

Final

Record of Decision

Operable Unit 1, Sites 14, 15, 17, 18, and 40

Marine Corps Air Station
Cherry Point, North Carolina

EPA ID: NC1170027261



August 2010



1 Declaration

1.1 Site Name and Location

This Record of Decision (ROD) presents the selected remedy for Sites 14, 15, 17, 18, and 40 located within Operable Unit (OU 1), at Marine Corps Air Station (MCAS) Cherry Point, North Carolina.

MCAS Cherry Point was placed on the National Priorities List (NPL) on December 16, 1994 (Comprehensive Environmental Response, Compensation, and Liability Information System [CERCLIS] National Superfund database identification number: NC1170027261).

1.2 Statement of Basis and Purpose

The remedy was selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). As a result of the NPL listing and pursuant to CERCLA, the United States Environmental Protection Agency (USEPA) Region 4, the North Carolina Department of Environment and Natural Resources (NCDENR), and the United States Department of the Navy (Navy) (consisting of the Naval Facilities Engineering Command [NAVFAC] Mid-Atlantic Division and the MCAS Cherry Point Environmental Affairs Department [EAD]) entered into a **Federal Facilities Agreement (FFA)** (Reference [Ref.] 1) for MCAS Cherry Point in 2005. The primary purpose of the FFA is to ensure that the environmental impacts associated with past and present activities at MCAS Cherry Point are thoroughly investigated. The Navy's Environmental Restoration Program (ERP) is responsible for ensuring that appropriate CERCLA response alternatives are developed and implemented as necessary to protect public health, welfare, and the environment. No enforcement activities have been recorded at OU1 Sites 14, 15, 17, 18, and 40.

The Navy and USEPA Region 4 jointly selected the remedy for OU1 Sites 14, 15, 17, 18, and 40, with the concurrence of NCDENR. The Navy is the lead agency and provides funding for site cleanup at MCAS Cherry Point under its ERP. This decision is based on information contained in the Administrative Record (AR)¹ for these OU1 sites. Information not specifically summarized in this ROD but contained in the AR has been considered and is relevant to the selection of the remedy at OU1 Sites 14, 15, 17, 18, and 40. Thus, the ROD is based upon and relies upon the entire AR file for these sites in support of this determination.

¹ **Blue text** identifies detailed site information available in the Administrative Record and listed in the References table in Section 4.2.

1.3 Scope and Role of Response Action

OU1 is one of nine OUs that have been identified at MCAS Cherry Point. CERCLA environmental investigations began in 1983 with an **Initial Assessment Study (IAS)** (Ref. 5). Additional investigations and remedial actions at other OU1 sites and at other OUs have been completed or are ongoing. The **Site Management Plan (SMP)** (Ref. 6) for MCAS Cherry Point further details investigation history and the schedule for CERCLA investigation/remediation activities and is updated annually.

OU1 is the designation for an industrial area in the southern portion of MCAS Cherry Point that includes 12 sites identified in the FFA (Ref. 1) (Sites 14, 15, 16, 17, 18, 42, 47, 51, 52, 83, 92, and 98). Additionally, Site 40 has been investigated as part of OU1 due to its proximity to the other sites within the OU1 boundary. Six of the OU1 FFA sites were identified as contributing chlorinated volatile organic compounds (cVOCs) to groundwater (Sites 42, 47, 51, 52, 92, and 98) and are collectively referred to as the OU1 Central Groundwater Plume sites. Two sites (Sites 16 and 83) were identified as contributing polycyclic aromatic hydrocarbons (PAHs) and pesticides to soil. The OU1 Central Groundwater Plume sites and Sites 16 and 83 are addressed separately in the CERCLA process.

This ROD solely addresses the final determination for OU1 Sites 14, 15, 17, 18, and 40 and does not include or affect any other sites within OU1 or the other OUs at MCAS Cherry Point. The final remedies for the remaining FFA sites within OU1 will be addressed separately in one or more future RODs.

1.4 Description of Selected Remedy

The selected remedy for Sites 14, 15, 17, 18, and 40 at OU1 is No Further Action (NFA). The Navy and the USEPA, with concurrence from NCDENR, have determined that NFA under CERCLA is appropriate to ensure protection of human health and the environment. There are no factors indicating unacceptable risks to human health or ecological receptors that would warrant CERCLA response actions under current and unrestricted future land use scenarios. This determination is based on the evaluation of the information presented in various investigation reports for these sites, which included risk assessments for human health and ecological receptors, as well as the results of a removal action completed at Site 17.

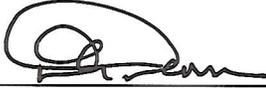
Petroleum-related contamination in soil and groundwater associated with former underground storage tanks (USTs) within the Site 14 boundary are being addressed under the MCAS Cherry Point UST Program administered by NCDENR. Inorganic constituents in soil in a drainage swale at Site 14 that receives stormwater runoff from an active, paved parking lot and active railroad tracks are being regulated as part of an Air Station Stormwater Permit under the Clean Water Act (CWA). Hence, the contaminants identified as posing a potential unacceptable risk to current or future receptors are being managed under other regulated environmental programs (Federal/State). Therefore, the CERCLA NFA selection is warranted for Site 14.

1.5 Statutory Determinations

The selected remedy is protective of human health and the environment. Because the extensive investigations of these sites have shown that this remedy will not result in hazardous substances, pollutants, or contaminants remaining at these sites above levels that allow for unlimited use and unrestricted exposure, a 5-year review will not be required and no statutory determinations are necessary.

1.6 Authorizing Signatures

This ROD presents the NFA determination for OU1 Sites 14, 15, 17, 18, and 40 at MCAS Cherry Point, located in Craven County, North Carolina.



D. A. Denn
Colonel, U.S. Marine Corps
Commanding Officer
MCAS Cherry Point

21SEP10

Date

The North Carolina Department of the Environment and Natural Resources concurs:



Dexter R. Matthews, Director
Division of Waste Management
NCDENR

9-27-10

Date



Franklin E. Hill, Director
Superfund Division
U.S. Environmental Protection Agency Region 4

9/29/10

Date

2 Decision Summary

2.1 Site Name, Location, and Description

MCAS Cherry Point is a 13,164-acre military installation located in southeastern Craven County, North Carolina, just north of the town of Havelock. MCAS Cherry Point is bounded to the north by the Neuse River, to the east by Hancock Creek, to the south by North Carolina Highway 101, and by an irregular boundary approximately three quarters of a mile west of Slocum Creek (**Figure 1**). Surrounding areas include primarily commercial and residential development and public land (Croatan National Forest).

Commissioned in 1942, MCAS Cherry Point maintains facilities for training and supporting the Atlantic Fleet Marine Force aviation units and is designated as a primary aviation supply point. The Air Station includes support facilities and provides services for the Second Marine Aircraft Wing, the Fleet Readiness Center East (FRCE, formerly Naval Aviation Depot [NADEP]), Combat Service Support Detachment 21 of the Second Marine Logistics Group, the Naval Air Maintenance Training Group Detachment, and the Defense Reutilization and Marketing Office (DRMO).

In 1994, MCAS Cherry Point was placed on USEPA's NPL established under CERCLA §105(a) for sites contaminated by releases of hazardous substances. In May 2005, a FFA (Ref. 1) was executed for MCAS Cherry Point that developed a course of action for future work requirements at each site, including OU1 and the various sites it comprises.

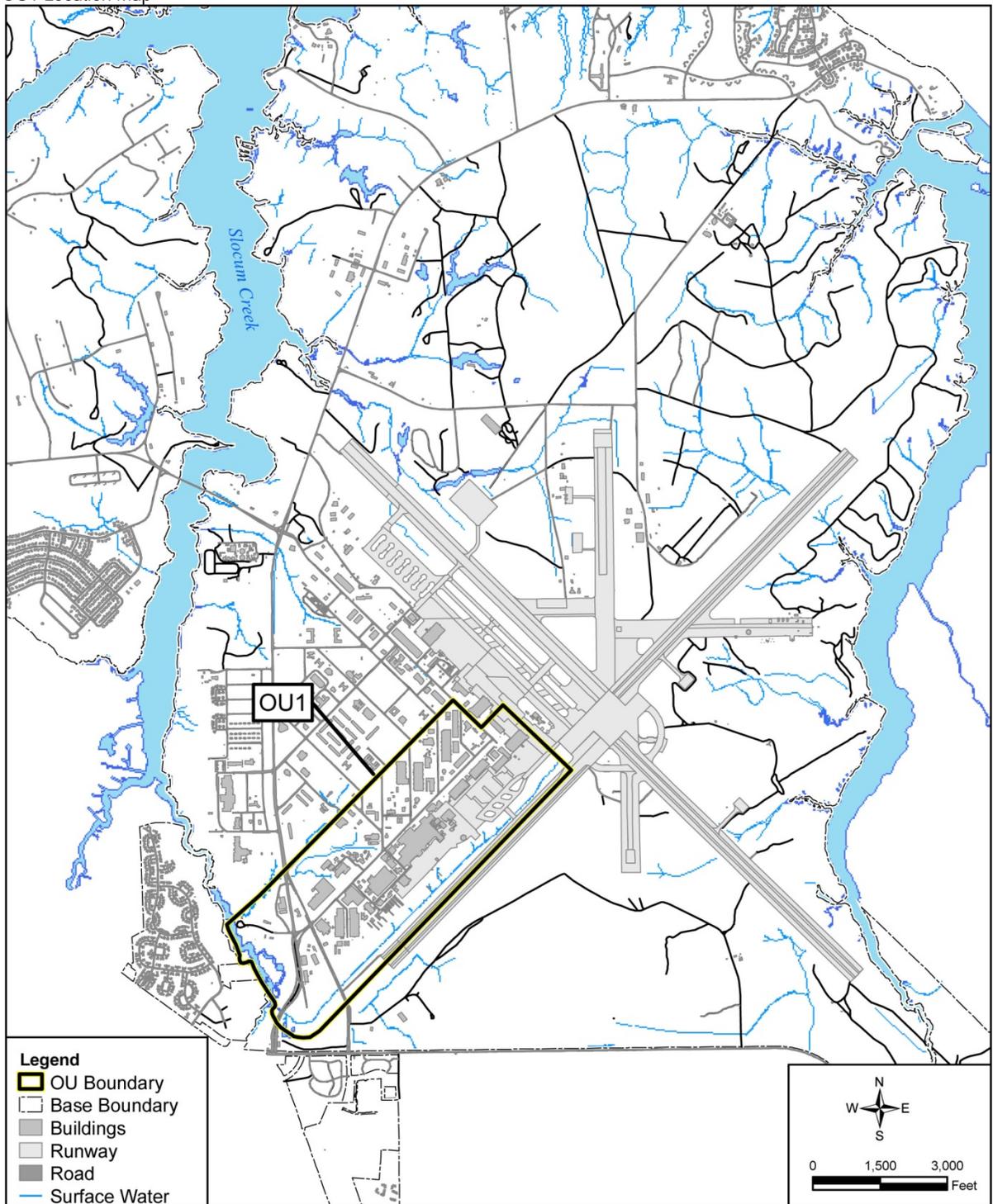
OU1 is an industrial area in the southern portion of MCAS Cherry Point that covers approximately 565 acres (**Figure 2**). There are 12 FFA sites within OU1, assigned on the basis of their proximity to each other within the industrialized section of MCAS Cherry Point:

- Site 14 - Motor Transportation
- Site 15 - Ditch and Area Behind FRCE (formerly NADEP)
- Site 16 - Landfill at Sandy Branch
- Site 17 - DRMO Drainage Ditch
- Site 18 - Facilities Maintenance Compound
- Site 42 - Industrial Wastewater Treatment Plant (IWTP)
- Site 47 - Industrial Area Sewer System
- Site 51 - Building 137 Former Plating Shop
- Site 52 - Building 133 Former Plating Shop
- Site 83 - Building 96 Former Pesticide Mixing Area
- Site 92 - Volatile Organic Compounds (VOCs) in Groundwater near the Stripper Barn
- Site 98 - VOCs in Groundwater near Building 4032

FIGURE 1
Base Location Map



FIGURE 2
OU1 Location Map



Site 40 was identified in the [Resource Conservation and Recovery Act \(RCRA\) Facilities Assessment \(RFA\)](#) (Ref. 2) conducted in 1988, and is listed as Solid Waste Management Unit (SWMU) N-22 in the Air Station RCRA Part B Permit. The [OU1 Remedial Investigation \(RI\)](#) (Ref. 3) completed in 2002 (denoted as the 2002 OU1 RI in this ROD) included investigation activities at Site 40 due to its proximity to Site 15 and location within the OU1 boundary. The Navy, EAD, and USEPA Region 4, in partnership with NCDENR, agreed that Site 40 would be incorporated in this ROD.

