UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

May 12, 2005

Judy Bullock, Esq.
North Carolina Special Deputy Attorney General
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27065

David S. Shepherd, Esq.
Office of Counsel
Naval Facilities Engineering Command Atlantic
6506 Hampton Blvd.
Norfolk, VA 23508-1278

SUBJECT: Finalization of Marine Corps Air Station Cherry Point Federal Facility Agreement (EPA Administrative Docket No. CERCLA-04-2005-3766), with Agreed Modification

Dear Ms. Bullock and Mr. Shepherd:

The U. S. Environmental Protection Agency (EPA) hereby provides notice to the Department of the Navy (Navy) and the North Carolina Department of Environment and Natural Resources (NCDENR) that the Marine Corps Air Station Cherry Point Federal Facility Agreement (FFA) has now become final. On February 9, 2005, a draft version of the FFA previously executed by the Navy, NCDENR, and EPA was made available during a 45-day period for public review and comment, and no public comments were received. However, one administrative modification to the executed draft for the purpose of correcting erroneous signature page language has been made by mutual agreement of the three FFA parties, for reasons set forth in my letter to Ms. Bullock dated January 6, 2005 (Attachment 1 hereto).

Notice of this administrative change was included within the Navy's public notice of availability of the executed draft FFA, and EPA and NCDENR have determined that no additional public notice is required. After incorporation of this change, the executed draft will constitute the final FFA. To finalize the version of the executed draft FFA each party already has in its possession:

(1) change the original signature page by striking out the second and third sentences of the paragraph directly below the heading "AUTHORIZED

SIGNATURES," as reflected in the attached duplicate signature page (Attachment 2 to this letter); and

(2) replace the draft FFA title page with a copy of the enclosed FFA title page (Attachment 3 to this letter) reflecting final EPA Administrative Docket No. CERCLA-04-2005-3766.

It is recommended that a copy of this letter and its attachments be maintained with each party's final FFA to preserve documentary support for the above signature page language modification.

As specified in FFA Section XXXV. PUBLIC COMMENT ON THIS AGREEMENT, Paragraph 35.3, the final FFA including the above-described modification is effective as of the date of this notification letter. In accordance with FFA Section VIII. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, Paragraph 8.2, this final FFA supercedes Marine Corps Air Station Cherry Point's RCRA Section 3008(h) Administrative Order on Consent (EPA Docket No. 89-13-R), which is terminated as of the final FFA's effective date.

EPA appreciates the persistence and cooperative attitude demonstrated by both the State and the Navy in working with us to reach a successful conclusion to the process of finalizing this FFA. Please do not hesitate to contact me at (404) 562-9584 about this matter.

Sincerely,

Lawrence H. Neville
Associate Regional Counsel

Attachments (3)

cc: Joyce Olin, Esq., Federal Facilities Enforcement Office
Gena Townsend, Federal Facilities Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

January 6, 2005

Ms. Judy Bullock
North Carolina Special Deputy Attorney General
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27065

SUBJ: Marine Corps Air Station Cherry Point Draft Federal Facility Agreement

Dear Ms. Bullock:

Enclosed are three original signature pages for the above-referenced Federal Facilities Agreement (FFA), all now executed by both the Navy and EPA. After their execution by the North Carolina Department of Environment and Natural Resources ("State"), please retain one original, send one to Navy counsel Dave Shepherd, and return the last to me.

As I mentioned during our telephone conversation earlier this week, I recently came upon an error on the signature page itself, though not in the main body of the FFA. The final two sentences of introductory text on this signature page erroneously state that, while the FFA is to be " ... binding upon EPA and the Navy," the State merely "intends to voluntarily comply" with its terms. Retention of these two sentences (unintentionally carried forward from an earlier draft signature page) could call into question the specific FFA provision negotiated several months ago to clarify all three parties' intent to be bound:

> This Agreement shall apply to and be binding upon the State, EPA, and the Navy. ... [Section III. PARTIES BOUND, Paragraph 3.1.]

To avoid such inconsistency, you and I agreed that a modification deleting these two erroneous signature page sentences should be made when this draft FFA is finalized and made effective, in accordance with FFA Section XXXV. PUBLIC COMMENT ON THIS AGREEMENT. Since our conversation on this matter, Mr. Shepherd has also told me that he concurs with making the above-stated signature page modification after the public comment period has been completed, when the parties may also be considering other modifications in light of comments received. To insure that the public is aware, during the upcoming public comment period, of the parties' intent to correct erroneous content in the draft FFA's signature page, Mr. Shepherd indicated that the Navy would supply copies of this letter or of another document

containing this information when it makes copies of the draft FFA available as they are requested for public review.

Please do not hesitate to contact me at (404) 562-9584 if further discussion of this matter would be helpful.

Sincerely,

Lawrence H. Neville
Associate Regional Counsel

Enclosures

cc: David S. Shepherd, Esq. (w/o enclosures)

AUTHORIZED SIGNATURES

Each of the undersigned representatives of the Parties certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement. This agreement shall apply to and be binding upon the EPA and the Navy. The ~~State intends to voluntarily comply with~~ the terms of this Agreement and is committed to full participation in the remediation efforts to be conducted pursuant to this Agreement.

IT IS SO AGREED:

By _____ Date 12/13/2004
Donald R. Schregardus
Deputy Assistant Secretary of the Navy
(Environment)

By _____ Date
Robin Smith
Assistant Secretary for Planning and Policy
North Carolina Department of Environment and Natural Resources

By _____ Date JAN - 3 2005
J. V. Palmer, Jr.
Regional Administrator
Environmental Protection Agency, Region 4

AUTHORIZED SIGNATURES

Each of the undersigned representatives of the Parties certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement. ~~This agreement shall apply to and be binding upon the EPA, and the Navy. The State intends to voluntarily comply with the terms of this Agreement and is committed to full participation in the remediation efforts to be conducted pursuant to this Agreement.~~

IT IS SO AGREED:

By _____ Date 12/13/2004
Donald R. Schregardus
Deputy Assistant Secretary of the Navy
(Environment)

By _____ Date 1/25/05
Robin Smith
Assistant Secretary for Planning and Policy
North Carolina Department of Environment and Natural Resources

By _____ Date
JAN - 3 2005
J. I. Palmer, Jr.
Regional Administrator
Environmental Protection Agency, Region 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 4

STATE OF NORTH CAROLINA

AND THE

UNITED STATES DEPARTMENT OF THE NAVY

IN THE MATTER OF:

U.S. Department of the Navy
Marine Corps Air Station
Cherry Point
North Carolina

FEDERAL FACILITY AGREEMENT
Under CERCLA Section 120
Administrative
Docket Number: CERCLA-04-2005-3766

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 4

STATE OF NORTH CAROLINA

AND THE

UNITED STATES DEPARTMENT OF THE NAVY

IN THE MATTER OF:

U.S. Department of the Navy **Marine Corps Air Station** **Cherry Point** **North Carolina**	**FEDERAL FACILITY AGREEMENT** **Under CERCLA Section 120** **Administrative** **Docket Number: CERCLA-04-2005-3766**

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Appendices

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 4

STATE OF NORTH CAROLINA

AND THE

UNITED STATES DEPARTMENT OF THE NAVY

IN THE MATTER OF:

U.S. Department of the Navy Marine Corps Air Station Cherry Point North Carolina	FEDERAL FACILITY AGREEMENT Under CERCLA Section 120 Administrative Docket Number: [EPA to provide]

Based on the information available to the Parties on the Effective Date of this Federal Facility Agreement (Agreement), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

I. JURISDICTION

1.1 Each Party is entering into this Agreement pursuant to the following authorities:

A. The U.S. Environmental Protection Agency (EPA) Region 4 enters into those portions of this Agreement that relate to the Remedial Investigation/Feasibility Study (RI/FS) pursuant to Section 120(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. No. 99-499 (hereinafter jointly referred to as CERCLA), 42 U.S.C. Section 9620(e)(1), and Sections 6001, 3008(h) and 3004(u) and (v) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v) as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) (hereinafter jointly referred to as RCRA), and Executive Order 12580;

B. EPA Region 4 enters into those portions of this Agreement that relate to interim remedial actions (IRAs) and final remedial actions (FRAs) pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), and Executive Order 12580;

C. The Navy enters into those portions of this Agreement that relate to the RI/FS pursuant to CERCLA Section 120(e)(1), 42 U.S.C. Section 9620(e)(1), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), Executive Order 12580, the National Environmental Policy Act, 42 U.S.C. Section 4321, and the Defense Environmental Restoration Program (DERP), 10 U.S.C. Section 2701 et. seq.;

D. The Navy enters into those portions of this Agreement that relate to IRAs and FRAs pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), RCRA Sections 6001, 3008(h), 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), Executive Order 12580, and the DERP.

E. The State of North Carolina through the North Carolina Department of Environment and Natural Resources (NCDENR) enters into this Agreement pursuant to CERCLA Sections 120(f) and 121(f), 42 U.S.C. Sections 9620(f) and 9621(f), Section 3006 of RCRA, 42 U.S.C. Sections 6926, its inherent governmental authority, Article XIV § 5 of the State Constitution, its Inactive Hazardous Sites Response Act, N.C.G.S. Section 130A-310, et seq., its Superfund Program statute, N.C.G.S. Section 130A-310.20, et seq., and its Solid Waste Management Act, N.C.G.S. Section 130A-290, et seq.

II. DEFINITIONS

2.1 Except as noted below or otherwise explicitly stated, the definitions provided in CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) shall control the meaning of terms used in this Agreement.

A. "Accelerated Operable Unit" or "AOU" shall mean a remedial action (RA) that prevents, controls, or responds to a release or threatened release of hazardous substances, pollutants, and contaminants where prompt action is necessary but a response under removal authorities is not appropriate or desirable. The purpose of an AOU is to allow the Parties to proceed with an RA for that Operable Unit (OU) prior to completion of the final Record of Decision (ROD) for the total RA. AOUs are particularly appropriate where the size and complexity of the total RA would seriously delay implementation of independent parts of the action. AOUs will only proceed after complying with applicable procedures in the NCP, and the Parties shall make every effort to expedite these procedures. It is not intended that AOUs diminish the requirements for or delay the conduct of a total RA.

B. "Agreement" shall refer to this document and shall include all Attachments and Appendices to this document. All such Attachments and Appendices are integral parts of this Agreement and shall be enforceable to the extent provided herein.

C. "Applicable State law" shall mean all State of North Carolina laws administered by the NCDENR determined to be applicable under this Agreement. The term shall also include all State laws determined to be Applicable or Relevant and Appropriate Requirements (ARARs).

D. "ARARs" shall mean "legally applicable" or "relevant and appropriate" requirements, standards, criteria, or limitations, as those terms are used in Section 121 of CERCLA, 42 U.S.C. Section 9621, and as defined in the NCP.

E. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. Section 9601 et seq., as amended by SARA, Public Law No. 99-499, and any amendments thereto.

F. "Community Involvement Program" shall mean the program to inform and involve the public in the installation restoration (IR), Superfund, and RCRA process and to respond to community concerns.

G. "Corrective Action Permit" shall mean the corrective action portion of any RCRA permit issued to Marine Corps Air Station Cherry Point pursuant to HSWA.

H. "Days" shall mean calendar days, unless business days are specified. Any submittal, written statement of position, or written statement of dispute which, under the terms of this Agreement, would be due on a Saturday, Sunday, or federal or State holiday shall be due on the following business day.

I. "Deadlines" shall mean the Near Term Milestones specifically established for the current fiscal year under the Site Management Plan (SMP). Deadlines are subject to stipulated penalties in accordance with Section XXI - STIPULATED PENALTIES.

J. "Deliverable Document" shall mean those required documents listed as Primary and Secondary Documents under this Agreement.

K. "Documents" or "records" shall mean any documents, writings, correspondence, and all other tangible things on which information has been stored that relate to this Agreement or to any activities to be undertaken relating to this Agreement.

L. "EPA" or "Agency" shall mean the United States Environmental Protection Agency, its employees, agents, authorized representatives, successors, and assigns.

M. "Facility" shall mean that property owned by the United States Department of the Navy and operated by the U. S. Marine Corps currently known as the Marine Corps Air Station Cherry Point located in the City of Havelock in the State of North Carolina and including all areas identified in Appendix A and Appendix B. This definition is for the purpose of describing a geographical area and not a governmental entity.

N. "Feasibility Study" shall have the same meaning as set forth in 40 CFR 300.5

O. “Fiscal year” or “FY” shall mean the time period used by the United States Government for budget management and commences on October 1 and ends September 30 of the following calendar year.

P. “Focused Feasibility Study” or “FFS” shall mean a comparison of alternatives that concentrates on a particular contaminated medium or a discrete portion of the Site that does not need added investigation in order to progress forward in the remedial process.

Q. “Guidance” shall mean any requirements or policy directives issued by the EPA or that may be issued by the NCDENR, which are of general application to environmental matters and are otherwise applicable to the Navy’s work under this Agreement.

R. “Interim Remedial Action (IRAs)” shall mean all discrete Remedial Actions (RAs), including, but not limited to, AOUs, implemented prior to a Final Remedial Action (FRA) that are taken to prevent or minimize the release of hazardous substances, pollutants, or contaminants.

S. “Land use control” or “LUC” shall mean any restriction or administrative action, including engineering and institutional controls, arising from the need to reduce risk to human health and the environment.

T. “Milestones” shall mean the dates established by the Parties in the SMP for the initiation or completion of Primary Actions and the submission of Primary Documents and Project End Dates. Milestones shall include Near Term Milestones, Out Year Milestones, Primary Actions, and Project End Dates.

U. “National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300, and any amendment thereto.

V. “Navy” shall mean the U. S. Department of the Navy, including the Naval Facility Engineering Command, Atlantic MCAS Cherry Point, their employees, members, successors and authorized representatives, and assigns. The Navy shall also include the United States Department of Defense (DoD) to the extent necessary to effectuate the terms of the Agreement, including, but not limited to, appropriations and Congressional reporting requirements.

W. “NCDENR” shall mean the State of North Carolina Department of Environment and Natural Resources and its authorized employees and authorized representatives.

X. “Near Term Milestones” shall mean the Milestones within the current FY, the next FY or “budget year” (FY+1), and the year for which the budget is being developed or “planning year” (FY+2). Deliverable dates for Near Term Milestones are summarized in Appendix B.

Y. “Onsite” shall have the meaning as defined in the NCP.

Z. "Operable Unit" or "OU" shall mean a discrete action that comprises an incremental step toward comprehensively remediating the Site. This discrete portion of a remedial response manages migration, or eliminates or mitigates a release, threat of release, or pathway of exposure related to the Site. OUs may address geographical portions of the Site, specific Site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of the Site. The cleanup of the Site can be divided into a number of OUs, depending on the complexity of the problems associated with the Site. The term "Operable Unit" is not intended to refer to the term "operating unit" as used in RCRA. All OUs shall be addressed in accordance with the NCP, EPA Guidance, and the requirements of CERCLA.

AA. "Out Year Milestones" shall mean the Milestones within those years occurring after the planning year until the completion of the cleanup or phase of the cleanup (FY+3 through Project End Date).

BB. "Parties" shall mean the Navy, the EPA, and the NCDENR.

CC. "Primary Actions" as used in this Agreement shall mean those specified major, discrete actions that the Parties identify as such in the SMP. The Parties should identify all major, discrete actions for which there is sufficient information to be confident that the date for taking such action is implementable.

DD. "Project End Dates" shall mean the dates established by the Parties in the Site Management Plan (SMP) for the completion of major portions of the cleanup or completion of the cleanup of the Facility. The Parties recognize that, in many cases, a higher degree of flexibility is appropriate with Project End Dates due to uncertainties associated with establishing such dates.

EE. "Project Manager" shall mean each person designated by the Parties to represent that Parties' interests and manage all response actions undertaken at the Site.

FF. "Public Stakeholder" shall mean members of the public including residents, environmentalists, community leaders, public officials, citizens' action groups, and any other interested party.

GG. "RCRA" shall mean the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., as amended by HSWA, Public Law No. 98-616, and any amendments thereto.

HH. "Record(s) of Decision" or "ROD(s)" shall be the public document(s) that select(s) and explain(s) which cleanup alternative(s) will be implemented at the Site, and include(s) the basis for the selection of such remedy(ies). The bases include, but are not limited to, information and technical analyses generated during the RI/FS and consideration of public comments and community concerns.

II. "Remedial Action" shall have the same meaning as set forth in 40 C.F.R. 300.5.

JJ. "Remedial Investigation" shall have the same meaning as set forth in 40 C.F.R. 300.5.

KK. "Schedule" shall mean a timetable or plan that indicates the time and sequence of events.

LL. "Site" shall include the Facility and any other areas where a hazardous substance, hazardous waste, hazardous constituent, pollutant, or contaminant from the Facility has been deposited, stored, disposed of, or placed, or has migrated or otherwise come to be located. The Site is a "facility" within the meaning of Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9). This definition is not intended to include hazardous substances or wastes intentionally transported from the Facility by motor vehicle.

MM. "Site Management Plan" or "SMP" shall mean a planning document, prepared specifically under Section XI—DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN, that contains a timetable, plan, or Schedule that indicates the time and sequence of events. The SMP will be used as a management tool in planning, reviewing, and setting priorities for all response activities at the Facility. Deadlines developed under the terms of this Agreement are listed in the SMP (Appendices A and B to this Agreement). Milestones developed under the terms of this Agreement are listed in the SMP (Appendices A and B to this Agreement), Near Term Milestones specifically established for the current fiscal year (Deadlines) listed in the SMP (Appendices A and B to this agreement) are subject to stipulated penalties.

NN. "Site-Screening Areas" or "SSAs" shall mean those geographical areas listed in Site Management Plan and any additional areas agreed to by the Parties in the future. SSAs may be either RCRA Solid Waste Management Units (SWMUs) or RCRA or CERCLA Areas of Concern (AOCs). When the Parties agree, SSAs may expand or contract in size as information becomes available indicating the extent of contamination and the geographical area needed to be studied.

OO. "Site-Screening Process" or "SSP" refers to the mechanism described in Subsection 9.3 for evaluating whether identified SSAs should proceed with an RI and FS. The SSP encompasses both the Facility's RCRA AOCs and SWMU areas and newly discovered CERCLA AOCs within the Facility. Site Management Plan lists those geographical areas and any additional areas agreed to by the Parties in the future that are being evaluated under the SSP.

PP. "Solid Waste Management Unit" or "SWMU," as defined pursuant to RCRA, shall mean any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid and/or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

QQ. "State" or “North Carolina” shall mean the State of North Carolina, including all departments, offices and agencies thereof, as represented by the Department of Environment and Natural Resources (NCDENR or DENR).

RR. “Target Dates” shall mean dates established for the completion and transmission of Secondary Documents. Target Dates are not subject to dispute resolution and they are not Milestones.

SS. “Transmit” shall mean the following: any document or notice to be transmitted by a certain date will be considered as transmitted on time if: (1) it is provided to the carrier on a next-day mail basis no later than the day before it is due to be delivered according to the requirements of this Agreement; (2) it is hand-delivered by the due date; or (3) it is sent by certified mail return receipt requested no later than 2 days before it is due to be delivered according to the requirements of this Agreement. Any other means of transmission, including by electronic means (email or FAX) must arrive on the due date to be considered as timely delivered. For purposes of determining whether a document or notice has been timely delivered under this Agreement, “transmit” shall include “submit,” “provide,” “deliver,” and other words indicating an obligation to communicate by a date certain.

TT. “Work” shall mean all activities the Navy is required to perform under this Agreement, except those required by Section XXXI—RECORD PRESERVATION.

III. PARTIES BOUND

3.1 This Agreement shall apply to and be binding upon the State, EPA, and the Navy. Under this Agreement, the State of North Carolina is acting pursuant to its power and duties under Sections 120(f) and 121(f) of CERCLA, 42 U.S.C. Sections 9620(f) and 9621(f).

3.2 The Navy shall notify the EPA and the State of the identity and assigned tasks of each of its contractors performing Work under this Agreement upon their selection. The Navy shall provide copies of this Agreement to all contractors performing any Work called for by this Agreement. Each Party shall be responsible for ensuring that its contractors comply with the terms and conditions of this Agreement.

3.3 This Section shall not be construed as an agreement to indemnify any person.

IV. PURPOSE

4.1 The general purposes of this Agreement are to:

A. Ensure that the environmental impacts associated with the past and present activities at the Site are thoroughly investigated and that the appropriate Remedial Action (RA) is taken as necessary to protect the public health, welfare, and the environment;

B. Establish a procedural framework and Schedule for developing, implementing, and monitoring appropriate response actions at the Site in accordance with CERCLA, as amended by SARA, the NCP, Superfund Guidance and policy, RCRA, and RCRA Guidance and policy; and

C. Facilitate cooperation, exchange of information, and participation of the Parties in such actions.

4.2 Specifically, the purposes of this Agreement are to:

A. Identify IRA and FRA alternatives that are appropriate at the Site. The IRA alternatives shall be identified and proposed to the Parties as early as possible prior to formal proposal of IRA(s) to the EPA and the NCDENR pursuant to CERCLA and applicable State of North Carolina law. This process is designed to promote cooperation among the Parties in identifying remedial alternatives for OUs prior to selection of FRAs.

B. Establish requirements for the performance of Remedial Investigations (RIs) to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release and threatened release of hazardous substances, pollutants, or contaminants at the Site and to establish requirements for the performance of Feasibility Studies (FSs) for the Site to identify, evaluate, and select alternatives for the appropriate RA(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants, or contaminants at the Site in accordance with CERCLA, the NCP, and applicable State of North Carolina law.

C. Identify the nature, objective, and Schedule of response actions to be taken at the Site. Response actions at the Site shall attain that degree of cleanup of hazardous substances, pollutants, or contaminants mandated by CERCLA, the NCP, and applicable State of North Carolina law.

D. Implement the selected Interim Remedial Actions (IRAs) and Final Remedial Actions (FRAs) at the Site in accordance with CERCLA, the NCP, and applicable State of North Carolina law and meet the requirements of CERCLA Section 120(e)(2) for an interagency agreement among the Parties.

E. Ensure compliance, through this Agreement, with RCRA and other federal and State of North Carolina hazardous waste laws and regulations for matters covered herein.

F. Coordinate response actions at the Site with the mission and support activities at MCAS Cherry Point.

G. Expedite the cleanup process to the extent consistent with protection of human health and the environment.

H. Provide, in accordance with CERCLA and the NCP, for State of North Carolina involvement in the initiation, development, selection, and enforcement of RAs to be undertaken at the Site, including the review of all applicable data as it becomes available, and the development of studies, reports, and action plans; and to identify and integrate State ARARs into the RA process.

I. Provide for operation and maintenance of any RA selected and implemented pursuant to this Agreement.

V. SCOPE OF AGREEMENT

5.1 This Agreement is entered into by the Parties to enable the Navy to meet the provisions of CERCLA, 42 U.S.C. Section 9601 et seq., and Sections 3004(u) and (v) and 3008(h) of the RCRA as amended, 42 U.S.C. Sections 6924(u) and (v) and 6928(h).

5.2 This Agreement is intended to cover the investigation, development, selection, and implementation of response actions for releases or threatened releases of hazardous substances, contaminants, hazardous wastes, hazardous constituents, or pollutants at or from the Site. This Agreement covers all phases of remediation for these releases, bringing together into one agreement the requirements for remediation as well as the system the Parties will use to determine and accomplish remediation, ensuring the necessary and proper level of participation by each Party. Although all such releases at the Site are not currently known, the Agreement establishes the system for dealing with those undiscovered releases. To accomplish remediation of those undiscovered releases, the Parties will establish Schedules and Deadlines as necessary and as information becomes available and, if required, amend this Agreement as needed.

5.3 This Agreement is intended to address and satisfy MCAS Cherry Point's RCRA corrective action obligations that relate to the release(s) of hazardous substances, hazardous wastes, hazardous constituents, pollutants, or contaminants at or from all areas addressed under future Corrective Action Permits. This Agreement is not intended to limit any requirements under RCRA or any other law or regulation to obtain permits, and is not intended to affect any permitted or regulated activities at the Facility not occurring in conjunction with CERCLA removal actions or RAs pursuant to this Agreement. This Agreement is not intended to encompass response to spills of hazardous substances from ongoing operations unless those spills occur in conjunction with CERCLA removal actions or RAs pursuant to this Agreement, or unless a spill either becomes a site under the Agreement as a new Site Screening Area in accordance with Section IX, paragraph 9.3, or is handled as a Removal under Section XVIII.

