REVISED COMMUNITY RELATIONS PLAN

Remedial Investigation, Feasibility Study, Proposed Plan & Decision Document
Former NIKE PR-79 Control Area
Foster, Rhode Island
DERP-FUDS D01RI0063/02

Version Number: 1

Prepared For:

Department of the Army
US Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Contract Number: W912WJ-19-D-0003
Delivery Order Number: W912WJ19F0110

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September 26, 2019

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Gregory Hencir, Task Order Manager
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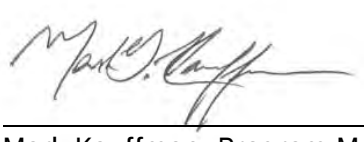
Approval Signature:  9/26/2019

Mark Kauffman, Program Manager
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Date

TABLE OF CONTENTS

Figures

Tables

Appendices

ACRONYMS AND ABBREVIATIONS

AE IDIQ	Architect-Engineering Indefinite Delivery/Indefinite Quantity
AMEC	AMEC Environment & Infrastructure, Inc.
AOC	Area of Concern
AR	Administrative Record
ATV	Acoustic Televiewer
AWQCs	Ambient Water Quality Criteria
BGS	Below Ground Surface
CA	Cost Analysis
CDM	Camp Dresser & McKee, Inc.
CENAE	United States Army Corps of Engineers, New England District
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
COPC	Constituent of Potential Concern
CRP	Community Relations Plan
DD	Decision Document
DERP	Defense Environmental Restoration Program
EE	Engineering Evaluation
EMCX	Environmental and Munitions Center of Excellence
EP	Engineer Pamphlet
ER	Engineer Regulation
FS	Feasibility Study
FT	Feet
FUDS	Formerly Used Defense Site
GAI	Geophysical Applications, Inc.
GPR	Ground Penetrating Radar
GSA	General Services Administration
HHRA	Human Health Risk Assessment
HPA	Historic Photographic Analysis
HQ	Hazard Quotients
HTRW	Hazardous, Toxic and Radiologic Waste
INPR	Inventory Project Report
LOR	Letter of Responsibility
MCL	Maximum Contaminant Level

mg/kg	Milligrams per Kilogram
MMR	Military Munitions Response
MSL	Mean Sea Level
MTBE	Methyl-Tert-Butyl-Ether
NCP	National Contingency Plan
NPL	National Priorities List
PA	Preliminary Assessment
PAO	Public Affairs Office
PDT	Project Delivery Team
PID	Photoionization Detector
PIP	Public Involvement Plan
PP	Proposed Plan
RAB	Restoration Advisory Board
RDEC	Residential Direct Exposure Criteria
RI	Remedial Investigation
RICR	Rhode Island Code of Regulation
RIDEM	Rhode Island Department of Environmental Management
RIDOH	Rhode Island Department of Health
RSLs	Regional Screening Levels
SDWA	Safe Drinking Water Act
SI	Site Inspection
TAL	Target Analyte List
TCE	Trichloroethylene
TCRA	Time Critical Removal Action
TOC	Total Organic Carbon
TPP	Technical Project Planning
µg/L	Micrograms per Liter
US	United States
USACE	United States Army Corps of Engineers
USAGC	United States Army Geospatial Center
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USPHC	United States Army Public Health Command
UST	Underground Storage Tank
VOC	Volatile Organic Compound

1.0 COMMUNITY RELATIONS PLAN OVERVIEW

1.1 Introduction

This Revised Community Relations Plan (CRP) was prepared to support closure of the Former NIKE PR-79 Control Area located in Foster, Rhode Island ("Site"). This document is a revision to the original Public Involvement Plan (PIP) for the Site prepared by AMEC in November 2011 (AMEC, 2011).

Site closure activities are being conducted by the United States Army Corps of Engineers (USACE), New England District (CENAE) under the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) Engineer Regulation ER-200-3-1, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and consistent with Rhode Island Department of Environmental Management's (RIDEM) Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases, Title 250 Rhode Island Code of Regulations (RICR) Chapter-140, Subchapter 30, Part 1 (Rhode Island Remediation Regulations 250-RICR-140-30-1) codified on January 8, 2019.

1.2 Purpose of the Community Relations Plan

The purpose of this CRP is to present the community involvement activities to achieve the overall goals of USACE's Public Involvement Program outlined in USACE's *Public Participation in DERP-FUDS* Engineer Pamphlet EP-1110-3-8 dated September 30, 2011, which are:

a. Ensure that stakeholders understand that personal and property safety is the paramount concern during HTRW response actions and military munitions response (MMR) actions.

b. Serve the community's information needs by keeping local residents, officials, and other stakeholders informed in a timely manner of HTRW response actions and MMR actions.

c. Provide local residents, officials, and other stakeholders an opportunity to review and comment on studies being conducted and on proposed remedial or removal response alternatives and decisions.

d. Keep the public well informed of ongoing and planned public involvement activities.

e. Encourage and enable the public to get involved.

f. Listen carefully to what the public is saying.

g. Identify and deal responsively with public concerns.

h. Change planned actions where public comments or concerns have merit.

i. Foster and maintain a climate of understanding and trust between stakeholders and USACE by explaining to stakeholders how USACE considers their comments, what USACE plans to do, and why USACE reached its decision.

CENAE will oversee the implementation of community involvement activities and will use the community involvement activities outlined in this plan to ensure that community members are continuously informed about and provided opportunities to be involved in the environmental restoration process.

1.3 Organization of the Community Relations Plan

This CRP was prepared in accordance with USACE's *Public Participation in DERP-FUDS* EP-1110-3-8 dated September 30, 2011 and US Environmental Protection Agency's (USEPA) *Superfund Community Involvement Handbook* 540-K-05-003 dated April 2005. This CRP includes the following sections and appendices:

- Section 1.0 – Community Relations Plan Overview
- Section 2.0 – Capsule FUDS Property Description
- Section 3.0 – Community Background
- Section 4.0 – Community Relations Plan Objectives
- Section 5.0 – Methods and Techniques
- Section 6.0 – Projected Schedule For Community Involvement Activities
- Section 7.0 – References
- Appendix A – CENAE Contacts
- Appendix B – Local Officials
- Appendix C – State/Federal Officials
- Appendix D – Federal Elected Officials
- Appendix E – Environmental and Active Citizen Groups and Other Interested Parties[1]
- Appendix F – Potentially Responsible Parties
- Appendix G – Media Contacts
- Appendix H – Suggested Location for Public Meetings
- Appendix I – Suggested Location for Repository Information

1 CENAE maintains a contact list of interested individuals; however, to protect privacy, the names and addresses of private individuals (other than public officials) are not published in this PIP.

2.0 CAPSULE FUDS PROPERTY DESCRIPTION

2.1 FUDS Property History

2.1.1 Land Use and Ownership

The Former NIKE PR-79 Control Area is designated Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Site Number RID987492485 and FUDS Property/Site Number D01RI0063/02. The subject property that comprises the Former NIKE PR-79 Control Area ("Site") is located at the southern end of Theodore Foster Drive, off of Route 101, in Foster, Rhode Island, as shown on Figure 1.

The Site was originally developed for agricultural use, namely as an apple orchard. The US Government acquired the subject property between 1955 and 1957 and developed the Site for radar missile tracking as part of the NIKE Missile Defense System. NIKE sites were constructed throughout the continental US in the mid-1950s during the Cold War era to defend major industrial and urban areas. The location of NIKE PR-79 was selected for defense of Providence, Rhode Island. NIKE sites generally consisted of a missile launcher area and separate integrated fire control and radar missile tracking area (NIKE control area) which typically operated less than two-miles apart. The launcher area is where missiles were stored, maintained, and if necessary, launched. The NIKE control area is where radar and communication equipment needed to detect potential targets and guide launched missiles were maintained and stored. The former launcher area for NIKE PR-79 is a separate property located on Winsor Road in Foster, Rhode Island designated FUDS Property/Site Number D01RI0063/01 and is not the subject of this document.

The Former NIKE PR-79 Control Area was reported as excess property by the General Services Administration (GSA) in 1964. In July 1965, the Site was closed and transferred to the Town of Foster. The Town of Foster used the former Mess Hall, Barracks, and Administrative buildings as the Fogarty Elementary School until 1989 (RIDEM, 1992). The Foster-Glocester Regional School District, Northwest Special Education Region currently occupies the former Mess Hall building for administrative purposes.

The following structures were transferred to the Town of Foster in good condition for beneficial reuse:

- Mess Hall, Barracks, and Administrative buildings
- Heating Oil USTs supplying the Mess Hall, Barracks, and Administrative buildings
- Utility Lines
- Southern Leach Field

The locations of the above referenced structures are shown on Figure 2.

2.1.2 Contaminants or Explosives Safety Hazards

Typical NIKE missile battery operations that required storage, handling, and disposal of solvents, fuels, hydraulic fluids, paints, and other materials is described in the *Final Report NIKE Missile Battery, Environmental Conditions Assessment Guide* (USACE-EMCX, 2003). This report along with Site-specific information provided by historic photographic analysis (USAGC, 2015) and interviews with retired US Army personnel stationed at NIKE PR-79 suggests that potential operations that may have contributed to chemical releases at the Former NIKE PR-79 Control Area include heating oil USTs, transformers and associated diesel generators, sewage disposal systems, and maintenance activities such as deicing, painting, motor pool vehicle and radar maintenance. According to retired US Army personnel stationed at NIKE PR-79, solvents were reportedly used for multiple on-Site activities including deicing of roads and the helipad. Trichloroethylene (TCE), a volatile organic compound (VOC) and a USEPA-regulated compound, was known to be used at NIKE control areas as a cleaning and degreasing agent of radar equipment. TCE and other VOCs are often found in the environment at former military installations from past spills or releases caused by historic disposal practices.

There is no record of explosives storage, handling, and disposal at the Former NIKE PR-79 Control Area.

2.1.3 FUDS Property Designation and Time Critical Removal Action

In 1988, the Foster Board of Education requested that CENAE investigate on-Site groundwater at the Former NIKE PR-79 Control Area to determine whether TCE detected by RIDEM in water supply wells was related to historic US Army activities. CENAE conducted a field survey and Inventory Project Report (INPR) that same year, which concluded that former US Army activities may have resulted in the release of TCE to the environment. Based on the findings of the INPR, the Former NIKE PR-79 Control Area entered DERP and was designated FUDS Property/Site Number D01RI0063/02.

The INPR field survey identified a 6,000-gallon diesel fuel UST (originally assumed to be a 1,000-gallon UST) in the northeast corner of the Former NIKE PR-79 Control Area, next to the former Frequency Changer/Generator Building shown in Figure 2. The UST was removed in June 1994. There is limited documentation beyond that the UST was closed under RIDEM UST regulations and no additional UST investigation was recommended.

In March 1992, USEPA designated the Former NIKE PR-79 Control Area as Site Number RID987492485 in CERCLIS. CERCLIS is a management system used by the USEPA to track activities at hazardous waste sites considered for cleanup under CERCLA. The Site is not included on the National Priorities List (NPL).

On August 24, 2000, RIDEM issued a Letter of Responsibility (LOR) to the US Army 94th Regional Support Command at Fort Devens, Massachusetts, indicating that a potential release of hazardous materials occurred at the Site and identified the US Army as the potentially responsible party. The LOR requested the US Army conduct a Site investigation of the source area in accordance with Rhode Island Remediation Regulations 250-RICR-140-30-1. On September 5, 2000, the US Army 94th Regional Support Command sent a response letter to RIDEM refuting ownership of the Site.