Sites 14, 15, 17, and 18, along with Site 40, are being addressed in this ROD and are shown in **Figures 3 through 7**. **Figure 3** shows the locations of these sites within OU1 and **Figures 4 through 7** show details of the individual sites. Site descriptions and histories for these sites are summarized in **Table 1**. More-detailed descriptions of OU1 and these sites can be found in the 2002 OU1 RI (Ref. 3) and the [OU1 RI Addendum](#) (Ref. 4).

FIGURE 3
Site Location Map



FIGURE 4
Site 14 Location Map



FIGURE 5
Site 15 and 40 Location Map

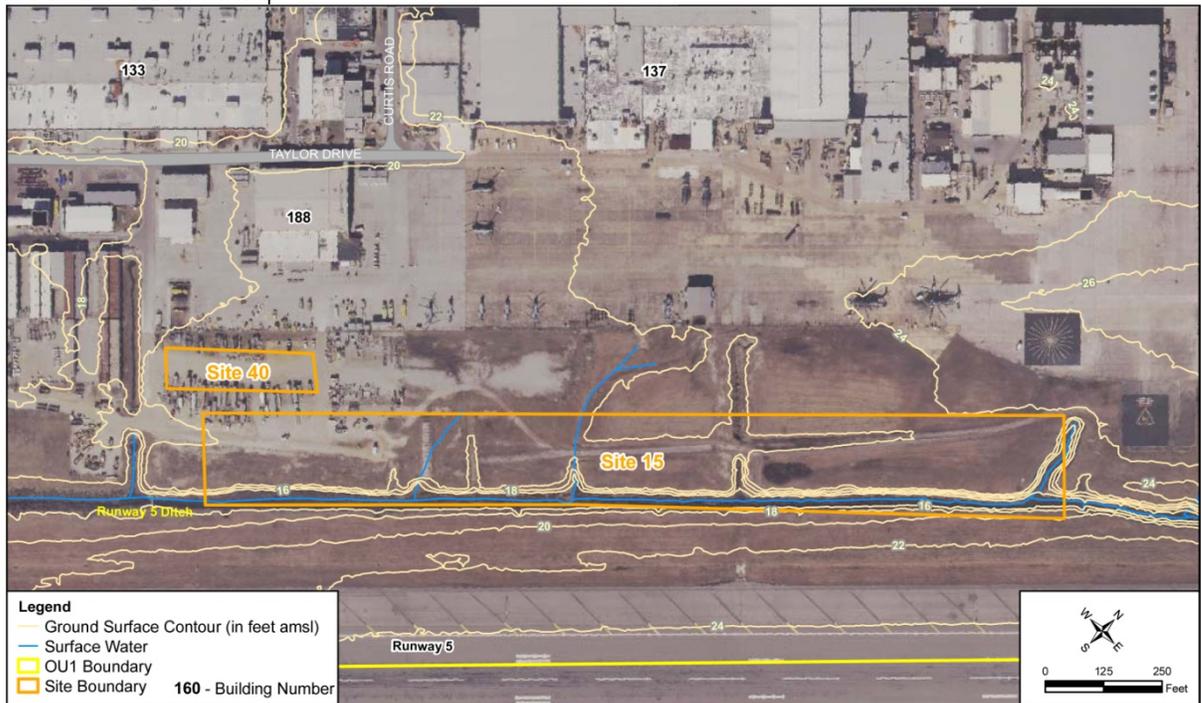


FIGURE 6
Site 17 Location Map



FIGURE 7
Site 18 Location Map



TABLE 1
Site Description and History

Site Name	Location	Approximate Size	Description/Current Land Use	Operational History
Site 14 – Motor Transportation	Central portion of OU1 at the intersection of C Street and Second Avenue, and is bisected by Curtis Road (Figure 4)	9 acres	The site is flat and covered with asphalt and gravel. The site and associated buildings are used for parking lots, wash racks, and vehicle maintenance. The unpaved area adjacent to Building 157 is used for heavy equipment storage and the paved area adjacent to Building 160 is used to store motor pool vehicles.	Waste oil was applied to the unpaved parking lots at Site 14 for dust control in the 1950s and 1960s. In 1977, a spill of approximately 2,000 gallons of aviation fuel, most likely JP-5, occurred near Building 160. The spilled fuel and some contaminated soil were reportedly removed at the time of the incident, but information concerning the precise location of the spill and details of the removal action are not known. Two USTs (160 and 455) and Tank Farm C were formerly located within Site 14. All contamination associated with these USTs and Tank Farm are under the jurisdiction of the MCAS Cherry Point UST Program, and has been addressed separately from the CERCLA-regulated sites included in this ROD.
Site 15 – Drainage Ditch and Area Behind FRCE (formerly NADEP)	Southeastern portion of OU1 (Figure 5)	25 acres	The site consists of a drainage ditch area adjacent to Runway 5 that leads to Schoolhouse Branch.	From the 1940s until as late as 1975, wastes generated at FRCE (formerly NADEP) Building 133 were washed down floor drains and discharged to the adjacent ditch that leads to the Site 15 drainage ditch and area. Wastes generated at Building 133 included petroleum, oil, and lubricants (POL), organic solvents, cyanide, and metals.
Site 17 – Defense Reutilization and Marketing Office Drainage Ditch	Southeastern portion of OU1 next to the DRMO (Figure 6)	17 acres	The site is a ditch used as part of the MCAS storm drainage system and drains toward the Runway 5 ditch, which discharges to Schoolhouse Branch.	The 1-acre area adjacent to the site was historically used for the storage of materials that included dichlorodiphenyltrichloroethane (DDT), spent photographic fluid after silver recovery, and PCB-containing transformers. PCB-contaminated oil was reportedly drained from transformers to the ditch between 1961 and 1968 (Water & Air Research, 1983).
Site 18 – Facilities Maintenance Compound	Southwest corner of OU1 south of Facility Maintenance Department (FMD) Building 87 (Figure 7)	0.5 acres	The site is a fenced, outdoor storage area bounded by Schoolhouse Branch to the south, a railroad track to the west and north, and Cunningham Boulevard to the east.	Transformers, some of which may have contained PCBs, have historically been stored within a bermed concrete pad at the site. These transformers may have potentially leaked PCB-contaminated oils into soils at the site.
Site 40 – NADEP Former Drum Storage Area	Southeastern portion of OU1 adjacent to Site 15 and Runway 5 (Figure 5)	0.6 acres	The site is an open area with crushed rock currently used for facility equipment storage.	From 1974 through 1984, Site 40 was used as a storage facility for hazardous wastes generated by NADEP (now FRCE). These wastes included organic solvents, strippers, corrosion prevention compounds, and cyanide wastes. After 1984, the site was used to store sand blasting residues and associated wastes. Between 1991 and 1992, the site underwent remediation under RCRA. Soil at the site was excavated and tilled to remove VOCs and inorganic constituents. Remediated soil was used as backfill and the site was covered with crushed stone. Confirmation samples were collected during site closure.

2.2 Previous Investigations and Removal Actions

Previous environmental investigations at MCAS Cherry Point were conducted under several regulatory agency and Navy programs. Initially, investigations were performed under the Navy Assessment and Control of Installation Pollutants (NACIP) Program. In 1989, the Navy entered into a RCRA Administrative Order of Consent with USEPA to perform a **RCRA Facility Investigation (RFI)** (Ref. 7).

Environmental investigations that have been conducted at Sites 14, 15, 17, 18, and 40 are summarized in **Table 2**. The most comprehensive environmental investigation was the 2002 OU1 RI (Ref. 3), which was designed to characterize the nature and extent of contamination posing a potential threat to human health and the environment throughout OU1. The **2008 Site 17 Supplemental Investigation** (Ref. 8) was conducted to determine if residual contamination of PCBs and dieldrin remained in shallow soil and groundwater above respective action levels following the 1995 removal action.

The total number of samples per environmental media (soil, groundwater, sediment, and surface water) collected during each previous investigation is summarized in **Table 2** and sampling locations are shown in **Figures 8 through 11**, demonstrating an effective sampling strategy has been implemented to adequately characterize each site.

TABLE 2
Previous Studies and Investigations

Previous Study/ Investigation*	Sites	Date	Investigation Activities	Number of Samples at Sites 14, 15, 17, 18, and/or 40
Remedial Investigation Interim Report, (Ref. 14)	15, 17, and 40	1984 to 1987	<p>Sample collection efforts for release verification at potential waste disposal sites at MCAS Cherry Point. Groundwater, surface water, and sediment samples were collected at Site 15. Soil and sediment samples were collected at Site 17. Soil samples were collected at Site 40.</p> <p>No contamination was identified within soil and sediment at Sites 15 and 40. Only lead was identified in groundwater in one round from one monitoring well. No further action was recommended for Sites 15 and 40.</p> <p>PCB contamination was identified within soil and sediment above action levels at Site 17. The site was recommended for further investigation.</p>	<p>Site 15: 6 monitoring wells installed and sampled in 3 rounds.</p> <p>Site 15: 8 sediment, 9 surface water samples from Runway 5 ditch and Schoolhouse Branch.</p> <p>Site 17: 3 soil and 6 sediment samples.</p> <p>Site 40: 24 soil samples.</p>
RCRA Facility Investigation (RFI) Report, Units 5, 10, 16, and 17 (Ref. 7)	17	1990	Groundwater, soil, and sediment samples were collected at Site 17 to determine if a potential release occurred requiring further investigation. Results indicated that PCBs were present in soil above action levels and that a further investigation was warranted. Groundwater did not contain site-related constituents and PCBs in sediment were below action levels.	<p>2 monitoring wells installed and sampled.</p> <p>27 soil samples.</p> <p>18 sediment samples.</p>
RFI, 21 Units (Ref.7)	15	1991	Following the recommendations of the RI interim report from 1988, sediment and surface water samples were collected as a release verification step and to assess potential adverse effects on human and ecological receptors exposed to site media. Results indicated that inorganic constituents observed in sediment did not result in unacceptable risks for all potential receptors under current and future conditions, and no further investigation was recommended.	5 sediment/surface water samples.
Solid Waste Management Unit (SWMU) Assessment Report, SWMU I-14	14	1994	Collected soil samples for oil and grease analysis in response to the previously unreported release of waste oil to the unpaved parking lots. The report recommended that the site be handled as a petroleum spill site	4 soil samples
Closeout Report, PCB-Contaminated Soils Removal (Ref. 12)	17	1995	Based on the findings of the RFI activities, a removal action was conducted to remove PCB-contaminated soil and sediment at Site 17. Confirmatory sampling and analysis were conducted to verify that in-situ soil was below the action level (10 mg/kg). Field screening analysis for PCBs was conducted for 67 soil samples (seven of which were submitted for laboratory analysis). Results indicated that remaining PCB concentrations in Site 17 soils were below the action level of 10 mg/kg.	67 field screening soil samples, 7 soil samples for offsite laboratory analysis.