5.4 The scope of this Agreement extends to the entire Site. The Site cannot be removed from the National Priorities List (NPL) unless it is determined, in accordance with CERCLA/SARA, the NCP, and this Agreement, that the Navy has implemented all appropriate response actions and the Site no longer poses a threat to human health or the environment. All response actions at the Site shall occur in discrete locations termed SSAs, or OUs identified at the Site pursuant to this Agreement.

5.5 Any Response Action in progress on the Effective Date of this Agreement shall be subject to the obligations and procedures of this Agreement.

5.6 The Parties agree to expedite the initiation of response actions at the Site, including AOUs and Interim Response Actions, and to carry out all activities under this Agreement so as to protect the public health, welfare, and the environment. Upon request, the Parties agree to provide applicable Guidance or reasonable assistance in obtaining such Guidance relevant to the implementation of this Agreement.

VI. FINDINGS OF FACT

6.1 For purposes of this Agreement, the following constitutes a summary of the findings upon which this Agreement is based. Nothing contained in this Agreement shall constitute an admission of any liability by the Navy for any matters contained herein, nor shall anything in this Agreement constitute an admission by the Navy with respect to any finding of fact or any legal determination noted herein.

Overview

A. Marine Corps Air Station (MCAS), Cherry Point is a military installation located in southeastern Craven County, North Carolina. The Air Station covers approximately 11,485 acres, and the United States is the property owner. Its boundaries are the Neuse River to the North, Hancock Creek to the East, North Carolina Highway 101 to the south, and a boundary line approximately 3/4 mile west of Slocum Creek. The entire Facility is situated on a peninsula north of Core and Bogue Sounds and south of the Neuse River.

B. The mission of MCAS Cherry Point is to maintain and operate support facilities, services and material of the 2nd Marine Aircraft Wing, or units thereof, and other activities and units as designated by the Commandant of the U.S. Marine Corps, in coordination with the Chief of Naval Operations. Occupants at MCAS Cherry Point include the 2nd Marine Aircraft Wing (2nd MAW), the Naval Aviation Depot (NADEP), Combat Service Support Detachment 21 of the Second Force Service Support Group (2nd FSSG), the Naval Hospital, the Dental Clinic, the Naval Air Maintenance Group Detachment, and the Defense Reutilization and Marketing Office (DRMO). MCAS Cherry Point provides facilities for training and support of the Fleet Marine Force (FMF) Atlantic aviation units. It is also designated as a primary aviation supply point.

Activity History

C. MCAS Cherry Point was commissioned in 1942. Continuing construction in 1943 included the addition of a large aircraft assembly and repair shop, which later became NADEP. The United States acquired additional land during the 1950s and 1960s, which increased MCAS Cherry Point acreage to more than 11,000 acres. During the 1970s, intense commercial and residential development occurred around MCAS, particularly within the City of Havelock. In 1980, the City of Havelock annexed MCAS Cherry Point and became the largest city (by population) in Craven County. MCAS Cherry Point has engaged in industrial activities associated with a major airfield and aircraft maintenance and repair facility since its construction in 1942-1943. Because of concerns that industrial processes resulted in harmful releases, MCAS Cherry Point was evaluated by the Navy pursuant to Department of the Navy's Assessment and Control of Installation Pollutants Program (NACIP). This and subsequent investigations indicated that releases or threats of releases of hazardous substances had occurred at the Facility.

Regulatory and Investigation History

D. Investigations at MCAS Cherry Point are conducted under the Department of Defense Installation Restoration (IR) Program. This program was originally implemented through the NACIP Program in 1981. In 1984, the IR program was given a statutory basis through the Defense Environmental Restoration Program (DERP), codified at 10 U.S.C. §§ 2701-2709, 2810. The NACIP program was succeeded by the DERP. The Navy implements the DERP subject to and consistent with CERCLA as amended and the NCP. Funding to pay for such investigations is allocated for DoD sites under the Defense Environmental Restoration Account (DERA). In 1997, these funds were devolved into specific appropriations for each service. Thus, the appropriation for the Navy/Marine Corps IR program is now the annual Environmental Restoration, Navy (ER,N) appropriation.

E. The Initial Assessment Study (IAS) was performed at MCAS Cherry Point in 1983 to collect data and evaluate historical evidence indicating the presence of hazardous constituents that may have contaminated the facility or that pose an imminent health hazard on or off the facility. The IAS identified 14 suspect sites that required further investigation. The IAS was equivalent to, and has satisfied, CERCLA’s Preliminary Assessment (PA) requirement.

F. MCAS Cherry Point was included on the Federal Agency Hazardous Waste Compliance Docket on February 12, 1988.

G. Site Investigation (SI) and Remedial Investigation (RI) activities were performed at several of the sites during the mid-1980s to determine via sampling and analysis activities whether specific constituents identified in the IAS, and possibly other contaminants, exist in concentrations considered to be hazardous. SI activities constitute a limited data collection task to determine if contamination exists, whereas RI activities constitute somewhat larger tasks to determine the nature and extent of contamination.

H. The Resource Conservation and Recovery Act of 1976 (RCRA) established a national strategy for the management of ongoing solid and hazardous waste operations at active sites. The Hazardous and Solid Waste Amendments (HSWA) of RCRA were enacted in 1984 and broadened the scope of RCRA including requiring corrective action permit conditions for releases of hazardous wastes and hazardous constituents into the environment. EPA may delegate the RCRA regulatory program to the various states. North Carolina received delegated program authority for base RCRA on December 21, 1984, received interim Corrective Action authority on June 1, 1993, and received final delegated HSWA authority on 9 January 1995. MCAS Cherry Point engages in the generation, treatment, storage and disposal of hazardous wastes which requires the facility to obtain a RCRA permit. MCAS Cherry Point achieved interim status in November, 1980, and received a RCRA permit from EPA on September 30, 1992. The Installation received a RCRA permit from North Carolina on September 30, 1992; which permit became effective on October 30, 1992. The Installation's RCRA permit was amended and reissued by North Carolina with an effective date of December 20, 1994.

I. EPA performed a RCRA Facility Assessment (RFA) at Cherry Point in 1988. The RFA identified 114 Solid Waste Management Units (SWMUs) and 2 other areas of concern (AOCs), some of which were sites that were already being investigated under the IR Program.

J. The Navy entered into a RCRA Administrative Order on Consent with EPA on December 4, 1989, Docket No. 89-13-R, to perform a RCRA Facility Investigation (RFI) at 32 of the 114 identified SWMUs. The list included all of the sites that were previously being investigated as CERCLA sites under the IR Program. In addition, the Administrative Order on Consent designated EPA as the lead regulatory agency for MCAS Cherry Point. The State has been administering the consent order since EPA's delegation of RCRA authority.

K. MCAS Cherry Point was scored and ranked by the USEPA for inclusion on the National Priorities List (NPL) as a CERCLA Superfund site. MCAS Cherry Point's HR Score was 70.71 and the facility was formally included as a National Priorities List site on December 16, 1994.

L. MCAS Cherry Point has a Site Management Plan (SMP) that addresses all of the 32 SWMUs identified in the Administrative Order of Consent along with any new sites that are being investigated at MCAS Cherry Point. The sites have been combined into 14 Operable Units (OU-1 through OU-11, and OU-13 through OU-15) by the Navy. Newly discovered sites including both PA/SI Sites and SWMUs are also identified in the Site Management Plan. Operable Unit 12 (Site 41-Fuel Line Leak Site) has been deferred to the State of North Carolina Underground Storage Tank Program.

M. A current listing of operable units and site descriptions is contained in the Site Management Plan, attached to this Agreement as Appendices A and B.

VII. EPA DETERMINATIONS

7.1 The following constitutes a summary of the determinations relied upon by the EPA to establish its jurisdiction and authority to enter into this Agreement. None of these determinations shall be considered admissions to any person, related or unrelated to this Agreement, for purposes other than determining the basis of this Agreement or establishing the jurisdiction and authority of the Parties to enter into this Agreement.

A. The United States Department of the Navy is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. Section 9601(21).

B. The MCAS Cherry Point is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9), and 10 U.S.C. Section 2701 et seq., and is subject to the DERP.

C. The United States is the owner and operator of MCAS Cherry Point as defined in Sections 101(20) and 107(a)(1) of CERCLA, 42 U.S.C. Sections 9601(20) and 9607(a)(1). The Navy through the Marine Corps is the DoD component charged with fulfilling the obligations of the owner/operator under CERCLA at MCAS Cherry Point.

D. There has been a release or a substantial threat of a release of hazardous substances, pollutants, contaminants, hazardous wastes, or constituents at or from the Facility.

E. The actions provided for in this Agreement are not inconsistent with the NCP.

F. The actions provided for in this Agreement are necessary to protect the public health or welfare or the environment.

G. This Agreement provides for the expeditious completion of all necessary response actions.

VIII. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION

8.1 The Parties intend to integrate the Navy's CERCLA response obligations and RCRA corrective action obligations, which relate to the release(s) of hazardous substances, hazardous wastes, pollutants or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the Parties intend that activities covered by this Agreement will achieve compliance with CERCLA, 42 U.S.C. Section 9601 et seq.; satisfy the corrective action requirements of RCRA Sections 3004(u) and (v), 42 U.S.C. Sections 6924(u) and (v), for a RCRA Permit, and RCRA Section 3008(h), 42 U.S.C. Section 6928(h), for interim status facilities; and meet or exceed ARARs, to the extent required by CERCLA Section 121, 42 U.S.C. Section 9621.

8.2 MCAS Cherry Point is currently under a RCRA 3008(h) Administrative Order on Consent (hereinafter Order), Docket No. 89-13-R, which the Navy entered with EPA in 1989.

Section XXII of the Order provides that it may be terminated "at any time upon mutual agreement of both parties." EPA, the Navy, and NCDENR intend for this Agreement to supercede the Order, and, by executing this agreement, EPA, the Navy, and NCDENR intend to express their mutual agreement to terminate it once this Agreement has become effective. Accordingly, the Order will terminate as of the effective date of this Agreement. The Parties further agree the Navy's CERCLA response obligations under this Agreement incorporate and supersede all previous RCRA corrective action obligations applicable to Cherry Point sites listed as covered by this Agreement (see Appendices A and B, Site Management Plan). The Parties intend that RCRA Corrective Action activities satisfactorily accomplished not be duplicated. Accordingly, to the extent that such activities satisfy the requirements of this Agreement, they shall be deemed Work performed under this Agreement.

8.3 Based upon the foregoing, the Parties intend that any remedial action selected, implemented and completed under this Agreement will be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA (i.e., no further corrective action shall be required). The Parties agree that, with respect to releases of hazardous waste covered by this Agreement that are associated with the NPL portions of the Site, RCRA shall be considered an applicable or relevant and appropriate requirement pursuant to CERCLA Section 121, 42 U.S.C. Section 9621. Releases or other hazardous waste activities not covered by this Agreement remain subject to all applicable State and Federal environmental requirements.

8.4 The Parties recognize that the requirement to obtain permits for response actions undertaken pursuant to this Agreement shall be as provided for in CERCLA and the NCP. The Parties further recognize that ongoing hazardous waste management activities at MCAS Cherry Point may require the issuance of permits under Federal and State laws. This Agreement does not affect the requirements, if any, to obtain such permits. However, if a permit is issued to the Navy for on-going hazardous waste management activities at the Site, EPA and/or the NCDENR shall reference and incorporate any appropriate provisions, including appropriate Schedules (and the provisions for extension of such Schedules), of this Agreement into such permit. With respect to those portions of this Agreement incorporated by reference into permits, the Parties intend that judicial review of the incorporated portions shall, to the extent authorized by law, only be reviewed under the provisions of CERCLA.

8.5 Nothing in this Agreement shall alter the Navy's authority with respect to removal actions conducted pursuant to CERCLA Section 104, 42 U.S.C. Section 9604.

IX. WORK TO BE PERFORMED

9.1 A. The Parties recognize that background information exists and must be reviewed prior to developing the Work Plans required by this Agreement. The Navy need not halt currently ongoing Work but may be obligated to modify or supplement Work previously done to meet the requirements of this Agreement. It is the intent of the Parties to this Agreement that

Work done and data generated prior to the Effective Date of this Agreement be retained and utilized as elements of any applicable RI/FS to the maximum extent feasible.

B. Any Party may propose that a portion of the Site be designated as a distinct Operable Unit. If all Parties agree, it is not necessary to complete the SSP prior to designating an Operable Unit. This proposal must be in writing to the other Parties, and must stipulate the reasons for such a proposal. The proposal shall be discussed by all Project Managers within forty-five (45) Days after receipt of the written notice. Dispute Resolution may be invoked if the Parties are not in agreement on the proposal of a specific Operable Unit. If Dispute Resolution is not invoked by the Parties within thirty (30) Days after the Project Managers' discussion concerning the proposal or if the need for an Operable Unit is established through Dispute Resolution, the portion of the Site proposed shall be an Operable Unit as that term is defined in Section II - DEFINITIONS, of this Agreement.

C. Any Party may propose that an established Operable Unit be modified. The proposal must be in writing to the other Parties, and must state the reasons for the modification. Dispute Resolution may be invoked if the Parties are not in agreement on the proposal of modifying a specific Operable Unit. If Dispute Resolution is not invoked within thirty (30) Days after the receipt of such a proposal by the Parties or if the need for modifying an Operable Unit is established through Dispute Resolution, the Operable Unit, as defined in Section II - DEFINITIONS, shall be modified.

D. The Navy shall develop, implement, and report upon the Site-Screening Areas (SSAs) as defined herein, and listed in the Site Management Plan to this Agreement, in order to satisfy its obligations under RCRA-CERCLA integration. The Site-Screening Process (SSP), outlined in Subsection 9.3 of this Agreement, is intended to provide a simplified investigative method whereby identified RCRA units and CERCLA areas of concern can be evaluated to determine whether Remedial Investigations are required for these areas. Additional SSP investigations may be initiated at areas later identified by the Parties. The SSP investigation(s) shall be conducted in accordance with an SSP Work Plan as agreed to by the Parties.

E. SSP Reports(s) shall be subject to the review and comment procedures described in Section X - CONSULTATION. The SSP investigation(s) shall be conducted in accordance with the requirements set forth in Subsection 9.3, and the Deadlines established therein and set forth in Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN.

Remedial Investigations and Feasibility Studies for Previously Identified Sites

9.2 A. The Navy is conducting remedial investigations and feasibility studies (RI and FS) for the sites listed below:

Sites 1 and 2 (Operable Unit 5)
Site 4 (Operable Unit 4)
Site 12 (Operable Unit 6)
Sites 14, 15, 16, 18, 42, 47, 51, 52, 83, 92, and 98 (Operable Unit 1)

Sites 19, 21 and 44B (Operable Unit 13)
Site 90 (Operable Unit 14)

B. In the Site Management Plan, the Navy shall include a Deadline for submittal of the RI Work Plan for those sites referenced in 9.2 A. above. The RI Work Plan shall contain a proposed Deadline for the submittal of the RI Report and the FS Report(s). The Schedule and Deadlines included in the Final RI Report shall be incorporated into the Site Management Plan in accordance with Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement. The development of the FS(s) will proceed in accordance with Subsection 9.5 of this Agreement.

C. For those sites determined by the Parties not to be included in a Phase 2 RI, the Navy shall include a Deadline in the Site Management Plan for submittal of the FS Report for each of these Operable Units. These Deadlines will be finalized in accordance with Sections XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN and XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN of this Agreement.

D. For those sites, which the Parties determine, represent a negligible or minimal impact and are strong candidates for no action (with or without periodic monitoring), the Navy shall include a Schedule in the Site Management Plan for submittal of a supplemental Site Investigation report and any limited sampling that may be recommended to support it. If the Parties determine that no further action is required, a no-action Decision Document will then be prepared. This Schedule will be finalized in accordance with Section XII - BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN of this Agreement.

Site-Screening Areas

9.3 A. Determination of Site-Screening Areas: When a Party to this Agreement determines that an area on the Site that has not previously been identified as an area that may pose a threat, or potential threat, to public health, welfare, or the environment, does pose such a threat, or potential threat, such Party shall notify in writing the other Parties of such determination. Notification of the other Parties under this Subsection shall at a minimum include the location of such area on the Site and the reason(s) the Party believes such an area poses a threat, or potential threat, to public health, welfare, or the environment. The Parties shall have 45 Days after the date of receipt of notification to discuss the proposal and to agree whether such area shall be addressed under this Agreement as an SSA. If an agreement on whether to address such an area under the Agreement cannot be reached within 45 Days after the date of receipt of notification, any Party can initiate the dispute resolution process pursuant to Subsection 20.4 of this Agreement. If dispute resolution is not invoked within 45 days after the date of receipt of notification or if an SSA is established through the dispute resolution process, the proposed SSA will be addressed as an SSA in accordance with this Section.

B. Any area at the Site that is established as an SSA pursuant to the procedures described in this Subsection after the Effective Date of this Agreement shall be added to the list of SSAs found in The Site Management Plan as an additional SSA to be investigated and

possibly remediated pursuant to the requirements of this Agreement. For any SSAs established pursuant to this Subsection after the Effective Date of this Agreement, the Navy shall, in the next draft Amended SMP, propose Deadlines for the submittal of an SSP Work Plan(s). This Deadline(s) shall be approved in accordance with Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN and adopted in the SMP.

C. The Site Management Plan contains a list of SSAs that the Parties agree may pose a threat, or potential threat, to human health and the environment (prior iterations of this list may have referred to such areas as Points of Environmental Interest (POEIs)). The Navy shall submit an SSP Work Plan to the EPA and the NCDENR that shall outline the activities necessary to determine if there have been releases of hazardous substances, pollutants, contaminants, hazardous wastes, or hazardous constituents to the environment from the SSAs. The scope of the SSPs shall be determined by the Parties. The SSP Work Plan(s) shall include a proposed Deadline for the submittal of an SSP Report(s). The Schedule and Deadlines included in the final SSP Work Plan will be incorporated into the SMP in accordance with Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement.

1. In planning SSPs, the Navy shall consider current CERCLA and RCRA Guidance to determine if there have been releases of hazardous substances, pollutants, contaminants, hazardous wastes, or hazardous constituents to the environment from the SSAs. Upon conclusion of an SSP, the Navy shall submit to the EPA and the NCDENR a draft SSP Report that shall provide the basis for a determination that either: (1) an RI/FS will be performed on the area addressed by the SSP or, (2) the area does not pose a threat, or potential threat to public health, welfare, or the environment, and therefore the area should be removed from further study under this Agreement.

2. Unless otherwise agreed to by the Parties within 60 Days after receipt by the Parties of the final SSP Report(s), the Parties shall determine which (if any) of the SSAs listed in the Site Management Plan or established pursuant to Subsection 9.3 will require an RI/FS.

3. For those SSAs that the Parties agree do not warrant an RI/FS, the Navy shall prepare, with EPA and NCDENR assistance, a brief decision document reflecting that agreement. This agreement must be signed by all the Project Managers.

4. The Parties may designate OUs for those SSAs that are to proceed with an RI/FS. If the Parties cannot agree on the determination of whether an SSA(s) shall proceed to an RI/FS, dispute resolution may be invoked in accordance with Section XX - DISPUTE RESOLUTION. If an RI/FS is required, the Navy shall, within the next draft Amended SMP, propose to the EPA and the NCDENR a Deadline for the submission of the RI/FS Work Plan for each OU. The Schedule and Deadlines included in the final RI/FS Work Plan(s) will be incorporated into

the next update of the SMP and will be the enforceable Schedule for the submittal of the draft RI/FS.

D. Preliminary Screening Areas: Certain areas at the Site have been listed as Preliminary Screening Areas (PSAs) in the Site Management Plan, Appendices A and B to this Agreement (prior iterations of this list may have referred to such areas as Points of Environmental Interest (POEIs)). These areas will undergo a "desk-top" evaluation, which involves a thorough review of all existing or easily obtainable documentation/information on the identified sites. If the Parties agree, the evaluation could also include obtaining limited samples from the area. The desk-top evaluation will also involve assessing information concerning the handling of hazardous wastes at each area, or actions taken at each area, or actions that will be occurring under other regulatory programs. Based on this evaluation, a decision will be made by the Project Managers on which the areas will proceed to the Site Screening Process (SSP) as SSAs, and which areas will require no further action and can be closed-out. For those areas which the Parties agree will not proceed to the Site Screening Process, the Navy shall prepare, with EPA and State assistance, a brief PSA close-out document.

EPA and the State shall review all information submitted by the Navy in the support of the PSA desk-top evaluation and shall provide a response to the Navy as to whether the information provided is sufficient to close-out the area(s). The response shall be forwarded from EPA and the State to the Navy within 30 Days after the receipt of the supporting documentation. Within 120 Days after the Effective Date of this Agreement, the final determination on which PSAs will become SSAs and which PSAs shall be closed-out shall be completed. Those PSAs, which are not agreed upon by the Parties to be closed-out, will proceed to SSP. If the Parties agree, in writing, the desktop evaluation for specific areas may be extended beyond the 120-day finalization deadline. If the Navy submits supporting documentation to EPA and the State in such a manner that the 30-day review and response time for EPA and the State extends beyond the finalization date, the finalization date will automatically be extended to allow for a full 30 Days of review and discussion.

For those areas which all Parties agree should proceed to the SSP, the Navy shall include those areas in the draft amended Site Management Plan for future Fiscal Years as SSAs and propose Deadlines for submittal of SSP Work Plans as prescribed in Subsection 9.3C.

Remedial Investigation and Feasibility Study

9.4 The Navy agrees it shall prepare an RI for areas identified in Subsections 9.2 and 9.3. RIs shall be conducted in accordance with the requirements and Schedules set forth in the approved RI/FS Work Plan and SMP. RIs shall meet the purposes set forth in Section IV - PURPOSE, of this Agreement. A baseline risk assessment (BRA) shall be a component of the RIs. Final Site clean-up level criteria will only be determined following completion of the BRA.

9.5 The Navy agrees it shall prepare an FS for areas subject to an RI. The FS shall be conducted in accordance with the requirements and Schedules set forth in the approved RI/FS

Work Plan and SMP. The FS shall meet the purposes set forth in Section IV - PURPOSE, of this Agreement.

Procedures for Interim Remedial Actions

9.6 A. The Navy shall implement those IRAs necessary to prevent, minimize, or eliminate risks to human health and the environment caused by the release of hazardous substances, pollutants, or contaminants. An IRA is identified, proposed, and implemented prior to a FRA. An IRA shall attain ARARs to the extent required by CERCLA or the NCP and be consistent with and contribute to the efficient performance of a FRA(s) taken at an area or OU. An IRA must be protective of human health and the environment, and comply with CERCLA, the NCP, and State laws to the extent that they are legally ARARs in accordance with Section 121 of CERCLA, and this Agreement.

B. When a Party to this Agreement determines that an IRA is necessary for an area(s) within the Facility, such Party shall notify, in writing, the other Parties, of the proposal. The proposal notification to the other Parties under this Subsection shall at a minimum include the location of such area(s) on the Facility and the reason(s) the Party believes an IRA is required. Any Party may propose an IRA for those OUs or SSAs most suitable for an IRA.

Within 30 Days after notification, any Party may request a meeting of the Parties to assist in expediting the decision to proceed with an IRA. If a dispute(s) arises over whether to address such an area(s) under this Agreement that cannot be settled between the Parties within 30 Days after receipt of notification, the dispute(s) shall be immediately brought to the Dispute Resolution Committee (DRC) pursuant to Section XX - DISPUTE RESOLUTION of this Agreement.

C. After the determination that an IRA is required under this Agreement, the Navy shall, in the next draft Amended SMP, submit to the EPA and the NCDENR proposed Deadlines for the submission of an FFS for the identified area(s). The Deadlines will be finalized in accordance with Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN. The Schedule and Deadlines will immediately be incorporated in the SMP. The FFS shall include a limited number of proposed IRA alternatives. To the extent possible, the FFS shall provide an assessment of the degree to which these alternatives were analyzed during their development and screening.

Records of Decision and Plans for Remedial Action

9.7 A. This Subsection shall apply to selection of RAs.

B. Within 30 Days after finalization of an RI and FS or FFS, the Navy shall submit a Draft Proposed Plan to the EPA and the NCDENR for review and comment as described in Section X - CONSULTATION, of this Agreement. Within 7 Days after receiving the EPA's acceptance and the NCDENR's comments on the Proposed Plan, the Navy shall publish its Proposed Plan for 45 Days of public review and comment. During the public comment period, the Navy shall make the Administrative Record and Proposed Plan available to the public.

The Navy shall hold a public information meeting during the public comment period to discuss the preferred alternative for each RA. Copies of all written and oral public comments received will be provided to the Parties. Public review and comment shall be conducted in accordance with Section 117(a) of CERCLA, 42 U.S.C. Section 9617(a), and applicable EPA and NCDENR Guidance.

