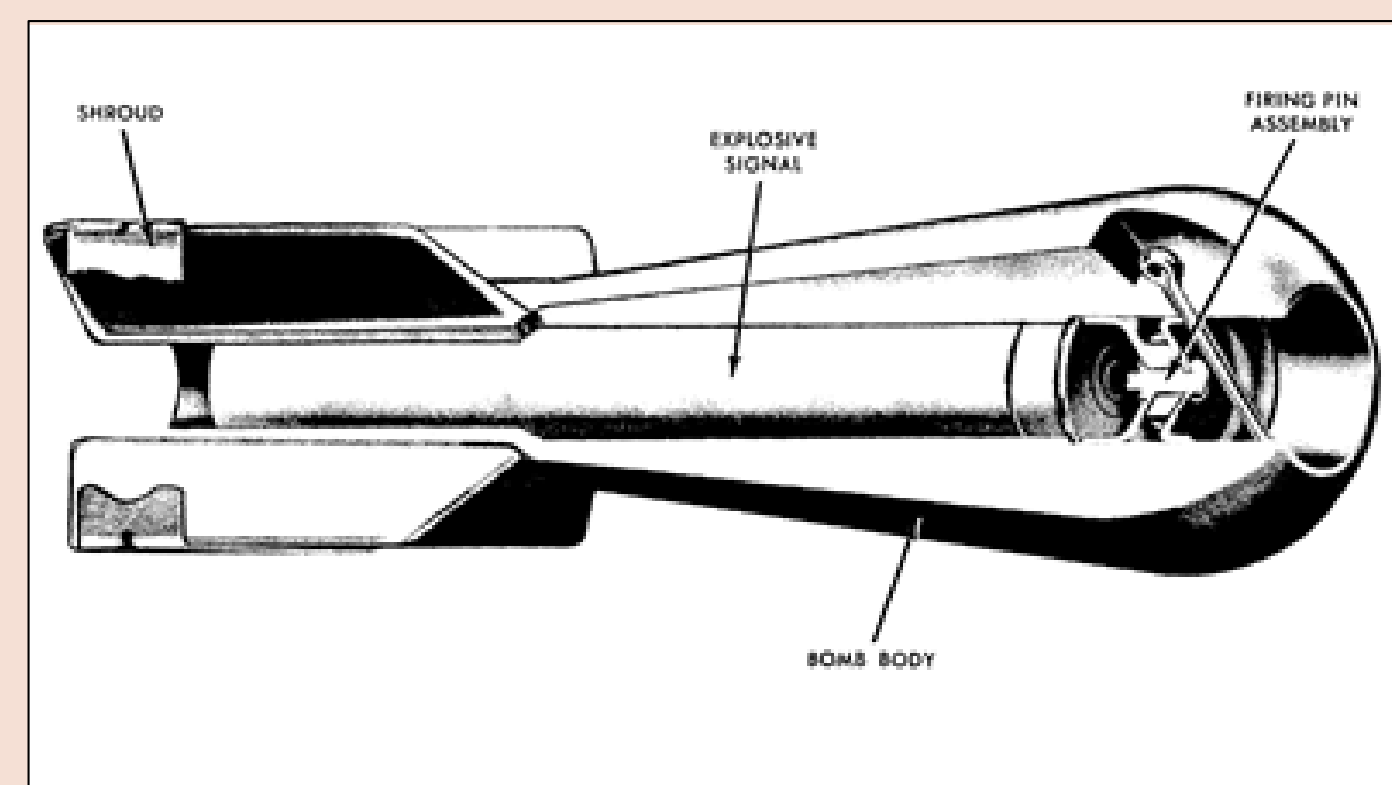
in. = Inch(es). MEC = Munitions and explosives of concern.
 MD = Munitions debris. RI = Remedial investigation.
 mm = Millimeter(s).



Practice Bombs

➤ 3-lb Mk 23 and 4.5-lb Mk 43 practice bombs can contain spotting charges, if they did not function as intended.

Shell (casing) for the spotting charge during this time period 1944 – 47 was made of cardboard.

