PROPOSED PLAN

FORMER RARITAN ARSENAL
AREAS 9 AND 19

FUDS PROJECT NO. CO2NJ008403
EDISON, MIDDLESEX COUNTY, NEW JERSEY

The Proposed Plan

This proposed plan presents a no action decision for Areas 9 and 19 at the Former Raritan Arsenal (FRA) located in Edison and Woodbridge Townships, New Jersey, and summarizes technical documents that demonstrate there are no unacceptable exposure risks for human health or the environment at the site. This proposed plan, prepared by the U.S. Army Corps of Engineers (USACE), provides a review of the investigations conducted of past storage and handling of munitions at Areas 9 and 19, located within the FRA. This plan summarizes the USACE rationale for recommending no action at Areas 9 and 19.

INTRODUCTION

This proposed plan provides information to the public regarding investigations of munitions storage and handling at Areas 9 and 19 within the Former Raritan Arsenal (FRA) located in Edison and Woodbridge Townships, New Jersey (the "site"). This plan provides the U.S. Army Corps of Engineers (USACE)'s rationale for selection of the no action decision for Areas 9 and 19, which is based on investigative and removal actions that demonstrate there are no unacceptable exposure risks for human health or the environment that require remedial action.

USACE, New York District, is the lead agency responsible for managing the project and provides required direction and guidance for its execution. The U.S. Army Engineering and Support Center, Huntsville, and USACE, New England District, provide technical support. The lead regulatory agency is the New Jersey Department of Environmental Protection (NJDEP). Federal environmental laws govern characterization and response activities at former federal facilities. Investigation and environmental restoration of the FRA has been conducted under the Defense Environmental Restoration Program (DERP)–Formerly Used Defense Sites (FUDS). The overall goal of DERP-FUDS is to achieve environmental restoration of the FRA and address potential human health and environmental risks associated with past Department of Defense (DoD) activities. The Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA), a federal environmental statute, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establish procedures for site investigation, evaluation, and remediation. USACE is required by DERP-FUDS to execute the environmental restoration program in accordance with CERCLA and the NCP. USACE has been working in accordance with CERCLA to evaluate potential impacts from past activities at the FRA and identify appropriate remedial responses. NJDEP is the lead regulator for this site. In accordance with federal law and regulations, state involvement is sought in the form of reviews and submission of potential Applicable or Relevant and Appropriate Requirements (ARARs) for constituents of concern (COCs) identified by the federal government. USACE has also been conferring with local stakeholders about community concerns regarding the site since 1990.

As the lead agency implementing the environmental response program for the FRA, USACE has prepared this proposed plan in accordance with CERCLA Section 117(a) and Section 300.430(f)(2) of the NCP to continue its community awareness efforts and to encourage public participation. After the public has had the opportunity to review and comment on this proposed plan, USACE will respond to the comments received during the public comment period, including any comments received during the public meeting. The comments will be included in the responsiveness summary of the decision

document. Information about the public comment period and the public meeting is shown in the box below.

Public Comments Are Requested

PUBLIC COMMENT PERIOD

February 18 to March 23, 2019 (33 days, not to include start date)

Written comments on this proposed plan can be submitted to USACE during the comment period. Comment letters must be postmarked no later than March 23, 2019, and can be sent to Mr. Matt Creamer (USACE, New York District, Project Manager):

U.S. Army Corps of Engineers
Attn: Mr. Matt Creamer
2890 Woodbridge Avenue
Edison, NJ 08837

PUBLIC MEETING

February 26, 2019 (snow date March 5)

USACE will host an information session from 7:00 to 8:00 p.m. at the Edison Senior Citizen Center, 2963 Woodbridge Avenue, Edison, New Jersey, to provide information and answer questions in an informal setting. This meeting will include a brief introduction and summary by USACE.

The USACE will carefully consider all comments received from the public, and responses will be compiled into a responsiveness summary. The decision as to which action is appropriate for the site will be detailed in a decision document, which will include the responsiveness summary.