C. Following public comment, the Navy, in consultation with the EPA and the NCDENR, will determine if the Draft Proposed Plan should be modified based on the comments received. These modifications will be made by the Navy and the modified documents will be reviewed by the EPA and the NCDENR. The Parties may recommend that additional public comment be solicited if modifications to the Draft Proposed Plan substantially change the remedy originally proposed to the public. The determination concerning whether a Draft Proposed Plan should be modified or whether additional public comment is necessary is subject to the dispute resolution provisions of this Agreement, Section XX - DISPUTE RESOLUTION.

D. The Navy shall submit its draft ROD to the EPA and the NCDENR within 30 Days following the close of the public comment period, including any extensions, on the Proposed Plan. The draft ROD will include a Responsiveness Summary, in accordance with applicable EPA Guidance. Pursuant to CERCLA Section 120(e)(4)(A), 42 U.S.C. Section 9620(e)(4)(A), the EPA and the Navy in consultation with the NCDENR, shall make the final selection of the RA(s).

E. The Draft ROD shall be subject to the review and comment procedures described in Section X – CONSULTATION and is subject to the dispute resolution process in Section XX – DISPUTE RESOLUTION.

F. The selection of a remedy that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria, or limitation is one basis on which the NCDENR may determine not to concur with a FRA plan.

In accordance with CERCLA Section 121(f)(3)(A), 42 U.S.C. Section 9621(f)(3)(A), at least 30 Days prior to the publication of the Navy's FRA plan, if the Navy proposes to select a remedy that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria, or limitation, the Navy shall provide an opportunity for the NCDENR to concur or not concur in the selection of such plan. If the NCDENR concurs or does not act within 30 Days after receipt of notification by the Navy of pending publication of the FRA plan, the RA may proceed. If the NCDENR does not concur, it may act pursuant to Section 121(f)(3)(B) of CERCLA, 42 U.S.C. Section 9621(f)(3)(B).

G. Notice of the final ROD shall be published by the Navy and shall be made available to the public prior to commencement of the RA, in accordance with Section 117(b) of CERCLA, 42 U.S.C. Section 9617(b). The final ROD shall include a statement that the NCDENR has concurred or not concurred with the selection of the remedy.

Remedial Design and Remedial Action

9.8 A. The SMP shall include a Target Date for submission of a Preliminary/Conceptual Remedial Design (RD) document (30 percent design report); a Target Date for submission of a 90 percent or Prefinal RD; and a Deadline for the Final RD, which documents shall be prepared in accordance with this Agreement and applicable Guidance issued by the EPA, including the EPA-Navy *Principles and Procedures for Specifying, Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions* (October 2003).

B. The RD shall provide the appropriate plans and specifications describing the intended remedial construction and shall include provisions necessary to ensure that the RA will achieve ARARs and performance standards identified in the ROD. The RD shall describe short and long-term implementation actions, and responsibilities for the actions, to ensure long-term viability of the remedy, which may include both Land Use Controls and an engineered portion (e.g., landfill caps, treatment systems) of the remedy. The term "implementation actions" includes all actions to implement, operate, maintain, and enforce the remedy.

C. The RA Work Plan(s) shall at a minimum contain a Schedule for the completion of the RA, a Health and Safety Plan, a Sampling and Analysis Plan, and a Quality Assurance Project Plan, RA Specifications, Erosion Control and Sedimentation Plan, Decontamination Plan, RA Contingency Plan, and provisions for operation and maintenance, if necessary. The Schedule contained in the final RA Work Plan(s) will be immediately incorporated in the SMP.

D. After the final design document is approved, pursuant to Section X - CONSULTATION, the Navy shall begin performance of the RA in accordance with the final RD and the RA Work Plan. The RA shall be completed in accordance with the approved final RD and RA Work Plan and all applicable EPA and NCDENR Guidance.

Finalization of Remedial Actions

9.9 The Navy agrees that it shall submit to the EPA and the NCDENR a primary document memorializing remedial action completion in accordance with the Schedule in the SMP following the completion of the RA for each OU. The primary document memorializing remedial action completion shall document the cleanup activities that took place at the OU, and that performance standards specified in the ROD have been met. Where required, for each long-term response action an interim primary document memorializing remedial action completion shall be prepared when the physical construction of the system is complete and the unit is operating as designed. Such interim primary document memorializing remedial action completion shall be amended and finalized when the remedial goals specified in the ROD are achieved. The primary document memorializing remedial action completion shall outline in detail, and provide an explanation for, any activities that were not conducted in accordance with the final RD and/or RA Work Plan(s).

Accelerated Operable Unit

9.10 AOUs, as defined in Section II - DEFINITIONS, will follow a streamlined remedial process as set forth below. Any Party may propose in writing that an OU be conducted as an AOU. The Party proposing an AOU shall be responsible for drafting an AOU proposal that shall clearly define the purpose, scope, and goals of the AOU. The Navy shall evaluate all proposed AOUs.

Within 30 Days after notification, any Party may request a meeting of the Parties to assist in expediting selection of an AOU. If dispute resolution is not invoked within 30 Days following receipt of a proposal for an AOU by the Parties, or 30 Days after the meeting, or if the need for an AOU is established through Section XX - DISPUTE RESOLUTION, the proposed AOU shall be incorporated into the SMP as an AOU. The Navy agrees to pursue additional funding within 10 Days of such incorporation to initiate the AOU(s).

A. Within 15 days after the determination that an AOU is required under this Agreement, the Navy shall submit to the EPA and the NCDENR proposed Deadlines for the submission of Work Plan(s) for the performance of an AOU FFS for the identified AOU(s). Each AOU FFS Work Plan shall contain a proposed Deadline for submittal of the AOU FFS and Proposed Plan. The Schedule and Deadlines included in the final AOU FFS Work Plan will be incorporated in the next Draft Amended SMP. The Navy shall develop, implement, and report upon each AOU FFS in accordance with the requirements set forth in the final AOU FFS Work Plan. The Navy shall follow the steps outlined in Subsections 9.7B through 9.9.

Supplemental Response Action

9.11 The Parties recognize that subsequent to finalization of a ROD, a need may arise for one or more supplemental response actions to remedy continuing or additional releases or threats of releases of hazardous substances, pollutants, or contaminants at or from the Site. If such release or threat of release may present an immediate threat to public health or welfare or the environment, it shall be addressed pursuant to Section XVIII - REMOVALS AND EMERGENCY ACTIONS. If such release or threat of release does not present an immediate threat to public health or welfare or the environment, it shall be addressed pursuant to Subsections 9.12 through 9.17.

9.12 A supplemental response action shall be undertaken only when:

A. A determination is made that:

1. As a result of the release or threat of release of a hazardous substance, pollutant, or contaminant at or from the Site, an additional response action is necessary and appropriate to ensure the protection of human health or the environment; or,

2. There is or has been a release of hazardous waste or hazardous constituents into the environment and corrective response action is necessary to protect human health or the environment; and,

B. Either of the following conditions is met for any determination made pursuant to Subsection 9.12.A., above:

1. For supplemental response actions proposed after finalization of the ROD, but prior to EPA Certification, the determination must be based upon conditions at the Site that were unknown at the time of finalization of the ROD or based upon new information received in whole or in part by the EPA following finalization of the ROD; or

2. For supplemental response actions proposed after EPA Certification, the determination must be based upon conditions at the Site that were unknown at the time of EPA Certification or based upon new information received in whole or in part by the EPA or NCDENR following EPA Certification.

9.13 If, subsequent to ROD signature, any Party concludes that a supplemental response action is necessary, based on the criteria set forth in Subsection 9.12, such Party shall promptly notify the others of its conclusion in writing. The notification shall specify the nature of the modification needed and the new information on which it is based. The Project Managers shall confer and attempt to reach consensus on the need for such an action within 30 Days after receiving such notification. If the Project Managers have failed to reach consensus, any Party may notify the other Parties in writing within 10 days thereafter that it intends to invoke dispute resolution. If the Project Managers are still unable to reach consensus within 14 Days after the issuance of notice invoking dispute resolution, the question of the need for the supplemental response action shall be resolved through dispute resolution.

9.14 If the Project Managers agree, or if it is determined through dispute resolution, that a supplemental response action is needed based on the criteria set forth in Subsection 9.12, the Navy shall propose a Deadline for submittal of the Supplemental Work Plan(s) and a Schedule for performance of the Work there under to the EPA and NCDENR in the next Draft Amended SMP.

9.15 After finalization of a Supplemental Work Plan, the Navy shall conduct a Supplemental Response Action RI/FS. Following finalization of the Supplemental Response Action RI/FS, the procedures described in Subsections 9.7 through 9.9 shall be followed.

Construction Completion/Remedial Action/EPA Certification

9.16. EPA, the Navy, and the State have committed to streamlining procedures and documentation for post-ROD activities. Revised procedures may be amended to this Agreement upon consensus by the Parties. Until any new procedures and documentation are agreed upon, the following provisions will be applicable.

9.17. Construction Completion. The Navy agrees that it shall submit to EPA and NCDENR information required to document completion of physical construction of the remedial action for all OUs within 30 Days after completing physical construction at the Site as part of the final,

amended primary document memorializing remedial action completion. This information must satisfy the NCP and provide a schedule for any remaining activities necessary to reach Site completion. The information will also address any five-year review requirements.

9.18. Remedial Action/ Site Completion.

A. When the Navy determines that remedial actions at all OUs have been completed, it shall document this event by amending the final primary document memorializing remedial action completion and submitting it to EPA and NCDENR for review. The information provided therein shall document compliance with statutory requirements and provide a consolidated record of all remedial activities for all OUs at the Site. In order for the Site to be eligible for completion, the following criteria must be met:

1. Performance standards specified in all RODs have been met, and all cleanup actions and other measures identified in the RODs have been successfully implemented.
2. The constructed remedies are operational and performing according to engineering specifications.

3. All sites are protective of human health and the environment.

4. The only remaining activities, if any, at the Site are operation and maintenance activities (which may include long-term monitoring).

B. Information provided shall summarize work at the entire Site (i.e., all OUs). As outlined in Subsection 9.9 of this Agreement, the primary document memorializing remedial action completion for each OU, including the final OU, is required to document that Work was performed according to design specifications. Information amended to the final primary document memorializing remedial action completion to indicate remedial action completion shall include a discussion regarding any operation and maintenance requirements and/or land use controls at the Site.

C. Information provided for remedial action completion shall be signed by the Navy's signatory authority or designee, certifying that remedial activities have been completed in full satisfaction of the requirements of this Agreement, and shall include a request for EPA certification of remedial action completion at the Site. Within ninety (90) Days after EPA's receipt of the Navy's request for certification of Site completion, EPA, in consultation with NCDENR, shall:

1. Certify that all response actions have been completed at the Site in accordance with CERCLA, the NCP and this Agreement, based on conditions known at the time of certification; or

2. Deny the Navy's request for certification of Site completion, stating the basis of its denial and detailing the additional Work needed for completion and certification.

D. If EPA, in consultation with NCDENR, denies the Navy's request for certification for Site completion in accordance with this Agreement, the Navy may invoke dispute resolution in accordance with Section XX - DISPUTE RESOLUTION of this Agreement within twenty (20) days of receipt of the written denial of certification or determination that additional Work is necessary. If the denial of certification is upheld through the dispute resolution process, the Navy will perform the requested additional Work.

E. If dispute resolution is not invoked, or if a denial of certification is upheld through dispute resolution, the Navy shall, in the next draft Amended Site Management Plan submitted after receipt of the written denial of certification or dispute resolution finding, propose a Deadline for the submittal of a draft Supplemental Work Plan. The draft Supplemental Work Plan shall contain a Schedule for completion of the additional Work required. This Schedule, once approved, will be incorporated in the Site Management Plan. After performing the additional Work, the Navy may resubmit a request for certification to EPA as outlined in this Subsection. EPA, in consultation with NCDENR, shall then grant or deny certification pursuant to the process set forth in this Subsection.

X. CONSULTATION

Review and Comment Process for Draft and Final Documents

10.1 Applicability:

The provisions of this Section establish the procedures that shall be used by the Parties to provide each other with appropriate notice, review, comment, and response to comments regarding RI/FS and RD/RA documents, specified herein as either Primary or Secondary Documents. The Navy will normally be responsible for issuing Primary and Secondary Documents to the EPA and the NCDENR. As of the Effective Date of this Agreement, all draft and final reports for any deliverable document identified herein shall be prepared, distributed, and subject to dispute in accordance with Sections 10.2 through 10.10 below.

The designation of a document as “Draft” or “Final” is solely for purposes of consultation with the EPA and the NCDENR in accordance with this Section. Such designation does not affect the obligation of the Parties to issue documents, which may be referred to herein as “Final,” to the public for review and comment as appropriate and as required by law and the NCP.

10.2 General Process for RI/FS and RD/RA Documents:

A. Primary Documents include those documents that are major, discrete portions of RI/FS or RD/RA activities. Primary Documents are initially issued by the Navy in draft subject to review and comment by the EPA and the NCDENR. Following receipt of comments on a particular Draft Primary Document, the Navy will respond to the comments received and issue a Draft Final Primary Document subject to dispute resolution. The Draft Final Primary Document

will become the Final Primary Document 30 Days after issuance if dispute resolution is not invoked or as modified by decision of the dispute resolution process.

B. Secondary Documents include those documents that are discrete portions of the Primary Documents and are typically input or feeder documents. Secondary Documents are issued by the Navy in draft subject to review and comment by the EPA and the NCDENR. Although the Navy will respond to comments received, the draft Secondary Documents may be finalized in the context of the corresponding Draft Final Primary Documents. A Secondary Document may be disputed at the time the corresponding Draft Final Primary Document is issued.

10.3 Primary Documents:

A. Prior to the Effective Date of this Agreement, the Navy has completed and transmitted the following draft Primary Documents listed below to the EPA and the NCDENR for review and comment:

Draft RI Report for OU 5, Sites 1 and 2
Draft Work Plan for the Baseline Ecological Risk Assessment for OU1
Draft FFS Report for OU4 (Draft submission anticipated 2nd qtr 04)
Draft FFS Report for OU13 (Draft submission anticipated 2nd qtr 04)
Draft Final RI Report for OU6, Site 12
Draft Site Management Plan (Draft submission anticipated 2nd qtr 04)

B. All Primary Documents shall be prepared in accordance with the NCP and applicable EPA Guidance. The Navy shall complete and transmit drafts of the following Primary Documents and their amendments to the EPA and the NCDENR for review and comment in accordance with the provisions of this Section:

1. RI/FS (including Baseline Risk Assessment for human health and the environment) and FFS Work Plans

2. Remedial Investigation Reports (including Baseline Risk Assessments for human health and the environment)

3. FS and FFS Reports

4. Proposed Plans

5. Records of Decision

6. Final Remedial Designs

7. Remedial Action Work Plans

8. Document Memorializing Remedial Action Completion

9. Site Management Plan

C. Only the Draft Final Primary Documents identified above (and their amendments) shall be subject to dispute resolution in accordance with Section XX - DISPUTE RESOLUTION of this Agreement. The Navy shall complete and transmit Draft Primary Documents in accordance with the Schedule and Deadlines established in Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN, of this Agreement.

10.4 Secondary Documents:

A. All Secondary Documents shall be prepared in accordance with the NCP and applicable EPA Guidance. The Navy shall complete and transmit drafts of the following Secondary Documents to the EPA and the NCDENR for review and comment in accordance with the provisions of this Section:

1. Health and Safety Plans

2. Non-Time Critical Removal Action Plans (40 C.F.R. § 300.415(b) (4) (ii))

3. Pilot/Treatability Study Work Plans

4. Pilot/Treatability Study Reports

5. Engineering Evaluation/Cost Analysis Report

6. Well Closure Methods and Procedures

7. Preliminary/Conceptual Designs, or Equivalents

8. Prefinal Remedial Designs

9. Removal Action Memoranda

B. Although the EPA and the NCDENR may comment on the Draft Secondary Documents listed above, such documents shall not be subject to dispute resolution except as provided by Subsection 10.2 hereof. Target Dates shall be established for the completion and transmission of Draft Secondary Documents pursuant to Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN, of this Agreement.

10.5 Meetings of the Project Managers on Development of Documents:

The Project Managers shall meet approximately every 60 days, and confer by telephone every 30 days, except as otherwise agreed by the Parties, to review and discuss the development of Primary and Secondary Documents. Prior to preparing any draft document specified in Subsections 10.3 and 10.4 above, the Project Managers shall meet to discuss the document in an effort to reach a common understanding, to the maximum extent practicable, with respect to the content of draft documents.

10.6 Identification and Determination of Potential ARARs:

A. For those Primary Documents or Secondary Documents that consist of or include ARAR determinations, the Project Managers shall meet prior to the issuance of a draft report, to identify and propose, to the best of their ability, all potential ARARs pertinent to the document being addressed. The NCDENR shall identify all potential NCDENR ARARs as early in the remedial process as possible consistent with the requirements of CERCLA Section 121(d)(2)(A)(ii), 42 U.S.C. Section 9621(d)(2)(A)(ii), and the NCP. The Navy shall consider any written interpretations of ARARs provided by the NCDENR. Draft ARAR determinations shall be prepared by the Navy in accordance with CERCLA Section 121(d)(2), 42 U.S.C. Section 9621(d)(2), the NCP, and pertinent Guidance issued by the EPA that is not inconsistent with CERCLA and the NCP.

B. In identifying potential ARARs, the Parties recognize that actual ARARs can be identified only on a site-specific basis and that ARARs depend on the specific hazardous substances, pollutants, and contaminants at a site, the particular actions proposed as a remedy and the characteristics of a site. The Parties recognize that ARAR identification is necessarily an iterative process and that potential ARARs must be reexamined throughout the RI/FS process until a ROD is issued.

10.7 Review and Comment on Draft Documents:

A. The Navy shall complete and transmit each Draft Primary Document to the EPA and the NCDENR on or before the corresponding Deadline established pursuant to Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement for the issuance of the document. The Navy shall complete and transmit the draft Secondary Document in accordance with the Target Dates established for the issuance of such documents.

B. Unless the Parties mutually agree to another time period, all Draft documents, except the SMP, the Prefinal RD, and the Final RD, shall be subject to a 60-day period for review and comment. The SMP shall be reviewed and commented on in accordance with Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN or as agreed to by the Parties. The Parties recognize that time periods for review and comment on the Draft RD and RA Work Plans may need to be expedited in order for the Navy to satisfy the requirement of Section 120(e)(2) of CERCLA, 42 U.S.C. Section 9620(e)(2). The Prefinal RD

shall be subject to a 45-day period for review and comment. The Final RD will be subject to a 2-week period for review and comment by the Parties.

If the Final RD differs substantially from the Prefinal RD, the EPA or the NCDENR may extend the 2-week review and comment period for an additional 2 weeks by providing written notice to the Navy prior to the end of the initial 2-week comment period. Review of any document by the EPA and the NCDENR may concern all aspects of the document (including completeness) and should include, but not be limited to, technical evaluation of any aspect of the document, and consistency with CERCLA, the NCP, and any pertinent policy or Guidance issued by the EPA or the NCDENR. Comments by the EPA and the NCDENR shall be provided with adequate specificity so that the Navy may respond to the comment and, if appropriate, make changes to the Draft document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based, and, upon request of the Navy, the EPA, or the NCDENR shall provide a copy of the cited authority or reference. In cases involving complex or unusually lengthy reports, the EPA or the NCDENR may extend the 60-day comment period for an additional 20 days by written notice to the Navy prior to the end of the 60-day period. On or before the close of any comment period, the EPA and the NCDENR shall transmit written comments to the Navy in accordance with the procedures outlined in Section II, paragraph SS.

C. The review period for documents shall not begin until the submission date specified in the SMP.

D. If documents not scheduled in the current SMP are determined by mutual agreement of the Program Managers to be necessary, review periods, Deadlines, and Target Dates shall be established and shall be incorporated into the Amended SMP.

E. Representatives of the Navy shall make themselves readily available to the EPA and the NCDENR during the comment period for purposes of informally responding to questions and comments on Draft documents. Oral comments made during such discussions need not be the subject of a written response by the Navy at the close of the comment period.

F. In commenting on a Draft document that contains a proposed ARAR determination, the EPA and/or the NCDENR shall include a reasoned statement of whether they object to any portion of the proposed ARAR determination. To the extent that the EPA or the NCDENR does object, it shall explain the basis for the objection in detail and shall identify any ARARs that it believes were not properly addressed in the proposed ARAR determination.

G. Following the close of any comment period for a Draft document, the Navy shall give full consideration to all written comments on the Draft document submitted during the comment period. Within 60 Days after the close of the comment period on a Draft Secondary Document, the Navy shall transmit to the EPA and the NCDENR its written response to comments received within the comment period. Within 60 Days after the close of the comment period on a Draft Primary Document, the Navy shall transmit to the EPA and the NCDENR a Draft Final Primary Document, which shall include the Navy's response to all written comments

received within the comment period. While the resulting Draft Final Document shall be the responsibility of the Navy, it shall be the product of consensus to the maximum extent possible.

H. The Navy may extend the 60-day period for either responding to comments on a Draft document or for issuing the Draft Final Primary Document for an additional 20 Days by providing timely notice to the EPA and the NCDENR. In appropriate circumstances, this time period may be further extended in accordance with Section XIII - EXTENSIONS, hereof.

10.8 Availability of Dispute Resolution on Draft Final Primary Documents:

A. Dispute resolution shall be available to the Parties for Draft Final Primary Documents as set forth in Section XX - DISPUTE RESOLUTION.

B. When dispute resolution is invoked on a Draft Final Primary Document, Work may be stopped in accordance with the procedures set forth in Section XX - DISPUTE RESOLUTION.

10.9 Finalization of Documents:

The Draft Final Primary Document shall serve as the Final Primary Document if no Party invokes dispute resolution regarding the document or, if invoked, at the completion of the dispute resolution process should the Navy's position be sustained.

If the Navy's determination is not sustained in the dispute resolution process, the Navy shall prepare, within not more than 35 Days, a revision of the Draft Final Primary Document that conforms to the results of dispute resolution. In appropriate circumstances, the time period for this revision period may be extended in accordance with Section XIII - EXTENSIONS, hereof.

10.10 Subsequent Modification of Final Document:

Following finalization of any Primary Document pursuant to Subsection 10.9 above, any Party to this Agreement may seek to modify the document, including seeking additional field work, pilot studies, computer modeling, or other supporting technical work, only as provided in Subsections A. and B. below.

A. A Party may seek to modify a document after finalization if it determines, based on new information (i.e., information that became available, or conditions that became known, after the document was finalized) that the requested modification is necessary. A Party may seek such a modification by submitting a concise written request to the Project Managers of the other Parties. The request shall specify the nature of the requested modification and how the request is based on new information.

B. If a consensus is not reached by the Project Managers on the need for a modification, any Party may invoke the dispute resolution process to determine if such modification shall be conducted. Modification of a document shall be required only upon a showing that:

1. The requested modification is based on significant new information; and

2. The requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

C. Nothing in this Subsection shall alter the EPA's or the NCDENR's ability to request the performance of additional Work that was not contemplated by this Agreement. The Navy's obligation to perform such Work must be established by either a modification of a report or document or by amendment to this Agreement.

XI. DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN

11.1 This Agreement establishes a process for creating the SMP. The SMP is attached to this Agreement as Appendices A and B. The SMP and each annual Amendment to the SMP shall be Primary Documents. Milestones established in an SMP or established in a Final Amendment to an SMP remain unchanged unless otherwise agreed to by the Parties or unless directed to be changed pursuant to the agreed SMP expedited dispute resolution process set out in Subsections 12.5 or 12.6. In addition, if an activity is fully funded in the current fiscal year, Milestones associated with the performance of Work and submittal of Primary Documents associated with such activity (even if they extend beyond the current fiscal year) shall be enforceable.

11.2 The SMP includes proposed actions for both CERCLA responses and actions that would otherwise be handled pursuant to RCRA corrective actions per Section VIII - STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, and outlines all response activities and associated documentation to be undertaken at the Site. The SMP incorporates all existing Milestones contained in approved Work Plans, and all Milestones approved in future Work Plans immediately become incorporated into the SMP.

11.3 Milestones in the SMP reflect the priorities agreed to by the Parties through a process of "Risk Plus Other Factors" priority setting. Site activities have been prioritized by weighing and balancing a variety of factors including, but not limited to: (i) the DoD relative risk rankings for the Site; (ii) current, planned, or potential uses of the Facility; (iii) ecological impacts; (iv) impacts on human health; (v) intrinsic and future value of affected resources; (vi) cost effectiveness of the proposed activities; (vii) environmental justice considerations; (viii) regulatory requirements; and (ix) actual and anticipated funding levels. While Milestones should not be driven by budget targets, such targets should be considered when setting Milestones. Furthermore, in setting and modifying Milestones, the Parties agree to make good faith efforts to accommodate federal fiscal constraints, which include budget targets established by the Navy.