Beginning in 2001, CENAE conducted a series of residential water supply well sampling events, which targeted two on-Site water supply wells (NIKE-1, NIKE-2) and three off-Site residential water supply wells located at 23A Theodore Foster Drive (ROU-1, ROU-2 and ROU-3) that are in close proximity to the Former NIKE PR-79 Control Area. Based on the analytical results for the residential sampling, in 2002, a Time Critical Removal Action (TCRA) was initiated as a temporary remedy for groundwater impacts in drinking water. The TCRA included installation of point of use duel carbon filtration systems at one on-Site water supply well (NIKE-1) and three off-Site residential water supply wells (ROU-1, ROU-2, and ROU-3). CENAE continues to monitor these four carbon filtration systems. A History of Inspections and Studies Conducted are summarized in Section 2.3.3.

2.1.4 Community Reaction

Upon entering DERP-FUDS, the community raised concerns to CENAE about delayed notification of impacted drinking water in new residential water supply wells, potential health risks to children and adults using these water supply wells, and access to assessment information (AMEC, 2011). The Barracks, Administration, and Mess Hall buildings were transferred to the Town of Foster in good condition in 1965 and the Town of Foster has since been responsible for building maintenance, repair, and demolition. The community expressed concern about unsafe building conditions and exposure to lead paint and asbestos from the former Barracks and Administrative buildings that had fallen into disrepair and the roofs collapsed. The Town of Foster conducted lead and asbestos testing of the former Administration Building that indicated hazardous building materials were not present. In 2012, the Town of Foster demolished the Barracks and Administrative buildings, Interconnecting Corridor, and Frequency Changer/Generator Building. A history of community involvement is further discussed in Section 3.2. Key community concerns is further discussed in Section 3.3

2.2 FUDS Property Description

2.2.1 Geographical Location

The Former NIKE PR-79 Control Area is located in Providence County, in Foster, Rhode Island, as shown on Figure 1. The coordinates for the Site obtained from the US Geological Survey (USGS) 7.5 minute Quadrangle for Clayville, Rhode Island are approximately:

- Latitude: N41° 50' 32"
- Longitude: W71° 42'57"

The Site is located at the end of Theodore Foster Drive on top of Oak Hill. According to the Town of Foster Tax Assessor Online database, the address is 23 Theodore Foster Road and recorded on Lot 10, Map 18 (Town of Foster, 2019). The parcel is 6.62 acres in size[2]. The land is zoned for municipal use.

2.2.2 Relationship to Surrounding Areas

2.2.2.1 Proximity to Residences and Businesses

The area surrounding the Former NIKE PR-79 Control Area is comprised of northern hardwood forest and rural development. The Site is located on top of Oak Hill and residences, farms, and businesses are located below the Site. Three residences are located within 300 to 400 feet (ft) of the Site with approximately 68 residences located within a one mile radius in Foster and North Scituate, Rhode Island (USAPHC, 2010). The nearest residential water supply well (ROU-1) is located approximately 200 ft east of the Site with approximately 30 residential water supply wells located within a one mile radius. Businesses located near the Site include solar panel arrays located to the northeast and southeast of the Site. The location of nearby residential water and onsite supply wells NIKE-1, NIKE-2, ROU-1, ROU-2 and ROU-3 and solar panel arrays are shown on Figure 2.

2.2.2.2 Proximity to Livestock, Crops, and Other Agriculture

Small farms are located in the vicinity of the Site. The nearest small farm is located within 300 to 400 ft to the southeast.

2 Town of Foster Tax Assessor Online database indicates the parcel is 6.62 acres in size; however, there is conflicting information from other sources regarding the exact acreage. The DERP-FUDS Inventory Project Report indicates the Site is 19.59 acres in size (13.36 acres and a 6.23-acre easement). Historic reports from Camp Dresser & McKee, Inc. (CDM) and CENAE reference 8 acres (CDM, 1994; CENAE, 2003). On September 22, 1995, 1.38 acres was transferred to Lot 11 on Plat 18 (AMEC, 2013).

2.2.2.3 Proximity to Schools and Playgrounds

The Foster-Glocester Regional School District, Northwest Special Education Region currently occupies the former Mess Hall building for administrative purposes, not for school or playground use. The nearest schools are the Ponaganset High School of the Foster-Golcester Regional School District located approximately 2 miles to the north and the Captain Issac Paine Elementary School located approximately 2 miles to the southwest.

Other private daycare centers, preschools, and church schools are located in the communities surrounding the Site. Both the public and private schools have playgrounds and playing courts and fields (e.g., soccer and baseball fields, tennis courts, etc.). Neighborhood playgrounds that are not associated with schools may also be present in the area.

2.2.2.4 Proximity to Wetlands and Sensitive Ecological Areas

Surface water drainage likely follows local topography away from the property in all directions, since the Former NIKE PR-79 Control Area is located on top of a hill. The nearest surface water bodies include three streams and a 16 acre wetland complex located approximately 0.25 mile to the south; a 0.15 acre wetland followed by Winsor Brook located approximately 0.25 miles to the west; and a 0.07 acre open water body to the north of the Site (Woodard & Curran, 2019). Surface water bodies and wetlands are shown on Figure 1.

2.2.2.5 Proximity to Recreational Lakes, Ponds, Rivers, Streams, and Parks

Winsor Brook and small ponds in the vicinity of the Site are likely used for swimming, fishing and boating. Private and municipally owned property containing forests in the vicinity of the Site are likely used for camping and hiking.

2.2.2.6 Proximity to Public Water Supply

The Site is located within the Scituate Reservoir Watershed. The northwestern most portion of the Scituate Reservoir (known as the Barden Reservoir) is located approximately 3 miles southeast of the Site. Winsor Brook is a tributary to the Barden Reservoir. Local potable water is supplied with private bedrock drinking water supply wells, not municipal water.

2.3 FUDS Property Inspections and Cleanup Activities

2.3.1 Type of Contaminants or Explosives Safety Hazards

TCE is the Site-related primary constituent of potential concern (COPC) and drove a TCRA in 2002. TCE is a chlorinated solvent that was commonly used in NIKE control areas as a cleaning and

degreasing agent of radar equipment. Other chlorinated solvents that may have been used for cleaning and degreasing include 1,1,1-trichloroethane (1,1,1-TCA), toluene, etc. Degradation byproducts of chlorinated solvents that may be present as COPCs in the environment include cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chlorine, ethane, etc. One of those degradation byproducts (i.e., 1,1-dichloroethene) has been detected in soil samples collected from the Site (AMEC, 2014a).

Motor pool vehicle maintenance associated with US Army activities that presumably used fuels and lubricants may have resulted in the release of petroleum hydrocarbons to the environment such as benzene, toluene, ethylbenzene, naphthalene, etc. VOCs degrade in the environment into semivolatile organic compounds (SVOCs) such as benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, etc. that may be present as COPCs.

2.3.2 Nature of Threat to Public Health and the Environment

TCE was detected in pre-treatment water samples collected in NIKE-1, NIKE-2, ROU-1, ROU-2, and ROU-3 at concentrations above the Safe Drinking Water Act (SDWA) Maximum Contaminant Levels (MCL) of 5 micrograms per liter (µg/L) (CENAE, 2003). Exposure to TCE in drinking water is mitigated by point of use duel carbon filtration systems that were installed at NIKE-1, ROU-1, ROU-2, and ROU-3 in 2002 and monitored thereafter by CENAE. NIKE-2 is listed inactive as of 2003. However, the Foster-Glocester Regional School District, Northwest Special Education Region, located at the former Mess Hall building that is supplied by NIKE-1, also utilizes bottled water for drinking at their discretion (AMEC, 2011).

2.3.3 History of Inspections and Studies Conducted

Previous investigations at the Former NIKE PR-79 Control Area have included a Preliminary Assessment (PA) and Site Inspection (SI), off-Site residential and on-Site water supply well sampling, soil, groundwater, and soil vapor studies, and surface and geophysical investigations. Key reports that provide historical data for the Site are summarized below.

RIDEM, 1992. Rhode Island Department of Environmental Management. Preliminary Assessment, Foster NIKE Control Area, Theodore Foster Drive, Foster, Rhode Island. 1992.

In 1987, the Rhode Island Department of Health (RIDOH) conducted routine sampling at NIKE-1 and NIKE-2 and detected TCE at concentrations ranging from 14 to 99 µg/L, which are in excess of the 5 ug/L SWDA MCL for TCE. In response, RIDOH expanded sampling to include 22 residential water supply wells in the vicinity of the Former NIKE PR-79 Control Area. RIDOH reported TCE in one water sample collected from residential water supply well ROU-1 at a concentration of 37 µg/L.

In October 1987, RIDEM screened soil gas with a photoionization detector (PID) behind the Administration Building and south of the Frequency Changer/Generator Building. RIDEM reported concentrations of VOCs in surficial soil gas at or slightly greater than the instrument detection limit south of the Frequency Changer/Generator Building.

This PA provides a summary of Site history and investigations. It contains a preliminary "Pathway and Environmental Hazard Assessment" for the groundwater, surface water, soil and soil gas pathways. For the groundwater and surface water hazard assessment, this PA inventories groundwater wells and surface water sources and provides estimates of the populations served by each and their distance from the Site. This PA concluded that additional investigation was necessary to further assess potential hazards resulting from the presence of TCE in water supply wells NIKE-1, NIKE-2, and ROU-1.

CENAE, 1988. US Army Corp of Engineers, New England District. Inventory Project Report, John E. Fogarty School (NIKE Site 79 Control Area). May 1988.

In 1988, the Foster Board of Education requested that CENAE investigate groundwater at the Former NIKE PR-79 Control Area to determine whether TCE detected by RIDEM in water supply wells was related to historic US Army activities. CENAE conducted a field survey and Inventory Project Report (INPR) that same year, which identified a 6,000-gallon diesel fuel underground storage tank (UST) (originally estimated to be around a 1,500-gallon sized UST) next to the former Frequency Changer/Generator Building. This INPR concluded that former US Army activities may have resulted in a release of TCE to the environment and recommended removal of the UST and a confirmation study of two suspected source areas of TCE impacts: the Southern Leach Field and Radar Control Area. The Former NIKE PR-79 Control Area entered DERP and was designated FUDS Property/Site Number D01RI0063/02.

ESS, 1994. Environmental Science Services, Inc. UST Closure Assessment for NIKE Launch Site PR-79. Foster, Rhode Island. July 1994.

A 6,000-gallon diesel fuel UST was removed from the Former NIKE PR-79 Control Area in June 1994. There is limited documentation in this report beyond that the UST was closed under RIDEM UST regulations and no additional UST investigation was recommended.

CDM, 1994. Camp Dresser & McKee, Inc. Site Inspection Report, Former Foster NIKE Control Area Site. August 1994.

In 1994, a Site Inspection (SI) was conducted by CDM on behalf of RIDEM. Field investigation activities included collecting an unfiltered groundwater sample from a faucet located in the pump building that is supplied by NIKE-1 and NIKE-2 and collecting surficial soil samples from areas associated with potential sources of impacts based on field observations (e.g., areas of staining, drainage swales, etc.) The locations where surficial soil samples (identified as S-1 through S-8) were collected are approximated based on a description in this SI report. The SI report concluded that TCE was present in the overburden groundwater sample collected in the pump building at a concentration of 7 µg/L that is above the SDWA MCL of 5 µg/L. The report also concluded that SVOCs and lead were present in a surficial soil sample collected at S-1 located behind the former Administration Building where stained soil was observed during the PA at concentrations above background concentrations, which was estimated in a backgound soil sample (S-7) collected in a cleared area north of the Radar Control Area. Target analyte list (TAL) metals and SVOCs were detected at concentrations above background concentrations in soil samples S-4 and S-6D that were collected in a drainage swale near the Barracks and Radar Control Area, respectively. PCBs tested as Aroclor 1260 was detected at a concentration of 2.88 mg/kg in a surficial soil sample collected at S-3 located approximately 50 ft south of the end of the access road extension. However, Aroclor 1260 was not detected above laboratory reporting limits in a surficial soil sample collocated where S-3 was believed to be been placed (AMEC, 2014a). The SI concluded that environmental media had been impacted by historic US Army activities, but that the conditions did not pose an imminent danger to health or welfare.