This proposed plan highlights key information from previous reports prepared for the site, including site characterization details provided in the remedial investigation (RI) reports. These and other documents that support this proposed plan are available for review at the information repository or through the USACE New York District website for the FRA:

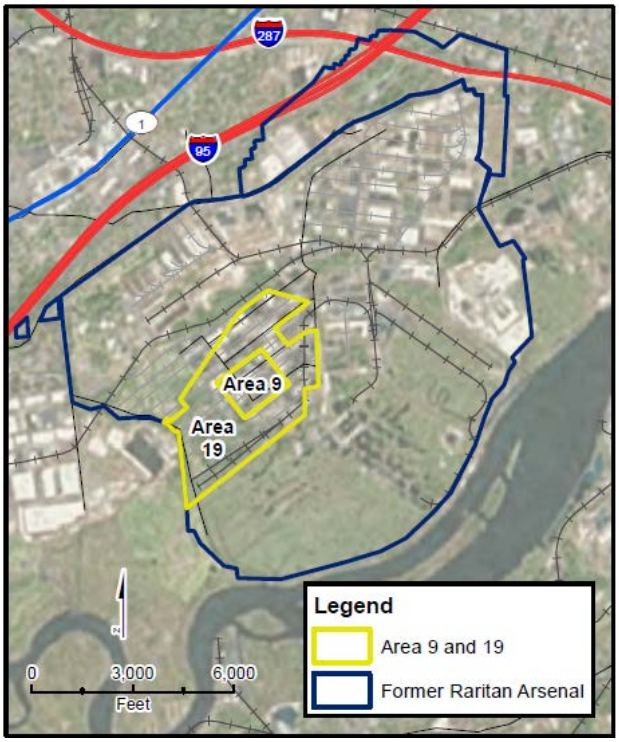
http://www.nan.usace.army.mil/Raritan

Information Repository
U.S. Army Corps of Engineers, New York District
2890 Woodbridge Avenue
Edison, NJ 08837

SITE HISTORY AND BACKGROUND

The FRA is located on approximately 3,200 acres on the northern bank of the Raritan River in Middlesex County, New Jersey. A map depicting the location of the FRA is presented as Figure 1.

Figure 1. Location of the Former Raritan Arsenal



The majority of the FRA land area lies within Edison Township, with a portion of the site located in Woodbridge Township. It is bordered to the north and northwest by Woodbridge Avenue, to the southwest by Mill Road and the Industrial Land Reclamation Landfill, and to the east by the Raritan River.

The Raritan Arsenal was initially developed to facilitate military shipments during World War I. The initial land purchased for development of the FRA consisted of tidal marsh, quarries, and farmland. The War Department assumed control of the land in December 1917, and construction of the Raritan Arsenal was underway by the beginning of 1918. Ordnance was first received at the Raritan

Arsenal during the early phases of construction. On May 2, 1918, the Raritan Arsenal contained military facilities that included magazines, a railway network, locomotive houses, docks, warehouses, assembly and process buildings, administration buildings, storage buildings, and living quarters, and was declared operational (Weston, 2007).

The principal function of the Raritan Arsenal was to store, handle, and ship various classes of ordnance and military supplies. Other activities and missions included assembly of automobiles, trucks, tanks, and motorized artillery; preservation, renovation, and manufacture of munitions; salvaging, linking, belting, clipping, packing, demilitarizing, and maintaining ammunition; requisition, research, and development of ordnance; military supply chain management; and troop training.

In March 1961, the DoD announced the proposed disposition of the Raritan Arsenal, and in 1964, the General Services Administration (GSA) began selling the FRA property. At the time of the disposition announcement, the FRA contained approximately 440 buildings and more than 62 miles of roads and railways. Since closure, the site has been redeveloped extensively, primarily for commercial and industrial uses, particularly in the northern portion of the facility.

The FRA currently constitutes one munitions response site (MRS) that includes several areas of interest that are in various states of investigation or remediation. Areas 9 and 19 are located on the western side of the FRA. Area 9 comprises approximately 53 acres near the center of a former magazine area, and Area 19 comprises approximately 294 acres that encompass the magazine area around Area 9 (see Figure 1).