11.4 The SMP and its annual Amendments include:

11.4.1 A description of actions necessary to mitigate any immediate threat to human health or the environment;

11.4.2 A listing of all currently identified SSAs, OUs (including AOUs), IRAs, Supplemental Response Actions, and Critical and Non-Time Critical Removal Actions covered or identified pursuant to this Agreement;

11.4.3 Activities and schedules for response actions covered by the SMP, including at a minimum:

1. Identification of any Primary Actions;

2. All Deadlines;

3. All Near Term Milestones;

4. All Out Year Milestones;

5. All Target dates;

6. Schedule for initiation of RDs, IRAs, Non-Time Critical Removal Actions, AOUs, and any initiation of other planned response action(s) covered by this Agreement; and,

7. All Project End Dates.

11.5 The Navy shall submit an Amendment to the SMP on an annual basis as provided in Section XII - BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN. All Amendments to the SMP shall conform to all of the requirements set forth in this Section.

11.6 The Milestones established in accordance with this Section and Section XII - BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN remain the same unless otherwise agreed by the Parties, or unless changed in accordance with the SMP expedited dispute resolution process set out in Subsections 12.5 and 12.6. The Parties recognize that possible basis for requests for changes or extensions of the Milestones include but are not limited to—(i) the identification of significant new Site conditions; (ii) reprioritization of activities under this Agreement caused by changing priorities or new site conditions elsewhere in the Navy; (iii) reprioritization of activities under this Agreement caused by budget adjustments (e.g., rescissions, inflation adjustments, and reduced Congressional appropriations); (iv) an event of Force Majeure; (v) a delay caused by another Party's failure to meet any requirement of this Agreement; (vi) a delay caused by the good faith invocation of dispute resolution or the initiation of judicial action; (vii) a delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and Deadline or Schedule; and (viii) any other event or series of events mutually agreed to by the Parties as constituting good cause.

11.7 The Deadlines established in the SMP and its Amendments shall be published by the EPA and the NCDENR.

XII. BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN

12.1 The Navy, as a federal agency, is subject to fiscal controls, hereinafter referred to as the Future Years Defense Plan (FYDP). The planning, programming, and budgeting process, hereinafter referred to as the POM process, is used to review total requirements for DoD programs and make appropriate adjustments within the FYDP for each program while adhering to the overall FYDP control. The Parties recognize that the POM process is a multi-year process. The Parties also agree that all Parties should be involved in the full cycle of POM activities as specified in this Agreement. Further, the Parties agree that each Party should consider the factors listed in Subsection 11.3, including federal fiscal constraints as well as each of the other factors, in their priority-setting decisions. Initial efforts to close any gap between cleanup needs and funding availability shall be focused on the identification and implementation of cost savings.

Facility-Specific Budget Building

12.2 In order to promote effective involvement by the Parties in the POM process, the Parties will meet at the Project Manager level for the purpose of (1) reviewing the FYDP controls; (2) developing a list of requirements/Work to be performed at the Site for inclusion in the Navy POM process; and, (3) participating in development of the Navy submission to the President's proposed budget, based on POM decisions for the FY currently under consideration. Unless the Parties agree to a different time frame, the Navy agrees to notify the other Parties within 10 Days after receipt, at the Project Manager level, that budget controls have been received. Unless the Parties agree to a different time frame or agree that a meeting is not necessary, the Parties will meet, at the Project Manager level, within 5 Days after receiving such notification to discuss the budget controls. However, this consultation must occur at least 10 Days prior to the Navy's initial budget submission to Naval Facilities Engineering Command (NAVFAC). In the event that the Project Managers cannot agree on funding levels required to perform all Work outlined in the SMP, the Parties agree to make reasonable efforts to informally resolve these disagreements, either at the immediate or secondary supervisor level; this would also include discussions, as necessary, with NAVFAC. If agreement cannot be reached informally within a reasonable period of time, the Navy shall resolve the disagreement, if possible with the concurrence of all Parties, and notify each Party. If all Parties do not concur in the resolution, the Navy will forward through NAVFAC to the Navy Headquarters its budget request with the views of the Parties not in agreement and also inform Navy Headquarters of the possibility of future enforcement action should the money requested not be sufficient to perform the Work subject to disagreement. In addition, if the Navy's budget submission to NAVFAC relating to the terms and conditions of this Agreement does not include sufficient funds to complete all Work in the existing SMP, such budget submission shall include supplemental reports that fully disclose the Work required by the existing SMP, but not included in the budget request due to fiscal controls (e.g., a projected budget shortfall). These supplemental reports shall accompany the cleanup budget that the Navy submits through its higher Headquarters levels until the budget shortfall has

been satisfied. If the budget shortfall is not satisfied, the supplemental reports shall be included in the Navy's budget submission to the DoD Comptroller. The Deputy Under Secretary of Defense (Installations and Environment) shall receive information copies of any supplemental reports submitted to the DoD Comptroller.

Navy Budget for Clean Up Activities

12.3 The Navy shall forward to the other Parties documentation of the budget requests (and any supplemental reports) for the Site, as submitted by the Navy to NAVFAC, and by NAVFAC to the Navy Headquarters, within 14 Days after the submittal of such documentation to the Navy Headquarters by NAVFAC. If the Navy proposes a budget request relating to the terms and conditions of this Agreement that impacts other installations, discussions with other affected EPA Regions and states regarding the proposed budget request need to take place.

Amended SMP

12.4 No later than June 15 of each year after the initial adoption of the SMP, the Navy shall submit to the other Parties a Draft Amendment to the SMP. When formulating the Draft Amendment to the SMP, the Navy shall consider funding circumstances (including OMB targets/guidance) and "risk plus other factors" outlined in Subsection 11.3 to evaluate whether the previously agreed upon Milestones should change. Prior to proposing changes to Milestones in its annual Amendment to the SMP, the Navy will first offer to meet with the other Parties to discuss the proposed changes. The Parties will attempt to agree on Milestones before the Navy submits its annual Amendment by June 15, but failure to agree on such proposed changes does not modify the June 15 date, unless agreed by all the Parties. Any proposed extensions or other changes to Milestones must be explained in a cover letter to the Draft Amendment to the SMP. The Draft Amendment to the SMP should reflect any agreements made by the Parties during the POM process outlined in this Section. Resolution of any disagreement over adjustment of Milestones pursuant to this subsection shall be resolved pursuant to Subsection 12.5.

12.5 The Parties shall meet as necessary to discuss the Draft Amendment to the SMP. The Parties shall use the consultation process contained in Section X - CONSULTATION, except that none of the Parties will have the right to use the extension provisions provided therein. Accordingly, comments on the Draft Amendment will be due to the Navy no later than 30 Days after receipt by the EPA and the NCDENR of the Draft Amendment. If either the EPA or the NCDENR provide comments and are not satisfied with the Draft Amendment during this comment period, the Parties shall meet to discuss the comments within 15 Days after the Navy's receipt of comments on the Draft Amendment. The Draft Final Amendment to the SMP will be due from the Navy no later than 30 Days after the end of the EPA and NCDENR comment period. During this second 30-day time period, the Navy will, as appropriate, make revisions and re-issue a revised draft herein referred to as the Draft Final Amendment. To the extent that Section X - CONSULTATION contains time periods differing from these 30-day periods, this provision will control for consultation on the Amendment to the SMP.

12.5.1 If the Navy proposes in the Draft Final Amendment to the SMP modifications of Milestones to which either the EPA or the NCDENR have not agreed, those proposed modifications shall be treated as a request by the Navy for an extension. Milestones may be extended during the SMP review process by following Subsections 12.4 through 12.7. All other extensions will be governed by Section XIII - EXTENSIONS. The time period for the EPA to respond to the request for extension will begin on the date the EPA receives the Draft Final Amendment to the SMP, and the EPA and NCDENR shall advise the Navy in writing of their respective positions on the request within 30 Days. If the EPA and the NCDENR approve of the Navy's Draft Final Amendment, the document shall then await finalization in accordance with Subsections 12.5.4 and 12.6. If the EPA denies the request for extension, then the Navy may amend the SMP in conformance with the EPA's and the NCDENR's comments or seek and obtain a determination through the dispute resolution process established in Section XX - DISPUTE RESOLUTION within 21 Days after receipt of notice of denial. Within 21 Days after the conclusion of the dispute resolution process, the Navy shall revise and reissue, as necessary, the Draft Final Amendment to the SMP. If the EPA or the NCDENR initiates a formal request for a modification to the SMP to which the Navy does not agree, the EPA or the NCDENR may initiate dispute resolution as provided in Section XX - DISPUTE RESOLUTION with respect to such proposed modification. In resolving a dispute, the persons or person resolving the dispute shall give full consideration to the bases for changes or extensions of the Milestones referred to in Subsection 11.6 asserted to be present, and the facts and arguments of each of the Parties.

12.5.2 Notwithstanding Subsection 12.5.1, if the Navy proposes, in the Draft Final Amendment to the SMP, modifications of Project End Dates that are intended to reflect the time needed for implementing the remedy selected in the ROD but to which either the EPA or the NCDENR have not agreed, those proposed modifications shall not be treated as a request by the Navy for an extension, but consistent with Section XX - DISPUTE RESOLUTION, the EPA or the NCDENR may initiate dispute resolution with respect to such Project End Date.

12.5.3 In any dispute under this Section, the time periods for the standard dispute resolution process contained in Subsections 20.2, 20.5, and 20.6 of Section XX - DISPUTE RESOLUTION, shall be reduced by half in regard to such dispute, unless the Parties agree to dispute directly to the Senior Executive Committee (SEC) level.

12.5.4 The Navy shall finalize the Draft Final Amendment as a Final Amendment to the SMP consistent with the mutual consent of the Parties, or in the absence of mutual consent, in accordance with the final decision of the dispute resolution process. The Draft Final Amendment to the SMP shall not become final until 21 Days after the Navy receives official notification of Congress' authorization and appropriation of funds if funding is sufficient to complete Work in the Draft Final SMP or, in the event of a funding shortfall, following the procedures in Subsection 12.6. However, upon approval of the Draft Final Amendment or conclusion of the dispute resolution process, the Parties shall implement the SMP while awaiting official notification of Congress' authorization and appropriation.

Resolving Appropriations Shortfalls

12.6 After authorization and appropriation of funds by Congress and within 21 Days after the Navy has received official notification of Navy's allocation based on the current year's Environmental Restoration, Navy (ER,N) Account, the Navy shall determine if planned Work (as outlined in the Draft Final Amendment to the SMP) can be accomplished with the allocated funds. (1) If the allocated funds are sufficient to complete all planned Work for that fiscal year and there are no changes required to the Draft Final Amendment to the SMP, the Navy shall immediately forward a letter to the other Parties indicating that the Draft Final Amendment to the SMP has become the Final Amendment to the SMP. (2) If the Navy determines within the 21-day period specified above that the allocated funds are not sufficient to accomplish the planned Work for the Site (an appropriations shortfall), the Navy shall immediately notify the Parties. The Project Managers shall meet within 30 Days to determine if planned Work (as outlined in the Draft Final Amendment to the SMP) can be accomplished through: 1) rescoping or rescheduling activities in a manner that does not cause previously agreed upon Near Term Milestones and Out Year Milestones to be missed; or 2) developing and implementing new cost-saving measures. If, during this 30-day discussion period, the Parties determine that rescoping or implementing cost-saving measures are not sufficient to offset the appropriations shortfall such that Near Term Milestones, Out Year Milestones, and Project End Dates should be modified, the Parties shall discuss these changes and develop modified Milestones. Such modifications shall be based on the "Risk Plus Other Factors" prioritization process discussed in Subsection 11.3, and shall be specifically identified by the Navy. The Navy shall submit a new Draft Final Amendment to the SMP to the other Parties within 30 Days after the end of the 30-day discussion period. In preparing the revised Draft Final Amendment to the SMP, the Navy shall give full consideration to EPA and NCDENR input during the 30-day discussion period. If the EPA and the NCDENR concur with the modifications made to the Draft Final Amendment to the SMP, the EPA and the NCDENR shall notify the Navy and the revised Draft Final Amendment shall become the Final Amendment. In the case of modifications of Milestones due to appropriations shortfalls, those proposed modifications shall, for purposes of dispute resolution, be treated as a request by the Navy for an extension, which request is treated as having been made on the date that the EPA receives the new Draft Final SMP or Draft Final Amendment to the SMP. The EPA and the NCDENR shall advise the Navy in writing of their respective positions on the request within 21 Days. The Navy may seek and obtain a determination through the dispute resolution process established in Section XX - DISPUTE RESOLUTION. The Navy may invoke dispute resolution within 14 Days after receipt of a statement of nonconcurrence with the requested extension. In any dispute concerning modifications under this Section, the Parties will submit the dispute directly to the SEC level, unless the Parties agree to use the standard dispute resolution process, in which case the time periods for the dispute resolution process contained in Subsections 20.2, 20.5, and 20.6 of Section XX - DISPUTE RESOLUTION shall be reduced by half in regard to such dispute. Within 21 Days after the conclusion of the dispute resolution process, the Navy shall revise and reissue, as necessary, the Final Amendment to the SMP.

12.7 It is understood by all Parties that the Navy will work with representatives of the other Parties to reach consensus on the reprioritization of work made necessary by any annual

appropriations shortfalls or other circumstances as described in Section 12.6. This may also include discussions with other EPA Regions and states with installations affected by the reprioritization; the Parties may participate in any such discussions with other states.

Public Participation

12.8 In addition to any other provision for public participation contained in this Agreement, the development of the SMP, including its annual Amendments, shall include participation by members of the public interested in this action. The Navy must ensure that the opportunity for such public participation is timely; but this Subsection 12.8 shall not be subject to Section XXI - STIPULATED PENALTIES.

12.8.1 The Parties will meet, after seeking the views of the general public, and determine the most effective means to provide for participation by members of the public interested in this action in the POM process and the development of the SMP and its annual Amendments. The "members of the public interested in this action" may be represented by inclusion of a restoration advisory board or technical review committee, if they exist for the MCAS Cherry Point, or by other appropriate means.

12.8.2 The Navy shall provide timely notification under Section 12.6, regarding allocation of ER,N, to the members of the public interested in this action.

12.8.3 The Navy shall provide opportunity for discussion under Sections 12.2, 12.5, 12.6, and 12.7 to the members of the public interested in this action.

12.8.4 The Navy shall ensure that public participation provided for in this Subsection 12.8 complies with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

XIII. EXTENSIONS

13.1 A timetable, Deadline, or Schedule shall be extended upon receipt of a timely request for extension and when good cause exists for the requested extension as described in Subsection 13.2, below. Any request for extension by the Navy shall be submitted in writing and shall specify:

A. The timetable and Deadline or Schedule that is sought to be extended;

B. The length of the extension sought;

C. The good cause(s) for the extension; and

D. Any related timetable and Deadline or Schedule that would be affected if the extension were granted.

13.2 Good cause exists for an extension when sought in regard to:

A. An event of Force Majeure, as defined in Section XXII – FORCE MAJEURE;

B. A delay caused by another Party's failure to meet any requirement of this Agreement;

C. A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;

D. A delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and Deadline or a Schedule; and

E. Any other event or series of events mutually agreed to by the Parties as constituting good cause.

13.3 Absent agreement of the Parties with respect to the existence of good cause, any Party may seek and obtain a determination through the dispute resolution process that good cause exists.

13.4 Within 7 Days after receipt of a request for an extension of a timetable and Deadline or a Schedule, the other Parties shall advise the requesting Party in writing of their respective positions on the request. Any failure by the other Parties to respond within the 7-day period shall be deemed to constitute concurrence in the request for extension. If a Party does not concur in the requested extension, it shall include in its statement of nonconcurrence an explanation of the basis for its position.

13.5 If there is consensus among the Parties that the requested extension is warranted, the requesting Party shall extend the affected timetable and Deadline or Schedule accordingly. If there is no consensus among the Parties as to whether all or part of the requested extension is warranted, the timetable and Deadline or Schedule shall not be extended except in accordance with a determination resulting from the dispute resolution process.

13.6 Within 7 Days after receipt of a statement of nonconcurrence with the requested extension, the requesting Party may invoke dispute resolution.

13.7 A written, timely, and good faith request by the Navy for an extension shall toll any assessment of stipulated penalties or application for judicial enforcement of the affected timetable and Deadline or Schedule until a decision is reached on whether the requested extension will be approved. If dispute resolution is invoked and the requested extension is denied, stipulated penalties may be assessed and may accrue from the date of the original timetable and Deadline or Schedule. Following the grant of an extension, an assessment of stipulated penalties or an application for judicial enforcement may be sought only to compel compliance with the timetable and Deadline or Schedule as most recently extended.

XIV. PROJECT MANAGERS

14.1 On or before the Effective Date of this Agreement, the EPA, the Navy, and the NCDENR shall each designate a Project Manager and notify the other Parties of the name and address of their Project Manager. The Project Managers shall be responsible for ensuring proper implementation of all Work performed under the terms of the Agreement. To the maximum extent practicable, communications among the Navy, the EPA, and the NCDENR on all documents, including reports, comments, and other correspondence concerning the activities performed pursuant to this Agreement shall be directed through the Project Managers. The Parties may designate an Alternate Project Manager to exercise the authority of the Project Manager in his or her absence.

14.2 The Parties may change their respective Project Managers. Such change shall be accomplished by notifying the other Parties, in writing, within 5 Days after the change and prior to the new Project Manager exercising his or her delegated authority.

14.3 The Parties' Project Managers shall meet or confer informally as necessary as provided in Section X - CONSULTATION, of this Agreement. Although the Navy has ultimate responsibility for meeting its respective Deadlines, the EPA and the NCDENR Project Managers shall endeavor to assist in this effort by scheduling meetings to review documents and reports; overseeing the performance of environmental monitoring at the Site; reviewing SSP, RI/FS or RD/RA progress; and attempting to resolve disputes informally. At least 1 week prior to each scheduled Project Manager meeting, unless otherwise agreed to between the Parties, the Navy will provide to the EPA and the NCDENR Project Managers a draft agenda and summary of the status of the Work subject to this Agreement.

These status reports shall include, when applicable:

A. Identification of all data received and not previously provided by the Navy during the reporting period consistent with the limitations of Subsection 32.2;

B. All activities completed pursuant to this Agreement since the last Project Manager meeting as well as such actions and plans that are scheduled for the upcoming 60 Days; and

C. A description of any delays, the reasons for such delays, anticipated delays, concerns over possible timetable implementation, or problems that arise in the execution of a Work Plan during the quarter and any steps that were or will be taken to alleviate the delays or problems.

The minutes of each Project Manager meeting, with the meeting agenda, will be sent to all Project Managers within 14 Days after the meeting. Any documents requested during the meeting will be provided in a timely manner, except for those documents for which express notification is required.

14.4 Necessary and appropriate adjustments to Deadlines or Schedules may be proposed by any Party. The Party which requested the modification shall prepare a written memorandum detailing

the modification and the reasons therefor and shall provide a copy of the memorandum at least 7 Days prior to the Deadline to the other Parties for signature and return prior to the Deadline.

14.5 A Project Manager may also recommend and request minor field modifications to the Work performed pursuant to this Agreement, or in techniques, procedures, or designs used in carrying out this Agreement. The minor field modifications proposed under this Subsection must be approved orally by all the Parties' Project Managers to be effective. No such Work modifications can be so implemented if an increase in contract cost will result without the authorization of the Navy Contracting Officer. If agreement cannot be reached on the proposed additional Work or modification to Work, dispute resolution as set forth in Section XX - DISPUTE RESOLUTION, shall be invoked by the Navy by submitting a written statement to the other Parties in accordance with Section XX - DISPUTE RESOLUTION. If all Parties agree to the modification, within 5 business days following a modification made pursuant to this Subsection, the Project Manager who requested the modification shall prepare a written memorandum detailing the modification and the reasons therefore and shall provide or mail a copy of the memorandum to the Project Managers of the other Parties for signature and return.

14.6 Modifications of Work not provided for in Subsections 14.4 and 14.5 of this Section also must be approved by all the Parties' Project Managers to be effective. If agreement cannot be reached on the proposed modification to Work, dispute resolution as set forth in Section XX - DISPUTE RESOLUTION, shall be used. Within 5 business days following a modification made pursuant to this Section, the Project Manager who requested the modification shall prepare a memorandum detailing the modification and the reasons therefore and shall provide or mail a copy of the memorandum to the Project Managers of the other Parties for signature and return.

14.7 Each Party's Project Manager shall be responsible for ensuring that all communications received from the other Project Managers are appropriately disseminated to and processed by the Party that each represents.

14.8 The Parties shall transmit Primary and Secondary Documents and all notices required herein by those means specified in Section II – DEFINITIONS, subsection SS, to the persons specified in Subsection 14.9 below by the Deadline established under Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN. Time limitations shall commence upon receipt. Unless otherwise agreed to between the Parties, the Navy shall provide to the EPA and the NCDENR seven and two copies respectively, of each Primary and Secondary Document.

14.9 Notice to the individual Parties shall be provided under this Agreement to the following addresses:

A. For the Navy:

Commanding Officer, Atlantic Division
Naval Facilities Engineering Command
Attn: MCAS Cherry Point Installation Project Manager
6506 Hampton Boulevard
Norfolk, VA 23508-1278

Commanding General
Attn: Installation Restoration Program Manager
Environmental Affairs Dept (LN)
Marine Corps Air Station, PSC Box 8006
Cherry Point, NC 28533-0006

UPS / FEDEX:
Environmental Affairs Department
Attn: Installation Restoration Program Manager
Marine Corps Air Station,
Access Road, Bldg. 4223
Cherry Point, NC 28533-0006

B. For the EPA:

Remedial Program Manager – MCAS Cherry Point
Federal Facilities Branch
US Environmental Protection Agency
Sam Nunn Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104

C. For the NCDENR:

Project Manager MCAS Cherry Point
North Carolina Superfund Section
401 Oberlin Road,
Suite 150
Raleigh, NC 27605

14.10 Nothing in this Section shall be construed to interfere with or alter the internal organization or procedures of a Party, including, without limitation, signature authority.

14.11 The Project Manager for the Navy shall represent the Navy with regard to the day-to-day field activities at the Site. The Navy's Project Manager or other designated employee of the Navy shall be physically present at the Site or available to supervise Work during implementation of all the Work performed at the Site pursuant to this Agreement. The absence of

the EPA or NCDENR Project Managers from the Site shall not be cause for Work stoppage or delay, unless the Project Managers agree otherwise in writing.

14.12 The authority of the Project Managers shall include, but not be limited to:

A. Taking samples and ensuring that sampling and other field work is performed in accordance with the terms of any final Work Plans, Sampling Plan, and Quality Assurance/Quality Control (QA/QC) Plan;

B. Observing, taking photographs, and making such other reports on the progress of the Work as the Project Managers deem appropriate, subject to the limitations set forth in Section XVI - ACCESS hereof;

C. Reviewing sampling data, records, files, and documents relevant to the Agreement, subject to the limitations set forth in Section XXXI - RECORD PRESERVATION; and

D. Determining the form and specific content of the Project Manager meetings.

14.13 If any event occurs or has occurred that may delay or prevent the performance of any obligation under this Agreement, whether or not caused by a Force Majeure event, any Party shall notify by telephone the other Parties' Project Managers within 2 business days of when the Party first became aware that the event might cause a delay. If the Party intends to seek an extension of a Deadline or Schedule because of the event, the procedures of Section XIII - EXTENSIONS, shall apply.

XV. EXEMPTIONS

15.1 The Parties recognize that the President may issue an Executive Order, as needed to protect national security interests, regarding response actions at MCAS Cherry Point, pursuant to Section 120(j) of CERCLA, 42 U.S.C. Section 9620(j). Such an Executive Order may exempt MCAS Cherry Point or any portion thereof from the requirements of CERCLA for a period of time not to exceed 1 year after the issuance of that Order. This Executive Order may be renewed. The Navy shall obtain access to and perform all actions required by this Agreement within all areas inside those portions of MCAS Cherry Point that are not the subject of or subject to any such Executive Order issued by the President.

15.2 The NCDENR reserves any statutory right it may have to challenge any order or exemption specified in Subsection 15.1 relieving the Navy of its obligations to comply with this Agreement.