CENAE, 2003. US Army Corp of Engineers, New England District. Limited Investigation within a Study Area at PR-79 Former NIKE Control Area, Foster, Rhode Island. September 30, 2003.

The study objectives of this limited investigation were to confirm TCE impacts at NIKE-1, NIKE-2, ROU-1, ROU-2, and ROU-3; characterize hydrogeology; develop a simple conceptual model; and, evaluate the risks that are posed by TCE impacts in groundwater. CENAE performed surface geophysics, bedrock geophysics, a pump test, and collected water supply samples for laboratory analysis.

In August 2001, USACE, Baltimore District (CENAB) and the Center for Environmental Restoration Systems of Argonne National Laboratory (ANL) of the US Department of Energy (USDOE) completed surface geophysics and bedrock geophysics at the Former NIKE PR-79 Control Area and at the three adjacent residential properties. ANL found that seismic refraction surveying along three profiles showed that the Site is covered with a variable thickness of till and weathered bedrock ranging from 4 to 16 ft thick, and while there are some subtle depressions in the bedrock surface, the bedrock surface does not indicate the presence of major topographic depressions, mounds or

topographic highs, or fracture zones that could act as near-surface geologic control over COPC transport towards ROU-1, ROU-2, and ROU-3. ANL concluded from bedrock geophysics that groundwater recharge likely occurs near the Site and that the investigated wells draw groundwater primarily from one major fracture zone located approximately 180 to 530 ft below ground surface (bgs) that intercepts all wells surveyed in this report except ROU-3, which has a low-producing fracture that may intersect another large fracture given that all the wells were identified as containing TCE. Geophysical findings from this investigation were later reinterpreted and revised (HGI, 2017; Hager-Richter, 2017).

In the spring of 2002, CENAE conducted a pump tests at ROU-2 and ROU-3, during which the water elevation of one well was monitored during pumping of the second well to check for hydraulic connection between the two wells. CENAE concluded that hydraulically connectivity between ROU-2 and ROU-3 is plausible, but the findings are inconclusive.

Between December 15 and December 18, 2000, RIDEM collected unfiltered water samples from 14 off-Site water supply wells and analyzed those samples for TAL metals and VOCs. The laboratory reports provided as Appendix D of this report indicate VOCs were not detected above laboratory reporting limits in any of the water samples tested, except methyl-tert-butyl-ether (MTBE), a gasoline additive developed in the 1980s, that was detected in one water sample collected from the residential water supply well located at 53 Maple Rock Road at a concentration of 7.2 and 7.53 mg/L and chloroform detected in one water sample collected from a residential water supply well located at 40 Winsor Road at a concentration of 1.67 mg/L. Since MTBE was developed in the 1980s after former US Army activities at the Former NIKE PR-79 Control Area ended, it was later concluded that MBTE is not attributable to former US Army activities and that MBTE might have been the result of activity/operations in the area unrelated to the Site (USAPHC, 2011). Chloroform is commonly detected in laboratory analysis due to laboratory contamination and is not a Site-specific compound.

In 2001, CENAE began a series of sampling events at NIKE-1, NIKE-2, ROU-1, ROU-2 and ROU-3. Unfiltered water samples were collected at the point of exposure (i.e. from the faucet or spigot) in May 2001, December 2001, March 2002, and May 2002. Water samples were also collected as grab samples from two off-Site dug wells less than 10 ft in depth at 23A Theodore Foster Drive. CENAE reported that that all five water supply wells contained TCE at concentrations greater than the SDWA MCL of 5 µg/L and four compounds (chloroform, cis-1,2-dichloroethene (cis-1,2-DCE), TCE, and isopropyl benzene) were detected in one or more of those water samples. VOCs were not detected above laboratory reporting limits in the grab water samples collected from the two dug wells. The detection of cis-1,2-DCE at ROU-2 suggests that some biodegradation of TCE occurred;

thus, this report recommended analyzing for natural attenuation parameters to better understand the extent to which biodegradation is occurring.

In April 2002, CENAE initiated a TCRA as a temporary remedy for groundwater impacts in drinking water. The TCRA included installation of duel carbon filtration systems at NIKE-1, ROU-1, ROU-2, and ROU-3. NIKE-2 is listed inactive as of 2003. This report recommended:

- On an annual basis, collect water samples before and after the first carbon filter to determine the TCE concentrations of untreated water and to detect if there has been breakthrough of the first filter. The annual sample should be collected during low groundwater conditions and thereby, possible maximize impact levels within the samples.
- Provide an annual report to RIDEM that documents the monitoring results and discusses the data collected during this annual sampling event.
- Continue annual sampling and analysis of wells and replacement of filters until the concentration of TCE in each water well is below SDWA MCL of 5 µg/L over three consecutive annual testing periods. At such time, and after concurrence with RIDEM, monitoring and replacement of filters will be discontinued. The filter systems will remain on the wells unless the residents request that CENAE remove them.

CENAE, 2007. US Army Corp of Engineers, New England District. Draft NIKE PR-79 Chemical Data Summary Report (2001 – 2006), Water Supply Wells, Foster, Rhode Island. May 2007.

This report summarizes water supply sampling performed by CENAE from 2001 through 2006 at NIKE-1, ROU-1, ROU-2, and ROU-3. Before the carbon filtration systems were installed in April 2002, water samples were collected at the point of exposure (i.e. from the faucet or spigot). After April 2002, three water samples were collected at each location to assess conditions pre-filtration, between the two carbon filters, and post-filtration. Water samples were collected in May 2001, December 2001, March 2002, May 2002, May 2003, September 2004, October 2004, November 2004, August 2005, April 2004, and September 2006. Each water sample was tested for VOCs, including TCE and its degradation byproducts. All carbon filters were exchanged in April 2006 after a TCE detection of 2.9 µg/L was reported in ROU-1, which indicated breakthrough between the first and second carbon filters. CENAE collected confirmatory water samples on April 11, 2006 shortly after replacement of the carbon filters to establish baseline conditions. CENAE concluded that TCE was not detected in post-treatment samples at concentrations above laboratory reporting limit after duel carbon filtrations systems were installed.

CENAE, 2008. US Army Corp of Engineers, New England District. Draft Technical Memorandum, Evaluation of Vapor Intrusion Pathway at PR-79. Updated October 2008.

CENAE conducted a vapor intrusion evaluation around buildings on or near the Site. The objectives of this evaluation were to determine if there was a complete vapor intrusion exposure pathway for VOCs, primarily TCE, to receptors (e.g., residents) and if the estimated indoor air concentrations posed a potential health threat. The evaluation included risk characterization based on historical groundwater sampling data from 2001 to 2007 and vapor intrusion modeling using the Johnson-Ettinger Model. The calculated cancer risks for various scenarios considered in the study were less than the USEPA lower limit for lifetime increased cancer risk of 10^{-6}. Similarly, the calculated hazard quotients (HQs) associated with non-cancer health effects were below the USEPA HQ threshold of 1. Based on CENAE's understanding of Site conditions and the groundwater TCE concentrations used in the calculations, CENAE concluded that TCE impacts did not present an unacceptable human health risk due to migration of vapors into associated buildings. CENAE recommended that new information on subsurface conditions, impact distribution and concentrations, source areas and preferential pathways should be included in future exposure pathway and risk assessments.

Hottel, 2009. Col. David T. Hottel. Teleconference/Interview Record. Prepared by AMEC Environment & Infrastructure, Inc. Interview dated August 14, 2009.

On August 14, 2009, CENAE conducted an interview with retired US Army Colonel David T. Hottel who served as 1st Lt. Executive Officer at the PR-79 NIKE Battery from August 1957 through May 1958. According to Col. Hottel, solvents were used as a cleaning and degreasing agent at the Site, particularly for cleaning radar and electrical equipment in the Radar Control Area. Col. Hottel added that radar equipment was considered maintenance intensive, meaning that radar components were removed, cleaned with solvents, and replaced on a very frequent basis. This is consistent with the *Final Report NIKE Missile Battery, Environmental Conditions Assessment Guide* (USACE-EMCX, 2003), which states that radar equipment required frequent cleaning, which included the removal and cleaning of air filters by dipping them into solvents and then recharging them with oil, and routine cleaning of equipment slides, cables and plugs, terminals, high voltage cables, and the areas surrounding the radar power supplies (USACE-EMCX, 2003). Col. Hottel said that, in general, solvents were taken to the work location and excess solvent after cleaning was directly disposed on the ground at that location. According to Col. Hottel, solvents were for other purposes were it was found useful, such as a deicer for the access road leading up to the Radar Control Area and helipad, and potentially for motor pool vehicle maintenance. Col. Hottel said an unofficial motor pool existed between the Barracks and the water storage tank at the bottom of the Radar Control Area access road. The runoff and drainage from the motor pool ran down the slope, behind the Barracks, and towards the leaching field.

USAPHC, 2011. United State Army Public Health Command. Water Supply Management No. 31-EC-0D1R-10, Volatile Organic Chemicals Sampling Event – NIKE PR-79 Integrated Fire Control Area, Foster, Rhode Island, 16-19 June 2010. May 8, 2011.

In 2010, USAPHC collected samples from 13 off-Site water supply wells located within a half mile of the Former NIKE PR-79 Control Area, including NIKE-1, ROU-1, ROU-2, and ROU-3. USAPHC reported TCE in ROU-2 (5.2 µg/L) and an estimated value (i.e., J-qualified) in a residential well at 32 Winsor Road (0.1 J µg/L); MTBE in a residential well at 17 Winsor Road (0.2 J µg/L); cis-1,2-DCE in supply well ROU-2 (0.4 J mg/L); and, chloroform in a residential well at 54 ½ Maple Road (0.2 J mg/L) and 63 Maple Rock (0.3 J mg/L). TCE was not detected in post-treatment water samples.

Steere, 2012. Mr. Bob Steere. Final Meeting Minutes, Bob Steere Interview and Site Walk, Former PR-79 NIKE Control Area, Foster, Rhode Island. Prepared by AMEC Environment & Infrastructure, Inc. Interview dated December 13, 2012. April 4, 2013.

On December 13, 2012, CENAE interviewed Mr. Bob Steere, who is an abutting property owner to the Site at 15 Theodore Foster Drive and is knowledgeable of former US Army activities at the Former NIKE PR-79 Control Area. According to Mr. Steere, an area approximately 850 ft west/northwest of the Site containing four large (approximately 50 by 50 ft) sand filters, which was discovered by CENAE during a Site walk in 2009, is part of the Former NIKE PR-79 Control Area septic system (i.e., the Western Sewage Disposal Area). Mr. Steere stated that several partially buried drums, exposed drums and miscellaneous metal scrap located on an adjacent parcel approximately 200 ft north of the Western Sewage Disposal Area (i.e., Western Disposal Area) was used for residential and agricultural dumping by the property owner and is not attributable to former US Army activities.

According to Mr. Steere, the orchard at 15 Theodore Foster Drive used pesticides, fungicides, and herbicides from approximately 1920 through 1990s. Spraying of chemicals and dusting (sulfur) was conducted in and around the orchard. Light oil was usually mixed with any type of chemical (CAPTAN) to spray the orchard. Mr. Steere indicated that the empty drums in the Western Disposal Area were the light oil drums.

AMEC, 2013a. AMEC Environment & Infrastructure, Inc. Passive Soil Vapor Survey Trip Report, Former NIKE PR-79, Foster, Rhode Island. April 4, 2013.