Area 9 was delineated to surround the former location of magazine H-65, which was destroyed on November 9, 1943, by an explosion of French naval ammunition (Metcalf and Eddy, 1991). The explosion occurred while French-made, 152-millimeter (mm) loaded cartridges were being transferred from the magazine to a freight car. During the transfer, one of the cartridges ignited and started a fire in the freight car, which was also loaded with 90mm ammunition. A subsequent explosion resulted in the detonation of ammunition stored in both the freight car and the magazine, which at the time contained semi-fixed cartridges (35mm, 90mm, and 152mm), full rounds (37mm and 90mm), hand grenades, 81mm mortar shells, miscellaneous small arms, and impulse charges. A fragmentation survey conducted as part of the incident investigation found items including steel and brass fragments, live 90mm ordnance, 152mm cartridge cases, and 90mm cartridge cases on the surface or buried in the surrounding area. Reportedly, a cleanup was conducted after the incident; however, no record of ordnance recovery or disposal is available (IT Corporation, 1992).

Area 19 historically housed a magazine area with buildings containing either low or high explosives. The standard magazines, which contained low explosives, were permanent buildings approximately 50 feet wide by 200 feet long. The magazines containing high explosives were approximately 20 feet wide by 40 feet long. A rail line was constructed along each row to transport material to and from the magazine buildings.

A decontamination study of the FRA was conducted in 1963 as part of the decommissioning process. The study was begun under the direction of Raritan Arsenal personnel and was completed under the direction of personnel from Letterkenny Army Depot (LEAD) and the U.S. Army Materiel Command Safety Office. LEAD identified 17 areas within the FRA as potentially contaminated by ordnance-related activities. Other areas of known or suspected contamination, including Area 19, were identified after 1963. Standard operating procedures for decontaminating the original 17 areas were prepared, approved by the Safety Office, and carried out during closure of the FRA. Decontamination activities completed at Area 9 included destruction of propellant powder, small arms ammunition, and primer within one subarea of the site; the use of a mine detector to identify and remove projectiles in another subarea; and a surface search and removal of visible ammunition and components across the remainder of the site (Dames & Moore, 1993).

SITE CHARACTERISTICS

Land use in the western portion of the FRA where Areas 9 and 19 are located is currently primarily commercial/industrial, with structures including large industrial buildings. Area 9 is completely developed. In 1965, the GSA deeded most of the area currently known as Area 19 to Federal Storage Warehouses, and a significant number of the magazines have been demolished for construction of office buildings and warehouses as part of land reuse. The southern portion of Area 19 consists of undeveloped wetlands, and a small piece of the western edge of Area 19 was sold to Middlesex County and is now a wooded wetland portion of Thomas Edison County Park (Roy F. Weston, Inc., 1996a). Areas 9 and 19 site features are shown on Figure 2.

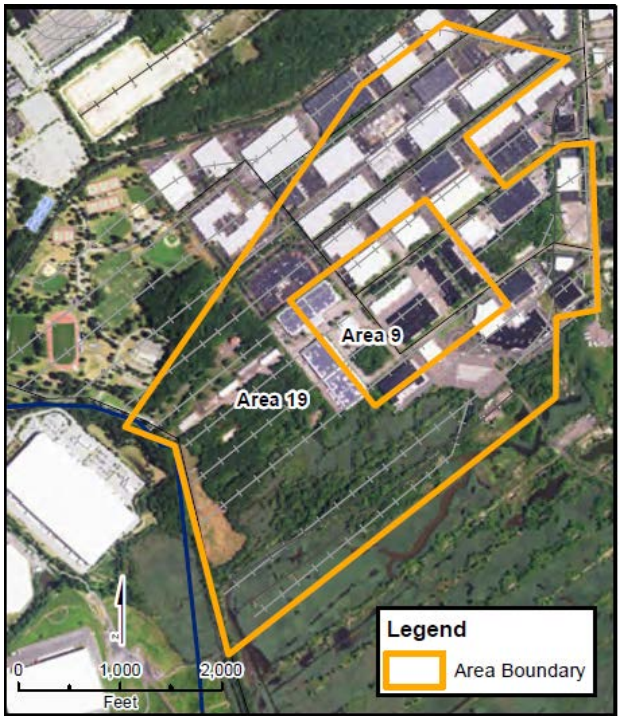


Figure 2. Areas 9 and 19 Site Features

Physical and Environmental Setting

The geology beneath the FRA is characterized by an overburden layer, approximately 10 to 80 feet thick, composed of unconsolidated sediments and underlain by bedrock composed of shales, metamorphosed shales, and an igneous diabase sill. Bedrock is encountered at 18 to 47 feet below mean sea level (Roy F. Weston, 1996a).

