C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table A MPS Background Information

MRS Background Information

DIRECTIONS: Record the background information below for the MRS to be evaluated. Much of this information is available from Service and DoD databases. If the MRS is located on a FUDS property, the suitable FUDS property information should be substituted. In the MRS Summary, briefly describe the UXO, DMM, or MC that are known or suspected to be present, the exposure setting (the MRS's physical environment), any other incidental nonmunitions-related contaminants (e.g. benzene, trichlorethylene) found at the MRS, and any potentially exposed human and ecological receptors. If possible, include a map of the MRS.

Munitions Response Site Name: Water Ranges

Component: USACE FUDS/USACE FUDS/NAD/New England District (NAE)

Installation/Property Name: NJ29799F692400 Fort Hancock

Location (City, County, State): HIGHLANDS, MONMOUTH, NJ

Site Name/Project Name (Project No.): Water Ranges (09)

Date Information Entered/Updated: 3/22/2024

Point of Contact (Name/Phone): Public Affairs, 978-318-8238

Project Phase (check only one):

РА	SI		RI/FS	RD
RA-C	RIP	RA-O	RC	

Media Evaluated (check all that apply):

Groundwater	Sediment (human receptor)
Surface soil	Surface Water (ecological receptor)
Sediment (ecological receptor)	Surface Water (human receptor)

MRS Summary:

MRS Summary:	
MRS Description: Describe the munitions-related activities that occurred at the installation, the dates of operation, and the UXO, DMM, or MC known or suspected to be present.When possible, identify munitions, CWM, and MC by type:	Project/MRS 09 was delineated from MRS 07. MRS 09 is 129,611 acres and encompasses the offshore portions of the coastal battery range fans. A large portion of the range fans overlaps those of Fort Tilden, another FUDS in New York, and has been excluded from this acreage. The MRS covers the in-water portion of what was called the Northern Battery Complex in the SI. As agreed in RI planning sessions, the majority of the offshore range fans were not investigated. Deep water portions of the 129,611 acres is considered a partial barrier to munitions items if present. No MC samples have been collected offshore, nor is MC suspected to pose a risk to receptors because of the high dilution factor of the Atlantic Ocean. A future RI for MRS 09 is planned. Although none were found during the 2014 RI, munitions historically found on the beaches have been investigated by Explosives Ordnance Disposal (EOD) units. Items that have washed up on the Atlantic beaches since 2010 include: 3.5-inch, 6-inch, and 8-inch projectiles, Marine flare, Mk-25 Marine Marker, and 5-inch AP projectile. These items were identified as live and blown in place by EOD units from Naval Weapons Station Earle. Munitions items historically wash up on the beaches after significant storm events. Potential munitions include any UXO that was fired both in the proving ground as well as at off-shore targets in the Atlantic Ocean.
	No soil, surface water, or groundwater samples were collected from this MRS and a rating of No Known Or Suspected Hazard is selected for the HHE module. Both physical and historical evidence indicates that CWM was not present at this MRS (Secs 1.2.1 and 1.4.2, RI Report). Therefore, the CHE module has been
	assigned the alternative rating of No Known or Suspected CWM Hazard. The overall Priority Rating for MRS 09 is '5', based on the EHE module.
	Stakeholder coordination of the MRSPP evaluation occurred through the technical project planning process for the RI. Documentation of stakeholder coordination can be found in FUDSDocs at C02NJ000403_01.22_0500. The MRSPP scores were also provided in the RI Report and Addendums, which the stakeholders reviewed. Documentation of stakeholder coordination of the RI and Addendums can be found in FUDSDocs at C02NJ000403_03.01_0640_a, C02NJ000403_03.01_0531_a, C02NJ000403_03.01_0558_a and C02Nj000403_03_01_0574.
	Throughout this MRSPP: • "RI Report" refers to the "Final MMRP Remedial Investigation Report, Remedial Investigation/Feasibility Study, Fort Hancock Formerly Used Defense Site, Monmouth County, New Jersey," dated January 2014, on FUDSDocs at C03NJ000403_03.10_0500 and _0501. • "RI Addendum #1" refers to the "Final Military Munitions Response Program, Remedial Investigation Addendum #1 Report," dated September 2016, located on FUDSDocs at C03NJ000403_03.10_0502 • "RI Addendum #3" refers to the "Final Military Munitions Response Program, Remedial Investigation Addendum #3 Report," dated November 2018, located on FUDSDocs at C03NJ000403_03.10_0508 • "EOD, 2015" refers to an e-mail from EOD, Naval Weapons Station Earle, to USACE listing items found at Sandy Hook in 2010, 2011, and 2013, dated October 29, 2015 and located on FUDSDocs at C03NJ000407_01.01_0500.
Description of Pathways for Human and Ecological Receptors:	Potential for contact with MEC includes contact in the water. (Sections 6.2.1 and 6.3.1, RI Report).
Description of Receptors (Human and Ecological):	Based on the current land use, the following human receptors were identified: Adult and child recreational user (represent members of the public who partake in recreational activities at Fort Hancock). Ecological receptors include three potentially-affected terrestrial avian communities (granivores, insectivores, and carnivores) are represented by the mourning dove (granivore), American woodcock (insectivore), red-tailed hawk (carnivore) and the great blue heron (piscivore). (Sections 6.2.1.2 and 6.3.1, RI Report).