AMEC conducted a passive soil vapor study in selected Areas of Concern (AOCs) on the Site to identify if VOCs, including chlorinated compounds and petroleum constituents, were present in soil

or shallow groundwater. The results of the survey were to be used to evaluate the need for, and optimal placement of, previously proposed Phase I site investigation soil, groundwater, and surface water exploration locations. This passive soil vapor survey included screening soil vapor using a PID for VOCs and collecting passive soil vapor samples from within the radius of influence of the vapor probes for analysis of VOCs, SVOCs, and petroleum compounds. Sixty two passive soil vapor samples were collected and analyzed. VOCs (including TCE) were not reported above laboratory reporting limits in any of the soil vapor samples, except toluene that was detected in nine passive soil vapor samples at concentrations between 25 to 83 nanograms. Because the detected concentrations were low, AMEC suggested that the toluene detections may reflect ambient, atmospheric conditions or possibly residuals from commercial products containing toluene. AMEC also noted that toluene was used in a variety of commercial/industrial processes, while the use of TCE at the Site was more limited. AMEC concluded that the absence of VOCs (specifically TCE) in the passive soil gas samples indicated that these impacts were not likely present in the vadose zone or off-gassing from the water table beneath the areas tested because the chemical and physical properties of TCE would make it more likely than toluene to be detected in the samples.

AMEC identified the following five AOCs:

- AOC 1: Radar Area
- AOC 2: O&M Area
- AOC 3: Southern Leach Field
- AOC 4: Western Sewage Disposal Area
- AOC 5: Western Disposal Area

AMEC, 2013b. AMEC Environment & Infrastructure, Inc. Remedial Investigation/Feasibility Study Work Plan, Volume IIA – Field Sampling Plan, Former NIKE PR-79 Control Area Foster, Rhode Island. April 30, 2013.

This Remedial Investigation / Feasibility Study (RI/FS) Work Plan summarized historical inspections, studies, and interviews to identify data gaps and develop a phased RI/FS field program. In developing this RI/FS Work Plan, AMEC discovered the following information:

- A hand-dug, stone-lined feature in the basement of the house at 23A Theodore Foster Drive was discovered during a CENAE groundwater sampling event. This feature is sometimes dry, and at other times has contained water that is presumed to be an expression of groundwater during periods when the water table is elevated in the overburden. Groundwater from this feature was sampled for VOCs in September 2011 and no VOCs were detected above the laboratory reporting limit.

- On December 13, 2012, AMEC personnel examined an "Unidentified Pipe" located in AOC-2. AMEC's evaluation of the "Unidentified Pipe" found water at approximately 13 ft below the top of the 6-inch steel pipe casing and a hard bottom was encountered at approximately 23 ft. VOC vapors were not detected in the "Unidentified Pipe" by PID. AMEC concluded that the pipe was an abandoned borehole.

AMEC, 2014a. AMEC Environment & Infrastructure, Inc. Phase I Field Site Investigation Trip Report, Former NIKE PR-79, Foster Rhode Island. July 28, 2014.

This trip report summarized Phase I site investigation activities conducted in 2013 that included a pump test; bedrock geophysics; soil boring and monitoring well installation; surface water, pore water, sediment and groundwater sampling; a supplemental drum investigation; and, three-dimensional groundwater visualization. A summary of these investigation activities is below.

Pump Test

A pump test was conducted to evaluate hydraulic connectivity between NIKE-1, NIKE-2, ROU-1, ROU-2 and ROU-3 and was performed by installing transducers in each water supply well and pumping one well while monitoring water level changes in the other wells. AMEC found that ROU-1 produced a visible response in NIKE-1. No response was observed in the other three wells while pumping ROU-1. The Memo concludes that NIKE-1 and ROU-1 are hydraulically connected and there is evidence of weak interference between NIKE-1 and NIKE-2. Data from the 4.5-hour pumping test on NIKE-2 was used to estimate a transmissivity of 29.5 ft^2/day.

Bedrock Geophysics

Bedrock geophysics was completed by Geophysical Applications, Inc. (GAI) on NIKE-1, NIKE-2, ROU-1, ROU-2 and ROU-3 in June and July 2013 that included measuring borehole temperature, fluid conductivity, and overall well condition to determine fracture characteristics such as depth, strike and dip, and aperture. Geophysical findings from this investigation were later reinterpreted and revised (HGI, 2017; Hager-Richter, 2017).

Additionally, six groundwater samples were collected from each well at inferred fracture zones ranging in depth from 26 ft bgs in ROU-1 to 628 ft bgs in ROU-3. Groundwater samples were analyzed for VOCs. AMEC reported TCE in 11 of the 25 samples. NIKE-1 and ROU-1 each had a detection of TCE at the deepest sample. NIKE-2 had no detections of TCE above laboratory reporting limits. Both ROU-2 and ROU-3 had detections of TCE in all sample depths (with the exception of ROU-3 at 82 ft bgs) ranging from 0.8 to 4.5 µg/L. Three additional VOCs

(bromodichloromethane, chlorodibromomethane and chloroform) were detected in water samples that AMEC concluded were likely related to the disinfecting of bedrock wells following the geophysical investigation.

Soil Boring and Monitoring Well Installation

In July 2013, AMEC advanced 22 soil borings to refusal using a direct push track mounted drill rig to depths ranging from 4.5 to 24.5 ft bgs. Two soil borings were placed to characterize the area around the a former dry well in the Radar Control Area, the area north of the Main Gate where vehicles maintenance reportedly occurred; and, the area around two steel grates found in the concrete slab of the former Frequency Change Generator Building. One surficial soil and one subsurface soil sample was collected from each boring for analysis of VOCs, SVOCs, TAL metals, total organic carbon (TOC), and grain size. Pre-packed wells with 2-inch PVC risers and 10 ft screens were installed in overburden to bottom depths ranging from 8 to 16 ft bgs at 14 selected soil boring locations (identified at PZ/GW-001 through PZ/GW-014).

VOCs were not detected in surficial soil samples, except 1,1-DCE that was estimated in surface soil samples collected from SB-003 and SB-005 at concentrations of 20.1 J and 7.8 J µg/L, respectively, which is below the 2014 Residential Soil Regional Screening Levels (RSLs) and Rhode Island Residential Direct Exposure Criteria (RDEC) used for reference. SVOCs were detected above laboratory reporting limits in surficial soil samples collected from SB-019, SB-008, and SB-020 at concentrations above the 2014 Residential Soil RSL and RDEC; and arsenic was detected in all samples above the 2014 Residential Soil RSL, but below the RDEC. VOCs were not detected in subsurface soil samples, except 1,1-DCE that was detected or estimated in SB-005 and SB-022 at concentrations of 6.1 and 1.6 J µg/L, respectively, which is below the 2014 Residential Soil RSL. SVOCs were detected above laboratory reporting limits, but at concentrations below the 2014 Residential Soil RSL in a surficial soil samples collected from SB-019, SB-008, and SB-020. TAL metals were not detected above laboratory reporting limits, except arsenic and thallium that were detected in six subsurface soil samples at concentrations above the 2014 Residential Soil RSL.

Surface Water, Pore Water, Sediment and Groundwater Sampling

Samples were collected between June 25 and July 8, 2013. A combination of surface water, pore water and sediment samples were collected at ten locations. A sediment sample was collected from the grease trap located at the former Mess Hall building. All samples were analyzed for VOCs, SVOCs and TAL metals. Surface water was also analyzed for hardness and sediment was also analyzed for TOC and grain size.

No VOCs were detected in the surface water samples. Two SVOCs (Benzyl alcohol and Di-n-butylphthalate) were detected in only one of the eight surface water samples at concentrations well below the 2014 Tap Water RSLs used for reference. Metals were detected in the surface water samples at concentrations below the Ambient Water Quality Criteria (AWQCs) and 2014 Tap Water RSL, except arsenic that was detected in a surface water sampled collected from SW-008 and manganese that was detected at a surface water sample collected at SW-006. AMEC concluded that none of the compounds detected in surface water samples are Site-related or derived from former US Army activities and proposed no further testing of surface water in a Phase II site investigation.

No VOCs were detected in the pore water samples, except toluene that was estimated at in a pore water sample collected from PW-008 with a concentration of 0.3 J µg/L, which is below the 2014 Tap Water RSLs used for reference. One SVOC (di-n-butylphthalate) was detected in one of the eight pore water samples at a concentration below the 2014 Tap Water RSL. Metals were also detected in pore water samples; however, arsenic detected in a pore water sample collected from PW-006 above the 2014 Tap Water RSL. AMEC concluded that none of the compounds detected in pore water are Site-related or derived from former US Army activities and proposed no further testing of pore water in a Phase II site investigation.

Several VOCs were detected in the sediment samples, however, none exceeded the 2014 Residential Soil RSL or RDEC for Residential Soil. One SVOC (butylbenzylphthalate) was detected in two sediment samples at concentrations below the 2014 Residential Soil RSL and RDEC. Arsenic was found in multiple locations at concentrations above the Residential Soil RSL, but below the RDEC, while manganese was detected in a sediment samples collected from SD-008 at a concentration above the RDEC. AMEC concluded that the low-level VOCs, SVOCs and naturally occurring metals in sediment were not derived from former US Army activities and proposed no further testing of sediment in a Phase II site investigation.

In addition to collecting groundwater samples from inferred fracture zones in NIKE-1, NIKE-2, ROU-1, ROU-2, and ROU-3, AMEC collected groundwater samples from 13 temporary piezometers; two cesspools in AOC-1; the grease trap at the former Mess Hall building; two residential water supply wells located at 15 Theodore Foster Drive (identified as bedrock wells ST-1 and ST-2); and, a shallow hand-dug well located at 23A Theodore Foster Drive (identified as RU-4).

AMEC found that overburden groundwater collected from the temporary piezometers contained several VOCs, SVOCs and metals (total and dissolved). None of the VOCs exceeded the federal SDWA MCLs or RIDEM GA groundwater classification criteria used for reference, but did exceed the 2014 Tap Water RSL. TCE was detected in all groundwater samples ranging from 0.8 to 4.5 µg/L,

including one overburden well located near the former Frequency Changer/Generator Building and within the four water supply wells as shown below:

- PZ/GW-019 (0.9 J µg/L)
- NIKE-1 (2 µg/L)
- ROU-1 (1.4 µg/L)
- ROU-2 (3.5 to 4.5 µg/L)
- ROU-3 (0.8 J to 3.8 µg/L)

The one other VOC found in overburden groundwater samples was naphthalene estimated in a groundwater sampled collected from PZ/GW-019 at a concentration of 0.3 J µg/L. AMEC concluded that naphthalene is likely associated with the former UST near the Frequency Changer/Generator Building. The three other VOCs (bromodichloromethane, chlorodibromomethane and chloroform) were only found in bedrock groundwater collected from water supply wells. AMEC concluded that all three VOCs appear to be related to the disinfecting of bedrock wells following the geophysical investigation. AMEC concluded that two SVOCs (bis-2-ethylhexyl-phthalate and pentachlorophenol) detected in groundwater samples is likely the result of laboratory contamination.

Unfiltered groundwater samples were found to contain inorganics. Antimony and lead exceeded the SDWA MCL in a groundwater sample collected from PZ/GW-019, while arsenic, cobalt, manganese and thallium exceeded the Tap Water RSL or Rhode Island GA criteria. AMEC concluded that the antimony and lead may be related to former US Army activities, but the other four inorganics do not appear to be related to former US Army historical activities.

VOCs were not detected above laboratory reporting limits in groundwater samples collected from ST-1, ST-2, or ROU-4.