Shallow soils beneath Area 9 consist of reworked native soils, classified as poorly graded sand with variable amounts of silt and gravel and ranging up to 10 feet thick (Roy F. Weston, 1996b). Shallow soil conditions in Area 19 are generally similar to those of Area 9, consisting of reworked native and fill soils that range in thickness from 1 to 11 feet (Roy. F. Weston, 1996a). Thicker fill is found beneath the former magazine rows, and the shallow soils also contain debris such as brick, concrete, and cinders (Roy. F. Weston, 1996a).

The hydrogeology beneath the FRA is characterized by separate aquifers in the overburden and bedrock. Previous groundwater data indicate that the bedrock aquifer is not affected by activities associated with the FRA (Weston, 1996). Groundwater within both the overburden and bedrock aquifers flows generally southeastward toward the Raritan River. The depth to shallow groundwater in the overburden ranges from 2 to 30 feet below ground surface (bgs), and the saturated portions of this unit are relatively thin and discontinuous (Roy F. Weston, Inc., 1996a).

Most upland area on the FRA, including all of Area 9 and approximately two-thirds of Area 19, has been developed. The southwestern portion of Area 19 consists primarily of freshwater palustrine forested wetlands and contains a wooded wetland portion of Thomas Edison County Park. A small portion of Area 19 also consists of tidal wetlands of varying salinities (Roy F. Weston, Inc., 1996a, 1996b).

Currently there is no use of the groundwater on the site. All buildings at the FRA are connected to municipal water, and groundwater is not expected to be used in the future (see Summary of Site Risks section).

PREVIOUS INVESTIGATIONS AND ACTIVITIES

Previous investigation and removal action activities conducted at Areas 9 and 19 include the following:

- LEAD Cleanup Operations (Area 9), 1963
- Ordnance Removal Action (Area 9), 1965
- Clearance Activities (Area 9), 1981
- Soil and Groundwater Investigation (Area 9), 1987
- Test Pitting and Soil Sampling (Area 9), 1988
- Surface Clearance (Area 9), 1988
- Phase I RI (Areas 9 and 19), 1992
- Magnetometer Survey (Areas 9 and 19), 1993
- Sampling Investigation (Area 9), 1993
- Phase II RI (Areas 9 and 19), 1994
- Sector Density Estimate Investigation (Area 9), 1998
- Supplemental Phase II RI (Area 9), 1999
- Baseline Ecological Risk Assessment (BERA) (Areas 9 and 19), 2005

Munitions and Explosives of Concern Investigations

A total of seven separate phases of work performed at Areas 9 and 19 included some type of munitions and explosives of concern (MEC) investigation or removal. Data are consistent with one MEC release mechanism (i.e., the 1943 explosion of magazine H-65) with minimal impact, which has since been addressed through cleanup and construction activities.

In 1963, approximately 5 acres within Area 9 were decontaminated by burning the ground and vegetation to destroy propellant powder, small arms ammunition, and primers. The ground was then disked to a depth of 6 inches, and the ground surface was burned again prior to recommendation of the area for unrestricted use. An additional 4 acres of Area 9 was cleaned and swept with a mine detector, after which the area was initially recommended for surface use only, based on the potential for buried live ammunition. The surface-use-only restriction continued following the discovery of one shell projectile encountered at 1 foot bgs during clearance of a portion of Area 9 in 1981. The shell was removed by the Fort Monmouth Explosive Ordnance Disposal (EOD) Unit (Dames & Moore, 1993).

From 1987 to 1988, intrusive investigation of 6 acres of land within Area 9 identified 19 munitions debris (MD) items, including 37mm projectiles, 3-inch projectiles, a 12-inch-long 81mm mortar round, 30-caliber rounds and cases, and a 308-caliber case. No MEC-related items were discovered. Additionally, the 4-acre portion of Area 9 previously swept with a mine detector was excavated to a depth of 5 feet bgs. No MEC were discovered, and the excavation was backfilled with clean fill. Following this removal action, it was recommended that the surface-use-only restriction be removed (Foster Wheeler, 2000).