XVI. ACCESS

16.1 The EPA and the NCDENR and/or their representatives shall have the authority to enter the Site at all reasonable times for the purposes consistent with provisions of this Agreement. Such authority shall include, but not be limited to: inspecting records, logs, contracts, and other documents relevant to implementation of this Agreement; reviewing and monitoring the progress of the Navy, its contractors, and lessees in carrying out the activities under this Agreement; conducting, with prior notice to the Navy, tests that the EPA or the NCDENR deem necessary; assessing the need for planning additional remedial response actions at the Site; and verifying data or information submitted to the EPA and the NCDENR.

The Navy shall honor all reasonable requests for access to the Site made by the EPA or the NCDENR, upon presentation of credentials showing the bearer's identification and that he/she is an employee or agent of the EPA or the NCDENR. The Navy's Project Manager or his/her designee will provide briefing information, coordinate access and escort to restricted or controlled-access areas, arrange for base passes, and coordinate any other access requests that arise. The Navy shall use its best efforts to ensure that conformance with the requirements of this Subsection do not delay access.

16.2 The rights granted in Subsections 16.1 and 16.4 to the EPA and the NCDENR regarding access shall be subject to regulations and statutes, including MCAS Cherry Point security regulations, as may be necessary to protect national security information ("classified information") as defined in Executive Order 12356, and comply with MCAS Cherry Point's health and safety requirements. Such requirements shall not be applied so as to unreasonably hinder the EPA or the NCDENR from carrying out their responsibilities and authority pursuant to this Agreement.

16.3 The Navy shall provide an escort whenever the EPA or the NCDENR requires access to restricted areas of MCAS Cherry Point for purposes consistent with the provisions of this Agreement. The EPA and the NCDENR shall provide reasonable notice to the Navy's Project Manager, or his or her designee, to request any necessary escorts for such restricted areas. The Navy shall not require an escort to any area of this Site unless it is a restricted or controlled-access area. Upon request of the EPA or the NCDENR, the Navy, to the extent permitted by law, shall promptly provide a written list of current restricted or controlled-access areas.

16.4 The EPA and the NCDENR shall have the right to enter all areas of the Site that are entered by contractors performing Work under this Agreement.

16.5 Upon a denial of any aspect of access, the Navy shall provide an immediate explanation of the reason for the denial, including reference to the applicable regulations, and upon request, a copy of such regulations. Within 48 hours, the Navy shall provide a written explanation for the denial. To the extent possible, the Navy shall expeditiously provide a recommendation for accommodating the requested access in an alternate manner.

16.6 The Navy shall ensure that all response measures, groundwater rehabilitation measures, and RAs of any kind that are undertaken pursuant to this Agreement on any areas that a) are presently owned by the United States and are occupied by the Navy or leased by the Navy to any other entity; or b) are in any manner under the control of the Navy or any lessees or agents of the Navy, shall not be impeded or impaired in any manner by any transfer of title or change in occupancy or any other change in circumstances of such areas.

16.7 Nothing herein shall be construed as limiting the EPA's or the NCDENR's statutory authority for access or information gathering.

XVII. PERMITS

17.1 The Navy shall be responsible for obtaining all federal, State, and local permits necessary for the performance of all Work under this Agreement.

Subject to Section 8.2, above, areas currently scheduled to be addressed under the Installation's RCRA permit shall continue to be addressed under that permit. The Parties shall evaluate notifications of potential Site Screening Areas identified pursuant to Section 9.3A and shall, within forty-five (45) Days after the date of delivery of notification, discuss the proposal and agree whether such area shall be addressed under this Agreement as an SSA or addressed exclusively under the Installation's RCRA permit. If an agreement on whether to address such an area under the Agreement cannot be reached within forty-five (45) Days after the date of delivery of notification, any Party can initiate the Dispute Resolution pursuant to this Agreement.

17.2 The Parties recognize that under Sections 121(d) and 121(e)(1) of CERCLA, 42 U.S.C. Sections 9621(d) and 9621(e)(1), and the NCP, portions of the response actions called for by this Agreement and conducted entirely onsite, where such response actions are selected and carried out in accordance with CERCLA, are exempt from the requirement to obtain federal, State, or local permits. All activities must, however, comply with all the applicable or relevant and appropriate federal and State standards, requirements, criteria, or limitations that would have been included in any such permit.

17.3 When the Navy proposes a response action, other than an emergency removal action, to be conducted entirely onsite, which in the absence of Section 121(e)(1) of CERCLA, 42 U.S.C. Section 9621(e)(1), and the NCP would require a federal, State, or local permit, the Navy shall include in its Draft ROD or removal memorandum:

A. Identification of each permit that would otherwise be required;

B. Identification of the standards, requirements, criteria, or limitations that would have had to have been met to obtain each such permit; and

C. An explanation of how the response action proposed will meet the standards, requirements, criteria, or limitations identified immediately above.

17.4 Subsection 17.2 above is not intended to relieve the Navy from the requirement(s) of obtaining a permit whenever it proposes a response action involving the shipment or movement of a hazardous substance, pollutant, or contaminant or hazardous waste offsite or in any other circumstances where the exemption provided for at Section 121(e)(1) of CERCLA, 42 U.S.C. Section 9621(e), does not apply.

17.5 The Navy shall notify the EPA and the NCDENR in writing of any permits required for any offsite activities it plans to undertake as soon as it becomes aware of the requirement. The Navy shall apply for all such permits and provide the EPA and the NCDENR with copies of all such permits, applications, and other documents related to the permit process and final permits.

17.6 The Navy agrees to notify the EPA and the NCDENR of its intention to propose modifications to this Agreement to obtain conformance with the permit, or lack thereof if a permit or other authorization which is necessary for implementation of this Agreement is not issued, or is issued, or renewed in a manner that is materially inconsistent with the requirements of this Agreement.

Notification by the Navy of its intention to propose modifications shall be submitted within 60 Days after receipt by the Navy of notification that: (1) a permit will not be issued; (2) a permit has been issued or reissued; or (3) a final determination with respect to any appeal related to the issuance of a permit has been entered. Within 60 Days after the date it submits its notice of intention to propose modifications to this Agreement, the Navy shall submit to the EPA and the NCDENR its proposed modifications to this Agreement with an explanation of its reasons in support thereof.

17.7 The EPA and NCDENR shall review the Navy's proposed modifications to this Agreement in accordance with Section XXXVIII - AMENDMENT OF AGREEMENT, of this Agreement. If the Navy submits proposed modifications prior to a final determination of any appeal taken on a permit needed to implement this Agreement, the EPA and the NCDENR may elect to delay review of the proposed modifications until after such final determination is entered.

17.8 During any appeal by any Party of any permit required to implement this Agreement or during review of any proposed modification(s) to the permit, the Navy shall continue to implement those portions of this Agreement that can be reasonably implemented independent of final resolution of the permit issue(s) under appeal. However, as to Work that cannot be so implemented, any corresponding Deadline, timetable, or Schedule shall be subject to Section XIII - EXTENSIONS, of this Agreement.

17.9 Subject to Section VIII - STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, nothing in this Agreement shall be construed to affect the Navy's obligation to

comply with any RCRA permit(s) that the Facility may already have been or will be issued in the future.

XVIII. REMOVAL AND EMERGENCY ACTIONS

18.1 The Navy shall provide the EPA and the NCDENR with timely notice of any proposed removal action.

18.2 Nothing in this Agreement shall alter the Navy's, the NCDENR's, or the EPA's authority with respect to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. Section 9604.

18.3 If during the course of performing the activities required under this Agreement, any Party identifies an actual or a substantial threat of a release of any hazardous substance, pollutant, or contaminant at or from the Site, that Party may propose that the Navy undertake removal actions to abate the danger and threat that may be posed by such actual or threatened release. All removal actions conducted on MCAS Cherry Point shall be conducted in a manner consistent with this Agreement, CERCLA, Executive Order 12580, DERP, including provisions for timely notification and consultation with the EPA and appropriate NCDENR and local officials, and the NCP and shall, to the extent practicable, contribute to the efficient performance of any long term remedial action with respect to the release(s) or threatened release(s) concerned. Such a proposal to undertake such actions by the Navy shall be submitted to the EPA and the NCDENR and shall include:

A. Documentation of the actual or threatened release at or from the Site;

B. Documentation that the actions posed will abate the danger and threat that may be posed by release of hazardous substances, pollutants, or contaminants at or from the Site;

C. Documentation that the action is consistent with the NCP, applicable State regulations, and, to the extent practicable, contributes to the efficient performance of any LTRA with respect to the release or threatened release concerned;

D. Prepare an EE/CA, or its equivalent. The EE/CA shall contain an analysis of removal alternatives for a site. The screening of alternatives shall be based on criteria as provided in CERCLA and the NCP, such as cost, feasibility, and effectiveness; and

E. A Non-Time Critical Removal Action Plan and Target Date for the proposed action.

The EPA and the NCDENR shall expedite all reviews of these proposals to the maximum extent practicable.

18.4 The opportunity for review and comment for proposed removal actions, as stated in Subsection 18.3 above, may not apply if the action is in the nature of an emergency removal taken

because a release or threatened release may present an imminent and substantial endangerment to human health or the environment. The Navy may determine that review and comment, as stated in Subsection 18.3 above, is impractical. However, in the case of an emergency removal action, the Navy shall provide the EPA and the NCDENR with oral notice as soon as possible and written notice within 48 hours after the Navy determines that an emergency removal is necessary. Within 7 days after initiating an emergency removal action, the Navy shall provide the EPA and the NCDENR with the written basis (factual, technical, and scientific) for such action and any available documents supporting such action. Upon completion of an emergency removal action, the Navy shall state whether, and to what extent, the emergency removal action varied from the description of the action in the written notice provided pursuant to this Section. Within 30 days of completion of an emergency response action, the Navy will furnish the EPA and the NCDENR with an Action Memorandum addressing the information provided in the oral notification, whether and to what extent the action varied from the description previously provided, and any other information required by CERCLA or the NCP, and in accordance with EPA Guidance for such actions. Such actions may be conducted at anytime, either before or after the issuance of a ROD.

18.5 If an imminent health hazard (e.g., a drinking water well containing any contaminant at concentrations greater than any federal or State drinking water action level or maximum contaminant level [MCL]) or an activity conducted pursuant to this Agreement that is creating a danger to the public health or welfare or the environment is discovered by any Party during the efforts covered by this Agreement, the discovering Party will notify the other Parties and the Navy will take immediate action to promptly notify all appropriate State and local agencies, potentially affected persons, and officials in accordance with 10 U.S.C. Section 2705(a). The Navy will expeditiously take appropriate measures to protect all persons affected.

18.6 All activities pursuant to this Agreement will be performed in accordance with the applicable Health and Safety Plan and will be conducted so as to minimize the threat to the surrounding public.

XIX. PERIODIC REVIEW

19.1 Consistent with Section 121(c) of CERCLA, 42 U.S.C. Section 9621(c), and in accordance with this Agreement, if the selected RA results in any hazardous substance, pollutants, or contaminants remaining at the Site, the Parties shall review the RA program for each OU at least every 5 years after the initiation of the RA to assure that human health and the environment are being protected by the RA being implemented. As part of this review, the Navy shall report the findings of the review to the EPA and the NCDENR upon its completion. The Five Year Review shall be submitted to EPA and NCDENR for review and comment. Target Dates shall be established for the completion and transmission of the Five Year Review pursuant to Section XI - DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN, of this Agreement.

19.2 If upon such review it is the conclusion of any of the Parties that additional action or modification of RA is appropriate at the Site in accordance with Sections 104 or 106 of CERCLA,

42 U.S.C. Sections 9604 or 9606, the Navy shall implement such additional or modified action in accordance with Section IX - WORK TO BE PERFORMED, of this Agreement.

19.3 Any dispute by the Parties regarding the need for or the scope of additional action or modification to a RA shall be resolved under Section XX - DISPUTE RESOLUTION, of this Agreement and enforceable hereunder.

19.4 Any additional action or modification agreed upon pursuant to this Section shall be made a part of this Agreement.

19.5 The EPA reserves the right to exercise any available authority to seek the performance of additional Work that arises from a Five Year Review , pursuant to applicable law.

19.6 The NCDENR reserves the right to exercise any authority under State law to seek the performance of additional Work when it is determined that such additional Work is necessary.

19.7 The assessment and selection of any additional response actions determined necessary as a result of a Five Year Review shall be in accordance with Subsections 9.11 to 9.15. Except for emergency response actions, which shall be governed by Section XVIII - REMOVAL AND EMERGENCY ACTIONS, such response actions shall be implemented as a supplemental response action in accordance with Subsections 9.14 and 9.15.

XX. DISPUTE RESOLUTION

20.1 Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Section shall apply. All Parties to this Agreement shall make reasonable efforts to informally resolve disputes at the Project Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this Section shall be implemented to resolve a dispute.

20.2 Within 30 Days after: (1) issuance of a Draft Final Primary Document pursuant to Section X - CONSULTATION of this Agreement, or (2) any action that leads to or generates a dispute, the disputing Party shall submit to the other Parties a written statement of dispute setting forth the nature of the dispute, the Work affected by the dispute, the disputing Party's position with respect to the dispute and the information the disputing Party is relying upon to support its position.

20.3 Prior to any Party's issuance of a written statement of dispute, the disputing Party shall engage the other Parties in informal dispute resolution among the Project Managers and/or their immediate supervisors. During this informal dispute resolution period, the Parties shall meet and/or confer as many times as are necessary to discuss and attempt resolution of the dispute.

20.4 The Dispute Resolution Committee (DRC) will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals

designated to serve on the DRC shall be employed at the policy level (Senior Executive Service [SES] or equivalent) or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this Agreement. The EPA's representative on the DRC is the Director, Division of Waste Management of EPA Region 4. The NCDENR's representative on the DRC is the Director, Division of Waste Management, NCDENR. The Navy's designated member is the Commander, Naval Facilities Engineering Command, Atlantic. Written notice of any delegation of authority from the Party's designated representative on the DRC shall be provided to all other Parties pursuant to the procedures of Section XIV - PROJECT MANAGERS.

20.5 Following elevation of a dispute to the DRC, the DRC shall have 21 Days to unanimously resolve the dispute and issue a written decision signed by all Parties. If the DRC is unable to unanimously resolve the dispute within this 21-day period, the written statement of dispute shall be forwarded to the Senior Executive Committee (SEC) for resolution.

20.6 The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the DRC. The EPA's representative on the SEC is the Regional Administrator of EPA Region 4, or his or her delegatee. The Navy's representative on the SEC is the Assistant Secretary of the Navy (Installations and Environment) or his or her delegatee. The NCDENR's representative on the SEC is the Assistant Secretary for Planning and Policy, NCDENR or his or her delegatee. In the event of a delegation, the positions presented by the delegatees shall represent the positions of the Regional Administrator of EPA Region 4, the Assistant Secretary for Planning and Policy, NCDENR, and the Assistant Secretary of the Navy (Installations and Environment). Any documents issued by the SEC or its members pertaining to a dispute shall be issued by the Regional Administrator of EPA Region 4, the Assistant Secretary of the Navy (Installations and Environment), and/or the Assistant Secretary for Planning and Policy, NCDENR. Notice of any delegation of authority from a Party's designated representative on the SEC shall be provided to the other Parties in writing before the delegation takes effect. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute and issue a unanimous written decision signed by all Parties. If unanimous resolution of the dispute is not reached within 21 Days of the first meeting or conference of the SEC on the matter, the EPA Regional Administrator shall issue a written position on the dispute. The Secretary of the Navy or the Secretary of the North Carolina Department of Environment and Natural Resources may, within 21 Days of the Regional Administrator's issuance of the EPA's position, issue a written notice elevating the dispute to the Administrator of the EPA for resolution in accordance with all applicable laws and procedures. In the event that neither the Navy nor the State elect to elevate the dispute to the Administrator within the designated 21-day escalation period, the decision will become final and the Work will proceed in accordance with the Regional Administrator's written position with respect to the dispute.

20.7 Upon escalation of a dispute to the Administrator of the EPA pursuant to Subsection 20.6 above, the Administrator will review and resolve the dispute within 21 Days of receipt of the dispute. Upon request, and prior to resolving the dispute, the EPA Administrator shall meet and confer with the Secretary of the Navy and Secretary of the North Carolina Department of Environment and Natural Resources to discuss the issue(s) under dispute. Upon resolution, the Administrator shall provide the other Parties with a written final decision setting forth resolution

of the dispute. The duties of the Administrator pursuant to this Subsection may be delegated only to the EPA Assistant Administrator for Enforcement and Compliance Assurance. The duties of the Secretary of the Navy pursuant to Subsection 20.7 may be delegated only to the Assistant Secretary of the Navy (Installations and Environment). The duties of the Secretary of the NCDENR pursuant to Subsection 20.7 may be delegated only to the Chief Deputy Secretary of the NCDENR.

20.8 The pendency of any dispute under this Section shall not affect the Navy's responsibility for timely performance of the Work required by this Agreement, except that the time period for completion of Work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the Work required by this Agreement, which are not affected by the dispute, shall continue to be completed in accordance with the applicable Schedule.

20.9 When dispute resolution is in progress, Work affected by the dispute will immediately be discontinued if the Director, Division of Waste Management for EPA Region 4 requests, in writing, that Work related to the dispute be stopped because, in EPA's opinion, such Work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. The NCDENR may request the EPA Division Director to order Work stopped for the reasons set out above. To the extent possible, the Party seeking a Work stoppage shall consult with the other Parties prior to initiating a Work stoppage request. After stoppage of Work, if a Party believes that the Work stoppage is inappropriate or may have potential significant adverse impacts, the Party may meet with the Party ordering a Work stoppage to discuss the Work stoppage. Following this meeting, and further consideration of the issues, the EPA Division Director will issue, in writing, a final decision with respect to the Work stoppage. The final written decision of the EPA Region 4 Director, Division of Waste Management may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to either the DRC or the SEC, at the discretion of the Party requesting dispute resolution.

20.10 Within 21 days of resolution of a dispute pursuant to the procedures specified in this Section, the Navy shall incorporate the resolution and final determination into the appropriate plan, Schedule, or procedures and proceed to implement this Agreement according to the amended plan, Schedule, or procedures.

20.11 Resolution of a dispute pursuant to this Section of the Agreement constitutes a final resolution to any dispute arising under this Agreement. All Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section of this Agreement.

20.12 If the State continues to dispute the position of the Administrator of the EPA, State reserves its rights, to the extent provided by law including Sections 113(h), 121 and 310 of CERCLA, Section 7002 of RCRA, and Section XXIII - ENFORCEABILITY of this Agreement, to bring an action in federal court to seek relief regarding such dispute and to seek injunctive

relief. This Subsection, however, does not create any rights that the State does not already have under applicable laws.

20.13 The State reserves the right to maintain an action under CERCLA Section 121(f)(3)(B), 42 U.S.C. Section 9621(f)(3)(B), to challenge the selection of a RA that does not attain a State ARAR.

XXI. STIPULATED PENALTIES

21.1 If the Navy fails to submit a Primary Document, as listed in Section X - CONSULTATION, to the EPA and the NCDENR pursuant to the appropriate timetable or Deadlines in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement that relates to an interim or final remedial action, the EPA may assess a stipulated penalty against the Navy. A stipulated penalty may be assessed in an amount not to exceed $5,000 for the first week (or part thereof), and $10,000 for each additional week (or part thereof) for which a failure set forth in this Subsection occurs.

21.2 Upon determining that the Navy has failed in a manner set forth in Subsection 21.1, the EPA or the NCDENR shall so notify the Navy in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, the Navy shall have 15 days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. The Navy shall not be liable for the stipulated penalty assessed by the EPA if the failure is determined, through the dispute resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty.

21.3 The annual reports required by CERCLA Section 120(e)(5), 42 U.S.C. Section 9620(e)(5), shall include, with respect to each final assessment of a stipulated penalty against the Navy under this Agreement, each of the following:

A. The facility responsible for the failure;

B. A statement of the facts and circumstances giving rise to the failure;

C. A statement of any administrative or other corrective action taken, or a statement of why such measures were determined to be inappropriate;

D. A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and

E. The total dollar amount of the stipulated penalty assessed for the particular failure.

21.4 In the event that Navy has to pay a stipulated penalties under this Agreement, the Navy will seek Congressional approval and authorization to pay such penalties in equal amounts to the

federal Hazardous Substances Superfund and to the North Carolina Civil Penalty and Forfeiture Fund. Such payment will not entail expenditures that exceed available appropriations, and nothing in this Agreement may be considered as implying that Congress will, at a later date, appropriate funds sufficient to pay such penalties.

21.5 In no event shall this Section give rise to a stipulated penalty in excess of the amount set forth in CERCLA Section 109, 42 U.S.C. Section 9609.

21.6 This Section shall not affect the Navy's ability to obtain an extension of a timetable, Deadline, or Schedule pursuant to Section XIII - EXTENSIONS.

21.7 Nothing in this Agreement shall be construed to render any officer or employee of the Navy personally liable for the payment of any stipulated penalty assessed pursuant to this Section.

XXII. FORCE MAJEURE

22.1 A Force Majeure, for the purpose of this Agreement, shall mean any event arising from causes beyond the control of the Party that causes a delay in or prevents the performance of any obligation under this Agreement, including but not limited to:

A. Acts of God;

B. Fire;

C. War;

D. Insurrection;

E. Civil disturbance;

F. Explosion;

G. Unanticipated breakage or accident to machinery, equipment, or lines of pipe despite reasonably diligent maintenance;

H. Adverse weather conditions that could not be reasonably anticipated;

I. Unusual delay in transportation due to circumstances beyond the control of the Navy;

J. Restraint by court order or order of public authority;

K. Inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits, or licenses due to action or inaction of any governmental agency or authority other than the Navy;

L. Delays caused by compliance with applicable statutes or regulations governing contracting, procurement, or acquisition procedures, despite the exercise of reasonable diligence; and

M. Insufficient availability of appropriated funds, if the Navy made a timely request for such funds as a part of the budgetary process as set forth in Section XXVII - FUNDING, of this Agreement.

A Force Majeure shall also include any strike or other labor dispute, whether or not within control of the Parties affected thereby. Force Majeure shall not include increased costs or expenses of response actions, whether or not anticipated at the time such response actions were initiated.

22.2 When circumstances, which may delay or prevent the completion of the Navy's obligation under this Agreement, are caused by a Force Majeure event, the Navy shall notify the EPA and the NCDENR Project Managers orally of the circumstances within 48 hours after the Navy first became aware of these circumstances. Within 15 Days after the oral notification, the Navy shall supply to the EPA and the NCDENR in writing an explanation of the cause(s) of any actual or expected delay and the anticipated duration of any delay. The Navy shall exercise its best efforts to avoid or minimize any such delay and any effects of such delay.

22.3 The Party seeking an extension based on Force Majeure shall describe the Force Majeure event being alleged.

XXIII. ENFORCEABILITY

23.1 The Parties agree that:

A. Upon the Effective Date of this Agreement, any standard, regulation, condition, requirement, or order that has become effective under CERCLA and is incorporated into this Agreement is enforceable by any person pursuant to CERCLA Section 310, and any violation of such standard, regulation, condition, requirement, or order will be subject to civil penalties under CERCLA Sections 310(c) and 109, 42 U.S.C. Sections 9659(c) and 9609.

B. All timetables and Deadlines associated with the RI/FS shall be enforceable by any person pursuant to CERCLA Section 310, and any violation of such timetables and Deadlines will be subject to civil penalties under CERCLA Sections 310(c) and 109, 42 U.S.C. Sections 9659(c) and 9609;

C. All terms and conditions of this Agreement that relate to IRAs or FRAs, including corresponding timetables, Deadlines, or Schedules, and all Work associated with the IRAs or FRAs, shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such terms or conditions will be subject to civil penalties under CERCLA Sections 310(c) and 109, 42 U.S.C. Sections 9659(c) and 9609; and

D. Any final resolution of a dispute pursuant to Section XX - DISPUTE RESOLUTION, of this Agreement which establishes a term, condition, timetable, Deadline, or Schedule shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such term, condition, timetable, Deadline, or Schedule will be subject to civil penalties under CERCLA Sections 310(c) and 109, 42 U.S.C. Sections 9659(c) and 9609.

23.2 Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or Work where review is barred by any provision of CERCLA, including CERCLA Section 113(h), 42 U.S.C. Section 9613(h).

23.3 Nothing in this Agreement shall be construed as a restriction or waiver of any rights the EPA may have under CERCLA, including but not limited to any rights under Sections 113, 120, 121 and 310, 42 U.S.C. Sections 9613, 9620, 9621 and 9659, or any rights, or defenses, including sovereign immunity, the NCDENR may have under federal or State law.

The Navy does not waive any rights it may have under CERCLA Section 120, SARA Section 211, 10 U.S.C. 2701 et seq., and Executive Order 12580.