Supplemental Drum Investigation

Soils under three drums located east of AOC-1 were investigated. The three drums were found cut in half and thought to be for baiting deer. AMEC collected and jarred soil samples from 0 to 1 foot at each location. Head space readings in each jar using a PID returned 0.0 parts per million by volume. AMEC proposed no further investigation of these drums.

Three-Dimensional Groundwater Visualization

To assist in the conceptual model development, historic and current investigation results were incorporated into a three-dimensional data visualization model using TecPlot. Spatial data in the three-dimensional model included overburden, bedrock surface, fracture network, and impact distribution in all media.

AMEC, 2014b. AMEC Environment & Infrastructure, Inc. Phase I Summary/Updated Conceptual Site Model/Data Gap Analysis & Phase II Work Plan Addendum. Former NIKE PR-79 Control Area, Foster, Rhode Island. August 8, 2014.

This report updated the conceptual site model based on data collected during the Phase I site investigation, identifies data gaps and presents a Phase II site investigation work plan. Several findings of the report pertinent to the conceptual site model are summarized here.

- AOC-5 was used for residential and agricultural dumping by the property owner and is not attributable to former US Army activities; therefore, AOC-5 is ineligible for investigation and cleanup under DERP-FUDS. This conclusion is supported by two findings. First, an interview with Mr. Bob Steere on December 13, 2012 documented that the disposal was done by the property owner. Second, the soil vapor survey in October 2012 found no chlorinated VOCs in six soil vapor samples locations in and around AOC-5.
- The very low toluene detections in the Passive Soil Vapor Study may reflect ambient conditions from commercial/industrial products containing toluene.
- Phase I sampling data indicate that former US Army activities did not adversely affect pore water, surface water or sediment in local wetlands. Arsenic and manganese were detected above screening levels in these media but thought to be from natural weathering of minerals.
- A limited number of VOCs and SVOCs were detected in soil and groundwater. These analytes were detected at low concentrations, are limited to the Site or areas adjacent to the Site and are likely associated with former US Army activities.
- Two troughs were located in the concrete floor of the Frequency Changer/Generator Building, one with a grate and one with a chiseled drain to the subsurface. Borings SB-019 and SB-020 and piezometer PZ/GW-019 were installed in the floor adjacent to these features.
- SVOCs were detected above laboratory reporting limits in surficial soils collected near the former 6,000-gallon diesel field UST (SB-008) and under the Former Frequency

Changer/Generator Building (SB-019 and SB-020), but not in subsurface soils at these locations.

- AMEC concluded that TCE, pentachlorophenol, and naphthalene are the only Site-related COPCs identified in overburden groundwater and are isolated to the area surrounding PZ/GW-019 located immediately adjacent to the former Frequency Changer/Generator Building.
- Transducer data in late May and early June of 2013 from NIKE-1 and ROU-1 show a hydraulic connection between the wells. This is supported by the fractures identified in the borehole geophysical logging. Transducer data and borehole geophysical data also indicate that water bearing fractures intersecting NIKE-2 are different from those that intercept NIKE-1 and ROU-1.
- Analytical data from bedrock wells under non-pumping conditions found that TCE was not detected in five depth intervals at NIKE-2 but was detected in 16 and 25 ft depth intervals sampled at NIKE-1, ROU-1, ROU-2, and ROU-3. This is evidence that NIKE-2 does not intercept the fractures that connect to the source of TCE at the Site or NIKE-2 is upgradient of the source.
- TCE distribution in NIKE-1, ROU-1, ROU-2, and ROU-3 is consistent with observations about the interconnectivity between wells based on hydraulic interference and geophysical logging. TCE was only detected in the deepest samples at ROU1 and NIKE-1. The detection of TCE in all discrete samples in ROU-2 and ROU-3 is consistent with the finding of a near vertical fracture in these wells during the geophysical logging.
- 1,1-DCE was detected in four soil samples near the former Radar Pads A and C and dry well, suggesting reductive dechlorination of TCE, however TCE was not detected in the same soil samples.
- Cis-1,2-DCE is consistently detected at ROU-2 which indicates degradation of a "mature" TCE plume at this location.

USAGC, 2015. US Army Geospatial Center. Historic Photographic Analysis, Former Nike Control Area PR-79, Rhode Island. October 2015.

At the request of the CENAE, the USAGC completed a historical photographic analysis (HPA) of the Site and surrounding area. The purpose of the HPA was to identify features both spatially and temporally associated with previous activity, particularly former US Army activities. Specific tasks included: conducting archival research for historical documents regarding the use and purpose of the Site; and performing imagery acquisition, inspection, and rectification using historical photography, satellite imagery, and aerial photography covering the Site from 1951 to 2014. The

HPA identified various AOCs where chemical usage was suspected or where disposal, burial, or land use change (e.g., ground scarring or the removal of vegetation) was identified.

USAPHC, 2016. US Army Public Health Command. Groundwater Consultation, No. S.0042806-16. Former Nike PR-79, 5-10 June 2016. August 5, 2016.

In June 2016, the USAPHC collected groundwater samples from 14 temporary piezometers and six water supply wells located at and near the Site, including one off-Site water supply well in bedrock (ST-2) located about 1,000 ft north of the Site at 15 Theodore Foster Drive to estimate background groundwater conditions. High turbidity was noted at PZ-004, PZ-011, PZ-019, and PZ-022 that USAPHC contributed to possible silting within the wells. Samples were collected for analysis of VOCs. TCE was detected in an unfiltered water sample from ROU-2 at a concentration of 5.1 µg/L that is slightly above the SDWA MCL of 5 µg/L. TCE was estimated or detected at concentrations at or above laboratory reporting limits, but at concentrations below the SDWA MCL, in pre-filtration water samples collected from NIKE-1 (1.6 µg/L), NIKE-2 (0.7 µg/L), and ROU-3 (0.4 J µg/L). Cis-1,2-DCE was estimated at the laboratory reporting limit at ROU-2 (0.4 J µg/L). 1,1,-DCE was estimated below the laboratory reporting limit at PZ-005 (0.2 J µg/L). MTBE was detected in the background groundwater sample collected from ST-2 at a concentration of 1 µg/L. The source of MTBE in this sample was unknown; however, USAPHC concluded that it might have been the result of activity/operations in the area unrelated to the Site. TCE was not detected in overburden groundwater samples collected from the 14 piezometers, however there were detections of acetone, 2-butonone, and carbon disulfide at PZ/GW-019. USAPHC acknowledged that the extent of the TCE plume is unknown.

USAGC, 2016. US Army Geospatial Center. Integrated Fracture Trace Analysis, Former Nike PR-79 Control Area, Foster, Rhode Island. September 2016.

USAGC completed a fracture trace analysis of the Site and surrounding area. The objective of this investigation was to identify bedrock fracture orientation and density in the Site vicinity using a combination of remote sensing, field mapping, and data collection techniques.

The overburden was described based on borehole geophysical data as 0 to 20 ft thickness of glacial till with increasing thickness to the south to a maximum of 60 to 100 ft. The bedrock geology was described as the South Foster migmatite (metamorphic, quartz biotite schist) intruded by the Ponaganset quartz diorite gneiss. Glacial float was found throughout the study area requiring careful identification of in situ bedrock outcrops for examination.

Suspected fracture traces identified using remote sensing were reviewed within a 3-mile radius of the Site to identify a total of 1,057 fracture traces and then were verified in the field by collecting fracture measurements at 39 bedrock outcrop locations. Mapping at 39 bedrock outcrops included strike and dip measurements and observations such as fracture length, openness, roughness, density and spacing. Over 1,000 fracture measurements were collected at 39 outcrops. In addition, optical and ATV data from water supply wells NIKE-1, NIKE-2, ROU-1, ROU-2, and ROU3 were reinterpreted to identify non-transmissive and transmissive fracture data sets. The remote-sensing data, outcrop-scale data, and borehole geophysical data were analyzed and compared using industry standard techniques.

USAGC concluded that the orientation of fractures observed at outcrops and identified in fracture domain analysis provide evidence that a fracture zone could connect supply wells NIKE-1 and ROU-1. A total of 135 transmissive fractures were identified among the five water supply wells, and the study further concluded that bedrock fractures are likely conduits for TCE migration from source to downgradient receptors.

HGI, 2017. Hager Geoscience Inc. RE: Seismic Refraction Investigation and Data Re-Interpretation, PR-79 NIKE Control Area, Foster, Rhode Island. March 16, 2017.

HGI employed several approaches to improve the resolution of existing overburden and bedrock geologic models, and to locate low velocity fracture zones. Previous seismic data collected by ANL in 2002 was re-evaluated using new software processing techniques to improve resolution of the interpreted sections. HGI performed one vertical seismic profiling survey, five ground penetrating radar (GPR) profiles and an outcrop velocity test of exposed rock were completed to locate new boreholes in interpreted fracture zones.

HGI confirmed the predominant north-south trend of fracture traces observed on-Site. Large low-velocity anomalies indicating fracture zones were identified along existing and new geophysical lines ANL Line 1, ANL Line 2 and HGI Line 100. Multiple cross sections were presented showing the interpreted overburden type (dry sandy soil, saturated gravel soils, and fractured rock/compact till), water table elevation and bedrock fracture density (i.e., intact, fractured, heavily fractured). Twelve borehole locations were recommended for future investigations to confirm low velocity zones identified along seismic and GPR lines. Three of these locations were proposed to see if a north-south low velocity zone (approximately 100 ft west of ROU-1) seen on ANL Line 1, ANL Line 2 and HGI Line 100 represents a continuous fracture zone.

HGI corrected fracture strike and elevation data in ANL's 2002 seismic refraction study and fracture strike and dip orientations in USAGC's 2016 integrated fracture trace analysis.

Hager-Richter, 2017. Hager-Richter Geoscience, Inc. RE: Geophysical Evaluation, Former NIKE PR-79 Control Area, Foster, Rhode Island. July 25, 2017.

Hager-Richter reviewed the geophysical methods and techniques previously used in acquiring geophysical data and determined if those methods and techniques are technically sufficient for the development of an RI/FS Work Plan.

Hager-Richer reviewed USAGC's 2016 integrated fracture trace analysis and recommended that additional work focus on local/borehole transmissive fracture interaction for development of a conceptual fracture model that can be used to effectively guide the selection of receptor wells for downgradient well-monitoring.

Hager-Richer reviewed HGI's seismic refraction investigation and data reinterpretation and agreed with HGI's recommendation that the low-velocity zones must be ground-truthed by other methods to confirm the applicability of the methodology for future use at the Site.

Hager-Richer reviewed GAI's borehole geophysical logs and made corrections to fracture strike and dip orientations.

Hager-Richter concluded the following:

- Bedrock fracture orientations are generally consistent from a regional scale to borehole scale in the study area with dominant populations of northwest-north by northwest and north by northeast striking fractures and minor populations of north and east by northeast striking fractures.
- Possible bedrock fracture zones identified based on surface geophysical data generally conform to the orientations identified in the fracture trace analysis.
- The geophysical logs are dominated by discrete bedrock fractures and small bedrock fracture zones that range in aperture from a few inches to as much as two ft in the open bedrock portions of the five logged boreholes and such features are not likely to be detected by surface geophysical methods.
- Confirmation of bedrock fracture zones identified on the basis of a surface geophysical method is required prior to additional use of the method as a tool in identifying such zones.
- Hydraulically transmissive bedrock fractures primarily dip moderately to the northeast and southeast and secondarily to the northwest and southwest.

- Additional borehole geophysical logging data, namely cross-borehole flow testing, should be acquired in the available boreholes at the Site to attempt to determine direct and indirect fracture connectivity between boreholes.

The Johnson Company, 2018. The Johnson Company. Client Draft Remedial Investigation/Feasibility Study Work Plan, Former NIKE PR-79 Control Area, Foster, Rhode Island. February 2018.