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 1 EHE Module: Munitions Type Data Element Table

Directions: Below are 11 classifications of munitions and their descriptions. Check the scores that correspond with all the munitions types known or suspected to be present at the MRS. Notes: The terms practice munitions, small arms ammunition, physical evidence, and historical evidence are defined in Appendix C of the Primer.

evidence are defined in Appendix C of the Primer.		
Classification	Description	Score
Sensitive	*UXO that are considered most likely to function upon any interaction with exposed persons (e.g. submunitions, 40mm high-explosive [HE] grenades, white phosphorus [WP] munitions, high-explosive antitank [HEAT] munitions, and practice munitions with sensitive fuzes, but excluding all other practice munitions). *Hand grenades containing energetic filler. *Bulk primary explosives, or mixtrues of these with environmental media, such that the mixture poses an explosive hazard.	30
High explosive (used or damaged)	*UXO containing a high-explosive filler (e.g., RDX, Composition B), that are not considered "sensitive." *DMM containing a high- explosive filler that have: *Been damaged by burning or detonation *Deteriorated to the point of instability	2 5
Pyrotechnic (used or damaged)	*UXO containing a pyrotechnic filler other than white phosphorus (e.g., flares, signals, simulators, smoke grenades). *DMM containing a pyrotechnic filler other than white phosphorus (e.g., flares, signals, simulators, smoke grenades) that have: *Been damaged by burning or detonation *Deteriorated to the point of instability	20
High explosive (unused)	*DMM containing a high-explosirve filler that: *Have not been damaged by burning or detonation *Deteriorated to the point of instability	15
Propellant	*UXO containing mostly singe-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). *DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor) that are: *Damaged by burning or detonation *Deteriorated to the point of instability	15
Bulk secondary high explosives, pyrotechnics, or propellent	*DMM containing mostly single-, double-, or triple-based propellant, or composite propellants (e.g., a rocket motor). *DMM that are bulk secondary high explosives, pyrotechnic compositions, or propellant (not contained in a munition), or mixtures of these with environmental media such that the mixture poses an explosive hazard.	10
Pyrotechnic (not used or damaged)	*DMM containing a pyrotechnic filler (i.e., red phosphorus), other than white phosphorus filler, that: *Have not been damaged by burning or detonation *Are not deteriorated to the point of instability.	10
Practice	*UXO that are practce munitions that are not associated with a sensitive fuze. *DMM that are practice munitions that are not associated with a sensitive fuze and that have not: *Been damaged by burning or detonation *Deteriorated to the point of instability	D 5
Riot control	*UXO or DMM containing a riot control agent filler (e.g., tear gas).	L 3
Small arms	*Used munitions or DMM that are categorized as small arms ammunition. (Physical evidence or historical evidence that no other types of munitions [e.g., grenades, subcaliber training rockets, demolition charges] were used or are present on the MRS is required for selection of this category.)	D 2
Evidence of no munitions	*Following investigation of the MRS, there is a physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	D 0
Munitions Type	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 30).	25
provided.) MEC found 8-inch projectiles, Mari	ent any MRS - specific data used in selecting the Munitions Type classification in MRS 10 includes the following UXO that were identified as HE items: 3.5-ir ne flare, Mk-25 Marine Marker, and 5-inch AP projectile. These items were fo sponded to by EOD units out of Naval Weapons Station Earle. The items were	uch, 6-inch, and und between

2010 and 2015 and responded to by EOD units out of Naval Weapons Station Earle. The items were identified as live and blown in place by EOD (EOD, 2015). These MEC items could be washing on shore from MRS 09.

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 2 EHE Module: Source of Hazard Data Element Table

Directions: Below are 11 classifications describing sources of explosive hazards. Check the scores that correspond with all the sources of explosive hazards known or suspected to be present at the MRS.

Notes: The terms former range, practice munitions, small arms range, physical evidence, and historical evidence are defined in Appendix C of the Primer.

Classification	Description	Score
Former range	*The MRS is former military range where munitions (including practice munitions with sensitive fuzes) have been used. Such areas include impact or target areas and associated buffer and safety zones.	1 0
Former munitions treatment (i.e., OB/OD) unit	*The MRS is a location where UXO or DMM (e.g., munitions, bulk explosives, bulk pyrotechnic, or bulk propellants) were burned or detonated for the purpose of treatment prior to disposal.	8
Former practice munitions range	*The MRS is a former military range on which only practice munitions without sensitive fuzes were used.	G
Former maneuver area	*The MRS is a former maneuver area where no munitions other than flares, simulators, smokes and blanks were used. There must be evidence that no other munitions were used at the location to place an MRS into this category.	5
Former burial pit or other disposal area	*The MRS is a location where DMM were buried or disposed of (e.g., disposed of into a water body) without prior thermal treatment.	5
Former industrial operating facilities	*The MRS is a location that is a former munitions maintenance, manufacturing, or demilitarization facility.	4
Former firing points	*The MRS is a firing point, where the firing point is delineated as an MRS separate from the rest of a former military range.	4
Former missile or air defense artillery emplacements	*The MRS is a former missile defense or air defense artillery (ADA) emplacement not associated with a military range.	2
Former storage or transfer points	*The MRS is a location where munitions were stored or handled for transfer between different modes of transportation (e.g., rail to truck, truck to weapon system).	2
Former small arms range	*The MRS is a former military range where only small arms ammunition was used. (There must be evidence that no other types of munitions [e.g. grenades] were used or are present to place an MRS into this category.)	1
Evidence of no munitions	*Following investigation of the MRS, there is physical evidence that no UXO or DMM are present, or there is historical evidence indicating that no UXO or DMM are present.	Пo
Source of Hazard	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 10).	10

DIRECTIONS: Document any MRS - specific data used in selecting the Source of Hazard classifications in the space provided.) MRS 09 is part of the former proving ground and firing range complex, with gun batteries that fired at offshore targets. (Sec 1.3, RI Report and Sec 6.2, RI Addendum #1).