23.4 The Parties agree to exhaust their rights under Section XX - DISPUTE RESOLUTION, prior to exercising any rights to judicial review that they may have.

23.5 The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

XXIV. OTHER CLAIMS

24.1 Subject to Section VIII - STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, nothing in this Agreement shall restrict the Parties from taking any action under CERCLA, RCRA, State law, or other environmental statutes for any matter not specifically part of the Work performed under CERCLA, which is the subject matter of this Agreement.

24.2 Nothing in this Agreement shall constitute or be construed as a bar, or a discharge, or a release, from any claim, cause of action, or demand in law or equity by or against any person, firm, partnership, or corporation not a signatory to this Agreement for any liability it may have arising out of, or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous waste, pollutants, or contaminants found at, taken to, or taken from the Site.

24.3 This Agreement does not constitute any decision or pre-authorization by the EPA of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. Section 9611(a)(2) for any person, agent, contractor, or consultant acting for the Navy.

24.4 The EPA and the NCDENR shall not be held as a party to any contract entered into by the Navy to implement the requirements of this Agreement.

24.5 The Navy shall notify the appropriate federal and State natural resource trustees of potential damages to natural resources resulting from releases or threatened releases under investigation, as required by Section 104(b)(2) of CERCLA, 42 U.S.C. Section 9604(b)(2), and Section 2(e)(2) of Executive Order 12580. Except as provided herein, the Navy is not released from any liability that it may have pursuant to any provisions of State and federal law, including any claim for damages for destruction of, or loss of, natural resources.

24.6 This Agreement does not bar any claim for:

A. Natural resources damage assessments, or for damage to natural resources; or

B. Liability for disposal of any hazardous substances or waste material taken from MCAS Cherry Point.

XXV. RESERVATION OF RIGHTS

25.1 Notwithstanding anything in this Agreement, the EPA and the State may initiate any administrative, legal, or equitable remedies available to them, including requiring additional response actions by the Navy in the event that: (a) conditions previously unknown or undetected by the EPA or the State arise or are discovered at the Site; or (b) the EPA or the State receive additional information not previously available concerning the premises that it employed in reaching this Agreement; or (c) the implementation of the requirements of this Agreement are no longer protective of public health and the environment; or (d) the EPA or the State discover the presence of conditions on the Site that may constitute an imminent and substantial danger to the public health, welfare, or the environment; or (e) the Navy fails to meet any of its obligations under this Agreement; or (f) the Navy fails or refuses to comply with any applicable requirement of CERCLA or RCRA or State laws or related regulations; or (g) the Navy, its officers, employees, contractors, or agents falsify information, reports, or data, or make a false representation or statement in a record, report, or document relating to the release of hazardous materials at the Site, and this information affects the determination of whether an RA is protective of human health and the environment. For purposes of this Subsection, conditions at the Site and information known to the EPA and the State shall include only those conditions and information known as of the date of the relevant response action Decision Document.

25.2 The Parties agree to exhaust their rights under Section XX - DISPUTE RESOLUTION, prior to exercising any rights to judicial review that they may have.

25.3 The Parties, after exhausting their remedies under this Agreement, reserve any and all rights, including the right to raise or assert any defense they may have under CERCLA, or any other law, where those rights are not inconsistent with the provisions of this Agreement, CERCLA, or the NCP. This Section does not create any right that the EPA and the State do not already have under applicable law.

25.4 The State reserves any and all rights it may have to recover any past or future costs incurred as a result of CERCLA or State response activities conducted at the Site.

25.5 Notwithstanding any other Section of this Agreement, the State shall retain any statutory right it may have to obtain judicial review of any final decision of the EPA including, without limitation, any authority the State may have under CERCLA Sections 113, 121(e)(2), 121(f)(3), and 310, 42 U.S.C. Sections 9613, 9621(e)(2), 9621(f)(3), and 9659, Section 7002 of RCRA, Section XXIII - ENFORCEABILITY of this Agreement, and State law, except that the State expressly agrees to exhaust any applicable remedies provided in Section X - CONSULTATION and Section XX - DISPUTE RESOLUTION of this Agreement, prior to exercising any such rights.

25.6 Notwithstanding anything in this Agreement, the State reserves the right to initiate any administrative, legal, or equitable remedies available to it based upon: (a) the Navy's failure or refusal to comply with any requirement of State laws or regulations required under this Agreement; or (b) except as provided in a ROD, past, present, or future disposal of hazardous substances or contaminants outside the boundaries of the Site; or (c) past, present, or future violations of federal or State criminal law; or (d) violations of federal or State law other than those addressed in this Agreement that occur during or after implementation of an RA; or (e) damages for injury to, destruction of, or loss of natural resources, and the cost of any natural resource damage assessments. The State expressly agrees to exhaust any applicable remedies provided in Section X – CONSULTATION, and Section XX - DISPUTE RESOLUTION, of this Agreement, prior to exercising any such rights.

25.7 With regard to all matters not expressly addressed by this Agreement, the State specifically reserves all rights to institute equitable, administrative, civil, and criminal actions for any past, present, or future violation of any statute, regulation, permit, or order, or for any pollution or potential pollution to the air, land, or waters of the State.

25.8 In the event that the Navy's obligations under this Agreement are not fulfilled for 6 consecutive months, the State shall have the option of terminating all provisions of the Agreement affecting the State's rights and responsibilities, and the State may thereafter seek any appropriate relief. The State, however, expressly agrees to exhaust any applicable remedies provided in Section X – CONSULTATION, and Section XX - DISPUTE RESOLUTION, of this Agreement, prior to exercising any such rights. Thereafter, the State will provide the other Parties with 10 Days notice of its intent to terminate. This Section does not create any right that State does not already have under applicable law.

XXVI. PROPERTY TRANSFER

26.1 No change or transfer of any interest in the Facility or any part thereof shall in any way alter the status or responsibility of the Parties under this Agreement. The Navy agrees to give the EPA and the NCDENR 60 Days notice prior to the sale or transfer by the United States of any

title, easement, or other interest in the real property affected by this Agreement. The Navy agrees to comply with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h), including the Community Environmental Response Facilitation Act (CERFA), and any additional amendments thereof, and with 40 C.F.R. Part 373, if applicable.

26.2 In accordance with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h), and 40 C.F.R. Part 373, the Navy shall include notice of this Agreement in any Host/Tenant Agreement or Memorandum of Understanding that permits any non-MCAS Cherry Point activity to function as an operator on any portion of the Site.

XXVII. FUNDING

27.1 It is the expectation of the Parties to this Agreement that all obligations of the Navy arising under this Agreement will be fully funded. The Navy agrees to seek sufficient funding through its budgetary process to fulfill its obligations under this Agreement.

27.2 In accordance with CERCLA Section 120(e)(5)(B), 42 U.S.C. Section 9620(e)(5)(B), the Navy shall submit to DoD for inclusion in its annual report to Congress the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.

27.3 Any requirement for the payment or obligation of funds, including stipulated penalties, by the Navy established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

27.4 If appropriated funds are not available to fulfill the Navy's obligations under this Agreement, the EPA and the State reserve the right to initiate an action against any other person, or to take any response action, which would be appropriate absent this Agreement.

27.5 Funds authorized and appropriated annually by Congress under the ER,N appropriation in the DoD Appropriations Act will be the source of funds for activities required by this Agreement consistent with 10 U.S.C. Chapter 160. However, should the ER,N appropriation be inadequate in any year to meet the total Navy's implementation requirements under this Agreement, the Navy will, after consulting with the other Parties and discussing the inadequacy with the members of the public interested in the action in accordance with Section XII - BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN, prioritize and allocate that year's appropriation.

XXVIII. REIMBURSEMENT OF STATE SERVICES

28.1 The Navy and the NCDENR agree to use the Defense State Memorandum of Agreement, (DSMOA), signed in 1991, in accordance with the Cooperative Agreements between the State and the Army Corps of Engineers governing DSMOAs, for the reimbursement of services provided in direct support of Navy environmental restoration activities at the Site pursuant to this Agreement.

XXIX. RECOVERY OF EPA EXPENSES

29.1 The Parties agree to amend this Agreement at a later date in accordance with any subsequent national resolution of the issue of EPA cost reimbursement for CERCLA response costs incurred by the EPA. Pending such resolution, the EPA reserves the rights it may have with respect to cost reimbursement.

XXX. QUALITY ASSURANCE

30.1 The Navy shall use quality assurance, quality control, and chain of custody procedures throughout all field investigation, sample collection and laboratory analysis activities. The Navy has developed, in accordance with EPA Guidance, and the EPA and the NCDENR have approved, a Quality Assurance Project Plan (QAPP) that shall be used as a component of each SSP, RI, FS, RD, and RA Work Plan(s). If additional detail is required, the Navy shall develop a site-specific QAPP. These Work Plans will be reviewed as Primary Documents pursuant to Section X - CONSULTATION, of this Agreement. QA/QC Plans shall be prepared in accordance with applicable EPA Guidance.

30.2 In order to provide for QA and maintain QC regarding all field work and samples collected pursuant to this Agreement, the Navy shall include in each QA/QC Plan submitted to the EPA and the NCDENR all protocols to be used for sampling and analysis. The Navy shall also ensure that any laboratory used for analysis is a participant in a QA/QC program that is consistent with EPA Guidance.

30.3 The Navy shall ensure that lab audits are conducted as appropriate and are made available to the EPA and the NCDENR upon request. The Navy shall ensure that the EPA and/or the NCDENR and/or their authorized representatives shall have access to all laboratories performing analyses on behalf of Navy pursuant to this Agreement.

XXXI. RECORD PRESERVATION

31.1 Despite any document retention policy to the contrary, the EPA and the Navy shall preserve, during the pendency of this Agreement and for a minimum of 10 years after its termination or for a minimum of 10 years after implementation of any additional action taken

pursuant to Section XIX - PERIODIC REVIEW, all records and documents in their possession that relate to actions taken pursuant to this Agreement. The NCDENR shall preserve all records and documents in its possession that relate to actions taken pursuant to this Agreement in accordance with State law and State policy. After the 10-year period, or for the NCDENR at the expiration of its document retention period, each Party shall notify the other Parties at least 45 Days prior to the proposed destruction or disposal of any such documents or records. Upon the request by any Party, the requested Party shall make available such records or copies of any such records unless withholding is authorized and determined appropriate by law. The Party withholding such records shall identify any documents withheld and the legal basis for withholding such records. No records withheld shall be destroyed until 45 Days after the final decision by the highest court or administrative body requested to review the matter.

31.2 All such records and documents shall be preserved for a period of 10 years following the termination of any judicial action regarding the Work performed under CERCLA, which is the subject of this Agreement.

XXXII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

32.1 Each Party shall make available to the other Parties all the results of sampling, tests, or other data generated through the implementation of this Agreement in a timely manner.

32.2 At the request of any Party, a Party shall allow the other Parties or their authorized representatives to observe fieldwork and to take split or duplicate samples of any samples collected pursuant to this Agreement. Each Party shall notify the other Parties by telephone not less than 14 Days in advance of any scheduled sample collection activity unless otherwise agreed upon by the Parties. The Party shall provide written confirmation within 3 Days after the telephonic notification.

32.3 If preliminary analysis indicates that an imminent or substantial endangerment to human health or the environment may exist, all other Project Managers shall be immediately notified.

XXXIII. PROTECTED INFORMATION

33.1 The Navy shall not withhold any physical, sampling, monitoring, or analytical data.

33.2 National Security Information:

A. Any dispute concerning EPA and/or NCDENR access to national security information (“classified information”), as defined in Executive Order 12356, shall be resolved in accordance with Executive Order 12356 and 32 C.F.R. Part 159, including the opportunity to demonstrate that EPA and/or NCDENR representatives have proper clearances and a need to know, appeal to the Information Security Oversight Office, and final appeal to the National Security Council.

B. Upon receipt from the EPA and/or the NCDENR of a request to meet with the classifying officer regarding access to classified information, the Navy shall, within 10 Days after such request, notify the requesting Party of the identity of the classifying officer and the level of classification of the information sought. If the document was classified by the Navy, the classifying officer and the representative of the requesting Party shall meet within 21 Days following receipt of the request. The purpose of the meeting shall be to seek a means to accommodate the requesting Party's request for access to information without compromising national security or violating security regulations. If no resolution is reached at the meeting, the Navy shall notify the requesting Party of the classifying officer's decision within 14 Days following the meeting. Failure to render a timely decision shall be construed as a denial. Failure to respond is subject to dispute resolution under this Agreement.

C. Nothing in this Subsection is intended to, or should be construed as, superseding any law, regulation, or promulgated Navy directive regarding access to, release of, or protection of national security information.

XXXIV. COMMUNITY INVOLVEMENT

34.1 The Navy has developed and is implementing a Community Involvement Plan. This plan responds to the need for an interactive relationship with all interested community elements, both on and off the MCAS Cherry Point, regarding environmental activities conducted pursuant to this Agreement by the Navy. Any revision or amendment to the Community Involvement Plan shall be submitted to the EPA and the NCDENR for review and comment.

34.2 Except in case of an emergency requiring the release of necessary information, and except in the case of an enforcement action, any Party issuing a press release with reference to any of the Work required by this Agreement shall use its best efforts to advise the other Parties of such press release and the contents thereof upon issuance of such release.

34.3 The Parties agree to comply with all relevant EPA policy and Guidance on community relations programs and the public participation requirements of CERCLA, the NCP, and other ARARs, laws, and regulations.

34.4 The Parties agree that Work conducted under this Agreement and any subsequent proposed RA alternatives and subsequent plans for RA at the Site arising out of this Agreement shall comply with all the Administrative Record and public participation requirements of CERCLA, including Sections 113(k) and 117, 42 U.S.C. Sections 9613(k) and 9617, the NCP, and all applicable Guidance developed and provided by the EPA. This shall be achieved through implementation of the Community Involvement Plan.

34.5 The Information Repository is located at the Havelock Public Library. The Navy has established and is maintaining an Administrative Record at or near MCAS Cherry Point (Havelock Library) available to the public, and another copy at a central location, in accordance with CERCLA Section 113(k), 42 U.S.C. Section 9613(k), Subpart I of the NCP, and applicable Guidance issued by

the EPA. The Administrative Record developed by the Navy shall be periodically updated and a copy of the Index will be provided to the EPA and the NCDENR. The Navy will provide to the EPA and the NCDENR on request any document in the Administrative Record.

34.6 Pursuant to 10 U.S.C. Section 2705(d) and Section XXXVI - RESTORATION ADVISORY BOARD of this Agreement, the Navy has established a Restoration Advisory Board (RAB) for MCAS Cherry Point. The purpose of the RAB is to afford a forum for cooperation between the Parties, local community representatives, and natural resource trustees on action and proposed actions at the Site.

XXXV. PUBLIC COMMENT ON THIS AGREEMENT

35.1 Within 15 Days after the execution of this Agreement (the date by which all Parties have signed the Agreement) or as soon thereafter to conform with RCRA-CERCLA integration requirements, the Navy shall announce the availability of this Agreement to the public for their review and comment, including publication in the Raleigh News and Observer, the New Bern Sun Journal, and the Havelock News, or at least two major local newspapers of general circulation. Such public notices shall include information advising the public as to the availability and location of the Administrative Record discussed in Subsection 35.7. The Navy shall accept comments from the public for 45 Days after such announcement. Within 21 Days after completion of the public comment period, the Navy shall transmit copies of all comments received within the comment period to the other Parties. Within 30 Days after the transmittal, the Parties shall review the comments and shall decide that either:

A. The Agreement shall be made effective without any modifications; or

B. The Agreement shall be modified prior to being made effective.

35.2 If the Parties agree that the Agreement shall be made effective without any modifications, and if the Parties agree on the Responsiveness Summary, the EPA shall transmit a copy of the signed Agreement to the other Parties and shall notify the other Parties in writing that the Agreement is effective. The Effective Date of the Agreement shall be the date of receipt by the Navy of the signed Agreement from the EPA.

35.3 If the Parties agree that modifications are needed and agree upon the modifications and amend the Agreement by mutual consent within 60 Days after the expiration of the public comment period, the EPA and the NCDENR, in consultation with the Navy, will determine whether the modified Agreement requires additional public notice and comment pursuant to any provision of CERCLA. If the EPA and the NCDENR determine that no additional notice and comment are required, and the Parties agree on the Responsiveness Summary, the EPA shall transmit a copy of the modified Agreement to the Navy and the NCDENR and shall notify them in writing that the modified Agreement is effective as of the date of the notification. If the Parties amend the Agreement within the 60 Days and the EPA and the NCDENR determine that additional notice and comment are required, such additional notice and comment shall be provided consistent with the provisions stated

in Subsection 35.1 above. If the Parties agree, after such additional notice and comment has been provided, that the modified Agreement does not require any further modification and if the Parties agree on the Responsiveness Summary, the EPA shall send a copy of the mutually agreed upon modified Agreement to the Navy and the NCDENR and shall notify them that the modified Agreement is effective. In either case, the Effective Date of the modified Agreement shall be receipt by the Navy from the EPA of notification that the modified Agreement is effective.

35.4 In the event that the Parties cannot agree on the modifications or on the Responsiveness Summary within 30 days after the EPA's transmittal of the public comments, the Parties agree to negotiate in good faith for an additional 15 Days before invoking dispute resolution. The Parties agree to have at least one meeting during that 15-day period to attempt to reach agreement.

35.5 If, after expiration of the times provided in Subsection 35.4, the Parties have not reached agreement on:

A. Whether modifications to the Agreement are needed; or

B. What modifications to the Agreement should be made; or

C. Any language, any provisions, any Deadlines, any Work to be performed, any content of the Agreement or any Appendices to the Agreement; or

D. Whether additional public notice and comments are required; or

E. The contents of the Responsiveness Summary,

then the matters in dispute shall be resolved by the dispute resolution procedures of Section XX - DISPUTE RESOLUTION, above. For the purposes of this Section, the Agreement shall not be effective while the dispute resolution proceedings are underway. After these proceedings are completed, the Final Written Decision shall be provided to the Parties indicating the results of the dispute resolution proceedings. Each Party reserves the right to withdraw from the Agreement by providing written notice to the other Parties within 20 Days after receiving from the EPA the Final Written Decision of the resolution of the matters in dispute. If the NCDENR withdraws, and the EPA and the Navy agree to proceed, the Agreement shall be effective as to the EPA and the Navy. Failure by a Party to provide such a written notice of withdrawal to the EPA within this 20-day period shall act as a waiver of the right of that Party to withdraw from the Agreement, and the EPA shall thereafter send a copy of the final Agreement to each Party and shall notify each Party that the Agreement is effective. The Effective Date of the Agreement shall be the date of receipt of that letter from the EPA to the Navy.

35.6 At the start of the public comment period, the Navy will transmit copies of this Agreement to the appropriate federal, State, and local Natural Resource Trustees for review and comment within the time limits set forth in this Section.

35.7 Existing records maintained by MCAS Cherry Point that will be included in the Administrative Record such as reports, plans, and Schedules, shall be made available by the Navy for public review during the public comment period.

XXXVI. RESTORATION ADVISORY BOARD

36.1 The Navy has established a RAB, which meets the requirements of 10 U.S.C. Section 2705(d) at DoD installations. The Parties shall participate in the RAB as follows:

A. A MCAS Cherry Point representative who shall co-chair the RAB;

B. An EPA representative,

C. A NCDENR representative, and

D. The Navy Project Manager, who shall co-chair the RAB.

The Parties shall encourage representatives from the following to serve as members of the RAB:

E. The Craven County, North Carolina, government.

F. The Craven County community.

G. Natural Resource Trustees.

H. The Havelock, North Carolina, government.

I. The Havelock community.

J. An interested environmental non-governmental organization.

36.2 The co-chairs shall schedule quarterly meetings of the RAB unless the Parties agree to meet less frequently. If possible, meetings shall be held in conjunction with the meetings of the Project Managers. Meetings of the RAB shall be for the purpose of reviewing progress under the Agreement and for the following purposes:

A. To facilitate early and continued flow of information between the community, MCAS Cherry Point, and the environmental regulatory agencies in relation to restoration actions taken by MCAS Cherry Point under the IR Program,

B. To provide an opportunity for RAB members and the public to review and comment on actions and proposed actions taken by MCAS Cherry Point under the IR Program, and,

C. To facilitate regulatory and public participation consistent with applicable laws.

Special meetings of the RAB may be held at the request of the members.

XXXVII. EFFECTIVE DATE

37.1 This Agreement shall be effective in its entirety among the Parties in accordance with Section XXXV - PUBLIC COMMENT ON THIS AGREEMENT.

XXXVIII. AMENDMENT OF AGREEMENT

38.1 Except as provided in Section XIV - PROJECT MANAGERS, this Agreement can be amended or modified solely upon written consent of all the Parties. Such amendments or modifications shall be in writing, and shall become effective on the third business day following the date on which the EPA signs the amendments or modifications. The Parties may agree on a different Effective Date. As the last signing Party, the EPA will provide notice to each signatory pursuant to Section XIV - PROJECT MANAGERS, of the Effective Date.

38.2 The Party initiating the amendment of this Agreement shall propose the amendment in writing for distribution and signature by the other Parties.

38.3 During the course of activities under this Agreement, the Parties anticipate that statutes, regulations, Guidance, and other rules will change. Those changed statutes, regulations, Guidance, and other rules will be applied to the activities under this Agreement in the following manner:

A. Applicable statutes and regulations shall be applied in accordance with the statutory or regulatory language on applicability, and if applied to ongoing activities, shall be applied on the Effective Date provided. However, the Parties shall, to the extent practicable, apply them in such a way as to avoid as much as possible the need for repeating Work already accomplished.

B. Applicable policy or Guidance shall be applied as it exists at the time of initiation of the Work in issue.

C. Applicable policy or Guidance, which is changed after the initiation of the Work in issue or after its completion, shall be applied subject to Section XX - DISPUTE RESOLUTION. The Party proposing application of such changed policy or Guidance shall have the burden of proving the appropriateness of its application. In any case, the Parties shall, to the extent practicable, apply any changed policy or Guidance in such a way as to avoid, as much as possible, the need for repeating Work already accomplished.

XXXIX. SEVERABILITY

39.1 If any provision of this Agreement is ruled invalid, illegal, or unconstitutional, the remainder of the Agreement shall not be affected by such a ruling.

XL. TERMINATION AND SATISFACTION

40.1 The provisions of this Agreement shall be deemed satisfied upon a consensus of the Parties that the Navy has completed its obligations under the terms of this Agreement. Following EPA certification of all the response actions at the Site pursuant to Subsection 9.18.C of Section IX - WORK TO BE PERFORMED, any Party may propose in writing the termination of this Agreement upon a showing that the requirements of this Agreement have been satisfied. The obligations and objectives of this Agreement shall be deemed satisfied and terminated upon receipt by the Navy of written notice from the EPA, with concurrence of the NCDENR, that the Navy has demonstrated that all the requirements of this Agreement have been satisfied. A Party opposing termination of this Agreement shall provide a written statement of the basis for its denial and describe the actions necessary to grant a termination notice to the proposing Party within 90 Days after receipt of the proposal.

40.2 Any disputes arising from this Termination and Satisfaction process shall be resolved pursuant to the provisions of Section XX - DISPUTE RESOLUTION, of this Agreement.

40.3 Upon termination of this Agreement, the Navy shall place a public notice announcing termination in two major local newspapers of general circulation.

40.4 This Section shall not affect the Parties' obligations pursuant to Section XIX - PERIODIC REVIEW, of this Agreement. In no event will this Agreement terminate prior to the Navy's completion of the Work required by this Agreement.