This Draft RI/FS Work Plan provides a comprehensive review of Site background history and investigations; identifies data gaps; and proposes an RI/FS field investigation approach.

2.3.4 Lead Agency

CENAE's Engineering Division is the lead agency responsible for this FUDS Property with overall responsibility for administering this CRP and is supported by CENAE's Public Affairs Office (PAO). The responsibilities of these entities are described in USACE's *Public Participation in DERP-FUDS* EP-1110-3-8 dated September 30, 2011.

3.0 COMMUNITY BACKGROUND

3.1 Community Profile

The community profile is a summary of population/growth, minorities, businesses, nearby regional centers, residential groupings, school system, key local issues and interests, and language to evaluate the need for translation services. The community profile is based on information collected from the US Census Bureau 2010 and the Town of Foster Planning Department Foster Comprehensive Plan dated 2003.

- The Town of Foster's population at 4,606, an increase of 332 residents since the 2000 (US Census Bureau, 2010).
- The Town of Foster is geographically part of Providence County and is a rural/suburban community of the Providence metropolitan area.
- The Town of Foster serves three major economic functions: residential homes for commuters to jobs outside the Town of Foster; 55% of land area in the Town of Foster is within the Scituate Reservoir Watershed; and, three major sawmills are located in Foster (AMEC, 2011).
- The Town of Foster is governed by the Town Charter, with an elected Town Council comprised of five members at large.
- The Town of Foster is part of the Foster-Glocester Regional School District.
- Approximately 85% of the population is over 18 years of age and approximately 35% of the Town of Foster residents have an Associate's Degree or higher.
- Approximately 8% of the Foster residents are veterans.
- The occupations of Town of Foster's residents are distributed by management and professional occupations (40%), service industry (14%), sales (23%), farming/agriculture (3.5%) and an unemployment rate of 2.4% (US Census Bureau, 2010).
- Less than 4% are non-white or of Hispanic origin.

3.2 History of Community Involvement

In 2010, CENAE approached approximately 70 property owners with residential water supply wells located within a mile of the Site with the request to sample their wells and provided a fact sheet explaining the objectives and process of residential water supply sampling. Of the 70 property owners notified, only 13 responded with permission to sample their well.

On July 11, 2011, CENAE prepared and sent out a notification letter and Fact Sheet to abutters and secondary abutters to the Site, Town of Foster officials, RIDEM, and USEPA inviting them to

participate in a Site tour and meeting that was held on July 28, 2011. The Fact Sheet summarized Site history, previous environmental investigations, the development of the Phase I site investigation work plan, and was used to identify stakeholders, confirm the methods of communication, repository location, and identify community concerns. Over 20 people attended the Site tour and meeting that included CENAE, property abutters, Town of Foster Department of Public Works, Town Planner, School Department, Building and Zoning Members and Town Council Members, Special Education Director, RIDEM, and a congressional representative (AMEC, 2011).

The Site tour and meeting consisted of a meeting in the Special Education Building (i.e., the former Mess Hall) that provided meeting attendees with a general introduction to the Site, a detailed discussion of the proposed Phase I site investigation and review of the draft conceptual site model followed by a walkthrough of the Site and abutting properties. Meeting attendees were asked several questions to help facilitate the preparation of the original PIP. As a result of the Site tour and meeting, CENAE prepared a community contact list. CENAE distributed minutes from the Site tour and meeting to identify stakeholders included on the community contact list.

CENAE regularly communicates information to property owners during residential water supply well sampling. Based on those interactions, the community has not expressed interest to CENAE about forming a Restoration Advisory Board (RAB).

3.3 Key Community Concerns

A description of key community concerns related to Site investigation and cleanup activities are summarized in Table 1.

3.4 Response to Community Concerns

A description of activities CENAE undertook in direct response to key community concerns are summarized in Table 1.

Table 1: Key Community Concerns and Responses

	Date	Key Community Concern	Response
1	2011	Unsafe conditions of the existing buildings and access by trespassers that may be exposed to lead paint and asbestos.	The Town of Foster conducted lead and asbestos testing of the former Administration Building that indicated hazardous building materials were not present. In 2012, the Town of Foster demolished the Barracks and Administrative buildings, Interconnecting Corridor, and Frequency Changer/Generator Building. The former Mess Hall was transferred to the Town of Foster in 1965 and is currently occupied.
2	2011	The remaining USTs that were beneficially reused by the Town of Foster must be removed and the soil tested for potential impacts.	In 2019, RIDEM notified the Town of Foster of a potentially leaking heating oil UST at the former Mess Hall. The Town of Foster removed the potentially leaking UST and testing soil on September 3, 2019. The former heating oil USTs suppling the former Administrative Building and Barracks were transferred to the Town of Foster in 1965 and remain in-place.
3	2011	Potential drop in property values due to impacted drinking water.	Abutting property owners obtained their property after groundwater impacts were identified by RIDOH in 1987. A carbon filtration system was installed at ROU-1 by the property owner initially, which was modified and updated by CENAE to include redundant carbon filtration and sampling ports as part of the TCRA in 2002. The TCRA added alternative water supply wells ROU-2, ROU-3, and NIKE-1. In 2010, CENAE approached 70 property owners with a request to sample their well; however, only 13 responded with permission to sample their well. CENAE continues to monitor the three residential water supply wells and one on-Site water supply well where TCE was identified and maintains treatment systems to remove VOCs at those wells.
4	2011	Potential health risks from historic exposure and long term use of the residential and water supply wells.	CENAE took protective actions via the TCRA in 2002 to mitigate potential health risks due to exposure. A human health risk assessment (HHRA) is a component of the CERCLA investigation and cleanup process and HHRA findings will be presented to the public

	Date	Key Community Concern	Response
			as part of the proposed remedy in the Proposed Plan (PP).
5	2011	Requested that impacted groundwater be cleaned up and the existing water treatment systems be removed.	The proposed remedy for impacted groundwater and potential long-term management of remediation systems will be presented to the public in the PP.
6	2011	Improved and frequent communication regarding the investigation and cleanup activities.	Communication needs are discussed in Section 3.5.
7	2011	Requested thorough investigations and presentation of the results to the community.	RI/FS investigation findings and proposed remedy will be presented to the public in the PP.

3.5 Summary of Communication Needs

Communication needs and desires by stakeholders were originally documented at the Site tour and meeting held on July 28, 2011 with minor updates based on regular communication with property owners during residential water supply well sampling.

Future activities include conducting public information meetings at critical stages in the CERCLA process (e.g., RI/FS, PP, etc.). These meetings will inform stakeholders about risks and future investigation and cleanup activities. Meeting attendees will be allowed to express their concerns and direct questions to CENAE. Public meetings are further discussed in Section 5.10.

Regular communication with property owners during residential water supply well sampling indicated that properties owners continue to be interested in more frequent communication, but uninterested in establishing a RAB.

4.0 COMMUNITY RELATIONS PLAN OBJECTIVES

Three community involvement objectives were developed around key community concerns that were identified as being important to the community during the Site tour and meeting as discussed in Section 3.3 and consistent with the overall goal of USACE's public involvement program described in Section 1.2. These objectives form the basis of community involvement activities outlined in this plan to be implemented by CENAE. The methods to be employed for each community involvement activity are discussed in Section 5.0.

4.1 Objective 1: Provide the Community with Information

The objective is to provide stakeholders in the community with accurate and timely information regarding investigation and cleanup progress. Community involvement activities intended to achieve this objective are:

- Site tour and public meetings.
- Printed materials (e.g., Fact Sheets) distributed by mail.
- Maintain updated community contact list of stakeholders.
- Maintain updated information repository at the Town of Foster Public Library.

4.2 Objective 2: Two-Way Communication between CENAE and Stakeholders

The objective is to provide stakeholders with an opportunity to ask questions and comment on investigation and cleanup activities being conducted. Community involvement activities intended to achieve this objective are:

- Liaison with the community.
- Community interviews and questionnaires to gather information from the community, as applicable.
- Small group meetings, as applicable.
- Public comment period at critical stages in the CERCLA process (e.g., PP).

4.3 Objective 3: Effective Management of the Community Relations Program

The objective is to effectively implement the community involvement program outlined in this plan. A community involvement activity intended to achieve this objective is:

- CRP revisions on a regular and as-needed basis.

5.0 METHODS AND TECHNIQUES

5.1 Community Relations Plan Revisions

Description: All or parts of the fully developed CRP should be revised to incorporate new information, reflect changes in community concerns, or prepare for community activities during remedial or removal design and subsequent response actions.

Objective: To ensure that the CRP remains sensitive to stakeholder concerns through all phases of the remedial or removal response action and to evaluate which community relations activities were effective and which were not.

Method: The original PIP for the Site was prepared by AMEC in November 2011 (AMEC, 2011). The original PIP is made available to the public in the information repository at the Town of Foster Public Library. This document serves as the first revision to update the original PIP before the RI/FS begins and outlines community relations activities to be held during the RI/FS phase.

Timing: The next CRP revision will occur before remedial or removal design begins, or earlier, if community concerns change focus or increase in intensity.

5.2 Media

Description: Articles, advertisements, announcements, and information spots are an important tool in promoting public awareness regarding investigation and remediation of the project. These materials can be transmitted to the public through print and broadcast media such as newspapers, flyers, posters, radio, and television. Although these media are generally limited in terms of the amount of information conveyed in a fixed print area or time limit, it does have the advantage of reaching the widest possible audience.

Objective: To provide updated information to the general public beyond those included on the stakeholder contact list in order to reach a broader audience.

Method: A local newspaper of general circulation will be used for meeting announcements, such as The Foster Home Journal, which is a free newspaper circulated monthly in the Town of Foster, and online posting through the Town of Foster website and social media page. Media broadcast may be expanded to include the Providence Journal should investigation and cleanup activities extend well beyond the immediate area or generate greater interest.

Timing: Media will be used for public notices.

5.3 Community Contact List

Description: A community contact list is used to distribute mailings and other types of pertinent information to interested stakeholders. The list may include names, mailing addresses, and e-mails.

Objective: To provide project information to stakeholders who want to be kept informed about investigation and cleanup activities at the Former NIKE PR-79 Control Area.

Method: The original contact list was established using the Town of Foster Assessor records of abutters and secondary abutters to the Site, and those stakeholders that attended the Site tour and meeting on July 28, 2011. The contact list will be updated upon request. Instructions on how to be added or removed from the community contact list will be advertised in mailings and at public meetings.

Timing: Community contact list updates upon request.

5.4 Mailings

Description: Printed materials (e.g., Fact Sheets) distributed by mail are brief documents intended to inform stakeholders about technical information and status of the investigation and cleanup process. Fact Sheets are written for non-technical audiences and use straightforward infographics. These materials can educate stakeholders of human health risks associated with impacts detected at the Site. These materials can also keep the residents apprised of clean-up efforts, identify whom to contact for information, or express a concern.

Objective: To provide stakeholders with current, accurate, easy-to-understand information about investigations and cleanup activities.

Method: Mailings will be used to support public meetings, or as stand-alone educational materials.

Timing: CENAE will distribute Fact Sheets in accordance with CERCLA policy, when needed for public review and comment.

5.5 Site Tour/Open House

Description: Site tours and open houses involve stakeholders (public, regulatory agencies, town officials, etc.) viewing the Site under the guidance of those most familiar with the work (i.e., CENAE, contractors, etc.).

Objective: To increase stakeholder understanding of Site conditions and pertinent features.

Method: A Site tour was conducted on July 28, 2011 and consisted of a meeting in the Special Education Building (i.e., the former Mess Hall) that provided stakeholders with a general introduction to the Site, a detailed discussion of the proposed Phase I site investigation and review of the draft conceptual site model followed by a walkthrough of the Site and abutting properties.