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 3 EHE Module: Location of Munitions Data Element Table

Directions: Below are eight classifications of munitions locations and their descriptions. Check the scores that correspond with all the locations where munitions are known or suspected to be present at the MRS.

Notes: The terms confirmed, surface, subsurface, small arms ammunition, physical evidence, and historical evidence are defined in Appendix C of the Primer.

	nistorical evidence are defined in Appendix C of the Primer.	
Classification	Description	Score
Confirmed surface	*Physical evidence indicates that there are UXO or DMM on the surface of the MRS. *Historical evidence (i.e., a confirmed report such as an explosive ordanance disposal [EOD], police, or fire department report that an incident or accident that involved UXO or DMM occurred) indicates there are UXO or DMM on the surface of the MRS.	25
Confirmed subsurface, active	*Physical evidence indicates the presence of UXO or DMM n the subsurface of the MRS, and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future by naturally occurring phenomena (e.g., drought, flooding, erosion, frost heave, tidal action), or intrusive activities (e.g., plowing, constructions, dredging) atthe MRS are likely to expose UXO or DMM. *Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are likely to cause UXO or DMM to be exposed, in the future, by naturally occurring phenomena (e.g., drought flooding, erosion, frost heave, tidal action), or intrusive activities (e.g., plowing, construction, dredging) at the MRS are likely to expose UXO or DMM.	20
Confirmed subsurface, stable	*Physical evidence indicates the presence of UXO or DMM in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, in the future, by naturally occurrin phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed. *Historical evidence indicates that UXO or DMM are located in the subsurface of the MRS and the geological conditions at the MRS are not likely to cause UXO or DMM to be exposed, the the future, by naturally occurring phenomena, or intrusive activities at the MRS are not likely to cause UXO or DMM to be exposed.	15
Suspected (physical evidence)	*There is physical evidence (e.g., munitions debris such as fragments, penetrators, projectiles, shell casings, links, fins), other than the documented presence of UXO or DMM, indicating that UXO or DMM may be present at the MRS.	10
Suspected (historical evidence)	*There is historical evidence indicating that UXO or DMM may be present at the MRS.	√ 5
Subsurface, physical constraint	*There is physical or historical evidence indicating that UXO or DMM may be present in the subsurface, but there is a physical constraint (e.g., pavement, water depth over 120 feet) preventing direct access to the UXO or DMM.	2 2
Small arms (regardless of location)	*The presence of small arms ammunition is confirmed or suspected, regardless of other factors such as geological stability. (There must be evidence that no other types of munitions [e.g., grenades] were used or are present at the MRS to place an MRS into this category.)	1
Evidence of no munitions	*Following investigation of the MRS, there is physical evidence that there are no UXO or DMM present, or there is historical evidence indicating that no UXO or DMM are present.	Do
Location of Munitions	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 25).	5

DIRECTIONS: Document any MRS - specific data used in selecting the Location of Munitions classifications in the space provided.) Historical evidence (confirmed reports by EOD) indicate that UXO or DMM exist in the subsurface and conditions at the shoreline (MRS10) are likely to cause items to be exposed, as evidenced by the discovery of UXO or DMM

on the beaches of the Gateway National Recreation Area (Sandy Hook) after significant storm events (EOD, 2015). It is likely that these items also exist in the water (MRS 09)

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 4 EHE Module: Ease of Access Data Element Table

Directions: Below are four classifications of barrier types that can surround an MRS and their descriptions. The barrier type is directly related to the ease of public access to the MRS. Check the score that corresponds with the ease of access to the MRS Notes: The term barrier is defined in Appendix C of the Primer.

IN	otes. The term barner is defined in Appendix C of the Primer.	
Classification	Description	Score
No barrier	*There is no barrier preventing access to any part of the MRS (i.e., all parts of the MRS are accessible.	1 0
Barrier to MRS access is incomplete	*There is a barrier preventing access to parts of the MRS, but not the entire MRS.	8
Barrier to MRS access is complete but not monitored	*There is a barrier preventing access to all parts of the MRS, but there is no surveillance (e.g., by a guard) to ensure that the barrier is effectively preventing access to all parts of the MRS.	5
Barrier to MRS access is complete and monitored	*There is a barrier preventing access to all parts of the MRS, and there is active, continual surveillance (e.g., by a guard, video monitoring) to ensure that the barrier is effectively preventing access to all parts of the MRS.	Do
Ease of Access	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 10).	10

DIRECTIONS: Document any MRS - specific data used in selecting the Ease of Access classifications in the space provided.)

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 5 EHE Module: Status of Property Data Element Table

Directions: Below are three classifications of the status of a property within the Department of Defense (DoD) and their descriptions. Check the score that corresponds with the status of property at the MRS.