TABLE 2
Previous Studies and Investigations

Previous Study/ Investigation*	Sites	Date	Investigation Activities	Number of Samples at Sites 14, 15, 17, 18, and/or 40
2002 OU1 RI (Ref.3)	14, 15, 17, 18, and 40	1994, 1998, and 2000	<p>A comprehensive RI for all of OU1, including Sites 14, 15, 17, 18, and 40, to define the nature and extent of contamination in site media and quantify potential human health and ecological risks. The RI included an evaluation of data from previous investigations of OU1 sites as well as RI-specific sampling results. Soil and groundwater samples were collected at Sites 14, 15, and 17. Soil samples were collected at Site 18. Sediment and surface water samples were collected in various water bodies throughout OU1 (i.e., non-site-specific). Samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and inorganics.</p> <p>Although multiple constituents at each of the sites were detected above screening criteria, there are no unacceptable risks to human health. Further evaluation of PCBs in soil and groundwater at Site 17 was recommended.</p> <p>A Screening-level Ecological Risk Assessment (SERA) (through Step 2 of the ERA process) was conducted for all of OU1, including Sites 14, 15, 17, 18, and 40 (TetraTech, 2002). Results indicated no unacceptable risks for Sites 14 and 18. However, further evaluation of the exposure scenarios and contaminant sources was recommended for Sites 15, 17, and 40. More information on the risk assessment process for Sites 14, 15, 17, 18, and 40 is detailed in Section 2.6 of this ROD.</p>	<p>Site 14: 18 soil and 50 groundwater samples. Site 15: 8 soil and 3 groundwater samples. Site 17: 9 soil and 3 groundwater samples. Site 18: 8 soil samples. Site 40: None.</p> <p>Not site-specific: surface water/sediment samples throughout OU1.</p>
Step 3A Addendum to the Ecological Risk Assessment, OU1 (Ref. 11)	15, 17, and 40	2003	<p>Further refined ecological receptor exposure scenarios, delineated more-specific potential contaminant sources, and developed a better understanding of potential risks to ecological receptors at OU1.</p> <p>No potential ecological risks were identified for Sites 15 and 40.</p> <p>Site 17 was identified as an area of potential ecological risk because it represented a potentially continuing source of PCBs to downgradient aquatic systems and posed potential risks to upper-trophic-level receptors. The report recommended that Site 17 be included in a Feasibility Study for OU1 for any areas where total PCB concentrations are above 10 mg/kg. No ecological risks were identified for the further downgradient ecological receptors within the Schoolhouse Branch aquatic system.</p>	None
OU1 RI Addendum (Ref. 4)	14, 15, 17, 18, and 40	2000 to 2008	<p>Due to the presence of VOCs in groundwater throughout OU1, an evaluation of potential sources contributing to the groundwater contamination was conducted and the nature and extent of groundwater contamination was delineated. The results of this investigation identified the sources of groundwater contamination within OU1 and determined that historical activities associated with sites 14, 15, 17, 18, and 40 did not contribute to the chlorinated VOC groundwater plume. Therefore, the Navy in partnership with the USEPA and NCDENR agree these sites can be eliminated from consideration of remedial action for VOCs in groundwater.</p>	None

TABLE 2
Previous Studies and Investigations

Previous Study/ Investigation*	Sites	Date	Investigation Activities	Number of Samples at Sites 14, 15, 17, 18, and/or 40
Supplemental Investigation, OU1, Site 17 (Ref. 8)	17	2008	The objective of the supplemental investigation was to determine if residual contamination of PCBs and dieldrin exists in shallow soil and groundwater above respective action levels, and to determine whether additional investigation or remedial action is necessary at Site 17. Soil and groundwater samples were collected and analyzed for Aroclor-1248, -1254, and -1260 and dieldrin. PCB concentrations were observed to be below the action level of 10 mg/kg in soil and it was concluded that there are no significant human health or ecological risks at Site 17 and that no remedial action is necessary to address human health or ecological risks. Dieldrin concentrations were determined to not represent a site-related release and were attributed to normal, base-wide pesticide applications due to no evidence of a CERCLA release and concentrations similar to other sites at MCAS Cherry Point with pesticide concentrations due to normal pesticide use.	10 co-located surface soil and groundwater samples analyzed for the PCBs. 6 co-located surface soil and groundwater samples analyzed for dieldrin. 1 permanent monitoring well installed and sampled for PCBs and dieldrin.

* The documents listed are available in the Administrative Record and provide detailed information used to support remedy selection at OU1. See Section 4.2 for the complete titles and reference information for the documents listed in this table.

FIGURE 8
Site 14 Previous Sample Locations



FIGURE 9
Site 15 and 40 Previous Sample Locations

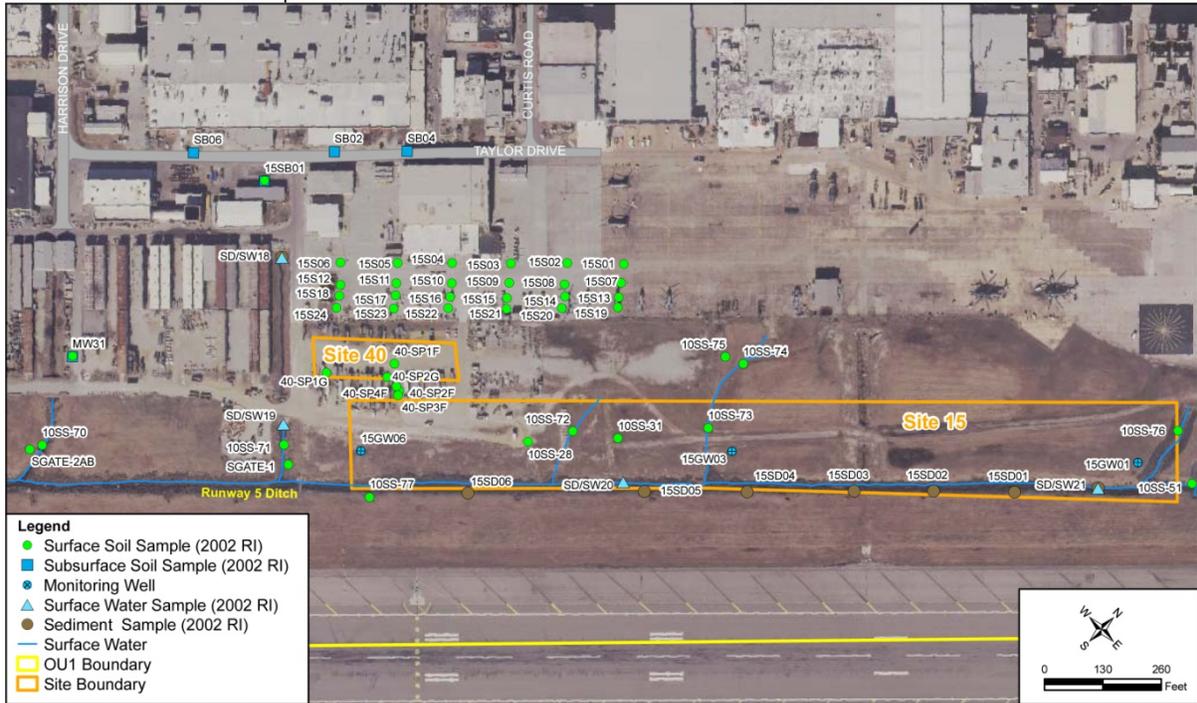


FIGURE 10
Site 17 Previous Sample Locations



FIGURE 11
Site 18 Previous Sample Locations



2.3 Site Characteristics

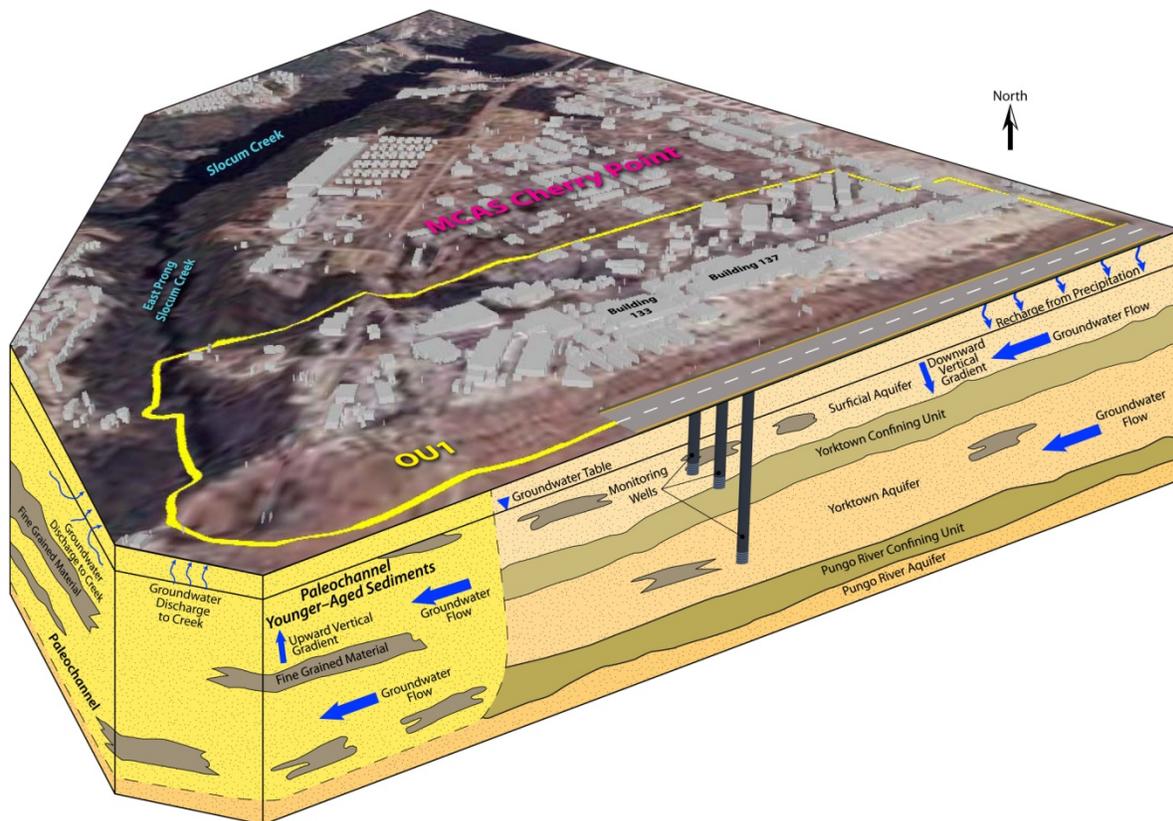
2.4.1 Physical Characteristics

OU1 generally consists of paved or concrete surfaces with buildings throughout the area. The ground surface is relatively flat, ranging in elevation from 18 to 24 feet above mean sea level (amsl), except within the western portion of OU1 adjacent to East Prong Slocum Creek where the ground surface elevation drops to 2 feet amsl.