Timing: A Site tour/open house may be held upon request.

5.6 Public Meetings

Description: A public meeting is an open forum, usually featuring a presentation on a specific topic by the PDT and includes a question and answer session that provides an opportunity for stakeholders to be engaged with the PDT. Community comments are welcomed and considered in making investigation and cleanup decisions

Objective: To provide stakeholders with an opportunity to learn about the investigation and cleanup status, express questions and concerns, receive responses to their questions and concerns, and have an opportunity to submit comments on proposed actions or decisions.

Method: Public notice will be published in media at least one week prior to the meeting date. Public meetings will be held at the Ponaganset High School located at 91 Anan Wade Road in North Scituate, Rhode Island. Public meetings will generally be arranged during the 30-day comment period to answer questions directly or to receive input from the community. If a public meeting is held during a public comment period, a court reporter will be used to produce a written transcript of the meeting to become part of the Administrative Record (AR).

Timing: CENAE will hold a public meeting whenever a formal public comment period is required in the CERCLA process (e.g., PP). Public meetings may also to be held as-needed if new information is available.

5.7 Restoration Advisory Board

Description: A RAB is an advisory group for the restoration process that is intended to bring stakeholders together who reflect diverse interests from the community, CENAE, and regulatory agencies. RAB members are considered a key resource in efforts to communicate openly and effectively with the community at large. The RAB's purpose would be to allow for public understanding of the environmental remediation process and to encourage discussion and resolution of issues related to the process. Should the need arise; a facilitator would be available to mediate public RAB meetings. As opposed to public meetings that are scheduled on an as-needed basis, a RAB meeting is often a regularly-scheduled meeting of a specific group of people to discuss

a variety of environmental restoration activities. While RAB meetings are open to the public, the extent to which the public may make comments and ask questions may be controlled by the RAB members in the order of meeting business. In addition, questions and comments at a RAB meeting do not become part of the AR. The group would meet as often as deemed necessary for the duration of the investigation and remediation process. Meeting minutes would be prepared and distributed to RAB members and placed in the information repository. Regulations for RABs are provided in 32 Code of Federal Regulations (CFR) Part 202 and USACE's *Public Participation in DERP-FUDS* EP-1110-3-8 dated September 30, 2011.

Objective: To collaborate with stakeholder representatives from the community.

Method: There has been insufficient interest in establishing a RAB for the Site. Meeting attendees at the Site tour and meeting held on July 28, 2011 did not express interest in forming a RAB. There has not been adequate interest in establishing a formal RAB as heard from nearby property owners during residential water supply well sampling.

Timing: A RAB may be established should there be a demand for additional community outreach and if it will be supported by the community on a regular basis.

5.8 Small Group Meetings

Description: This outreach mechanism refers to meetings of smaller groups that are typically comprised of those individual or groups most directly impacted by investigation and cleanup activities (e.g., abutters, owners or nearby private wells, civic or business organizations, etc.).

Objective: To identify attitudes and concerns from those individuals or groups most impacted by investigation and cleanup activities.

Method: Small group meetings will be announced to all or a subset of the identified stakeholders included on the community contact list and held in a space adequate to accommodate a small to medium-sized group (e.g. classroom, meeting hall, etc.)

Timing: Small group meetings may be held upon requested or as-needed.

5.9 Community Interviews and Questionnaires

Description: Community interviews and questionnaires may be conducted to gather information and identify attitudes and concerns of one or more stakeholders. Types of information that might be obtained from community interviews and questionnaires are as follows:

- Are respondents aware of CENAE's FUDs Program and environmental action at the Site?
- Are respondents confident in the CENAE's ability to investigate and cleanup the Site?
- What are the respondents' primary news sources?
- Are respondents interested in participating in a RAB?
- What are respondents preferred time for public meetings?
- What is the preferred method of communication to respondents?
- What are respondent's key interests and concerns relative to the Site?

Objective: To identify and measure community attitudes and concerns, particularly those that may not have been expressed publically.

Method: Questionnaires will be distributed by mailings, media, and/or as handouts at meetings. Interviews with individuals or groups will be conducted by CENAE as a teleconference or in person meeting. Interview record will be documented following any interview.

Timing: Community interviews and questionnaires will be performed as needed.

5.10 Public Comment Period

Description: Public comment periods are held to give community members an opportunity to provide input on major decisions during an environmental restoration project, primarily interim actions or selection of final remedies.

Objectives: Provides stakeholders with an opportunity for meaningful involvement in the process and also provides valuable information for use in making decisions.

Method: All documents released to the public for formal 30-day review and comment (e.g., RI/FS, PP, record of decision (ROD), and engineering evaluation/cost analysis (EE/CA)) are in draft-final form (i.e., appropriate CENAE entities have reviewed the draft document, comments have been resolved, and the draft document has been revised to produce the draft-final document for formal public/regulatory review). A 30-day public comment period will be held as required under CERCLA. CENAE will consider opinions expressed by stakeholders in its decision-making and scheduling of appropriate actions. Public comment periods will be advertised in media and mailings to identified stakeholders in the community contact list. Pertinent documents will be available in the information repository for public review during the public comment period. When a public meeting is held during a public comment period, a court reporter is used to accurately capture comments made during the meeting. This transcript becomes part of the final ROD. Community members may also submit written comments at any time during the public comment period. The public comment

period can be extended an additional 30 days if requested by the public. As required, a written response is prepared for significant comments received and included in the ROD.

Timing: A public comment period will be held and publicized for the PP.

5.11 Meeting Minutes and Responsiveness Summaries

Description: Meeting minutes from public hearings, as well as a Responsiveness Summary of oral and written comments received during public comment periods will be prepared summarizing comments received and CENAE's responses to public comments. Formal public hearings (and the Responsiveness Summaries) are required when the PP becomes available and when a DD is amended. Responsiveness Summaries also are required for any response action that requires a public comment period and for which comments are subsequently received.

Objective: To summarize comments received during comment periods, to document how CENAE considered those comments during the decision-making process, and to provide responses to major comments. The summary will inform the decision makers about the community preferences, as well as any general concerns. It also provides the public with documentation of the issues raised and CENAE's responses to the feedback. Any Meeting Minutes and Responsiveness Summaries will be made available to the public in the information repository.

Method: Responsiveness Summaries will be prepared and published as an appendix to a ROD, which is posted for public access in the AR.

Timing: CENAE will issue Responsiveness Summaries as part of the ROD and when a DD is amended.

5.12 Information Repository/Administrative Record

Description: The information repository is a collection of documents for the public to read and make copies of official documents. The AR is a comprehensive record of all documents, resources, etc. used by CENAE in reaching all decisions about the Site and its cleanup. The information repository is located where the community can easily access the documents (e.g., public library).

Objective: To provide convenient access to Site-related information for the community.

Method: CENAE established an information repository at the Town of Foster Public Library. Documents that require to be placed in the information repository will be placed there when available for public review and comment. Media soliciting public review and comment on such documents will include reference to the information repository.

Timing: The information repository will be maintained with documents requiring public comment (e.g., PP).

5.13 Liaison within the Community

Description: A liaison within the community is an individual or group in frequent communication and cooperation with CENAE and through any of the various methods mentioned herein, facilitates a close working relationship between stakeholders.

Objective: To enhance communication and collaboration with the community.

Method: A liaison within the community has not been named for this Site. The majority of CENAE communication with the community has been directly with property owners during regular residential water supply well sampling. Communication had not been established through a community representative or liaison.

Timing: A liaison within the community may be established should there be a demand for additional community outreach and if it will be supported by a community member or group.

5.14 Information Point of Contact

Description: Information point of contact receives Freedom of Information Act requests and responds to inquiries from the public with the assistance of the PAO.

Objective: Provide accurate, timely, and easy-to-understand information to community members seeking information about the response action.

Method: CENAE's point of contact as the central information source for public and media inquiries related to the FUDS program and environmental restoration at the Site, and will be listed as the primary point of contact in all articles, announcements, and advertisements is:

Erin Kirby, PG, LEP
US Army Corps of Engineers, New England District
696 Virginia Road
Concord, Massachusetts 01742
Tele: 978.318.8147
E-mail: Erin.Kirby@usace.army.mil

Timing: Ongoing

6.0 PROJECTED SCHEDULE FOR COMMUNITY INVOLVEMENT ACTIVITIES

CENAE will seek to establish a timeline of community involvement activities that satisfies the community's interest and concerns regarding the FUDS program. Community involvement activities will be tied to key technical milestones as well as critical stages in the CERCLA process. Throughout the course of the FUDS process, CENAE will evaluate community outreach activities to determine whether the schedule of public involvement activities needs to be revised. The timing of required and recommended community involvement activities for CERCLA remedial responses is provided in Table 1.

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Figures

71°45'50"W 71°45'0"W 71°44'10"W 71°43'20"W 71°42'30"W 71°41'40"W 71°40'50"W 71°40'0"W

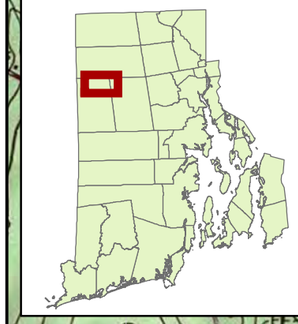
41°51'40"N

41°50'50"N

41°50'0"N

Project Location

Location in Rhode Island



Drawn:	JB	07/22/2019
Approved:	NO	07/22/2019
Project #:	60608703	

Data Sources: Rhode Island Geographic Information System (RIGIS; 2017); National Geographic Topography Map (2013).
Projection: State Plan Rhode Island (ft) FIPS 3800. Datum: North American 1983.