Notes:		
Classification	Description	Score
Non-DoD control	*The MRS is at a location that is no longer owned by, leased to, or otherwise possessed or used by DoD. Examples are privately owned land or water bodies; land or water bodies owned or controlled by state, tribal, or local governments; and land or water bodies managed by other federal agencies. *The MRS is at a location that is owned by DoD, but that DoD has leased to another entity and for which DoD does not control access 24 hours per day.	⊠ 5
Scheduled for transfer from DoD control	*The MRS is on land or is a water body that is owned, leased, or otherwise posessed by DoD, and DoD plans to transfer that land or water body to the control of another entity (e.g., a state, tribal, or local government; a private party; another federal agency) within 3 years from the date the Protocol is applied.	3
DoD control	*The MRS is on land or is a water body that is owned, leased, or otherwise possessed by DoD. With respect to property that is leased or otherwise possessed, DoD must control access to the MRS 2 hours per day, every day of the calendar year.	Do
Status of Property	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 5).	5

DIRECTIONS: Document any MRS - specific data used in selecting the Status of Property classifications in the space provided.) The MRS is located on the Sandy Hook Peninsula. This peninsula, which encompasses approximately 1,700 acres, is known as the Sandy Hook Unit of the Gateway National Recreation Area and is a National Historic Landmark. The MRS is water acres controlled by the State (see Section 1.2 of the RI Report).

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 6 EHE Module: Population Density Data Element Table

Directions: Below are three classifications for population density and their descriptions. Deterimine the population density per square mile that most closely corresponds with the population of the MRS, including the area within a two-mile radius of the MRS's perimeter. Check the most appropriate score.

Notes: Use the U.S. Census Bureau tract data available to capture the highest population density within a two-mile radius of the perimeter of the MRS.

Classification	Description	Score
> 500 persons per square mile	*There are more than 500 persons per square mile in the U.S. Census Bureau tract in which the MRS is located.	5
100-500 persons per square mile	*There are 100 to 500 persons per square mile in the U.S. Census Bureau tract in which the MRS is located.	3
< 100 persons per square mile	*There are fewer than 100 persons per square mile in the U.S. Census Bureau tract in which the MRS is located.	V 1
Population Density	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 5).	1

DIRECTIONS: Document any MRS - specific data used in selecting the Population Density classifications in the space provided.) The MRS is water acres with no active population.

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 7 EHE Module: Population Near Hazard Data Element Table

Directions: Below are six classifications describing the number of inhabited structures near the MRS. The number of inhabited buildings relates to the potential population near the MRS. Determine the number of inhabited structures within two miles of the MRS boundary and check the score that corresponds with the number of inhabited structures.

Notes: The term inhabited structures is defined in Appendix C of the Primer.

Classification	Description	Score
26 or more inhabited structures	*There are 26 or more inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	⊠ 5
16 to 25 inhabited structures	*There are 16 to 25 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	4
11 to 15 inhabited structures	*There are 11 to 15 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	3
6 to 10 inhabited structures	*There are 6 to 10 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	2
1 to 5 inhabited structures	*There are 1 to 5 inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	1
0 inhabited structures	*There are no inhabited structures located up to 2 miles from the boundary of the MRS, within the boundary of the MRS, or both.	0
Population Near Hazard	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 5).	5

DIRECTIONS: Document any MRS - specific data used in selecting the Population Near Hazard classifications in the space provided.) Inhabited structures near MRS 9 include NPS buildings, residences, a school and daycare facility, and beach houses for use by recreational visitors (see Section 2.1.7 of the RI Report; Google Earth was used to calculate the total number of inhabited structures within the two-mile radius for this MRS).

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 8 EHE Module: Types of Activities/Structures Data Element Table

Directions: Below are five classifications of activities and/or inhabited structures and their descriptions. Review the types of activities that occur and/or structures that are present within two miles of the MRS and check the scores that correspond with all the activities/structure classifications at the MRS.

Notes: The term inhabited structure is defined in Appendix C of the Primer. Classification Description Score Residential. *Activities are conducted, or inhabited structures are located up to educational. two miles from the MRS's boundary or within the MRS's boundary, that are associated with any of the following purposes: residential, commercial, or $\sqrt{15}$ educational, child care, critical assets (e.g., hospitals, fire and subsistence rescue, police stations, dams), hotels, commercial, shopping centers, playgrounds, community gathering areas, religious sites, or sites used for subsistence hunting, fishing, and gathering. *Activities are conducted, or inhabited structures are located up to Parks and two miles from the MRS's boundary or within the MRS's boundary, recreational areas 4 that are associated with parks, nature preserves, or other recreational uses. *Activities are conducted, or inhabited structures are located up to Agricultural, forestry 3 two miles from the MRS's boundary or within the MRS's boundary, that are associated with agriculture or forestry. Industrial or *Activities are conducted, or inhabited strucutres are located up to 2 warehousing two miles from the MRS's boundary or within the MRS's boundary, that are associated with industrial activities or warehousing. No known or *There are no known or recurring activities occuring up to two miles 1 recurring activities from the MRS's boundary or within the MRS's boundary. DIRECTIONS: Record the single highest score from above 5 Types of Activities/Structu in the box to the right(maximum score = 5). res

DIRECTIONS: Document any MRS - specific data used in selecting the Types of Activities/Structures classifications in the space provided.) Types of activities/structures within 2 miles include NPS buildings, a school and daycare facility, and beach houses for use by recreational visitors (see Section 2.1.7 of the RI Report).

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 9 EHE Module: Ecological and/or Cultural Resources Data Element Table

Directions: Below are four classifications of ecological and/or cultural resources and their descriptions. Review the types of resources present and check the score that corresponds with the ecological and/or cultural resources present on the MRS.

Notes: The terms ecological resources and cultural resources are defined in Appendix C of the Primer.