In 1993, intrusive investigations were conducted across an approximately 0.3-acre portion of Area 9; 29.9 acres of Area 10 that included developed portions of the park within Area 19; and an additional 2.4 acres of Area 19 that were within the estimated fragmentation line from the magazine explosion in Area 9. No MEC were discovered. An evaluation of historical documents completed in 1998 concluded that the MEC density within Areas 9 and 19 was minimal based on historical cleanup efforts and the lack of MEC discovery during the more recent investigations.

Soil Investigations

Surface and subsurface soil, soil gas, and groundwater samples that were collected at Areas 9 and 19 between 1988 and 2009 were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls, metals, and explosives. Samples were collected from areas of former magazines, observed debris, historical ground scars, railroad spurs, open storage areas, and fill areas identified from historical aerial photographs. Analytical results were evaluated primarily against the NJDEP criteria in effect at the time of the investigation.

Potentially complete ecological exposure pathways identified for soil, sediment, and surface water were quantitatively evaluated in the facility-wide BERA (Weston, 2008). No evidence of ecological risks to freshwater habitats were identified, with the possible exception of arsenic in Area 19 sediments. Arsenic was detected at elevated concentrations in areas

downgradient from historical arsenic-based herbicide application areas, and was determined not to represent a CERCLA release.

The documents associated with the previous investigations are part of the information repository and are available for review at the location identified in this proposed plan. In addition, summaries of data, results, and recommendations associated with these reports were extracted from the individual reports and incorporated into a current RI report (CH2M, 2016) to provide a comprehensive summary of the site-specific investigation activities conducted at Areas 9 and 19. Activities and analysis associated with the current RI report are summarized in the following section.

Remedial Investigation

Historical records documenting the phases of investigation and removal actions conducted at Areas 9 and 19 from 1963 to 2005 were used to develop an updated conceptual site model (CSM), and analytical data collected from 1994 through 2010 were used to estimate the potential exposure-related risks in an RI specifically focused on Areas 9 and 19 (CH2M, 2016).

The primary source of potential contamination at Areas 9 and 19 is MEC resulting from the explosion of magazine H-65 in 1943, which was located in Area 9. MEC debris that was scattered during the explosion was found on the ground surface and shallow subsurface within portions of Area 9. Few munitions items have been found during extensive MEC investigations at Areas 9 and 19. Clearance operations on 6 acres of land within Area 9 in 1987 and 1988 identified no hazardous or nonhazardous MEC-related items on the surface or in the subsurface. Additionally, no MEC were found during intrusive investigations across large portions of Areas 9 and 19.

Based on the previous investigations and removal actions, minimal potential exists for MEC exposure from the identified MEC release area (former magazine H-65). The data also suggest that there is no longer an explosive risk at Areas 9 and 19; therefore, an MEC hazard assessment (HA) is not required. Consequently, no action is recommended for MEC.

Constituents of potential concern (COPCs) at Areas 9 and 19 were identified for surface (0 to 2 feet bgs) and subsurface (2 to 10 feet bgs) soil, sediment, and surface water. If a maximum detected chemical concentration exceeded the EPA Regional Screening Levels for Chemical Contaminants at Superfund Sites (EPA, May 2014), it was retained as a COPC. Chemicals that were not detected in any of the samples within an environmental medium, as well as commonly occurring essential nutrients such as calcium, magnesium, potassium, and sodium, were not selected as COPCs. At the request of NJDEP, and for informational purposes only, data were also screened separately against the NJDEP soil remediation standards. COPCs identified for Areas 9 and 19 are summarized below:

- Surface Soil (0 to 2 feet bgs) – One pesticide (heptachlor epoxide), eight inorganic chemicals (aluminum, antimony, arsenic, cobalt, iron, manganese, thallium, and vanadium) and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) as benzo(a)pyrene toxic equivalents (BAP TEQs) were identified as COPCs in surface soil.
- Subsurface Soil (2 to 10 feet bgs) – Six inorganic chemicals (antimony, arsenic, cobalt, iron, thallium, and vanadium) and cPAHs as BAP TEQs were identified as COPCs in subsurface soil.
- Surface Water – Five VOCs (1,2-dichloroethane, cis-1,2-dichloroethene, total-1,2-dichloroethene, trichloroethene, and vinyl chloride) and 12 inorganic chemicals (aluminum, antimony, arsenic, barium, cobalt, iron, lead, manganese, nickel, selenium, thallium, and vanadium) were identified as COPCs in surface water.
- Sediment – One SVOC (bis[2-ethylhexyl] phthalate), two persistent organo-chlorine pesticides (4,4 DDD and dieldrin), 10 inorganic chemicals (aluminum, antimony, arsenic, cobalt, cyanide, iron, manganese, mercury, thallium, and vanadium), and cPAHs as BAP TEQs were identified as COPCs in sediment.

A baseline human health risk assessment (HHRA) was conducted for Areas 9 and 19 at the FRA. Potential carcinogenic risks and hazards were estimated for the COPCs within the identified media

for various receptors. The estimated risks and hazard indices were compared to the acceptable cancer risk range and hazard index values. The purpose of the HHRA was to estimate the potential risks to human receptors associated with exposures to constituents detected in surface and subsurface soil, surface water, and sediment within Areas 9 and 19. The potential receptors evaluated under a current land use scenario were recreational users/trespassers, industrial workers, and maintenance workers at the FRA. Under a future land use scenario, the potential receptors evaluated included construction workers and hypothetical residents (although the site is likely to remain under industrial use for the foreseeable future). The estimated cancer risks and hazard indices to receptor groups under current and future land uses are within the acceptable risk criteria. Therefore, no COCs were identified in surface soil, surface water, or sediment for a current/future recreational user/trespasser and various worker scenarios.

A "hot spot" analysis was conducted as part of the HHRA for Areas 9 and 19 and compared the detected site concentrations in soil and sediment to 100 times (3 times for lead) the U.S. Environmental Protection Agency regional screening levels and NJDEP regional background levels. The purpose of the "hot spot" analysis was to evaluate the presence of a discrete area where concentrations are considerably higher than those present in the surrounding area. The "hot spot" analysis assumed potential human receptors could be exposed to a small, localized area of elevated concentrations within the 294 acres that comprise Areas 9 and 19. No "hot spot" areas were identified for arsenic or PAHs, which were evaluated as BAP TEQs, in soil or sediment.

The majority of the calculated cancer risks and hazard indices were from chemicals that occur both in background and site media. The risk contributions from arsenic and PAHs are likely attributable to anthropogenic background levels and are related to former DoD activities from areas associated with historical application of arsenical based herbicides and pesticides. The PAHs are likely from nonpoint anthropogenic sources, such as vehicular traffic or asphalt pavements. The arsenic and PAHs detected in site soil were not the result of a CERCLA release during former operations at Areas 9 and 19, which means that there is no authority to remediate them under the FUDS program. Furthermore, DoD-related constituents do not present an unacceptable risk for under any of the exposure scenarios evaluated for current and foreseeable future land use conditions. Therefore, Areas 9 and 19 were recommended for no action based on the results of the HHRA.

A BERA addendum was completed to evaluate the potential for ecological risk from DoD related activities at Areas 9 and 19. The site-wide BERA results (Weston, 2008) did not indicate any site-related potential for ecological risk associated with Areas 9 or 19, with the possible exception of arsenic in the Area 19 drainage sediments. The RI confirmed that elevated arsenic concentrations were detected downgradient from historical arsenic-based herbicide application areas, and the presence of arsenic was therefore not identified as a CERCLA release (CERCLA § 107[i]; 42 United States Code [U.S.C.] § 9607[i]). Accordingly, no evaluation of arsenic was recommended. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) defines pesticide to include herbicides (see 7 U.S.C. 136). As the arsenic was released in accordance with FIFRA, there is no release of a hazardous substance under CERCLA. If there is no CERCLA release, then there is no authority to act under the FUDS program.