Surface water bodies present within OU1 include East Prong Slocum Creek and its tributaries Schoolhouse Branch and Sandy Branch (**Figure 2**). Schoolhouse Branch flows along the southeastern boundary of OU1. Two tributaries of Sandy Branch occur within the western portion of OU1, which flow to Sandy Branch, located along the western boundary of OU1. East Prong Slocum Creek is brackish, is larger than its two tributaries, and occurs along the southwestern boundary of OU1. From East Prong Slocum Creek, surface water flows into Slocum Creek and eventually the Neuse River. East Prong Slocum Creek, Schoolhouse Branch, and Sandy Branch have been classified by NCDENR as Class C fresh water bodies.

The hydrogeologic framework to a depth of approximately 500 feet beneath OU1 consists of nine hydrostratigraphic units: five aquifers and four confining units. From shallowest (youngest) to deepest (oldest), the aquifers with associated confining units include the Surficial, Yorktown, Pungo River, upper Castle Hayne, and lower Castle Hayne aquifers. Each aquifer is separated by the confining unit except where the units are absent or discontinuous. The OU1 conceptual site model (CSM) is shown in **Figure 12**.

FIGURE 12
Conceptual Site Model



The Surficial aquifer is the first encountered groundwater beneath OU1 (depth of approximately 4 to 21 feet below ground surface [bgs]) and is unconfined. The saturated thickness ranges from approximately 30 to 45 feet beneath OU1, and is controlled by the fine-grained Yorktown confining unit (generally sandy silt) at the base of the aquifer. The Yorktown aquifer occurs beneath the Yorktown confining unit and is generally a confined to semi-confined aquifer. The saturated thickness is approximately 40 feet and is controlled by the Yorktown confining unit at the top and the Pungo River confining unit at its base, where present. Groundwater contamination at OU1 has only been identified in the uppermost aquifers and not observed in the Pungo River, upper Castle Hayne, or lower Castle Hayne aquifers.

A regional, Pleistocene-age paleochannel eroded the Yorktown and Pungo River confining units and deposited younger-aged sediments in the southwestern portion of OU1 (**Figure 12**). As a result, the uppermost aquifers may be in direct hydraulic communication within the paleochannel where the confining units are absent. Groundwater levels northeast of the paleochannel boundary (outside the paleochannel) show a discontinuity across the Yorktown confining unit (which acts as an aquitard) and a downward vertical gradient from the Surficial aquifer to the Yorktown aquifer. Groundwater levels southwest of the paleochannel boundary (within the paleochannel) generally show similar groundwater levels between the Surficial and Yorktown aquifers and an upward vertical gradient from the Yorktown aquifer to the Surficial aquifer. Of the sites addressed in this ROD, Site 18 is located within the paleochannel and Sites 14, 15, 17, and 40 are located east of the observed paleochannel boundary.

Groundwater flows generally westward in the Surficial aquifer towards East Prong Slocum Creek and Sandy Branch at an average horizontal hydraulic gradient of approximately 0.003 feet per foot (ft/ft). The average linear horizontal groundwater velocity in the surficial aquifer is estimated at approximately 0.1 to 0.2 feet per day (ft/day).

2.4.2 Distribution of Contamination

The 2002 OU1 RI (Ref. 3) documents evaluation of the nature and extent of contamination and potential risks in all environmental media at OU1. For the various environmental media investigated at OU1, data were frequently evaluated in a non-site-specific manner such as groupings of sites in proximity to each other, in the context of specific physical features (e.g., surface water bodies), or by evaluating data for the operable unit as a whole. Soil was grouped by sites that are located in close proximity to one another (eight soil groupings). Site 14 was evaluated as Soil Grouping 1; Sites 15, 17, and 40 were evaluated as part of Soil Grouping 2; and Site 18 was evaluated as part of Soil Grouping 4. Other soil groupings (Soil Groupings 3, 5, 6, 7, 8 and non-site-specific soil samples) include other sites within OU1 that are not addressed in this ROD. Groundwater was evaluated by aquifer for the entire operable unit. Surface water and sediment were evaluated by surface water body.

The 2008 Site 17 Supplemental Investigation (Ref. 8) provided an updated evaluation of the nature and extent of contamination and potential risks for soil and groundwater at this site.

The results of sampling and analysis of environmental media at Sites 14, 15, 17, 18, and 40 are summarized below.

Site 14

The potential source of contamination at Site 14 includes the hazardous materials storage area, the possible application of waste oil for dust control in the 1950s and 1960s, and the approximately 2,000 gallons of jet propellant grade 5 (JP-5) spilled at the site in 1997 (**Figure 4**).

Soil and groundwater are the only potentially-impacted media at the site. There is no surface water or sediment located at Site 14.

One VOC, six semivolatile organic compounds (SVOCs), five pesticides, one polychlorinated biphenyl (PCB), and four inorganic constituents were detected in soil above screening criteria. The VOC acetone and the SVOC bis(2-ethylhexyl)phthalate are common laboratory contaminants and were determined to not be site-related constituents. Of the remaining detected SVOCs, only one (benzo[a]pyrene) exceeded a human health screening criterion for residential soil. Based on a comparison of concentrations to those at other operable units across MCAS Cherry Point and the lack of evidence of a site-related release, the detected pesticides were determined to be attributable to historical applications of pesticides for their intended use across the installation and not from a CERCLA-related release at the site.

The majority of the detected inorganic constituents were consistent with background concentrations; cadmium, lead, mercury, and zinc were considered potentially site-related, although detections were sporadic and infrequent. The highest inorganic concentrations in soils exceeded the NC SSLs for the protection of groundwater, and were located in a drainage swale that receives stormwater runoff during precipitation events from an adjacent parking lot and a railroad spur. The detected concentrations in this area were attributable to impacts from stormwater runoff rather than a CERCLA-regulated release from Site 14, and because these inorganic concentrations in soils are regulated by the basewide stormwater permit under CWA, no action under CERCLA is warranted for these constituents.

Petroleum-related compounds (i.e., benzene, toluene, ethylbenzene, xylenes, naphthalene, and lead) were observed above screening criteria in site groundwater. However, petroleum-related impacted groundwater is being addressed by the MCAS Cherry Point UST Program.

Site 15

The potential source of contamination at Site 15 is from the former discharge of wastes generated at FRCE's Building 133 (formerly NADEP) to an adjacent former drainage ditch that is now located beneath Building 133 and is designated as part of Site 52. This former drainage ditch may have in the past discharged in part to the drainage area and ditch that comprises Site 15 (**Figure 5**), although the majority of flow from this ditch is reported to have discharged historically to Sandy Branch Tributary #2. A removal action was conducted at Sandy Branch Tributary #2 in 2008 that removed impacted sediment and soil. Wastes generated within Building 133 included POL, organic solvents, cyanide, and metals. Soil, groundwater, sediment and surface water were also sampled outside of, but in the vicinity of Site 15, and were assessed as potentially-impacted media.

Three VOCs, a number of SVOCs (primarily PAHs), pesticides and one PCB were observed in soil above screening criteria. The VOCs were all common laboratory contaminants and were concluded to represent laboratory artifacts and were not site-related. Pesticide concentrations were similar to other sites at MCAS Cherry Point impacted by normal, base-wide pesticide applications and it was determined that the pesticides were not site-related. The majority of the inorganic constituents detected in soil at the site appeared to be indicative of background conditions. Only cadmium was determined to be potentially site-related.

No VOCs, SVOCs, pesticides, or PCBs were observed in groundwater at Site 15. Inorganics detected in groundwater were determined to be attributable to background conditions.

Surface water and sediment data were evaluated for the drainage area contributing to Schoolhouse Branch, which includes a series of drainage ditches extending both upstream and

downstream of the Site 15 boundaries. Only one SVOC (bis[2-ethylhexyl]phthalate) and inorganic constituents were observed above screening criteria in surface water from the adjacent drainage ditches and the Runway 5 ditch. Multiple SVOCs (primarily PAHs) were observed above screening criteria in sediment throughout the Schoolhouse Branch drainage area. However, only a relatively small portion of the collected surface water and sediment samples with results exceeding screening criteria were located within the boundaries of Site 15, and the locations of the screening criteria exceedances indicate that these constituents originated from upstream and migrated to Site 15 rather than originated from onsite.

Site 17

The potential source of contamination at Site 17 was PCB-contaminated oil that was drained to the ditch between 1961 and 1968 (**Figure 6**). Soil and groundwater were initially assessed at the site as potentially-impacted media. A removal action was completed in 1995 that removed PCB-impacted soil to a depth of 1.5 feet from the site; however, the exact area of the excavation could not be verified.

Field investigations conducted after this removal action detected residual PCBs (Aroclors-1248, -1254, and -1260) in shallow and subsurface soil at concentrations above screening criteria. Dieldrin was also detected in shallow soil and groundwater above the screening criteria. PCBs (Aroclor-1254 and Aroclor-1260) and inorganic constituents were also observed above screening criteria within surface water and sediment in the Runway 5 Ditch adjacent to Site 17. Pesticides (4,4'-DDD, 4,4'-DDE, 4,4'-DDT, and dieldrin) were detected above screening criteria within sediment.

Consequently, it was uncertain where and whether the PCB contamination was completely removed during the 1995 removal action, as the exact area of the excavation could not be verified. The 2008 Site 17 Supplemental Investigation was conducted to address this uncertainty and included the collection of soil and groundwater samples at Site 17. Sampling locations were selected based on previously detected elevated concentrations of PCBs and dieldrin in soil (**Figure 10**).

Aroclor-1248 and -1254 were not detected in soil and groundwater. Aroclor-1260 was observed in soil below the action level of 10 milligrams per kilogram (mg/kg) and only at concentrations significantly lower than previous investigations. In groundwater, Aroclor-1260 exceeded the MCL of 0.5 micrograms per liter ($\mu\text{g}/\text{L}$) in samples from four of the 10 temporary monitoring wells (in two small localized areas in the central and eastern portions of the site). A permanent monitoring well was installed less than 20 feet from the temporary monitoring wells in the central portion of the site to confirm the temporary well results, and no PCBs were detected. No spatial correlation was observed between the PCBs found in the soil and groundwater at the site. It was concluded that the detection of Aroclor-1260 in samples from the temporary wells was due to sorption to colloidal particles rather than representative of groundwater quality conditions, as it was not possible to develop the small-diameter temporary wells as thoroughly as the permanent monitoring well.