Classification	Description	Score
Ecological and cultural resources present	*There are both ecological and cultural resources present on the MRS.	5
Ecological resources present	*There are ecological resources present on the MRS.	V 3
Cultural resources present	*There are cultural resources present on the MRS.	3
No ecological or cultural resources present	*There are no ecological resources or cultural resources present on the MRS.	O
Ecological and/or Cultural Resources	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 5).	3

DIRECTIONS: Document any MRS - specific data used in selecting the Ecological and/or Cultural Resources classifications in the space provided.) This MRS encompasses a wide variety of marine habitats. (see Sections 1.2 and 2.1.8 of the RI Report). There are no known cultural resources on the MRS.

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 10 EHE

Notes: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present a an MRS.

es 1-9,	Source	Score	Value			
scores in Explosive Hazard Factor Dat	ta Elements					
each of Munitions Type	Table 1	25	25			
tes to the Source of Hazard	Table 2	10	35			
alue Accessibility Factor Data Ele	ements					
elow. 4. Location of Munitions	Table 3	5				
ange for elow. 5. Ease of Access	Table 4	10	20			
Rating that e selected Status of Property	Table 5	5				
the EHE Receptor Factor Data Eleme	Receptor Factor Data Elements					
d at the Population Density	Table 6	1				
Population Near Hazard	Table 7	5				
when a Types of Activities/Structures	Table 8	5	14			
tive ben more score Ecological and/or Cultural Resources	Table 9	3				
nts,	EHE Module Total 69					
S was r there is EHE Module Total	EHE Mod	lule Rating				
present at 92 to 100	A					
82 to 91	В					
71 to 81		С				
60 to 70		D				
48 to 59		E				
38 to 47		F				
0 to 37	G					
	Evaulation Pending No Longer Required No Known or Suspected Explosive Hazard					
Alternative Module Ratings						
Alternative Module Ratings			ed			
EHE Module Rating	•	D				

EHE Module Description (4000 characters max):

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 11 CHE Module: CWM Configuration Data Element Table

Directions: Below are seven classification of CWM configuration and their descriptions. Check the scores that correspond with all the CWM configurations known or suspected to be present at the MRS.

Notes: The terms CWM/UXO, CWM/DMM, physical evidence, and historical evidence are defined in Appendix C of the Primer.

Classification	Description	Score
CWM, that are either UXO, or explosively configured damaged DMM	The CWM known or suspected of being present at the MRS are: *CWM that are UXO (i.e., CWM/UXO) *Explosively configured CWM that are DMM (i.e., CWM/DMM) that have been damaged.	30
CWM mixed with UXO	*The CWM known or suspected of being present at the MRS are undamaged CWM/DMM or CWM not configured as a munition that are commingled with conventional munitions that are UXO.	25
CWM, explosive configuration that are undamaged DMM	*The CWM known or suspected of being present at the MRS are explosively configured CWM/DMM that have not been damaged.	20
CWM/DMM, not explosively configured or CWM, bulk container	The CWM known or suspected of being present at the MRS are: *Nonexplosively configured CWM/DMM either damaged or undamabed *Bulk CWM (e.g., ton container).	15
CAIS K941 and CAIS K942	*The CWM/DMM known or suspected of being present at the MRS are CAIS K941-toxic gas set M-1 or CAIS K942-toxic gas set M2/E11.	12
CAIS (chemical agent identification sets)	*CAIS, other than CAIS K941 and K942, are known or suspected of being present at the MRS.	10
Evidence of no CWM	*Following investigation, the physical evidence indicates that CWM are not present at the MRS, or the historical evidence indicates that CWM are not present at the MRS.	٥
CWM Configuration	DIRECTIONS: Record the single highest score from above in the box to the right(maximum score = 30).	0

DIRECTIONS: Document any MRS - specific data used in selecting the CWM Configuration classifications in the space provided.) Both physical and historical evidence indicates that CWM was not present at this MRS (see Sections 1.2.1 and 1.4.2 of the RI Report). Tables 12 to 19 omitted per Army Guidance.

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 20 CHE

Notes: An alternative module rating may be assigned when a module letter rating is inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously addressed, or there is no reason to suspect contamination was ever present a an MRS.

			-	
bles 11-19,		Source	Score	Value
nt scores in right. 2.	CWM Hazard Factor Data E	lements		
or each of ecord this	CWM Configuration	Table 11	0	0
oxes to the	Sources of CWM	Table 12		0
Value number in	Accessibility Factor Data E	lements		
box below.	Location of CWM	Table 13		
ate range for below. 5.	Ease of Access	Table 14		0
e Rating	Status of Property	Table 15		
e range is value in	Receptor Factor Data Eleme	ents		
g box found	Population Density	Table 16		
	Population Near Hazard	Table 17		
nodule d when a	Types of Activities/Structures	Table 18		0
native when more to score	Ecological and/or Cultural Resources	Table 19		
ients,		CHE Mod	ule Total	
RS was or there is	CHE Module Total	CHE Mod	ule Rating	
er present at	92 to 100	A		
n present at	82 to 91	В		
	71 to 81	(2	
	60 to 70	[)	
	48 to 59	E	Ξ	
	38 to 47	F	=	
	0 to 37	G		
		Evaulation Pending		
	Alternative Module Ratings	No Longer Required		
		No Known Hazard	or Suspect	ted CWM
	CHE Module Rating	No Known or Susp	ected CWI	M Hazard

CHE Module Rating No Known or Suspected CWM Hazard

CHE Module Description (4000 characters max):

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 21 Groundwater

Contaminant Hazard Factor (CHF)

Directions: Record the maxium concentrations of all contaminants in the MRS's groundwater and their comparison values (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the ratios for each contaminant by dividing the maxium concentration by the comparison value. Determine the CHF by adding the contaminant ratios together, including any additional groundwater contaminants recorded on Table 27. Based on the CHF, use the CHF Scale to determine and record the CHF Value. If there is no known or suspected MC hazard present in the groundwater, select the box at the bottom of the table.