N

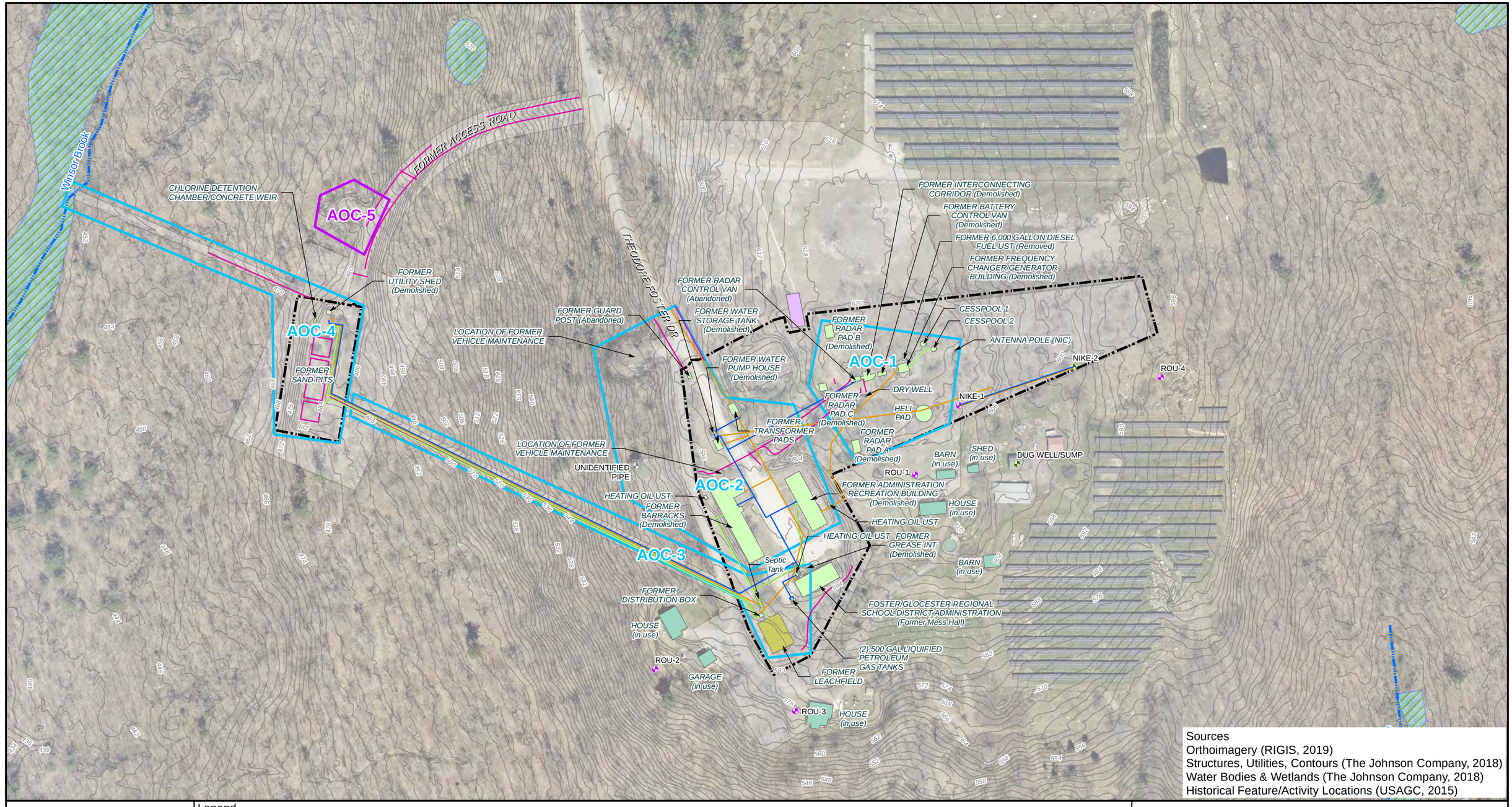
0 1,000 2,000

Scale in Feet

FIGURE 1
REGIONAL PROJECT LOCATION

FORMER NIKE PR-79 CONTROL AREA
FOSTER, RHODE ISLAND

Path: \\uschl1fp001\Data\Projects\Govt\Projects\USACE New England HTRW 2019\Task Orders\TO 0001 NIKE PR79 RIFS\900_GIS\Projects\Public_Involvement_Plan\MXD\Fig_1_Regional_Project_Location.mxd



Sources
Orthoimagery (RIGIS, 2019)
Structures, Utilities, Contours (The Johnson Company, 2018)
Water Bodies & Wetlands (The Johnson Company, 2018)
Historical Feature/Activity Locations (USAGC, 2015)

AECOM

Drawn:	JB	09/25/2019
Approved:	GH	09/25/2019
Project #:	60608703	

Legend

- Drinking Water - Individual
- Drinking Water - Not in Use
- Unidentified Pipe
- Stream
- Perimeter Fence
- Former Government Property
- Non-Government Property
- Area of Concern (AOC)
- Area of Concern (AOC) (Non-Government)
- Wetlands
- Extent of Former NIKE PR-79 Control Area (USAGC, 2015)
- Cemetery
- Contour (2 ft)
- Electrical Line
- Sewer Line
- Water Line
- Drainage

N

0 100 200

Scale in Feet

FIGURE 2
SITE PLAN

FORMER NIKE PR-79 CONTROL AREA
FOSTER, RHODE ISLAND

Path: \\uschl1fp001\Data\Projects\Govt\Projects\USACE New England HTRW 2019\Task Orders\TO 0001 NIKE PR79 RIFS\900_GIS\Projects\QAPP\MXD\Fig_10_1_Site_Plan.mxd

Appendix A

CENAE Contacts

APPENDIX A
US Army Corps of Engineers, New England Engineer District
Contacts

Revised Community Relations Plan
Former NIKE PR-79 Control Area
FUDS Project No. D01RI0063 02
Foster, Rhode Island

September 26, 2019

Erin Kirby, PG, LEP
US Army Corps of Engineers, New England District
696 Virginia Road
Concord, Massachusetts 01742
Tele: 978.318.8147
E-mail: Erin.Kirby@usace.army.mil

Appendix B

Local Officials

APPENDIX B
Local Officials

Revised Community Relations Plan
Former NIKE PR-79 Control Area FUDS
Project No. D01RI0063 02 Foster,
Rhode Island

September 26, 2019

Town Council
Denise DiFranco, President
Cheryl Hawes, Vice-President
Foster Town Hall
181 Howard Hill Road
Foster, RI 02825
Tele: 401-392-9200

Foster Land Trust
Linda Los Tibbetts, Chair
Foster Town Hall
181 Howard Hill Road
Foster, RI 02825
Tele: 401-392-9201

Foster Planning Department
Jennifer Siciliano, Town Planner
Foster Town Hall
181 Howard Hill Road
Foster, RI 02825
Tele: 401-392-9203
E-mail: Jsiciliano@townoffoster.com

Foster Center Volunteer Fire Company
Will Paul, Fire Chief
86 Foster Center Road
Foster, RI 02825
Tele: 401-397-3404
E-mail: chief@fosterpd.com

Moosup Valley Volunteer Fire Company
Paul Cunniff, Fire Chief
55 Moosup Valley Road
Foster, RI 02825
Tele: 401-392-0328
E-mail: niffa69@aol.com

South Foster Volunteer Fire Company
Gordon Brayton, Fire Chief
5 Mt Hygeia Road
Foster, RI 02825
Tele: 401-640-1958

Foster Police Department
David Breit, Chief of Police
Robert Bolger, Captain
182 Howard Hill Road
Foster, RI 02825
Tele: 401-397-3317

Emergency Management
Michael Dexter, Director
Foster Town Hall
181 Howard Hill Road
Foster, RI 02825
Tele: 401-392-9200

Appendix C

State / Federal Officials

APPENDIX C
State/Federal Officials

Revised Community Relations Plan
Former NIKE PR-79 Control Area
FUDS Project No. D01RI0063 02
Foster, Rhode Island

September 26, 2019

Governor
Gina Raimondo
Office of the Governor
82 Smith Street
Providence, RI 02903
Tele: 401-222-2080
E-mail: governor@governor.ri.gov

Lieutenant Governor
Dan McKee
Office of the Lieutenant Governor
82 Smith Street
Providence, RI 02903
Tele: 401-222-2371

Senate General Assembly Senate District 21
Gordon E. Rogers
Rhode Island State House
82 Smith Street, Room 317
Providence, RI 02903
E-mail: sen-rogers@rilegislature.gov

House of Representatives General Assembly, Representative District 40

Michael Chippendale
Rhode Island State House
82 Smith Street. Room 323
Providence, RI 02903
Tele: 401-497-4495
E-mail: rep-chippendale@rilegislature.gov

Rhode Island Department of Environmental Management

Richard Gottlieb, NPL/DOD Programs
235 Promenade Street
Providence, RI 02908-5767
Tele: 401-222-2797, Ext. 7138
E-mail: richard.gottlieb@dem.ri.gov

Department of Environmental Management Division of Fish & Wildlife

Christine Dudley, Deputy Chief, Freshwater & Anadromous Fisheries
3 Fort Wetherill Road
Jamestown, RI 02835
Tele: 401-789-0281
E-mail: dem.dfw@dem.ri.gov

Rhode Island Historical Preservation & Heritage Commission

Jeffrey Emidy, Deputy Director; Acting/Deputy SHPO
Old State House
150 Benefit Street
Providence, RI, 02903
Tele: 401-222-2678
E-mail: jeffrey.emidy@preservation.ri.gov

US Environmental Protection Agency, Region I

Martha Bosworth, FUDS Program Manager,
5 Post Office Square, Suite 100
Boston, MA 02109-3912
Tele: 617-918-1407
E-mail: bosworth.martha@epa.gov

Appendix D

Federal Elected Officials

APPENDIX D

Federal Elected Officials

Revised Community Relations Plan
Former NIKE PR-79 Control Area
FUDS Project No. D01RI0063 02
Foster, Rhode Island

September 26, 2019

US Senate

Jack Reed

728 Hart Senate Office Building

Washington, DC 20510

Tele: 202-224-4642

US Senate

Sheldon Whitehouse

717 Hart Senate Office Building

Washington, DC 20510

Tele: 202-224-2921

US House of Representatives, District 2

James Langevin

2077 Rayburn House Office Building
Washington, DC 20515

Tele: 202-225-2735

Appendix E

Environmental and Active Citizen Groups and Other Interested Parties

APPENDIX E
Environmental and Active Citizen Groups and Other Interested Parties

Revised Community Relations Plan
Former NIKE PR-79 Control Area
FUDS Project No. D01RI0063 02
Foster, Rhode Island

September 26, 2019

There are no known environmental or community groups currently involved in the Former NIKE PR-79 Control Area. If during the execution of the site investigation and cleanup activities an environmental or citizens group is formed and participates in the public process their information will be added to this PIP.

Appendix F

Potentially Responsible Parties

APPENDIX F
Potentially Responsible Parties

Revised Community Relations Plan
Former NIKE PR-79 Control Area
FUDS Project No. D01RI0063 02
Foster, Rhode Island

September 26, 2019

Potentially Responsible Party (PRPs) projects involve activities at an area of an eligible FUDS property where the Department of Defense may bear potential CERCLA liability for hazards or hazardous substance releases along with other parties.

To date, there are no known PRPs other than the US Army for eligible FUDS property at the Former NIKE PR-79 Control Area.

Appendix G

Media Contacts

APPENDIX G
Media Contacts

Revised Community Relations Plan
Former NIKE PR-79 Control Area
FUDS Project No. D01RI0063 02
Foster, Rhode Island

September 26, 2019

Providence Journal
Alan Rosenberg, Executive Editor
75 Fountain Street
Providence, RI 02902
Tele: 401-277-7303
E-mail: pjnews@projo.com

The Foster Home Journal
Carol McCullough, Editor, Publisher, Janitor
93 Winsor Road
Foster, RI 02825
Tele: 401-647-7148
E-mail: FosterHomeJournal@gmail.com

WJAR TV-10 (NBC)
WJAR Newsroom
23 Kenney Drive
Cranston, RI 02920
Tele: 401-455-9100

Appendix H

Suggested Location for Public Meetings

APPENDIX H
Suggested Location for Public Meetings

Revised Community Relations Plan
Former NIKE PR-79 Control Area FUDS
Project No. D01RI0063 02 Foster, Rhode Island

September 26, 2019

Ponaganset High School
137 Anan Wade Road
North Scituate, RI 02857
Tele: 401-710-7500

Foster Town Hall
181 Howard Hill Road
Foster, Rhode Island 02825
Tele: 401-392-9200
Contact: Susan Dillon, Town Clerk

Appendix I

Suggested Location for Repository Information

APPENDIX I
Suggested Location for Repository Information

Revised Community Relations Plan
Former NIKE PR-79 Control Area
FUDS Project No. D01RI0063 02
Foster, Rhode Island

September 26, 2019

Foster Public Library
Reference Section
184 Howard Hill Road
Foster, Rhode Island 02825
Tele: 401-397-4801

Hours:
Monday, Wednesday, and Friday – Closed
Tuesday – 12:00 p.m. to 8:00 p.m.
Thursday – 2:00 p.m. to 8:00 p.m.
Saturday – 10:00 a.m. to 3:00 p.m.
Sunday – 1:00 p.m. to 4:00 p.m.

Tyler Free Library (alternate if necessary)
81A Moosup Valley Road
Foster, Rhode Island 02825
Tele: 401-397-7930

Hours:
Monday – 2:00 p.m. to 8:00 p.m.
Tuesday, Thursday, and Sunday – Closed
Friday – 1:00 p.m. to 5:00 p.m.
Saturday – 12:00 p.m. to 4:00 p.m.