Dieldrin was observed in soil above the NC SSL at four of six soil sample locations. However, soil concentrations were lower than historical investigation results at the same locations. In groundwater, dieldrin was observed in two of six temporary monitoring wells above the NCGWQS in a small localized area in the eastern portion of the site and did not correlate spatially with soil exceedances. Dieldrin was also not detected in groundwater at the permanent monitoring well installed to confirm the temporary well results. Because there is no evidence of a pesticide spill or release at Site 17 and because the concentrations in soil and groundwater do

not correlate at the site, the presence of dieldrin at the site was concluded to be the result of routine, base-wide pesticide applications, after which dieldrin was transported by surface runoff to the drainage ditch.

In addition, the 2008 Site 17 Supplemental Investigation concluded that PCB-impacted soil with concentrations potentially posing unacceptable risk was removed from the site during the 1995 removal action.

Site 18

The potential source of contamination at Site 18 was a bermed concrete pad used for storage of transformers, which may have formerly contained PCBs (**Figure 7**). Minor leakage of PCB-contaminated transformer oil may have occurred. Soil was assessed as potentially impacted media. No surface water or sediment is located at or adjacent to the site.

SVOCs (primarily PAHs), pesticides, PCBs, and inorganic constituents were observed within soil above screening criteria at Site 18 (Ref. 3). Exceedances of PAHs, pesticides, and PCBs were primarily observed in a single soil sample. All of the inorganics were determined to be primarily attributable to background levels, except for zinc at one soil sample location.

Site 40

The potential source of contamination at Site 40 was from the former storage of hazardous wastes generated by NADEP (now FRCE). The stored wastes reportedly included organic solvents, strippers, corrosion prevention compounds, and cyanide wastes. The site was also used to store sand blasting residues and associated waste. The site is currently only used for equipment storage.

The site underwent soil remediation (excavation and soil tilling) during 1991 and 1992 and the excavated areas were backfilled with remediated (tilled) soil and crushed rock. Confirmation samples were collected at Site 40 in 1991 and 1992 following remediation activities and were analyzed for VOCs and SVOCs. The data were evaluated as part of the 2002 OU1 RI (Ref. 3). Methylene chloride concentrations in soil were reported above regulatory standards and concluded to be potentially site-related. However, more recent evaluation of the data in 2008 revealed that all of the methylene chloride detections in soil were “B” flagged, meaning that similar methylene chloride concentrations were also detected in the associated laboratory method blanks. In addition, it was discovered that an aqueous trip blank result with a methylene chloride concentration of 310 µg/L had been erroneously reported in the 2002 OU1 RI (Ref. 3) as a soil sample concentration of 310 micrograms per kilogram (µg/kg). As a result of the 2008 Site 17 Supplemental Investigation, it was determined that the methylene chloride detections reported for soil at Site 40 do not represent actual site conditions, and are instead artifacts from the laboratory analytical methods. Therefore, no constituents of concern (COCs) or risks were identified at the site.

2.4 Current and Potential Future Land and Resource Uses

MCAS Cherry Point is located just north of Havelock, North Carolina. The area surrounding the installation consists of commercial and residential developments, waterways, and the Croatan National Forest. Current land use at the installation includes military operations, training, maintenance and production, supply, medical administration, troop and family housing, community support, recreation, and utilities. MCAS Cherry Point is expected to remain as an active military installation in the foreseeable future.

OU1 is currently used for industrial purposes and generally consists of the FRCE, the IWTP, the DRMO, and several additional support facilities. Current land uses at the sites and installation are reasonably anticipated to continue indefinitely to support the mission of the facility.

Groundwater from the Caste Hayne aquifer is used as a potable resource at MCAS Cherry Point for domestic and industrial water supply and is classified by the State of North Carolina as an existing or potential source of drinking water. The Surficial aquifer is not currently an active groundwater resource and is not anticipated to be used as a source of drinking water at MCAS Cherry Point. Under North Carolina's groundwater classification, the surficial aquifer is considered as Class GA, a potential source of drinking water.

There are no surface water resources used as potable water supplies in or around MCAS Cherry Point. The surface water bodies in and around the Air Station are classified by the State of North Carolina as either Class C (freshwaters protected for secondary recreation, fishing, and aquatic life) or Class SC (salt waters protected for secondary recreation, fishing, and aquatic life).

2.5 Summary of Site Risks

Sites 14, 15, 17, 18, and 40 were evaluated for potential risks to human health and the environment as part of quantitative risk assessments documented in the 2002 OU1 RI (Ref. 3). To assess potential risks from exposure to soil, Sites 15, 17, and 40 were grouped together along with other adjacent sites. Sites 14 and 18 were evaluated independently. Potential risks from exposure to groundwater and from exposure to surface water and sediment were evaluated by aquifer and by surface water body, respectively, for all of OU1. Potential ecological risks at Sites 15, 17 and 40 were further evaluated in the [Step 3A Addendum to the OU1 Ecological Risk Assessment](#) (Ref. 11). Potential human health risks at Site 17 were further evaluated in the 2008 Site 17 Supplemental Investigation.

Human health risks were quantitatively evaluated for potential human receptors exposed to soil, groundwater, surface water, and sediment using reasonable maximum exposure (RME) concentrations as documented in the 2002 OU1 RI (Ref. 3). Human health risks were evaluated using both the RME and central tendency exposure (CTE) concentrations in the 2008 Site 17 Supplemental Investigation. The RME assumes the highest level of human exposure that could reasonably be expected to occur, whereas the CTE scenario reflects a more realistic human exposure based on average concentrations.

The potential for non-cancer hazards is evaluated by determining the ratio of exposure to toxicity, or the hazard quotient (HQ). A HQ greater than 1 indicates that a receptor's exposures may present an unacceptable non-cancer hazard. In addition, a hazard index (HI) is generated by adding the HQs for all constituents that affect the same target organ or cause adverse health effects within a medium or across all media to which an individual may reasonably be exposed. HI values greater than 1 indicate the potential for unacceptable non-cancer hazards due to exposure.

For known or suspected carcinogens, acceptable exposure levels generally are concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between 10^{-4} (a 1 in 10,000 chance of developing cancer) and 10^{-6} (a 1 in 1,000,000 chance of developing cancer) using information on the relationship between dose and response.

The 2002 OU1 RI and 2008 Site 17 Supplemental Investigation Reports (Ref. 3, 8) specify the Human Health Risk Assessment (HHRA) assumptions and uncertainties inherent in the risk assessment process due to the number of samples collected or their location, the literature-based

values used to calculate risk, and risk characterization across multiple media and exposure pathways.

A **Screening-level Ecological Risk Assessment (SERA)** (Ref. 9) was conducted for all of OU1 including Sites 14, 15, 17, 18, and 40. The SERA included an evaluation of the environmental setting, chemical fate and transport, ecotoxicity and potential ecological receptors, and complete exposure pathways. The SERA includes Steps 1 and 2 of the eight-step USEPA Ecological Risk Assessment (ERA) process.

Potential risks to ecological receptors from exposure to all detected contaminants were calculated using conservative exposure assumptions. The 2002 OU1 RI (Ref. 3) specifies the SERA assumptions and uncertainties inherent in the risk assessment process due to the number of samples collected or their location, the literature-based values used to calculate risk, and risk characterization across multiple media and exposure pathways.

A Step 3A Addendum of the ERA was conducted at Sites 15, 17, and 40 to further refine receptor exposure scenarios, delineate more specific potential contaminant sources, and to develop a better understanding of potential risks to ecological receptors based on the findings of the SERA.

The SERA and Step 3A Addendum of the ERA concluded that ecological risks are negligible and that no further ecological investigation or risk analysis is warranted for Sites 14, 15, 17, 18, and 40. The findings of the 2008 Site 17 Supplemental Investigation concluded that there are no significant ecological risks at Site 17. Therefore, Steps 3 through 7 were not warranted.

A summary of the site-specific risks for each of the sites are discussed in the following subsections.

2.6.1 Site 14

Human Health Risk Assessment Summary

Potential human health risks were assessed under current and future conditions for the construction worker, maintenance worker, full-time employee, trespasser, adult recreational users, and under future child, adult, and lifelong resident exposed to soil and groundwater at the site. Based on RME calculations, there are no unacceptable cancer risks or non-cancer hazards for soil exposure.

Potential carcinogenic risks for child, adult, and lifelong residents exceeded USEPA's target risk range of 10^{-4} and 10^{-6} , and non-carcinogenic hazards for child and adult residents exceeded the acceptable level of 1.0 from exposure to surficial groundwater within OU1, with benzene as the major risk driver. However, benzene and other petroleum-related constituents in groundwater at the site are related to the former UST and Tank Farm C sites that are being addressed by the MCAS Cherry Point UST Program. Therefore, there are no unacceptable risks associated with a CERCLA release from exposure to groundwater at Site 14.

Ecological Risk Assessment Summary

No potential ecological risks were identified in the SERA for Site 14.

2.6.2 Site 15

Human Health Risk Assessment Summary

Potential human health risks were assessed under current and future conditions for the construction worker, maintenance worker, full-time employee, trespasser, adult recreational users, and under future child, adult, and lifelong resident exposed to soil, groundwater, surface

water, and sediment at the site. The 2002 OU1 RI (Ref. 3) identified potential human health risks associated with soil at Site 15 due to PCBs. However, the human health risks attributed to Site 15 were actually based (erroneously) on PCBs encountered in soil samples at Site 17 (described in the OU1 RI Addendum [Ref. 4]), as the human health risks for these two sites were calculated together as part of a common soil grouping. PCBs were detected above the screening criteria at only one location at Site 15, exceeding only the ecological screening criterion. Therefore, no human health risks from exposure to soil were actually identified for Site 15.

No potential human health risks were identified for exposure to surface water. The 2002 OU1 RI (Ref. 3) determined that there are potential carcinogenic risks for child and lifelong residents that exceeded USEPA's target risk range of 10^{-4} and 10^{-6} from exposure to OU1 sediment, with PAHs as the major risk driver. However, the 2002 RI evaluated all OU1 surface water bodies together and did not evaluate human health risk specifically associated with detected COPCs at Site 15. An updated risk evaluation of only the sediment data within Site 15 determined that sediment does not pose potential unacceptable risks to human health at the site. Therefore, the residential scenario is considered representative of an unrestricted exposure scenario and no further risk evaluation of exposures to Site 15 sediment is warranted.

Ecological Risk Assessment Summary

No potential ecological risks were identified for Site 15 in the Step 3A Addendum to the ERA.

2.6.3 Site 17

Human Health Risk Assessment Summary

Potential human health risks were assessed in the 2002 OU1 RI (Ref. 3) under current and future conditions for the construction worker, maintenance worker, full-time employee, trespasser, adult recreational users, and under future child, adult, and lifelong resident exposed to soil, groundwater, surface water, and sediment at the site. Potential carcinogenic risks for child and lifelong residents exceeded USEPA's target risk range of 10^{-4} and 10^{-6} , and non-carcinogenic hazards for construction workers, full-time employees, and child and adult residents exceeded the acceptable level of 1.0 from exposure to soil at the site, with PCBs as the major risk driver.