Contaminant	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
CHF Scale	CHF Value	Sum The Ratios	0
CHF > 100	H (High)	[Maximum Concentr	ation of Contaminant]
100 > CHF > 2	M (Medium)	$CHF = \sum$	
2 > CHF	L (Low)	[Comparison Valu	e for Contaminant]
	DIRECTIONS: Record the CHF Value from above in the box to the right (maximum value = H).		
Migratory Pathway Factor			
Classification	Description		Value
Evident	Analytical data or observable evidence indicates that contamination in the groundwater is present at, moving toward, or has moved to a point of exposure		Ωн

MIGRATORY PATHWAY FACTOR	DIRECTIONS: Record the single highest value from above in the box to the right (maximum value = H).	
Confined	Information indicates a low potential for contaminant migration from the source via the groundwater to a potential point of exposure (possible due to the presence of geological structures or physical controls).	
Potential	Contamination in the groundwater has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.	Шм

Receptor Factor		
Classification	Description	Value
Identified	Identified receptors have access to groundwater to which contamination has moved or can move.	Пн
Potential	Potential for receptors have access to groundwater to which contamination has moved or can move.	Шм
Limited	Little or no potential for receptors to have access to groundwater to which contamination has moved or can move.	ΠL
RECEPTOR FACTOR	Check the value that corresponds most closely to the groundwater receptors at the MRS.	

No Known or Suspected Groundwater MC Hazard

DIRECTIONS: Document any MRS - specific data used in selecting the ground water contaminants in the space provided.

Groundwater Was not sampled in this MRS. Secs 4.2.3 and 5.3.3, RI Report

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 22 Surface Water - Human Endpoint

Contaminant Hazard Factor (CHF)

Directions: Record the maxium concentrations of all contaminants in the MRS's surface water and their comparison values (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the ratios for each contaminant by dividing the maximum concentration by the comparison value. Determine the CHF by adding the contaminant ratios together, including any additional surface water contaminants recorded on Table 27. Based on the CHF, use the CHF Scale to determine and record the CHF Value. If there is no known or suspected MC hazard with human endpoints present in the surface water select the box at the bottom of the table.

human endpoints present in the surface water, select the box at the bottom of the table.			
Contaminant	Maximum Concentration (µg/L)	Comparison Value (µg/L)	Ratios
CHF Scale	CHF Value	Sum The Ratios	0
CHF > 100	H (High)	[Maximum Concentr	ation of Contaminant]
100 > CHF > 2	M (Medium)	$CHF = \sum$	
2 > CHF	L (Low)	[Comparison Valu	e for Contaminant]
CONTAMINANT HAZARD FACTOR	DIRECTIONS: Record the CHI to the right (maximum value =	 Value from above in the box H). 	
Migratory Pathway Factor			
Classification	Descr	iption	Value
Evident	Analytical data or observable evide the surface water is present at, mo point of exposure	nce indicates that contamination in ving toward, or has moved to a	Ωн
Potential	Contamination in the surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		Шм
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possible due to the presence of geological structures or physical controls).		ΩL

	controls):	
	DIRECTIONS: Record the single highest value from above in the box to the right (maximum value = H).	
1		

Receptor Factor		
Classification	Description	Value
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	Пн
Potential	Potential for receptors have access to surface water to which contamination has moved or can move.	Шм
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.	
RECEPTOR FACTOR	Check the value that corresponds most closely to the surface water receptors at the MRS.	

No Known or Suspected Surface Water (Human Endpoint) MC Hazard

DIRECTIONS: Document any MRS - specific data used in selecting the surface water contaminants in the space provided.

Surface Water Was not sampled in this MRS. Secs 4.2.3 and 5.3.3, RI Report

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 23 Sediment - Human Endpoint

Contaminant Hazard Factor (CHF)

Directions: Record the maxium concentrations of all contaminants in the MRS's sediment and their comparison values (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the ratios for each contaminant by dividing the maximum concentration by the comparison value. Determine the CHF by adding the contaminant ratios together, including any additional sediment contaminants recorded on Table 27. Based on the CHF, use the CHF Scale to determine and record the CHF Value. If there is no known or suspected MC hazard with human endpoints present in the sediment, select the box at the bottom of the table.

endpoints present in the sediment, select the box at the bottom of the table.				
Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios	
CHF Scale	CHF Value	Sum The Ratios	0	
CHF > 100	H (High)	[Maximum Concentr	ation of Contaminant]	
100 > CHF > 2	M (Medium)	$CHF = \sum$		
2 > CHF	L (Low)	[Comparison Valu	e for Contaminant]	
CONTAMINANT HAZARD FACTOR	DIRECTIONS: Record the CHF to the right (maximum value =	Value from above in the box H).		
	Migratory Pathway Factor			
Classification	Descr	iption	Value	
Evident	Analytical data or observable evide the sediment is present at, moving exposure	nce indicates that contamination in toward, or has moved to a point of	Ωн	
Potential	Contamination in the sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.		Шм	
Confined	Information indicates a low potential for contaminant migration from the source via the sediment to a potential point of exposure (possible due to the presence of geological structures or physical controls).			