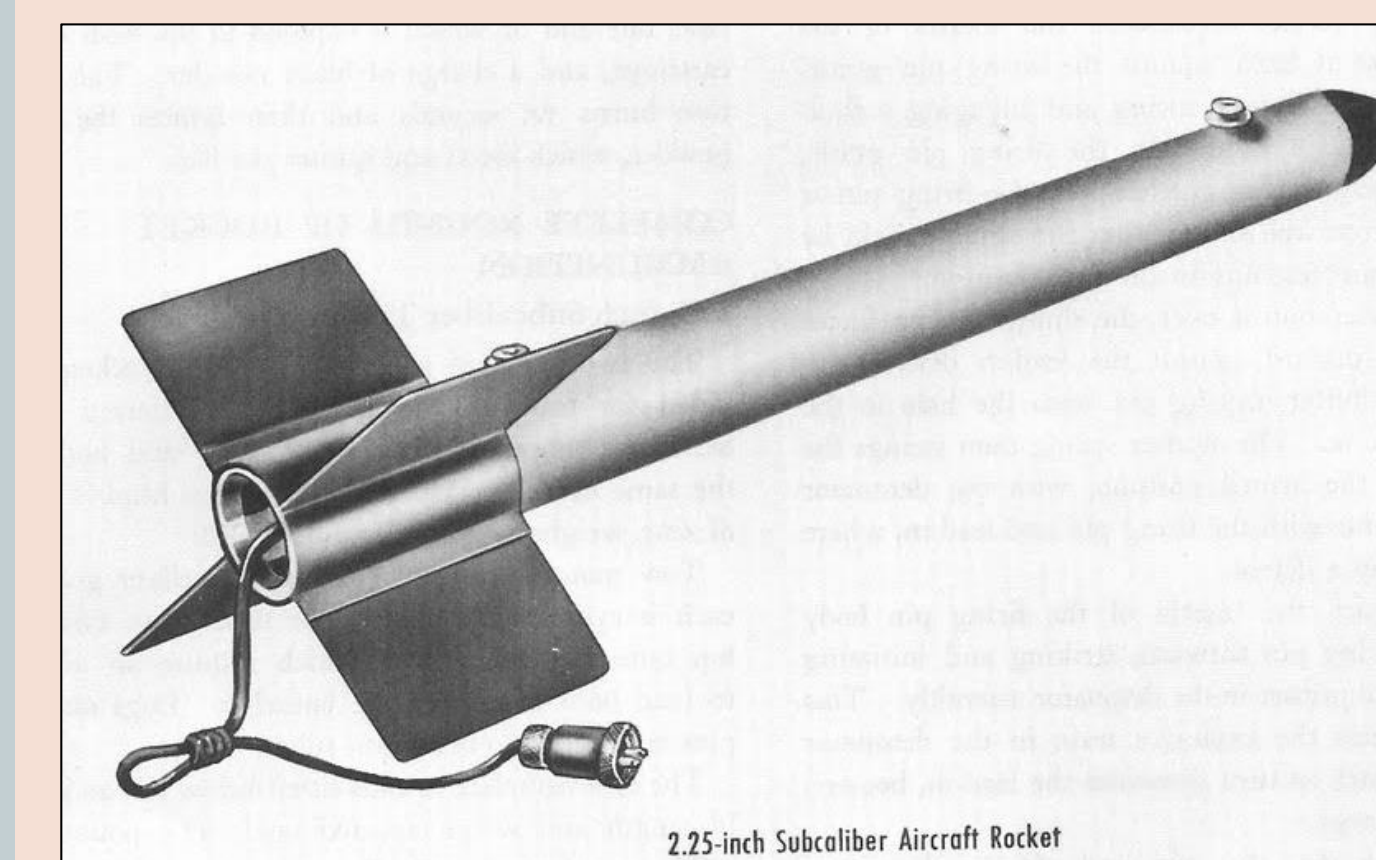


Extra long 10-gauge shotgun shells used for the MK-23 practice bomb.

- Only 1% of MD items; none found with intact spotting charge.
- Possibility to encounter practice bombs with intact spotting charge – RARE.



Practice Rockets and Projectiles



2.25-inch Subcaliber Aircraft Rocket

➤ The 2.25-in., 3.25-in., 3.5-in., and 5-in. practice rockets and the 20-mm practice projectile can contain propellant before they are fired.

- Practice rocket and 20-mm munitions debris in the target area confirms that inert and practice munitions were deposited by being fired at the target and the propellant component was expended.





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Recognize, Retreat, Report



Follow the 3Rs

R

Recognize

R

Retreat

R

Report

EMERGENCY CONTACT:
 Park Dispatch Office:
 (757) 898-0058
 Or call 911

R

Recognize

Recognize when you may have encountered a munition

R

Retreat

Do not touch, move, or disturb it, but carefully leave the area.

R

Report

Immediately notify the **National Park Service** or contact local authorities (911).

Visit the 3Rs Explosives Safety Education website: www.denix.osd.mil/uxo