To address the uncertainty regarding whether potential risks to human health in soil remained after the soil removal action that was identified in the 2002 OU1 RI (Ref. 3), data from the 2008 Site 17 Supplemental Investigation (Ref. 8) was evaluated to assess the potential risk to human health. The assessment concluded that there are no potential risks to human health remaining at Site 17.

Ecological Risk Assessment Summary

In the 2002 OU1 RI (Ref. 3), ecological risks were concluded to be possible to terrestrial plants, invertebrates, and terrestrial receptors, although widespread risks were unlikely. The Step 3A Addendum to the ERA for OU1 recommended that Site 17 be included in a Feasibility Study for OU1, in which total PCB concentrations above 25 and 10 mg/kg be considered for a potential soil removal and a soil cover, respectively. However, PCB concentrations in soil were observed to be below 10 mg/kg during the 2008 Site 17 Supplemental Investigation. Therefore, it was concluded that there were no significant ecological risks at Site 17 and that no remedial action is necessary to address potential ecological risks.

2.6.4 Site 18

Human Health Risk Assessment Summary

Potential human health risks were assessed in the 2002 OU1 RI (Ref. 3) under current and future conditions for the construction worker, maintenance worker, full-time employee, trespasser, adult recreational users, and under future child, adult, and lifelong resident exposed to soil at the site. No human health risks were identified for Site 18.

Ecological Risk Assessment Summary

No potential ecological risks were identified within the SERA for Site 18.

2.6.5 Site 40

Methylene chloride detections reported in the 2002 OU1 RI (Ref. 3) for soil at Site 40 were subsequently found to be artifacts from the laboratory analytical methods and to not represent actual site conditions. Therefore, no COPCs, COCs, or risks were identified at the site (Ref. 4).

2.6 Description of Selected Remedy

NFA is the selected remedy for Sites 14, 15, 17, 18, and 40. Exposure to soil, groundwater, surface water, and sediment associated with Sites 14, 15, 17, 18, and 40 poses no unacceptable risks to human health and the environment, and site-related constituents within groundwater and surface water occur at concentrations below North Carolina regulatory standards. The Navy, EAD, and USEPA Region 4, in partnership with NCDENR, agreed that NFA is appropriate for these sites. Site conditions allow for unlimited use and unrestricted exposure. No further remedial response action and no restrictions on any land use are necessary at these sites.

2.7 Community Participation

Community participation at MCAS Cherry Point includes a Restoration Advisory Board (RAB), public meetings, a public information repository, newsletters and fact sheets, public notices, and an ERP Website. The Community Involvement Plan for MCAS Cherry Point provides detailed information on community participation for the ERP.

The RAB was formed in 1995 and consists of community members and representatives of the USEPA, NCDENR, Navy, and Marine Corps. RAB meetings are held approximately every 3 months and are open to the public to provide opportunity for public comment and input. The investigations and findings from Sites 14, 15, 17, 18, and 40 have been presented and discussed at multiple RAB meetings.

The Community Involvement Plan and the technical reports supporting the NFA determination for OU1 Sites 14, 15, 17, 18, and 40 are part of the Administrative Record for MCAS Cherry Point and are available for download by the public via the MCAS Cherry Point ERP Public website and can be accessed as follows:

1. Enter Website address: <https://portal.navfac.navy.mil>²
2. Click on "Environmental" (on left) under the "Business Lines" heading
3. Click on the "Environmental Restoration" tab

² Note: Some internet browsers do not include Department of Defense (DoD) digital security certificates, which may result in a security warning recommending the user not proceed. Though there is no harm in proceeding, to avoid such security alerts, first download the DoD Root CA Certificates by following the instructions at the following web site: <http://dodpki.c3pki.chamb.disa.mil/rootca.html>.

4. Select North Carolina on the interactive map
5. Select Cherry Point from the drop-down menu
6. Click on the “Administrative Records” tab

If a computer and internet access is not available from home, access to the MCAS Cherry Point ERP Public Website may be obtained from the following location:

Havelock-Craven County Library
301 Cunningham Boulevard
Havelock, North Carolina 28352
Phone 252-447-7509.

For additional information on the ERP, contact:

Public Affairs Office
NAVFAC Atlantic
6506 Hampton Blvd.
Norfolk, VA 23508-1278
757-322-8005

In accordance with Sections 113 and 117 of CERCLA, the Navy and MCAS Cherry Point provided a public comment period from April 6 through May 21, 2010 for the NFA determination in the Proposed Plan at Sites 14, 15, 17, 18, and 40. A public meeting was held on April 20, 2010 at the Havelock Tourist Center, Havelock, North Carolina. Public notice of the meeting and availability of the documents was placed in the *Havelock News* on March 31, 2010, the *Windsock* on April 1, 2010, the *Carteret County News-Times* on April 4, 2010, and the *Sun Journal Newspaper* on April 4, 2010.

2.8 Documentation of Significant Changes

It was determined that no significant changes to the NFA determination as identified in the PP were necessary or appropriate.

3 Responsiveness Summary

No written comments, concerns, or questions were received by the Navy, USEPA, or NCDENR during the public comment period. Navy, USEPA, and NCDENR representatives were available to present the PP for Sites 14, 15, 17, 18, and 40 during the April 20, 2010 public meeting and answer questions regarding the PP as well as any other documents in the information repository. The transcript from the public meeting is provided in Appendix A.



4.1 Acronyms

amsl	above mean sea level
AR	Administrative Record
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
COC	constituent of concern
COPC	constituent of potential concern
CSM	conceptual site model
CTE	central tendency exposure
cVOC	chlorinated volatile organic compound
CWA	Clean Water Act
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethene
DDT	dichlorodiphenyltrichloroethane
DRMO	Defense Reutilization and Marketing Office
EAD	Environmental Affairs Department
ERA	Ecological Risk Assessment
ERP	Environmental Restoration Program
ESV	ecological screening value
FFA	Federal Facilities Agreement
FRCE	Fleet Readiness Center East
ft/day	feet per day
ft/ft	feet per foot
HI	hazard index
HQ	hazard quotient
IAS	Initial Assessment Study
IWTP	Industrial Wastewater Treatment Plan
JP-5	jet propellant grade 5

µg/kg	micrograms per kilogram
µg/L	micrograms per liter
MCAS	Marine Corps Air Station
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
NACIP	Navy Assessment and Control of Installation Pollutants
NADEP	Naval Aviation Depot
NAVFAC	Naval Facilities Engineering Command
Navy	Department of the Navy
NC SSL	North Carolina Soil Screening Level
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
NCGWQS	North Carolina Groundwater Quality Standards
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFA	No Further Action
NPL	National Priorities List
OU	operable unit
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
PP	Proposed Plan
PRG	preliminary remediation goal
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facilities Assessment
RFI	RCRA Facilities Investigation
RI	Remedial Investigation
RME	reasonable maximum exposure
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act of 1986
SERA	Screening-level Ecological Risk Assessment
SMP	Site Management Plan
SSL	soil screening level
SVOC	semivolatile organic compound
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound

4.2 References

Reference Number	Reference Phrase in ROD	Location in ROD	Identification of Referenced Document Available in the Administrative Record
1	Federal Facilities Agreement (FFA)	Section 1.2	Naval Facilities Engineering Command (NAVFAC). 2005. <i>Federal Facility Agreement for Marine Corps Air Station Cherry Point, North Carolina</i> . USEPA Administrative Docket Number CERCLA-04-2005-3766.
2	Resource Conservation and Recovery Act (RCRA) Facilities Assessment (RFA)	Section 2.1	A.T. Kearney, Inc. 1988. <i>Interim RCRA Facility Report</i> . US Marine Corps Air Station Cherry Point, North Carolina 28533. June.
3	OU1 Remedial Investigation (RI)	Section 2.1	TetraTech NUS Inc. (TetraTech). 2002. <i>Final Remedial Investigation Report for Operable Unit 1 (OU1)</i> . Marine Corps Air Station, Cherry Point, North Carolina. November.
4	OU1 RI Addendum	Section 2.1	CH2M HILL. 2009. <i>Final OU1 Remedial Investigation Addendum</i> . Marine Corps Air Station Cherry Point, Cherry Point, North Carolina. April.
5	Initial Assessment Study (IAS)	Section 2.2	Water and Air Research, Inc. 1983. <i>Initial Assessment Study of Marine Corps Air Station Cherry Point, North Carolina</i> , Prepared for Naval Energy and Environmental Support Activity (NEESA). March.
6	Site Management Plan (SMP)	Section 2.2	CH2M HILL. 2009. <i>Site Management Plan, Fiscal Year 2010</i> . Marine Corps Air Station, Cherry Point, North Carolina. August
7	RCRA Facility Investigation (RFI)	Section 2.3	Halliburton NUS. 1993. <i>Final RCRA Facilities Investigation, 21 Units, Marine Corps Air Station Cherry Point, North Carolina</i> . June. NUS. 1991. <i>Draft Final RCRA Facility Investigation Report: Units 5, 10, 16, and 17, Marine Corps Air Station Cherry Point, North Carolina</i> . May
8	2008 Site 17 Supplemental Investigation	Section 2.3	CH2M HILL. 2009. <i>Final Supplemental Investigation, Operable Unit 1, Site 17</i> . Marine Corps Air Station, Cherry Point, North Carolina. September
9	Screening-level Ecological Risk Assessment	Section 2.6	TetraTech. 2002. <i>Final Remedial Investigation Report for Operable Unit 1 (OU1)</i> . Marine Corps Air Station, Cherry Point, North Carolina. November. Section 7, pages 7-1 through 7-58.
10	North Carolina Groundwater Quality Standards (NCGWQS)	Section 2.4.2	North Carolina Groundwater Quality Standard – North Carolina Administrative Code (NCAC). <i>Classifications of Water Quality Standards Applicable to the Groundwaters of NC</i> . NC Administrative Code 15A NCAC 02L.0100, .200, and .0300.

Reference Number	Reference Phrase in ROD	Location in ROD	Identification of Referenced Document Available in the Administrative Record
11	Step 3A Addendum to the OU1 Ecological Risk Assessment	Section 2.6	CH2M HILL. 2003. <i>Step 3a Addendum to the Ecological Risk Assessment, Operable Unit 1, MCAS Cherry Point</i> . March.
12	Closeout Report, PCB-Contaminated Soils Removal	Table 2	IT Corporation. 1996. <i>Final Closeout Report, PCB Contaminated Soils Removal, Sites 5 and 17, Marine Corps Air Station, Cherry Point, North Carolina</i> . February.
13	Background Data	Section 2.4.2	Tetra Tech NUS, Inc. 1999. <i>Background Evaluation Report for Marine Corps Air Station Cherry Point, North Carolina</i> . October.
14	Remedial Investigation Interim Report	Table 2	NUS Corporation. 1988. <i>Remedial Investigation Interim Report, Department of the Navy, Installation Restoration Program, Marine Corps Air Station, Cherry Point, North Carolina</i> . October.