AUTHORIZED SIGNATURES

Each of the undersigned representatives of the Parties certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement. ~~This agreement shall apply to and be binding upon the EPA, and the Navy. The State intends to voluntarily comply with the terms of this Agreement and is committed to full participation in the remediation efforts to be conducted pursuant to this Agreement.~~

IT IS SO AGREED:

By _____ Date 12/13/2004
Donald R. Schregardus
Deputy Assistant Secretary of the Navy
(Environment)

By _____ Date 1/25/05
Robin Smith
Assistant Secretary for Planning and Policy
North Carolina Department of Environment and Natural Resources

By _____ Date
JAN - 3 2005
J.I. Palmer, Jr.
Regional Administrator
Environmental Protection Agency, Region 4

Appendix A
Site Management Plan

Final

Site Management Plan
Fiscal Year 2005

Marine Corps Air Station
Cherry Point, North Carolina

Prepared for
Department of the Navy
Atlantic Division
Naval Facilities Engineering Command

Under the:

AGVIQ/CH2M HILL Joint Venture I Program

Contract N62470-03-D-4401
Task Order 0008

Prepared by:

AGVIQ
AGVIQ ENVIRONMENTAL SERVICES
CH2M HILL
JOINT VENTURE

Virginia Beach, VA
July 2004

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Acronyms and Abbreviations

2nd FSSG	Second Force Service Support Group
2nd MAW	Second Marine Aircraft Wing
AOC	Area of Concern
AS/SVE	air sparging/soil vapor extraction
BERA	Baseline Ecological Risk Assessment
bgs	below ground surface
BRAC	Base Realignment and Closure
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfs	cubic feet per second
CIP	Community Involvement Plan
DoD	Department of Defense
DPG	DoD Program Goal
DRMO	Defense Reutilization and Marketing Office
EAD	Environmental Affairs Department
ERA	Ecological Risk Assessment
FFA	Federal Facilities Agreement
FMF	Fleet Marine Force
FS	Feasibility Study
ft	feet, foot
FY	fiscal year
HEA	Health and Environmental Assessment
HHRA	Human Health Risk Assessment
HHRS	Human Health Risk Screening
HRS	Hazard Ranking System
IAS	Initial Assessment Study
IC	institutional controls
IRI	Interim Remedial Investigation
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plant
JV	Joint Venture
LAAM	Light Anti-Aircraft Missiles
LANTDIV	Atlantic Division
LCID	land clearing and inert debris
LTM	long-term monitoring

LUCAP	Land Use Control Assurance Plan
MCAS	Marine Corps Air Station
MFSP	Master Field Sampling Plan
MGD	million gallons per day
mg/L	milligrams per Liter
MQAP	Master Quality Assurance Plan
msl	mean sea level
NACIP	Navy Assessment and Control of Installation Pollutants
NADEP	Naval Aviation Depot
NARF	Naval Air Rework Facility
NAVFACENGCOM	Naval Facilities Engineering Command
NC DENR	North Carolina Department of Environment and Natural Resources
NCP	National Contingency Plan
NFA	no further action
NPL	National Priorities List
NTCRA	non-time critical removal action
OU	Operable Unit
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
POEI	points of environmental interest
POL	petroleum, oil, and lubricants
POTW	Publicly Operated Treatment Works
PRAP	Proposed Remedial Action Plan
PSA	Preliminary Screening Area
RA	Remedial Action
RAC	Remedial Action Contract
RASO	Radiological Affairs Support Office
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
ROD	Record of Decision
RRR	Relative Risk Ranking
SAR	SWMU Assessment Report
SARA	Superfund Amendments and Reauthorization Act
SLERA	Screening-level Ecological Risk Assessment
SMP	Site Management Plan
SOP	standard operating procedure
SSA	Site Screening Area
SSP	Site Screening Process
STP	Sewage Treatment Plant
SV	Sampling Visit
SVE	soil vapor extraction
SVOC	semivolatile organic compound

SWMU	Solid Waste Management Unit
TDM	Technical Direction Memorandum
USEPA	United States Environmental Protection Agency
USGS	U.S. Geological Survey
UST	underground storage tank
VOC	volatile organic compound
VSI	Visual Site Inspection
WP	Work Plan

SECTION 1

Introduction

This document presents the Site Management Plan (SMP) for Marine Corps Air Station (MCAS) Cherry Point, North Carolina for fiscal year (FY) 2004. The SMP presents planned activities to be conducted at MCAS Cherry Point during FY 2004 and beyond, and provides projections for long-term progress in accordance with the Department of Defense (DoD) Installation Restoration Program (IRP).

This document has been prepared for the U.S. Navy, Naval Facilities Engineering Command (NAVFACENGCOM), Atlantic Division (LANTDIV), under Navy Contract N62470-03-D-4401, Task Order - 0008, by AGVIQ/CH2M HILL Joint Venture (JV) I. The SMP has also been submitted to representatives of the MCAS Cherry Point Environmental Affairs Department (EAD), the North Carolina Department of Environment and Natural Resources (NC DENR), and the U.S. Environmental Protection Agency (USEPA), Region IV, and meets the requirements of the Federal Facilities Agreement (FFA). In the event of any actual or apparent conflict between any term(s) of this SMP and any term(s) of the FFA, the term(s) of the FFA will control.

The purpose of the SMP is to provide a management tool for the MCAS Cherry Point IRP Partnering Team, which includes representatives from LANTDIV, MCAS Cherry Point EAD, NC DENR, and USEPA. It is intended to be used in the planning and scheduling of environmental remedial response activities to be conducted at MCAS Cherry Point under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). The SMP provides summaries of previous investigations and brief site descriptions, establishes activity schedules, and provides proposed deadlines for completion of deliverables. The SMP is a working document that will be revised yearly to maintain up-to-date documentation and a current summary of environmental actions at MCAS Cherry Point. This SMP updates and supercedes the FY 2002 SMP prepared by Tetra Tech NUS in April 2002.

The prioritization of activities and the proposed schedules were developed by the MCAS Cherry Point IRP Partnering Team, and are based on several factors:

- The Partnering Team's relative ranking of the sites with regard to the potential risks that they may pose to human health and the environment (i.e., address high risk sites first).
- DoD Program Goals (DPGs) of having remedies in place at all "high" priority sites by FY 2007.
- Goals set by the Partnering Team to meet requirements of USEPA, NC DENR, LANTDIV, and MCAS Cherry Point EAD.

1.1 SMP Report Organization

The SMP consists of six sections. This section establishes the purpose of the SMP. Section 2 presents a brief description of MCAS Cherry Point and the environmental history of the Base. Section 3 presents a brief description, history, and summary of previous investigations of the sites identified in the FFA for additional investigation under CERCLA. Section 4 presents the historic and proposed removal and remedial actions at MCAS Cherry Point. Section 5 presents 5-year schedules for environmental investigation and remediation activities at those sites where activities are currently planned for FY 2004 through 2009. References are provided in Section 6.

SECTION 2

MCAS Cherry Point Description and Environmental History

2.1 Base Description

MCAS Cherry Point is a 13,164-acre military reservation located north of the town of Havelock in southeastern Craven County, North Carolina (**Figure 2-1**). Commissioned in 1942, MCAS Cherry Point currently provides support facilities and services for the Second Marine Aircraft Wing (2nd MAW), the Naval Aviation Depot (NADEP), Service Support Detachment 21 of the Second Force Service Support Group (2nd FSSG), the Naval Air Maintenance Training Group Detachment, and the Defense Reutilization and Marketing Office (DRMO). MCAS Cherry Point maintains facilities for training and support of the Atlantic Fleet Marine Force (FMF) aviation units, and is designated as a primary aviation supply point.

The boundaries of MCAS Cherry Point include the Neuse River to the north, Hancock Creek to the east, North Carolina Highway 101 to the south, and an irregular boundary approximately ¾-mile west of Slocum Creek to the west.

2.2 Regional Physiography, Climate, and Surface Water Hydrology

MCAS Cherry Point is located in the Tidewater region of the Atlantic Coastal Plain Physiographic Province. The area encompassing MCAS Cherry Point lies in the Neuse River drainage basin, which is one of two major river basins that flow into Pamlico Sound. Average inflow into the Neuse River estuary is about 6,100 cubic feet per second (cfs).

The topography of this portion of the Coastal Plain Province and MCAS Cherry Point is relatively flat. Surface elevations range from sea level to about 50 feet (ft) above mean sea level (msl), with an average elevation of 20 ft above msl. Coastal areas are swampy and of generally low relief, and are characterized by large tidal streams and their tributaries. The land surface across the facility slopes generally east to west toward Slocum Creek. Land-surface elevations range from 25 ft above msl near Roosevelt Boulevard to approximately 1 ft above msl at Slocum Creek. Typical elevations are generally between 20 and 25 ft above msl, with a few local topographic highs between 25 and 29 ft above msl. Elevations along the surface water drainage features that border much of MCAS Cherry Point are generally between 1 and 5 ft above msl.

Stormwater drainage across MCAS Cherry Point is directed to one of the surface water bodies by a series of storm sewers, drainage ditches, and tributaries. Some tidal influences are likely in Slocum Creek and Hancock Creek. Slocum Creek and Hancock Creek are classified as Class SC estuarine water by the NCDENR. These waters are suitable for fish and wildlife and for secondary recreation (i.e., not considered suitable for swimming).

Proximity to the Atlantic Ocean significantly influences the climate of MCAS Cherry Point. The climate is warm and humid with short, mild winters and long, hot summers. Winter temperatures average 46°F and those in summer average 77°F. Precipitation is not evenly distributed, with the greatest monthly precipitation occurring during July, August, and September (6 to 8 inches per month). In the other months, rainfall averages 3 to 4 inches per month. Recharge to the surficial aquifer system is from precipitation. Average precipitation for the Coastal Plain is approximately 50 inches per year (Giese, Eimers, and Coble, 1997). The generalized water budget for the Coastal Plain includes evapotranspiration of about 33 inches per year, recharge to the water table aquifer of about 12 inches per year, and overland runoff to streams of about 5 inches per year. Of the 12 inches per year of recharge to the water table aquifer, approximately 11 inches per year moves laterally and discharges to streams; the remaining 1 inch per year or less moves vertically downward through confining units into deeper confined aquifers (Giese, Eimers, and Coble, 1997). Tropical hurricanes pass offshore twice in an average year, but infrequently strike the coast with full force.

2.3 Geology and Hydrogeology

2.3.1 General Regional Geologic and Hydrogeologic Framework

The regional geologic and hydrogeologic framework for North Carolina presented here is based principally on information compiled and developed as part of the U.S. Geological Survey's (USGS) Regional Aquifer-System Analysis. The Tidewater region of the Coastal Plain Physiographic Province of North Carolina is underlain by an eastward thickening wedge of unconsolidated gravel, sand, silt, and clay with scattered beds of shells and loosely consolidated beds of limestone, sandy limestone, and shell limestone (Winner and Coble, 1996). The sedimentary sequence ranges in age from Quaternary to Cretaceous, and reaches 10,000 ft in thickness at the Atlantic coast. Near MCAS Cherry Point, the Coastal Plain sediments are estimated to be approximately 2,500 ft thick (Lloyd and Daniel, 1988). The lower sedimentary sequence is predominantly non-marine deltaic in origin, and consists of discontinuous and heterogeneous sand and clay sequences. The upper sequences are predominantly marine in origin and include nearshore and estuarine deposits. The sedimentary deposits overlie pre-Cretaceous crystalline basement rock. Historical Coastal Plain sedimentation and deposition were controlled by fluctuations in sea level on a subsiding continental margin.

MCAS Cherry Point is underlain by 17 hydrostatic units: nine aquifers separated by eight confining units (Eimers, Daniel, and Coble, 1994). Of these regional hydrostratigraphic units, the youngest five aquifers are most relevant to activities at Cherry Point. These aquifers and confining units, from the youngest to the oldest, are the surficial aquifer, the Yorktown Confining Unit, the Yorktown Aquifer, Pungo River Confining Unit, Pungo River Aquifer, Upper Castle Hayne Confining Unit, Upper Castle Hayne Confining Aquifer, Lower Castle Hayne Confining Unit, and Lower Castle Hayne Aquifer. These units are described in the following subsections.

2.3.1.1 Surficial Aquifer

The surficial aquifer is the uppermost aquifer of MCAS Cherry Point and is exposed at the ground surface and in streambeds throughout the Air Station. The aquifer consists of

unconsolidated and interfingering beds of fine sand, silt, clay, shell, and peat beds, with scattered deposits of coarser-grained material of relic beach ridges and floodplain alluvium. The average thickness of the aquifer is 50 feet. The surficial aquifer is recharged from rainfall, and is the source of recharge to the underlying confined aquifers as well as the source of base flow to streams. The surficial aquifer has an estimated hydraulic conductivity of 10 ft/day.

2.3.1.2 Yorktown Confining Unit

The Yorktown confining unit underlies the surficial aquifer and serves as a hydrogeologic barrier to the underlying Yorktown Aquifer. The confining unit consists largely of clay and sandy clay that locally includes beds of fine sand or shells. These confining sediments comprise the youngest beds of the Yorktown Formation. The average thickness of the Yorktown Confining Unit is about 22 ft (Winner and Coble, 1996).

2.3.1.3 Yorktown Aquifer

The Yorktown Aquifer is comprised predominantly of fine sand, silty and clayey sand, and clay; shells and shell beds occur throughout and are reflective of marine and near-marine depositional environments. The fine sand is the dominant aquifer material, comprising generally between 70 and 80 percent of the Yorktown Aquifer in Craven County. The estimated average hydraulic conductivity of the aquifer is approximately 22 ft/day. The Yorktown Aquifer ranges in thickness from 20 to 35 ft (Eimers, Daniel, and Coble, 1994).

2.3.1.4 Pungo River Confining Unit

The upper clay beds of the Pungo River Formation and lowermost clays of the Yorktown Formation comprise the Pungo River Confining Unit. These sediments overlie the Pungo River Aquifer. The confining unit contains less than 10 percent sand with an average thickness of 55 ft (Winner and Coble, 1996).

2.3.1.5 Pungo River Aquifer

The permeable sediments of the upper and middle Pungo River Formation comprise the Pungo River Aquifer. The aquifer consists of fine- to medium-grained marine sand with considerable phosphate content. Based on fossil content, these sediments were deposited in an offshore setting, with some coarse sand beds representative of nearshore or estuarine environments. In eastern Craven County, the aquifer is about 90 percent sand. The western extent of the aquifer lies about 10 miles west of MCAS Cherry Point, and averages about 15 ft in thickness near its western limits. In the western portions of Craven County, where the Yorktown aquifer is absent, the Pungo River aquifer is directly overlain by the surficial aquifer. The average estimated hydraulic conductivity of the Pungo River aquifer is 32 ft/day (Winner and Coble, 1996). Recharge to the aquifer is through leakage through the upper confining unit from the Yorktown Aquifer, with upward discharge to major stream valleys. Near the western limits of the aquifer, the Neuse River may cut into the Pungo River Aquifer.

2.3.1.6 Castle Hayne Confining Unit

Regionally, the Castle Hayne confining unit and Aquifer are considered one hydro-stratigraphic unit. In the vicinity of the MCAS Cherry Point, the USGS has subdivided this

unit into an upper and lower Castle Hayne confining unit and upper and lower Castle Hayne Aquifer. For the purpose of this regional description of the hydrostratigraphic units of the North Carolina Coastal Plain, the Castle Hayne is not subdivided.

The Castle Hayne confining unit consists of clay, sandy clay, and clay with sandy streaks. The average thickness of the confining clays is 14 ft. In some areas, the confining unit contains sufficient sand to allow significant leakage between the Castle Hayne and the overlying aquifers (Winner and Coble, 1996).

2.3.1.7 Castle Hayne Aquifer

The Castle Hayne Aquifer consists of the Castle Hayne Limestone and rocks of the River Bend Formation. The aquifer is predominantly limestone and sand with minor amounts of clay. These sediments were deposited under marine conditions and include shell, dolomitic, and sandy limestones. The limestone varies from loosely consolidated to hard and recrystallized. The fine- to coarse-grained sand beds vary in carbonate content. Clay marl beds, when present, are generally less than 10 ft thick. Clay is also present as matrix material in sand and limestone beds. The aquifer typically consists of alternating beds of limestone, sandy limestone, and sand. In the lower part of the aquifer, sand is the dominant aquifer material. The average thickness of the Castle Hayne Aquifer is 178 ft (Winner and Coble, 1996).

The Castle Hayne Aquifer is the most productive aquifer in this area of the North Carolina Coastal Plain. The hydraulic conductivity of the aquifer varies significantly, with a range from 15 ft/day where the aquifer is relatively thin and sandy to 200 ft/day where the aquifer is thick and composed of permeable limestone. The average hydraulic conductivity estimated for the entire aquifer is 65 ft/day (Winner and Coble, 1996).

2.3.2 Regional Water Usage

The primary source of water for municipal, residential, and agricultural use in the vicinity of MCAS Cherry Point is from the aquifers of the Coastal Plain of North Carolina. Total groundwater withdrawals from the Coastal Plain aquifers in North Carolina are estimated to be more than 250 million gallons per day (MGD) (Giese, Eimers, and Coble, 1997). As a result of the extensive use of groundwater and the potential impacts from overpumping of the aquifers, the North Carolina Division of Water Resources has established Capacity Use Area #1 under the Water Use Act of 1967. Capacity Use Area #1 encompasses portions of seven counties in the central North Carolina Coastal Plain, which includes the Cherry Point area of Craven County. The most important aquifer in the vicinity of MCAS Cherry Point in Capacity Use Area #1 is the Castle Hayne Aquifer, which can yield very large quantities of potable water. Within Capacity Use Area #1, greater than 50 percent of the groundwater use is for mining, followed by use for public supplies.

MCAS Cherry Point uses between 2.5 and 4.5 MGD derived from about 25 wells that range in depth from 195 to 330 ft. The groundwater in the vicinity of MCAS Cherry Point is classified by the State of North Carolina as Class GA. Class GA groundwaters are considered to be existing or potential sources of drinking water.

2.3.3 Soils

MCAS Cherry Point is located on the Talbot Terrace Plain, which was formed by sediments deposited in a lagoon approximately 220,000 years ago. The soils have developed into medium-textured materials that are underlain by beds of sandy sediments. Soil-forming processes have produced different soils mainly because of differences in natural drainage as influenced by relief and proximity to streams. The well-drained soils near the stream valleys have light-colored topsoils that are low in organic matter and yellowish or brownish subsoils. The poorly drained soils, which are located in the interstream areas and in depressions, have dark topsoils that are higher in organic matter and grayish subsoils. Soils on this landscape are similar in some of their physical properties. They are strongly to very strongly acidic and have good workability, high available water capacity, moderate permeability, and low natural fertility. The better-drained soils are well suited for most uses. A seasonal high water table generally occurs during months of low evapotranspiration (November to March) and ponding in topographic depressions are present in areas of wetter soils.

Areas of MCAS Cherry Point are in the flood plains along streams dissecting the Talbot Terrace. These poorly- to very-poorly-drained areas flood frequently. The soils are very young and are formed in stratified loamy and sandy alluvium. These flood plains merge with loamy brackish marsh areas as they near the Neuse River. A few areas of stream terrace occur along the Neuse River and the larger creeks. These are mostly sandy soils. Some of the low-lying areas are subject to flooding.

2.4 Ecology

MCAS Cherry Point is located on a peninsula between the Neuse River to the north and Core and Bogue Sounds to the south. The major portion of MCAS Cherry Point is located between Hancock and Slocum Creeks. Loblolly pine (*Pinus taeda*) dominates much of the forested land on the broad interstream areas at MCAS Cherry Point. These forests are managed for loblolly pine timber production. The lower slope forests contain a mesic mixed hardwood community. Important canopy components of this community include sweetgum (*Liquidambar styraciflua*), white oak (*Quercus alba*), pignut hickory (*Carya glabra*), and beech (*Fagus grandifolia*). The major understory trees found in the mixed hardwood forest are American holly (*Ilex opaca*) and flowering dogwood (*Cornus florida*). The inland floodplains of the tributary streams are dominated by the blackwater-swamp-community type. Important components of this community include swamp tupelo (*Nyssa biflora*), baldcypress (*Taxodium distichum*), red maple (*Acer rubrum*), sweetgum, and a variety of oaks. The mid-canopy of the swamp forest is dominated by ironwood (*Carpinus carolinana*) (Geo-Marine, 1998).

According to the *Draft Threatened and Endangered Species Management Plan* (Appendix C in Geo-Marine, 1998), there are no federally endangered species found on MCAS Cherry Point. MCAS Cherry Point supports animal species, bridle shiner (*Notropis bifrenatus*), and two plant species, *Carex chapmannii* and *Solidago verna*, that are State-listed.

MCAS Cherry Point has an active fish and wildlife management program with on-staff foresters, wildlife biologists, and game wardens. The objectives of the management program are to protect all native wildlife resources available on a continuing basis, and to enhance

fish and wildlife resources. The game warden staff assist Federal and State authorities in enforcement of the Endangered Species Act.

2.5 Environmental History

MCAS Cherry Point has been actively involved with environmental investigations and remediation programs since 1983, beginning with the Navy Assessment and Control of Installation Pollutants (NACIP) Program. The NACIP Program was modeled after the USEPA Superfund Program, authorized by CERCLA in 1980. An Initial Assessment Study (IAS) was the first investigation of potentially hazardous sites conducted under NACIP in 1983. The purpose of the IAS was to collect and evaluate evidence of pollutants that may have contaminated a site or that pose an imminent human health hazard. Fourteen of the 32 sites identified in the IAS (Sites 1, 2, 4, 5, 6, 7, 10, 13, 15, 16, 17, 18, 19, and 21) were determined to require further investigation (Water & Air Research, 1983).

The Department of Navy's IRP was initiated in 1986, following enactment of the Superfund Amendments and Reauthorization Act (SARA) legislation, and replaced the NACIP.

In 1988, A.T. Kearney, Inc. conducted a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) at MCAS Cherry Point, the first step under the RCRA corrective action process. The RFA included a preliminary review of all available relevant documents, a Visual Site Inspection (VSI), and a Sampling Visit (SV), if appropriate, at the 114 solid waste management units (SWMUs) and 2 areas of concern (AOCs) identified. The SWMUs were divided into four groups based on their operation purpose: Flight Line, Naval Air Rework Facility (NARF), Maintenance and Support, and Centralized Storage and Treatment. The SWMUs associated with each group are preceded with F, N, S, and C as appropriate. Based on the observations made during the VSI, a RCRA Facility Investigation (RFI) and a more comprehensive inspection of production and waste management/handling area were recommended (A.T. Kearney, 1988).

In 1989, the Navy entered into a RCRA Administrative Order on Consent with the USEPA to perform RFIs at 35 of the 114 SWMUs identified in the RFA. On December 16, 1994, MCAS Cherry Point was scored and ranked by USEPA for inclusion on the CERCLA National Priorities List (NPL). Under CERCLA, the Navy acts as the lead agency, in partnership with the USEPA and NC DENR, to address environmental investigations at the facility through the IRP. Due to the NPL listing and Consent Order, ongoing IRP investigations are being conducted to meet the requirements of both RCRA and CERCLA. Since the Consent Order was signed, additional sites have been identified. The most recent RCRA permit modification was issued in 1998 and identified 116 SWMUs and 2 AOCs. The RCRA permit was submitted for renewal in 2003.

The Department of the Navy, EPA, and NCDENR have negotiated an FFA. Under the FFA, all past and future work at IRP sites, SWMUs, and areas of concern (AOCs) will be reviewed and a course of action for future work requirements at each site will be developed. The FFA will include specific requirements for the preparation and contents of the SMP.

As part of the requirements established under CERCLA, an administrative record file has been established for the IRP at MCAS Cherry Point. The administrative record is a compilation of all documents that the DoD uses to select a remedial action or removal action for a site. Regardless of the nature of the site, an administrative record must be maintained. The administrative record will also serve as the basis for any future legal review of decisions made by the DoD concerning remedial action taken at a site. A copy of the MCAS Cherry Point administrative record file is available for review at the public library in Havelock, North Carolina.