PATHWAY FACTOR	in the box to the right (maximum value = H).	
	Receptor Factor	
Classification	Description	Value
Identified	Identified receptors have access to sediment to which contamination has moved or can move.	Ωн
Potential	Potential for receptors have access to sediment to which contamination has moved or can move.	Шм
Limited	Little or no potential for receptors to have access to sediment to which contamination has moved or can move.	
RECEPTOR FACTOR	Check the value that corresponds most closely to the sediment receptors at the MRS.	

DIRECTIONS: Record the single highest value from above

No Known or Suspected Sediment (Human Endpoint) MC Hazard

DIRECTIONS: Document any MRS - specific data used in selecting the sediment contaminants in the space provided.

Sediment was not sampled in this MRS. Secs 4.2.3 and 5.3.3, RI Report

MIGRATORY

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 24 Surface Water - Ecological Endpoint

Contaminant Hazard Factor (CHF)

Directions: Record the maxium concentrations of all contaminants in the MRS's surface water and their comparison values (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the ratios for each contaminant by dividing the maximum concentration by the comparison value. Determine the CHF by adding the contaminant ratios together, including any additional surface water contaminants recorded on Table 27. Based on the CHF, use the CHF Scale to determine and record the CHF Value. If there is no known or suspected MC hazard with ecological endpoints present in the surface water, select the box at the bottom of the table.

ecological endpoints present in the surface water, select the box at the bottom of the table.					
Contaminant	Maximum Concentration (µg/L)	Comparis	on Value (µg/L)	Ratios	
CHF Scale	CHF Value		Sum The Ratios	0	
CHF > 100	H (High)		[Maximum Concentr	ation of Contaminant]	
100 > CHF > 2	M (Medium)	$CHF = \sum$			
2 > CHF	L (Low)	_	[Comparison Valu	e for Contaminant]	
CONTAMINANT HAZARD FACTOR					
Migratory Pathway Factor					
Classification	Descr	Value			
Evident	Analytical data or observable evidence indicates that contamination in the surface water is present at, moving toward, or has moved to a point of exposure			Пн	
Potential	Contamination in the surface water has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, or information is not sufficient to make a determination of Evident or Confined.			Пм	

Describer Frister				
MIGRATORY PATHWAY FACTOR	DIRECTIONS: Record the single highest value from above in the box to the right (maximum value = H).			
Confined	Information indicates a low potential for contaminant migration from the source via the surface water to a potential point of exposure (possible due to the presence of geological structures or physical controls).	ΠL		
Potential	appreciably, or information is not sufficient to make a determination of Evident or Confined.	ШМ		

Receptor Factor					
Classification	Description	Value			
Identified	Identified receptors have access to surface water to which contamination has moved or can move.	Пн			
Potential	Potential for receptors have access to surface water to which contamination has moved or can move.	Пм			
Limited	Little or no potential for receptors to have access to surface water to which contamination has moved or can move.				
RECEPTOR FACTOR	Check the value that corresponds most closely to the surface water receptors at the MRS.				

No Known or Suspected Surface Water (Ecological Endpoing) MC Hazard

DIRECTIONS: Document any MRS - specific data used in selecting the surface water contaminants in the space provided.

Surface Water Was not sampled in this MRS. Secs 4.2.3 and 5.3.3, RI Report

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 25 Sediment - Ecological Endpoint

Contaminant Hazard Factor (CHF)

Directions: Record the maxium concentrations of all contaminants in the MRS's sediment and their comparison values (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the ratios for each contaminant by dividing the maximum concentration by the comparison value. Determine the CHF by adding the contaminant ratios together, including any additional sediment contaminants recorded on Table 27. Based on the CHF, use the CHF Scale to determine and record the CHF Value. If there is no known or suspected MC hazard with ecological endpoints present in the sediment, select the box at the bottom of the table. Contaminant **Maximum Concentration** Comparison Value (mg/kg) Ratios (mg/kg) **CHF Scale CHF** Value Sum The Ratios 0 [Maximum Concentration of Contaminant] CHF > 100 H (High) $CHF = \sum$ 100 > CHF > 2 M (Medium) [Comparison Value for Contaminant] 2 > CHFL (Low) **DIRECTIONS:** Record the CHF Value from above in the box CONTAMINANT **HAZARD FACTOR** to the right (maximum value = H). **Migratory Pathway Factor** Classification Description Value Analytical data or observable evidence indicates that contamination in Шн Evident the sediment is present at, moving toward, or has moved to a point of exposure Contamination in the sediment has moved only slightly beyond the source (i.e., tens of feet), could move but is not moving appreciably, Шм Potential or information is not sufficient to make a determination of Evident or Confined. Information indicates a low potential for contaminant migration from Confined the source via the sediment to a potential point of exposure (possible due to the presence of geological structures or physical controls). MIGRATORY **DIRECTIONS:** Record the single highest value from above PATHWAY in the box to the right (maximum value = H). FACTOR **Receptor Factor** Classification Description Value Identified receptors have access to sediment to which contamination Identified ЦН has moved or can move. Potential for receptors have access to sediment to which Πи Potential contamination has moved or can move. Little or no potential for receptors to have access to sediment to \Box_{L} Limited which contamination has moved or can move RECEPTOR Check the value that corresponds most closely to the FACTOR sediment receptors at the MRS. No Known or Suspected Sediment (Ecological Endpoint) MC Hazard DIRECTIONS: Document any MRS - specific data used in selecting the sediment contaminants in the space provided.