Remedial Investigation Conclusions and Recommendations

Because no evidence of MEC contamination and no unacceptable risks associated with potential exposures to DOD-related COPCs were identified, the RI did not recommend a feasibility study for Areas 9 and 19. Based on the evaluation of data previously collected as presented in the RI, no action was recommended for MEC or munitions constituents (MC) and hazardous and toxic waste (HTW) associated with Areas 9 and 19.

SCOPE AND ROLE OF THE ACTION

It was concluded in the RI report (CH2M, 2016) that MEC and DOD-related COPCs in soil, sediment, and surface water do not pose a threat to human health and the environment at the FRA. Therefore, this proposed plan proposes no action for Areas 9 and 19.

SUMMARY OF SITE RISKS

Land Use

Area 9 consists of approximately 53 acres of land, encompassed by the 294 acres of land that comprise Area 19. Land use within Areas 9 and 19 is currently primarily commercial/industrial with large industrial buildings. The southern portion of Area 19 consists of undeveloped wetlands and a wooded wetland portion of Thomas Edison County Park; therefore, it is considered as recreational in land use. Current receptors would be maintenance workers, industrial/commercial workers, recreational users/trespassers, and construction/utility workers. Future land use is anticipated to be the same as the current land use, where Areas 9 and 19 remain under active industrial/commercial use.

Human Health Risks

The findings of the RI are consistent with the CSM that suggests there was one primary MEC release mechanism (i.e., the 1943 explosion of magazine H-65) and that the impacts generated by that MEC release were addressed through subsequent cleanup and construction activities. One shell projectile was discovered at 1 foot bgs and removed during clearance of a portion of Area 9 in 1981, and no additional MEC items were identified during seven separate phases of MEC investigations performed at Areas 9 and 19. An MEC HA was not needed as part of the RI.

The HHRA conducted during the RI did not identify an unacceptable risk associated with exposure of current or future receptors at Areas 9 and 19 to COPCs associated with DoD releases.

Ecological Risks

Because no physical evidence of MEC was identified within Areas 9 and 19, MEC do not pose a threat to the environment, and the BERA and the addendum to the BERA did not identify any unacceptable risk to ecological receptors from Areas 9 and 19.

CONCLUSIONS

Based on the results of the MEC, MC, and HTW characterization activities conducted at Areas 9 and 19, no investigative or removal actions are necessary for Areas 9 and 19. Therefore, no action for Areas 9 and 19 is proposed.

It is USACE's judgment that no action is protective of public health or welfare and the environment from actual or threatened military releases of hazardous substances. NJDEP does not concur with the no action determination based on issues of non-concurrence documented in a Memorandum for the Record dated March 22, 2016 (USACE Project Delivery Team, 2016). NJDEP believes it is important to recommend land use controls in a Feasibility Study so that the Middlesex County construction permitting authority can evaluate the area(s) of construction and to ensure USACE is consulted to assess if the area(s) warrants unexploded ordnance (UXO) support due to historical findings. USACE states in the Memorandum for the Record that information provided in the RI provides sufficient evaluation of the area to support no action.

The final decision presented in this proposed plan may be modified based on public comments and new information.

COMMUNITY PARTICIPATION

One of the purposes of this proposed plan is to solicit comments from members of the public. USACE encourages the public to gain a more comprehensive understanding of the site and the activities that have been conducted there. USACE maintains the information repository for the FRA. Detailed information about the previous studies and restoration activities can be found in the reports and documents contained in the information repository located at the address below:

Information Repository
U.S. Army Corps of Engineers, New York District
2890 Woodbridge Avenue
Edison, NJ 08837

Central Information Repository
USACE New York District Office
26 Federal Plaza
New York, NY 10278

Information can also be found through the USACE New York District website for the FRA: http://www.nan.usace.army.mil/Raritan

The ***public comment period*** for this proposed plan is February 18 to March 23, 2019.