Appendix A
Proposed Plan Public Meeting Transcript

PUBLIC MEETING

PROPOSED PLAN FOR OPERABLE UNIT 1 (OUI)
SITES 14, 15, 17, 18, AND 40
MCAS CHERRY POINT, NORTH CAROLINA

APRIL 20, 2010

HAVELOCK TOURIST AND EVENT CENTER
201 TOURIST CENTER DRIVE
HAVELOCK, NORTH CAROLINA 28532

* * * * *
MEETING MODERATOR - MR. JEFFREY CHRISTOPHER
MCAS CHERRY POINT

PRESENTER - MS. ERICA DeLATTRE, P.E.
RHEA ENGINEERS & CONSULTANTS, INC.
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LIST OF ATTENDEES

PUBLIC MEETING

MCAS CHERRY POINT RESTORATION ADVISORY BOARD

APRIL 20, 2010

JEFFREY CHRISTOPHER, MCAS CHERRY POINT
WILLIAM POTTER, MCAS CHERRY POINT
ERICA DeLATTRE, RHEA ENGINEERS & CONSULTANTS, INC.
GENA TOWNSEND, US EPA
JIM BERRY, ORIENTAL RAB
DAVE WICKERSHAM, PUBLIC
KIRK STEVENS, NAVFAC
JASON WILLIAMS, NAVFAC
RACHEL METHVIN, NAVFAC
GEORGE LANE, NC DENR
NEIL SCARBOROUGH, RAB
PAT McCLELLAN-GREEN, RAB
DOUG BITTERMAN, CH2M HILL
BILL HANNAH, CH2M HILL

1 COURT REPORTER NOTE: The public meeting portion
2 of the MCAS Restoration Advisory Board (RAB) meeting convened
3 at 6:08 p.m., in the Conference Room at the Havelock Tourist
4 and Event Center, Havelock, North Carolina.

5 MR. JEFFREY CHRISTOPHER: I would like to thank
6 everybody for coming to have the Public Meeting for the
7 Proposed Plan for Operable Unit 1, five sites, Sites 14, 15,
8 17, 18 and 40 at the Marine Corps Air Station at Cherry
9 Point. What I'd like to do is, first of all, introduce the
10 Presenter, Erica DeLattre from Rhea Engineers. They are the
11 primary contractor for these sites. These sites have been
12 under investigation for several years. This are sites that
13 the Navy proposes for No Further Action. And I would like to
14 introduce the Navy's, if I can find it -- the Navy's
15 counterpart, Jason Williams, and the Marine Corps' is Will
16 Potter. We have the EPA, Gena Townsend, and the State of
17 North Carolina, George Lane, along with CH2M HILL, who
18 comprise the Tier 1 Partnering Team who leads the
19 investigation for these sites at the Operable Unit 1. All
20 right, Erica? Erica will give the presentation. If you have
21 any questions, we ask that you state your name first for the
22 record. We do have this transcript so everything is written
23 down. And this transcript will be in the ROD as an appendix.
24 Erica?

25 MS. DeLATTRE: Okay. Doug's handing out the

1 presentation slides, and like Jeff just said, this is just a
2 presentation on the Proposed Plan for Operable Unit 1, of
3 course, at Cherry Point, for these five sites; 14, 15, 17,
4 18 and 40. The purpose of this meeting is to present the
5 proposed actions for these sites and to solicit public
6 comments and questions during the 45-day comment period which
7 ends May 21. The Proposed Plan, I brought copies of it and I
8 think they were just handed out. If you want an extra copy,
9 we obviously have a lot, so please take it. And that was
10 published or put out there on April 6, so that's when the 45-
11 day comment period started. This meeting's format is rather
12 casual, so feel free to interrupt me, ask questions during
13 the time. If I say an acronym and you don't know what it is,
14 let me know, raise your hand. It's -- when you work in these
15 -- you know, in the Navy in this format you start rattling
16 off these acronyms, so I don't want to get anyone lost. But
17 we do -- the stenographer does ask that you clearly state
18 your name and possible spelling of it when you ask a
19 question, because she'll end up with that being part of the
20 record. This is just a map of the eastern part of North
21 Carolina showing where Cherry Point is, and I assume the
22 public and everyone here knows where it is. But we're right
23 there along 70 across the street from it basically. This is
24 a little closer view of where Operable Unit 1 is, and then
25 the five sites within Operable Unit 1. OUI is basically the

1 more industrialized portion of Cherry Point. It includes
2 what is now called FRC East, which is formerly known as
3 NADEP. If you ever read any documents and you see the word
4 "NADEP," which is Naval Aviation Depot, and they used to --
5 not used to -- they do work on the aircraft, the helicopters,
6 the parts and all those -- and those type of things. So
7 that's why it's in that industrialized area, but it does
8 extend all the way down the east branch of Slocum Creek.
9 It's -- that red rectangle there is Operable Unit 1. Like I
10 said, we're addressing sites 14, 15, 17, 18 and 40. You can
11 see we have them highlighted here sort of in pink there
12 (indicates), and within Operable Unit 1, Site 14 sits up here
13 kind of by itself, and the rest of these run along here
14 (indicates) and eventually drain into Slocum Creek. This is
15 being -- the reason we're here has to do with CERCLA, the
16 Comprehensive Environmental Response Compensation and
17 Liability Act. That Congressional Act allows a Federal
18 authority to respond directly to releases, or threatened
19 releases, of hazardous substances that may endanger the
20 public health or the environment. They prescribe the process
21 of how to work through these sites that may have these
22 hazardous components. And this is -- are the steps in the
23 CERCLA process. The first being an assessment to -- kind of
24 declaring "a site" through a site investigation which may
25 require like historical documentation, sampling, things like

1 that that create the site, or that identify the site, I
2 should say. Then a Remedial Investigation is done, along
3 with the Feasibility Study, which examines what the nature
4 and the extent of the release may be, and what your risks are
5 associated with that site, and what remedies may work for
6 that site and evaluating those remedies. We are in the
7 Proposed Plan Section, or Proposed Plan Step of the CERCLA
8 process. And this is where we take the Feasibility Study and
9 then put it into a Proposed Plan, but it presents all those
10 various aspects of a Feasibility Study and then it solicits
11 public comments on the Proposed Plan for what we plan to go
12 forward. Once the document, the Remedial Action is agreed
13 upon, it goes into a ROD, a Record of Decision. And that
14 Record of Decision is the decision for the site. And then
15 the next step is either a remedial design or Remedial Action,
16 which is basically the remedy, implementing the remedy that
17 was proposed in the Record of Decision. We're right smack in
18 the middle of that process. All these sites, at one point or
19 another, and you'll see at what point, have a risk
20 assessment. And, basically, the risk assessment
21 characterizes the nature and magnitude of a health risk to
22 humans and the environment based on the chemical contaminants
23 or other stressors that might be present at the site. It's a
24 four step process. The contamination is analyzed, basically
25 what and how much is out there. And then, you have to make

1 the exposure, basically how much contact will a person have,
2 how will that happen or the environment -- you know, is it
3 ingestion, inhalation, how can it get into someone. And
4 then, the potential health dangers associated with that
5 chemical, so basically the toxicity of that chemical. And
6 then from all that, the risk is characterized and it's
7 either, you know, characterized as acceptable or
8 unacceptable. The Proposed Plan, this is basically just a
9 brief outline of it where this presentation is -- we're going
10 to follow the same format here -- so basically the site
11 description. This particular Proposed Plan, obviously, we
12 have five sites, so we're going to talk about each site,
13 background information. Each one of these sites has had
14 investigation, some summarized investigations, and then from
15 that investigation the nature and extent of contamination at
16 each site. And then, of course, again, the risk assessment
17 was done, so it's a summary of the site risks. And then, the
18 scope and a role of the response action, and community
19 participation, which as you guys are participating in right
20 now. And it also lists all the reference materials that are
21 in this particular Proposed Plan, which is pretty extensive,
22 and it references all of those, so that's there. And then a
23 glossary of terms are there -- it's at the end. Operable
24 Unit 1 is actually 12 sites, and they're all within that
25 rectangle you saw up there. The sites we're talking about

1 tonight, there's five of them: sites 14, 15, 17, 18, and
2 then there's site 40. It's not part of the 12 sites, but it
3 has historically been investigated and grouped with these
4 other sites because it's right there with all the other
5 sites. So, because it's been addressed in the past, we
6 grouped it in with these because it seemed appropriate,
7 mostly due to its location. So that red font there (points)
8 indicates what the Proposed Plan is addressing. These other
9 sites, later on I talk about when they'll be addressed, but
10 they will be addressed -- and they're addressed separately.
11 Site 14. So we're going to dive into the sites and go
12 through each one. This is our first site called the Motor
13 Transportation. It is up here, and that's sort of center
14 north part of this Operable Unit 1. It is an area that
15 buildings used to be used -- an area of buildings -- and they
16 were used for parking lots, wash racks and vehicle
17 maintenance primarily. Hazardous materials storage area was
18 located on the eastern edge of Site 14. Waste oil was
19 reportedly applied to the gravel parking lots, or the unpaved
20 parking lots from the '50s and '60s. There was 2,000 gallons
21 of aviation fuel that was spilled near Building 160 in 1977.
22 There was a removal action associated with that, and the
23 exact location of it wasn't exactly known, so -- hence why
24 it's even brought up. There's two underground storage tanks
25 that were formerly located within Site 14, but the

1 contamination associated with these tanks fall under what's
2 called the UST Program or the Underground Storage Tank
3 Program, which was also addressed at the Base as well. There
4 was the OUI Remedial Investigation (2002). You will hear
5 that over and over again in this presentation. It's -- that
6 RI or Remedial Investigation was done over OUI and so you
7 will see it referenced quite a bit. It stated that there was
8 lead in the sediment in the ground water samples. Again,
9 that was attributed to the USTs because it was typically what
10 you would associate with the UST and it was consistent with
11 that. There's also inorganic constituents (iron, mercury,
12 chromium, cadmium) in various -- at an isolated location
13 which is primarily a drainage swell that ran next to those
14 parking lots. And that is believed to be from storm water
15 runoff and is regulated under the Clean Water Act, which is
16 also something the Base monitors and regulates, or monitors
17 through that regulation. The chlorinated VOCs were also
18 identified in the ground water. They are from like a VOC
19 plume that's migrated from Building 137, or from the center
20 part of the Operable Unit 1, and it's being addressed as one
21 big plume called OUI Central Groundwater Plume and that's
22 currently being addressed right now. So that will be --
23 you'll see those in upcoming meetings and things like that.
24 The Risk Assessment associated with the 2002 Remedial
25 Investigation determined from the samples and from the

1 history of the site that there is no unacceptable risk to
2 human health from the soil exposure, no unacceptable risk for
3 ecological receptors, and the ground water human health risks
4 would be associated with that central ground water plume and
5 will be addressed with that. Site 15, which is located right
6 here in that green box (indicates), that's an area right
7 adjacent to basically this taxi way right here. It's a storm
8 water drainage area and ditch in the southeastern portion of
9 OUI. It discharges to Schoolhouse Branch, which is a
10 tributary to Slocum Creek. The background of Section 15,
11 wastes generated from NADEP, now FRCE, used interchangeable.
12 Those wastes were washed down floor drains and they
13 discharged to the ditch from the '40s to about the mid '70s.
14 These wastes include petroleum, oil, lubricants, organic
15 solvents, cyanide, metals. The discharges would have
16 continued until the IWTP storm sewers were all connected.
17 And the IWTP is Industrial Wastewater Treatment Plant, which
18 sits sort of across the street from NADEP there and that's
19 currently in operation, so all industrial wastes that go
20 there are treated. Previous investigations of the site in
21 1984, it was conducted as part of an overall investigation of
22 waste disposal sites at the Air Station, there was an RFI
23 done which is a RCRA Facility Investigation. RCRA is the
24 Resource Conservation and Recovery Act and that was done in
25 response to a RCRA Consent Order. The OUI Remedial

1. Investigation began, we keep seeing that pop up, they had 30
2 soil samples analyzed for metals and cyanide. Six surface
3 soil samples were analyzed for VOCs, Volatile Organic
4 Compounds, Semi-Volatile Organic Compounds, pesticides, PCBs,
5 metals and cyanide. The findings of that RI indicated that
6 any -- what happened was that any human health risks that was
7 associated with PCBs in the soils, when you looked at it
8 closer, they were related to Site 17, primarily due to their
9 location in Site 17. When the soils were originally
10 analyzed, they were grouped together; several sites had soils
11 grouped together. So then, when they would analyze them, the
12 risks would pop up and it would be attributed to both sites.
13 Go back and look at it closer and that soil came through Site
14 17. Yes?