Sediment was not sampled in this MRS. Secs 4.2.3 and 5.3.3, RI Report

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 26 Surface Soil

Contaminant Hazard Factor (CHF)

Directions: Record the maxium concentrations of all contaminants in the MRS's surface soil and their comparison values (from Appendix B of the Primer) in the table below. Additional contaminants can be recorded on Table 27. Calculate and record the ratios for each contaminant by dividing the maximum concentration by the comparison value. Determine the CHF by adding the contaminant ratios together, including any additional surface soil contaminants recorded on Table 27. Based on the CHF, use the CHF Scale to determine and record the CHF Value. If there is no known or suspected MC hazard present in the surface soil, select the box at the bottom of the table.

surface soil, select the box at the bottom of the table.					
Contaminant	Maximum Concentration (mg/kg)	Comparison Value (mg/kg)	Ratios		
CHF Scale	CHF Value	Sum The Ratios	0		
CHF > 100	H (High)	[Maximum Concentr	ation of Contaminant]		
100 > CHF > 2	M (Medium)	CHF = \sum			
2 > CHF	L (Low)	e for Contaminant]			
CONTAMINANT HAZARD FACTOR	DIRECTIONS: Record the CHI to the right (maximum value =				
	Migratory Pa	thway Factor			
Classification	Descr	Value			
Evident	Analytical data or observable evide the surface soil is present at, movin of exposure	Пн			
Potential	Contamination in the surface soil h source (i.e., tens of feet), could mo or information is not sufficient to ma Confined.	Шм			
Confined	Information indicates a low potentia the source via the surface soil to a (possible due to the presence of ge controls).				
MIGRATORY PATHWAY FACTOR	DIRECTIONS: Record the sing in the box to the right (maxim				

Receptor Factor					
Classification	Description	Value			
Identified	Identified receptors have access to surface soil to which contamination has moved or can move.	Пн			
Potential	Potential for receptors have access to surface soil to which contamination has moved or can move.	Пм			
Limited	Little or no potential for receptors to have access to surface soil to which contamination has moved or can move.				
RECEPTOR FACTOR	Check the value that corresponds most closely to the surface soil receptors at the MRS.				

DIRECTIONS: Document any MRS - specific data used in selecting the soil contaminants in the space provided.

Surface Soil was not sampled in this MRS. Secs 4.2.3 and 5.3.3, RI Report

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 28 Determining the HHE Module Rating

Directions: 1. Record the letter values (H, M, L) for the Contaminant Hazard, Migration Pathway, and Receptor Factors for the media (from Tables 21-26) in the corresponding boxes below. 2. Record the media's three-letter combinations in the Three-Letter Combination boxes below (three-letter combinations are arranged from Hs to Ms to Ls). 3. Using the HHE Ratings provided below determine each media's rating (A-G) and record the letter in the corresponding Media Rating box below.

			Traing box b			
Media (Source)	Contamina ntHazard Factor Value	Migratory Pathway Factor Value	Receptor Factor Value	Three- Letter Combinatio n (Hs-Ms- Ls)	Media Rating (A-G)	
Groundwater (Table 21)						
Surface Water - Human Endpoint (Table 22)						
Sediment - Human Endpoint (Table 23)						
Surface Water - Ecological Endpoint (Table 24)						
Sediment - Ecological Endpoint (Table 25)						
Surface Soil (Table 26)						
DIRECTIONS (co	ont.): 4. Select f	he single	HHE M	ODULE RATING	N	
highest Media Ra lowest) and enter	ting (A is highe the letter in the	est; G is e HHE Module		HHE Ratings (fo	r reference only)	
Rating box.			Combination		Rating	
Notes: An alterna	tive module rat	ing may be	ННН		Α	
assigned when a	module letter r	ating is	HHM,HMH,MHH		В	
inappropriate. An alternative module rating is used when more information is needed to score one or more data elements, contamination at an MRS was previously		HHL,HLH,LHH,HMM,MHM,MMH		С		
		HML,HLM,MHL,MLH,LHM,LMH,M MM		D		
addressed, or there is no reason to suspect		HLL,LHL,LLH,MML,MLM,LMM		E		
contamination was ever present at an MRS.		MLL,LML,LLM		F		
		LLL		G		
		Alternative Module Ratings		Evaluation Pending		
				No Longer Required		
				No Known or Suspected		
HHE Module Description (4000 characters max):						

HHE Module Description (4000 characters max):

C02NJ0004 Fort Hancock - 09 - MMRP - Water Ranges Table 29 MRS Priority

In the chart below, circle the letter rating for each module recorded in Table 10 (EHE), Table 20 (CHE), and Table 28 (HHE). Check the corresponding numerical priority for each module. If information to determine the module rating is not available, choose the appropriate alternative module rating. The MRS Priority is the single highest priority, record this relative priority in the MRS Priority or Alternative MRS Rating at the bottom of the table.

MRS Priority or Alternative MRS Rating at the bottom of the table. An MRS assigned Priority 1 has the highest relative priority; an MRS assigned Priority 8 has the lowest relative priority. Only an MRS with CWM known or suspected to be present can be assigned Priority 1; an MRS that has CWM known or suspected to be present cannot be assigned Priority 8

EHE Rating	Priority	CHE Rating	Priority	HHE Rating	Priority
		А	1	-	
Α	2	В	2	А	2
В	3	С	3	В	3
С	4	D	4	С	4
D	5	E	5	D	5
E	6	F	6	E	6
F	7	G	7	F	7
G	8			G	8
Evaluation Pending		Evaluation Pending		Evaluation Pending	
No Longer Required		No Longer Required		No Longer Required	
No Known or Suspected Explosive Hazard		No Known or Suspected CWM Hazard		No Known or Suspected MC Hazard	
MRS Priority or Alternative MRS Rating 5					