For further information on the proposed plan for Areas 9 and 19, please contact:

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ABBREVIATIONS AND ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
BAP TEQ	benzo(a)pyrene toxic equivalent
BERA	baseline ecological risk assessment
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CH2M	CH2M HILL, Inc.
COC	constituent of concern
COPC	constituent of potential concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSM	conceptual site model
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
EOD	explosive ordnance disposal
FUDS	Formerly Used Defense Sites
GSA	General Services Administration
HA	hazard assessment
HHRA	human health risk assessment
HTW	hazardous and toxic waste
LEAD	Letterkenny Army Depot
MC	munitions constituents
MD	munitions debris
MEC	munitions and explosives of concern
mm	millimeter
MRS	munitions response site
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NJDEP	New Jersey Department of Environmental Protection
PAH	polycyclic aromatic hydrocarbon
RI	remedial investigation
SVOC	semivolatile organic compound
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
VOC	volatile organic compound
Weston	Weston Solutions, Inc.

GLOSSARY OF TERMS

Administrative Record: The Administrative Record (file) contains the documents that form the basis for the selection of a CERCLA response action and serves as a vehicle for public participation in selection of a response action. Pursuant to Section 9613(j)(1) of CERCLA, judicial review of any issue concerning the adequacy of any response action is limited to the contents of the Administrative Record. The Administrative Record includes the word file until the decision document is signed.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA): The U.S. Congress enacted CERCLA, commonly known as Superfund, on December 11, 1980. This law created a tax on chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

Defense Environmental Restoration Program (DERP): Congressionally authorized in 1986, DERP promotes and coordinates efforts for the evaluation and cleanup of contamination at Department of Defense (DoD) installations and Formerly Used Defense Sites (FUDS). The DERP statue [10 U.S.C. 2701(a)] requires that the environmental restoration program be subject to, and in a manner consistent with, CERCLA and the NCP.

Decision Document: A generic term used to describe the documentation of the selection of a removal action, remedial action, or other type of environmental restoration action. Examples of decision documents include an action memorandum (i.e., a document describing a removal action selected in accordance with subpart 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan) and a record of decision.

Feasibility Study (FS): During the FS, the remedial investigation (RI) data are analyzed and remedial alternatives are identified. The FS serves as the mechanism for the development, screening, and detailed evaluation of alternative remedial actions. The CERCLA process does not require completion of an FS if evaluation of the RI data indicate there is no unacceptable risk to human health or the environment.

FUDS Property: Facilities or sites (property) that were under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances. Under DERP policy, the FUDS program is limited to those real properties that were transferred from DoD control prior to October 17, 1986. FUDS property can be located within the 50 states, District of Columbia, Territories, Commonwealths, and possessions of the United States.

Human Health Risk Assessment (HHRA): An HHRA evaluates the carcinogenic and noncarcinogenic risks presented by contaminants at a site for current and potential future property uses.

Information Repository: A repository, generally located at libraries or other publicly accessible locations in or near the community affected by the FUDS project, which contains accurate and up-to-date documents reflecting ongoing environmental restoration activities. The information repository may contain information beyond the scope of the administrative record because the documents in the administrative record relate to a particular response action selection decision at a site. This may include historical documents, public notices, public comments, and responses to those comments.

Munitions Constituents (MC): Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and nonexplosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

Munitions Debris (MD): Remnants of munitions remaining after munitions use, demilitarization, or disposal.

Munitions and Explosives of Concern (MEC): Specific categories of military munitions that may pose unique explosive safety risks, such as unexploded ordnance, discarded military munitions, or MC, that are present in high enough concentrations to pose an explosive hazard.

Munitions Response Site (MRS): A discrete location within a munitions response area that is known to require a munitions response.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP): Also referred to as the National Contingency Plan, it is a plan required by CERCLA and codified at 40 *Code of Federal Regulations* § 300 that provides a framework for responding to releases or threats of releases of hazardous substances and oil discharges.

Proposed Plan: A public participation requirement of CERCLA Section 117 in which the lead federal agency summarizes the preferred cleanup strategy, the rationale for the preference, the alternatives evaluated in the RI/FS, and any applicable or relevant and appropriate requirement waivers proposed for site cleanup. The proposed plan is issued to the public to solicit public review and comment on all alternatives under consideration.

Public Comment Period: A prescribed period during which the public may comment on various documents and actions taken by the government and regulatory agencies.

Remedial Investigation (RI): An in-depth study designed to gather data needed to determine the nature and extent of contamination at a CERCLA site.