15 MR. DAVE WICKERSHAM: Those waste oils that were
16 spread on 14, were those PCB containing oils or just motor
17 oils?

18 MS. DeLATTRE: I believe they were motor oils; I
19 don't know specifically, but if they had known that they had
20 dumped transformer oil there, there would have -- it would
21 have popped up. You would have seen it in the history,
22 because all of this is basically, you know, history from
23 interviews of people that have worked there. So, there's
24 obviously a lot of oil generated due to the flight line
25 operations. Yeah, for dust control as well, was the reason

1 obviously for putting it out on those gravel lots.

2 MR. CHRISTOPHER: Erica, I would like to say
3 something on the --

4 MS. DeLATTRE: Sure.

5 MR. CHRISTOPHER: Jeff, from Cherry Point. The
6 investigation way back then, the process would have
7 identified whether or not there were PCBs in oil, and if
8 there was, it would have tested at that time. That was a
9 RCRA investigation, so they would have tested for them.

10 MR. WICKERSHAM: Okay. Thank you.

11 MS. DeLATTRE: Uh-huh. No problem. They also found
12 benzopyrene, dieldrin, mercury, nickel, silver and chromium
13 above soil-to-groundwater screening in two soil samplings
14 from the Site 15 ditch. But, these constituents were not
15 found in the groundwater. So, they were in the soil but were
16 not found in the groundwater. There was a RI Addendum, or
17 Remedial Investigation Addendum done about a year ago, and
18 that, you'll see that come up again as well, but that
19 Addendum looked further into some of these sites and it found
20 no unacceptable human health risk at Site 15. It reran the
21 risk assessment there, and then in 2003, Step 3A Addendum,
22 which was the Ecological Risk Assessment done in 2003, they
23 found no unacceptable ecological risks. Moving on to Site
24 17, which is this little green sliver right there
25 (indicates). It's basically a 300-foot drainage ditch in the

1 southeastern portion of OUI. It discharges to Schoolhouse
2 Branch, as well, just like 15. It's about a one-acre area
3 adjacent to that ditch. Basically, it was used for storing
4 materials that included DDT, which is a pesticide, spent
5 photographic fluid, and PCB-containing transformers. It was
6 reported that the PCB-contaminated oil from the transformers
7 was dumped into the ditch or drained into the ditch from in
8 the '60s. And -- do you like dumped versus drained.

9 MS. PAT McCLELLAN-GREEN: I just find that
10 interesting.

11 MS. DeLATTRE: In 1995, they did a Removal Action on
12 Site 17, and they basically removed the sediment and soil
13 from the ditch to about a depth of 1.5 feet and backfilled
14 the area with clean fill. There's a report that shows that
15 the confirmation samples indicated that the PCB contaminated
16 soil was removed. Then a field investigation for the 2002 RI
17 was performed and PCBs were detected in the shallow and
18 subsurface soils. Dieldrin pesticide was detected in two
19 shallow soils and in groundwater samples, so it recommended
20 further sampling. A year ago, under what was a Supplemental
21 Investigation for Site 17, 16 temporary monitoring wells were
22 installed, and one permanent monitoring well. And in the
23 installation of those wells, soil and ground water samples
24 were collected. The results of that investigation showed
25 that all the PCBs were below the action level, that four

1 ground water samples from the temporary wells exceeded the
2 EPA maximum concentration contaminate level, but it didn't
3 really quite correspond with what was seen in the soil, in
4 historical soil samples. The permanent well showed no
5 detection of PCBs. Concerning dieldrin, four soil samples
6 exceeded the Soil Screening Level. Two ground water samples
7 from the temporary wells again, this is important, exceeded
8 the 2L Groundwater Standard, and the supplemental
9 investigation -- it concluded that the pesticides are
10 consistent with results from other sites at the base, and not
11 just Base -- but not just sites -- but Base-wide results that
12 we've seen from other soil samples. The pesticides have been
13 applied all over the Base for obvious reasons. And so,
14 there's a consistent level that you see and these were
15 consistent with that. The Supplemental Investigation which
16 had a human health risk assessment found that there was no
17 unacceptable health risks at this site, and the Step 3A
18 Addendum from that 2003 Ecological Risk Assessment found no
19 unacceptable ecological risks. Site 18, which is way down
20 here (points) is actually outside, I believe, of FRC East.
21 This is Roosevelt right here. So if you come in the main
22 gate, it's over here to your right. It's a half-acre fenced
23 storage area, so it's pretty tiny. Transformers that may
24 have contained PCBs were stored within a bermed concrete area
25 on the site. The transformers may have leaked PCB-

1 contaminated oils into the soils. There was one sample
2 collected in 1990 outside of the fence, which was part of the
3 Site 16 investigation, and it was a VOC sample and it had no
4 detection. As part of the 2002 Remedial Investigation, 19
5 surface and subsurface samples were collected from six boring
6 locations around the transformer pad and they were field
7 screened for PCBs. And six samples were selected for VOC,
8 SVOC, pesticide, PCB and inorganic analysis. The results of
9 that identified the limited exceedances for the SVOCs and the
10 inorganics. No SVOCs exceeded the industrial soil standards.
11 The inorganic soil concentrations were at levels consistent
12 with what we see in background -- again, we have background
13 samples at Cherry Point and they were consistent. And there
14 was no ground water contaminations that were identified. The
15 2002 RI took all that information and did a Risk Assessment.
16 There were no unacceptable human health risks and no
17 unacceptable ecological risks associated with that. Site 40,
18 it's like sort of our extra site here (indicates) which is
19 right beside Site 15, the southeastern portion of OU1 right
20 adjacent to runway 5. It is, again, the same note from
21 before, historically grouped with OU1 because of its
22 proximity to the other sites. This site was used to store
23 hazardous wastes, including organic solvents, strippers, more
24 solvents, corrosion prevention compounds, cyanide wastes, and
25 that was between '79 and '84. It was also used to store

1 sandblasting residues from '84 to '91. That 1991 RFI that I
2 mentioned before, the RCRA Facilities Investigation, again,
3 it had six -- this one happened to have six surface soil
4 samples for VOCs, and three were analyzed for SVOCs. It
5 actually had remediation performed at this site under RCRA
6 and which -- what they did was they excavated the soil. Some
7 of it they treated onsite like tilling it, basically,
8 aerating it, getting those VOCs to volatilize. Some of the
9 soils, I believe, they had metal contamination were removed
10 from the site. The soils that were treated onsite were put
11 back in as backfill to the site. And samples, of course,
12 were taken to confirm that that backfill was acceptable. The
13 final -- this is what I'm trying to explain this; the Final
14 RCRA Facilities Investigation showed that there was methylene
15 chloride detected in the soil samples above soil to ground
16 water screening criteria. But when the Remedial
17 Investigation Addendum was performed a year ago, they, in
18 looking at the tables, saw that something was up. So then,
19 they looked at the raw data and it was determined that that
20 methylene chloride that was detected was actually a
21 laboratory contaminate. And so they presented that finding
22 in the RI Addendum. But, that being said, in the OUI RI from
23 2002, there's no unacceptable human health risks or
24 unacceptable ecological risks associated with this site.
25 Kind of a punch line to all of this, is that the reason these

1 are grouped together, these five sites, is that we are
2 proposing no further action at these sites, meaning no
3 response action is necessary and there will be no
4 restrictions on land use there. This preferred remedy of no
5 further action, it meets the statutory requirements of CERCLA
6 in that it is protective of human health and protected by the
7 environment. The other OU1 Sites that were listed on that
8 list of 12 sites in the beginning, two of them, Sites 16 and
9 83, they're being addressed under a separate Feasibility
10 Study which is currently underway. The remainder of the OU1
11 Sites, 42, 47, 51, 52, 92 and 98 are being addressed
12 collectively as part of the OU1 Central Groundwater Plume,
13 and that's also being worked on currently. The reference
14 documents that are referenced through this presentation, and
15 there are more of them that are referenced in the actual
16 Proposed Plan, can be found at this website (points to
17 "<https://portal.navfac.navy.mil>"). The reason I have a
18 detailed description of how to get to these actual documents
19 is because if you want it, you have to click through this
20 website to get to them. I listed it on here so you can take
21 it home and reference the notes and get there yourself.
22 Again, the public comment period is from April 6 to May 21.
23 You can submit written questions. There is, in the Proposed
24 Plan, on the back sheet, there's a space for your comments or
25 questions and you can take that, fold it and the address is

1 already on there, and send it off and then we will address
2 those comments or questions. There's -- also, you can
3 download PRAP, Proposed Plan, is here for you to save time.
4 You can also print it and take a look at it from your
5 computer at that website that I had referenced up there
6 earlier, and there is computer access at the Havelock Craven
7 County Library. And any questions?

8 MS. PAT McCLELLAN-GREEN: So, you've gotten
9 everything down below North Carolina and EPA Standards?

10 MS. DeLATTRE: There's "no risk" is the answer.

11 MS. PAT McCLELLAN-GREEN: So, no, you haven't but you
12 don't think there's a risk?

13 MS. DeLATTRE: Well, yes, the Risk Assessment
14 determined that there was no unacceptable risk.

15 MS. PAT McCLELLAN-GREEN: And that's under current
16 land use, though?

17 MS. DeLATTRE: No, that's under any land use.

18 MS. PAT McCLELLAN-GREEN: Any land use; oh, okay.

19 MS. DeLATTRE: Yes.

20 MR. CHRISTOPHER: Okay. Well, if there are no
21 further questions, if you do come up with some questions over
22 the next, you know, what 30-more days, give or take?

23 MS. DeLATTRE: Uh-huh.

24 MR. CHRISTOPHER: Again, you can submit your comments
25 via the form that's along with the plan and all of the

1 comments will actually be addressed in the response to this
2 summary, I believe it's called, in the ROD.

3 MS. DeLATTRE: Yup.

4 MR. CHRISTOPHER: So, if there are no further
5 questions, we will adjourn this meeting. Thank you very
6 much.

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9 ***** THE PUBLIC MEETING CONCLUDED AT 6:45 P.M. *****

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**For access to the Administrative Record or
additional information on the IR Program, contact:**

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