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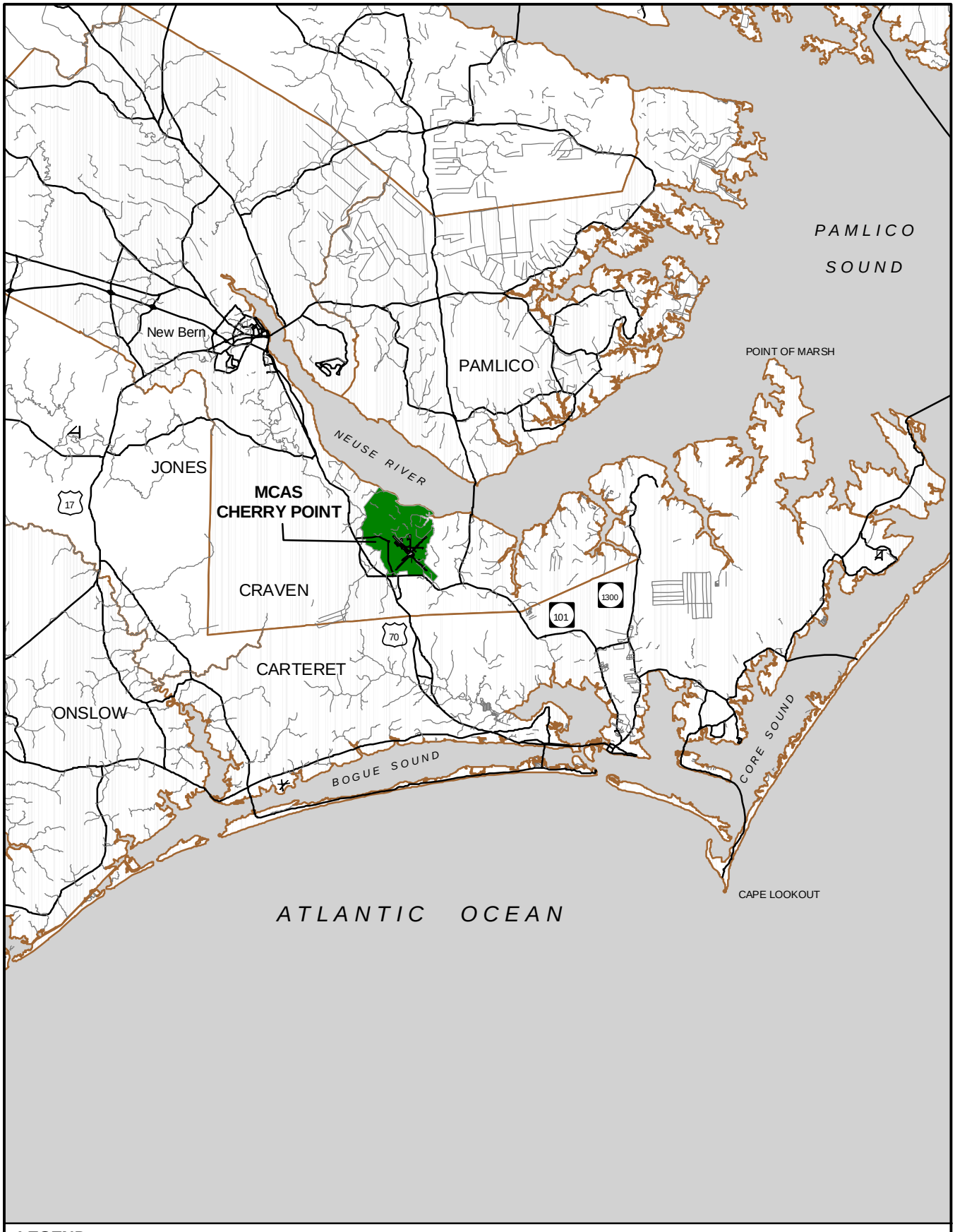

LEGEND

- Streams and Rivers
- Roads
- Military Reservation
- County Boundary

N

0 6 12 Miles

Figure 2-1
Base Location Map
Site Management Plan
MCAS Cherry Point, North Carolina

CH2MHILL

SECTION 3

Site Descriptions

For each of the sites identified in the FFA as requiring additional investigation, this section presents a brief description, history, and summary of previous investigation activities. The FFA sites were grouped into OUs due to proximity, common waste types, and/or common activities. The status of each FFA site is provided in **Table 3-1**. In addition, information and status of the sites requiring no further action (NFA) under CERCLA are included in **Table 3-1**. The locations of the FFA sites at MCAS Cherry Point are shown on **Figure 3-1**. **Table 3-2** lists each of the studies conducted to date at the sites identified in the FFA as requiring additional investigation. **Table 3-3** lists the document submittals per OU.

Underground storage tank (UST) sites are being addressed under the MCAS Cherry Point UST Program and are not included in the SMP. In accordance with the FFA, if residual groundwater contamination is detected at a UST site that is not related to the UST, the groundwater will be addressed as part of a nearby existing FFA site or as a new site.

3.1 Descriptions of CERCLA Remedial Investigation (RI)/ Feasibility Study (FS) Sites

The following sites have been identified in the pending FFA as requiring RI/FSs under CERCLA. The ultimate closure of each of these sites will require a Record of Decision (ROD).

3.1.1 Operable Unit 1

OU1 is an industrial area in the southern portion of MCAS Cherry Point that covers approximately 565 acres. There are 11 FFA sites within OU1, assigned due to their proximity to each other within the industrialized section of MCAS Cherry Point. The boundaries of OU1 and the site locations within OU1 are shown on **Figure 3-2**.

3.1.1.1 Site 14 - Motor Transportation

Site 14 is located in the central portion of OU1 at the intersection of C Street and Second Avenue, and is bisected by Curtis Road. Site 14 is approximately 9 acres in size and is flat and covered with asphalt and gravel. The area and buildings are used for parking lots, wash racks, and vehicle maintenance. The paved area adjacent to a loading dock for the warehouse at Building 150 is used for bulky item storage, 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. An employee reportedly indicated that waste oil was applied to the unpaved parking lots for dust control in the 1950s and 1960s.

Surface runoff flows to drainage ditches adjacent to the site. Shallow groundwater beneath the site generally flows to the west, and the water table is generally encountered at approximately 7 to 8 ft below ground surface (bgs).

Site 14 was identified in the IAS, RFA, and Consent Order. The IAS listed the site due to a 1977 refueler truck spill at Building 160 of approximately 2,000 gallons of aviation fuel, most likely JP-5. The fuel and contaminated soil were removed, and the IAS recommended NFA (Water & Air Research, 1983). The RFA identified the area as SWMU I-14, and recommended soil sampling in the spill area to determine if hazardous constituents remained in the soil. If hazardous constituents were found, removal of the soil was recommended (A.T. Kearney, 1988). The RCRA Part B Permit and Consent Order required that a RFI be conducted at Site 14.

In April 1994, as part of a SWMU Assessment Report (SAR), MCAS Cherry Point collected soil samples for oil and grease analysis in response to the previously unreported release of waste oil to the unpaved parking lots (U.S. Marine Corps, 1994). Two additional soil samples were collected in 1997 and analyzed for organic compounds (except pesticides/ polychlorinated biphenyls [PCBs]) and metals. The SAR recommended surfactant placement on the ground surface.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a Screening-level Ecological Risk Assessment (SLERA) in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggest that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A Remedial Investigation (RI) was conducted at OU1 in 2000. The RI activities included the collection of soil and sediment samples from Site 14 to determine if site-related contamination remained. Lead was frequently detected in soil at concentrations above background. The presence of lead in the soil samples may be the result of the application of waste oil on the site for dust control or related to the UST sites within the Site 14 boundary. There was not an apparent correlation between the Site 14 soil and OU1 groundwater data at OU1. Lead was found in the groundwater but is more likely the result of the leaking gasoline storage tanks and not the result of leaching lead from the soil. Acceptable risks to human health were identified for all exposures to soil at Site 14. The results of the Step 3A Ecological Risk Assessment (ERA) indicate that some risks are present from a few organic chemicals and metals in surface soil and sediment in specific areas at OU1, not including Site 14. The RI recommended a Feasibility Study (FS) and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a Baseline ERA (BERA) Work Plan (WP) for OU1 was submitted May 2004. Interim groundwater monitoring was conducted May 2004.

3.1.1.2 Site 15 - Ditch and Area Behind NADEP

Site 15 is located along the southeastern edge of OU1 and was originally described in the IAS as an unpaved 25-acre area between the NADEP and a drainage ditch adjacent to Runway 5. Subsequently, former employees indicated that the ditch identified in the IAS is more likely the ditch formerly behind Building 133. The former ditch area is now covered by an addition to Building 133 and surrounding pavement. As a result, it appears that previous investigations did not include this part of the site.

Surface runoff from this area currently flows southeastward to Schoolhouse Branch, which then discharges to East Prong Slocum Creek. Shallow groundwater generally flows to the west, with a minor component of the flow to the south toward the drainage ditches. The water table is generally encountered at approximately 9 to 10 ft bgs.

Site 15 was identified in the IAS, RFA, and Consent Order. The IAS indicated that wastes generated in NADEP were reportedly washed down floor drains that discharged to the drainage ditch; some solid materials were also reportedly dumped along the edge of the ditch. These activities reportedly began in the 1940s and continued until 1975, when the Industrial Wastewater Treatment Plant (IWTP) (Site 42) and Industrial Air Sewer System (Site 47) were completed. The volume of discharged wastes may have been between 200,000 to 250,000 gallons per day, based on flow estimated during the IAS, and probably included petroleum, oil, and lubricants (POL), organic solvents, cyanides, and metals. During the VSI in 1982, evidence of solid wastes and/or sludges was observed along the ditch that appeared to consist of sandblasting material (Water & Air Research, 1983). The IAS and RFA recommended that a confirmation study, including groundwater and sediment sampling, be conducted to determine whether a significant amount of contamination was present. The RCRA Part B Permit and Consent Order required that an RFI be conducted at Site 15.

Between January 1985 and February 1987, an Interim RI (IRI) was conducted to identify contaminated sites that included groundwater, surface water, and sediment sampling at Site 15. The IRI indicated that the primary contaminant of concern in Site 15 groundwater was lead, which was detected in one monitoring well at an elevated concentration. Soil and sediment were found to be uncontaminated in all areas. The IRI recommended that Site 15 be deleted from the list of potentially hazardous sites and additional investigation be discontinued. However, if the elevated lead concentration in groundwater was found to be a concern, it was recommended that additional groundwater sampling be conducted (NUS, 1988).

In 1991, a 21 Unit RFI was conducted to support a Corrective Measures Study and to verify releases from the sites. During this RFI, surface water and sediment sampling was conducted in Schoolhouse Branch and the East Prong of Slocum Creek adjacent to Site 15. No further investigation was recommended based on low levels of contamination in Schoolhouse Branch that presented no unacceptable risk (Halliburton NUS, 1993a).

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A RI was conducted for OU1 in 2000 and additional soil, groundwater, surface water, and sediment samples were collected. Unacceptable risks to human health for exposure to PCBs in soil were identified for hypothetical future residents and construction workers at Site 15. Concentrations of polycyclic aromatic hydrocarbons (PAHs), cadmium, and zinc in Site 15 soil were recommended for further evaluation to determine if additional ecological study or

risk management is necessary. The RI recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004. Interim groundwater monitoring was conducted May 2004.

3.1.1.3 Site 16 - Landfill at Sandy Branch

Site 16 is an old borrow pit area that was subsequently used as a dump site. The site is located along in the western portion of OU1, and is bounded to the north by Sandy Branch, to the west by East Prong Slocum Creek, to the south by a wetland area and unnamed tributary to East Prong Slocum Creek, and to the east by a dirt road off Roosevelt Boulevard. The site is currently used for storage and solid waste handling (e.g. transfer) and to store bulk materials (e.g. rip-rap, gravel, fill dirt, and mulch). It is no longer used for solid waste recycling activities. There are several buildings, a cardboard compactor, and an auto impound lot located on the site.

The site is relatively flat, sloping toward the streams with a rise in elevation in the area near Roosevelt Boulevard. Shallow groundwater generally flows toward Sandy Branch and the water table is encountered at approximately 1 ft bgs near the Creek and 10 ft bgs in the eastern portion of the site.

Site 16 was identified in the IAS, RFA, and Consent Order. The IAS indicated that Site 16 was approximately 11 acres, but aerial photographs and site reconnaissance have indicated that the site is larger (19 acres). Up to 20,000 gallons of waste oil, one or more 55-gallon drums of potassium cyanide, and unspecified quantities of other wastes (municipal-type refuse) were disposed of between 1946 and 1948 (Water & Air Research, 1983). However, aerial photographs reportedly indicate possible dumping after 1949. The IAS and RFA recommended that a confirmation study be conducted to determine whether contamination had migrated toward nearby surface waters, pending evaluation of the results from the anticipated study of Slocum Creek (Wallmeyer, 1982). The RCRA Part B Permit and Consent Order required that an RFI be conducted at Site 16.

Between January 1985 and February 1987, an IRI was conducted at OU1 to identify contaminated sites that included groundwater, surface water, and sediment sampling at Site 16. The IRI indicated that groundwater and surface water contamination was present. A RI was recommended to determine whether the landfilled area was the primary source of contamination, to determine the limits of the landfill, and to evaluate if upgradient sources of contamination existed (NUS, 1988).

In 1990, an RFI was conducted that included a soil-gas survey and the collection of soil, groundwater, surface water, and sediment samples at Site 16 based on data gaps identified from previous investigations (NUS, 1991). The RFI also included a Health and Environmental Assessment (HEA) to determine the actual or potential risks to human health or the environment. Based on the results of the HEA, groundwater was the only medium of concern that was identified for corrective action in the RFI.

A Technical Direction Memorandum (TDM) Phase I study was conducted in 1992 that included groundwater and soil sampling and the testing of aquifer hydraulic properties (slug testing) at Site 16. Shallow groundwater contamination from volatile organic compounds (VOCs) and metals was attributed to the landfill and upgradient leaking

industrial sewer lines. Additional groundwater and hydrogeologic investigation was also recommended (Halliburton NUS, 1992). The TDM Phase II study was conducted in 1994, and included groundwater and soil sampling and surface-water level monitoring at Site 16. The soil sampling results indicated organic compound contamination, and additional soil sampling was recommended to further define the source and extent of contamination and to confirm or deny whether an industrial sewer line leak existed. In shallow groundwater, VOC contamination was identified in four areas, and additional groundwater sampling was recommended. Further investigation into the uses of buildings located nearby was also recommended (Halliburton NUS, 1994a).

A Focused RI/FS was conducted for OU1 groundwater at Site 16 in 1996. The RI/FS identified data gaps at Site 16 and recommended treatability studies such as a bench-scale or a pilot-scale enhanced oxidation study or an air-sparge pilot-scale study (B&R, 1996a). In 1996, a pilot-scale air sparge/soil vapor extraction (AS/SVE) system was installed for groundwater remediation (B&R, 1997c). In 1997, a time-critical removal action was conducted by OHM that included removal of a debris pile containing asbestos, steel storage tanks, and soil contaminated with petroleum hydrocarbons (OHM, 1998a). A full-scale AS/SVE system was installed in 1998 as part of a non-time-critical removal action (NTCRA). The AS/SVE system is currently operational for groundwater remediation. Quarterly and annual reports of system status and routine monitoring are submitted.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system. According to the 2002 Five Year Review, the Site 16 AS/SVE system has been operating as designed since November 1998. Accumulation of condensate and corrosion in the air-water separator has shut down the AS/SVE on many occasions. However, the treatment system continues to remove VOC mass from groundwater at significant rates (CH2M HILL, 2002g).

A RI was conducted for OU1 in 2000 and additional soil, groundwater, surface water, and sediment samples were collected. Unacceptable risks to human health for exposure to PAHs and chlordane in soil were identified for hypothetical future residents and construction workers at Site 16. Concentrations of lead, zinc, 4,4'-DDT, and chlordane in Site 16 soil were recommended for further evaluation to determine if additional ecological study or risk management is necessary. The RI recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004. Interim groundwater monitoring was conducted May 2004.

3.1.1.4 Site 17 - DRMO Drainage Ditch

Site 17 is a drainage ditch, approximately 300 ft long, located in the southeastern portion of OU1. The ditch discharges to the storm sewer drainage system. Water flows to the east

toward the Runway 5 Ditch then southwest to Schoolhouse Branch and ultimately into East Prong Slocum Creek.

Site 17 was identified in the IAS, RFA, and Consent Order. The IAS stated that an adjacent 1-acre area was used for material storage which included DDT, spent photographic fluid after silver recovery, and transformers containing PCBs. POL was reportedly used for dust control in the storage yard. It was reported that transformers were drained into the ditch and the PCB spills occurred during 1961 to 1968 (Water & Air Research, 1983). The IAS and RFA recommended a confirmation study to determine if significant PCB contamination was present. The RCRA Part B Permit and Consent Order required that an RFI be conducted at Site 17.

Between January 1985 and February 1987, an IRI was conducted at OU1 to identify contaminated sites that included soil and sediment sampling for PCB analysis at Site 17. PCB contamination was detected in the soils and sediment and an RI and FS was recommended (NUS, 1988).

In 1990, an RFI was conducted that included monitoring well installation and the collection of soil, groundwater, and sediment samples at Site 17 based on data gaps identified from the previous investigations (NUS, 1991). The RFI also included a HEA to determine the actual or potential risks to human health or the environment. Based on the results of the HEA, soil was the only medium of concern that was recommended for further evaluation.

Based on the findings of the RFI, a removal action was conducted in 1995 to remove PCB-contaminated soil and sediment. Confirmatory sampling and analysis were conducted to verify that the remaining soil was below the action level of 10 mg/kg. The closeout report indicated that the removal level of 10 mg/kg was met at the limits of excavation (IT, 1996).

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A RI was conducted at OU1 in 2000 that included soil and sediment samples from Site 17. It was believed that the removal action performed at Site 17 may not have removed all the PCB-contaminated soil and sediment in excess of 10 mg/kg. Additionally, the exact extent of removal is unknown. However, the RI results indicated that the soil and sediment containing PCBs at concentrations greater than 10 mg/kg do not remain at Site 17. The RI recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004.

3.1.1.5 Site 18 - Facilities Maintenance Compound

Site 18 is a fenced outdoor storage area approximately 0.5 acre in size located in the southwest corner of OU1. The site is bounded by Schoolhouse Branch to the south, a railroad track to the west and north, and Cunningham Boulevard to the east.

Shallow groundwater generally flows to the southwest beneath the site, and is the water table is encountered at approximately 14 ft bgs.

Site 18 was identified in the IAS, RFA, and Consent Order. The IAS stated that the area was used for transformer storage and that minor occasional leaks of PCB-laden fluid had been reported but that no quantities had been specified (Water & Air Research, 1983). The transformer storage occurred on a bermed concrete pad. The IAS and RFA recommended a confirmation study to determine if significant PCB contamination was present. The RCRA Part B Permit and Consent Order required that an RFI be conducted at Site 18.

Between January 1985 and February 1987, an IRI was conducted at OU1 to identify contaminated sites that included soil sampling for PCB analysis at Site 18. No PCBs were detected in the soils and no further action was recommended at Site 18 (NUS, 1988).

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A RI was conducted at OU1 in 2000 that included soil samples from around the transformer storage pad at Site 18. The investigation results indicated that a significant amount of PCB-contaminated oil has not spilled or impacted the soil at Site 18. Acceptable risks to human health were identified for all exposures to soil at Site 18. The results of the Step 3A ERA indicate that some risks are present from a few organic chemicals and metals in surface soil and sediment in specific areas at OU1, not including Site 18. The RI recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004.

3.1.1.6 Site 42 - Industrial Wastewater Treatment Plant

The IWTP is located near the center of OU1, north of A Street, with a former discharge location south of an unnamed tributary to Sandy Branch. Site 42 specifically consists of the soil and groundwater around the IWTP structure (SWMU C-4). Wastes streams in the Industrial Area Sewer System (Site 47) discharge to the IWTP, which currently discharges treated effluent to the Air Station Sewage Treatment Plant (STP) (Site 43).

The site is relatively flat and it appears that surface runoff flows northward toward the Sandy Branch tributary. The water table is encountered at approximately 2 to 4 ft bgs. The natural groundwater flow direction is generally northwest toward the Sandy Branch tributary, but the NADEP Central Hot Spot groundwater pump and treat remediation

system operating in the vicinity has altered groundwater flow directions locally and captures at least some of the site groundwater.

The IWTP was originally constructed in 1957 and upgraded in 1968, 1972, 1992, and 1998. The 1983 IAS report indicates that the plant was designed for 0.65 MGD and received 0.25 MGD at that time. Sludge from the IWTP was formerly disposed of by landfilling or lagoon storage (e.g. OU2, Site 10) (Water & Air Research, 1983). The RFA indicated that the IWTP was used to treat wastes from industrial sources such as metal plating, painting, aircraft maintenance, vehicle maintenance, and stormwater from bermed containment areas (A.T. Kearney, 1988). Sludge was reportedly stockpiled or land applied. Currently, treated wastewater from the IWTP is discharged to the STP and sludge is transported offsite to a commercial hazardous waste facility.

In July 1990, January and May 1991, and September and October 1992, ATEC collected soil and groundwater samples in the IWTP area to support the construction activities associated with an IWTP upgrade (ATEC, 1991). Groundwater contamination (VOCs and metals) was detected and soil contamination (primarily VOCs) was found to be present in "hot spots."

A Focused RI/FS was conducted for OU1 groundwater in 1996. The RI/FS identified data gaps and recommended treatability studies such as a bench-scale enhanced oxidation study (B&R, 1996a).

The Interim ROD for the NADEP Central Hot Spot Groundwater Interim Remedial Action (B&R, 1996d) recommended that a pump and treat system be installed for groundwater remediation. The pump and treat system was installed in 1998, and groundwater has been extracted and discharged to the IWTP for treatment since that time. Prior to system start-up, an upgrade to the IWTP was implemented to ensure adequate treatment of the groundwater waste stream. The groundwater remediation system is currently operational and quarterly and annual reports of system status and routine monitoring are submitted.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

According to the 2002 Five Year Review, the groundwater extraction and treatment system for the NADEP central hot spot area has been operating as designed (OHM, 2000h, i, j, k; OHM, 2001b,f,g,h; OHM, 2002e). However, the air stripping tower treatment unit at the IWTP experienced several major system shutdowns due to the accumulation of biomass on the packing material during the annual reporting period of 2000 (OHM, 2000h, i, j, k). While approximately half of the extraction wells continue to remove VOC mass at increasing rates, the overall VOC mass removal rate is decreasing. The results seem to indicate that the VOC removal via pump and treat is reaching a plateau and becoming less efficient. Alternative technologies should be considered if the trend continues (CH2M HILL, 2000i).

A RI was conducted for OU1 in 2000 and additional soil, groundwater, surface water, and sediment samples were collected. The investigation results indicated that VOC-contaminated groundwater in the area has impacted the subsurface soil. Acceptable risks to human health were identified for all exposures to soil at Site 42. However, the data indicated that unacceptable risks to human health exist from exposure to VOCs in surficial aquifer groundwater. The results of the Step 3A ERA indicate that some risks are present from a few organic chemicals and metals in surface soil and sediment in specific areas at OU1, not including Site 42. The RI recommended that the groundwater remediation system continue to operate at least until an FS is completed. The RI also recommended additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004. Interim groundwater monitoring was conducted May 2004.

3.1.1.7 Site 47 - Industrial Area Sewer System

Site 47 is a portion of SWMU C-13, which is a system of underground pipes and above-ground drains that transfer industrial wastewater from various parts of the facility to the IWTP or Sewage Treatment Plant (SWMU C-5) (A.T. Kearney, Inc., 1988). Portions of the sewer system were constructed in 1942 and the system has been expanded several times to connect facilities that formerly discharged to the sanitary or storm sewer systems. Site 47 only includes the industrial sewers within OU1 that currently discharge to the IWTP. These sewers extend along A Street from Hanger 130 and Tank Farm A to Building 4225. Industrial processes that currently or historically created wastewater discharge to the sewer system include metal plating, metal finishing, solvent degreasing, paint stripping, painting, fuel storage, fueling, aircraft washing, and general maintenance. Concentrated wastes are no longer discharged to the industrial sewers, but are containerized and transported to the IWTP. Leaks have been detected at several locations within the sewer system in the past. Inspections and repairs are ongoing as necessary.

An infiltration and leakage study was conducted at Site 47 in 1993 to identify the sewer segments to be repaired or replaced. Soil and groundwater samples were collected to determine if contamination had leaked from the segments (Halliburton NUS, 1993c). As a result of these studies, certain segments of sewer system have been repaired. Groundwater contamination (VOCs and metals) was detected beneath Site 47, and soil contamination (primarily VOCs) was found to be present in "hot spot" areas.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A RI was conducted for OU1 in 2000 and additional soil, groundwater, surface water, and sediment samples were collected. The investigation results indicated that VOC-contaminated groundwater in the area has impacted the subsurface soil. Acceptable risks to human health were identified for all exposures to soil at Site 47. However, the data

indicated that unacceptable risks to human health exist from exposure to VOCs in surficial aquifer groundwater. The results of the Step 3A ERA indicate that some risks are present from a few organic chemicals and metals in surface soil and sediment in specific areas at OU1, not including Site 47. The RI recommended that the groundwater remediation system continue to operate at least until an FS is completed. The RI also recommended additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004. Interim groundwater monitoring was conducted May 2004.

An enhanced bioremediation treatability study involving the injection of Hydrogen Release Compound (HRC®) into surficial aquifer groundwater was initiated in 2001. The purpose of the treatability study was to determine the effectiveness of the technique to remediate a small plume of chlorinated VOCs in the shallow groundwater beneath a portion of Site 47. Groundwater monitoring of VOCs and geotechnical parameters was conducted prior to the HRC injection in late 2001 and during six post-injection monitoring events conducted over a 1-year period. At the end of the 1-year period, the concentration of total chlorinated VOCs had been reduced over 90 percent in the heart of the plume, but individual constituents remained at concentrations that exceeded regulatory screening criteria (CH2M HILL, 2003c). The study concluded that additional treatment would be required to further reduce residual concentrations, if necessary. Interim groundwater monitoring was conducted May 2004.

3.1.1.8 Site 51 - Building 137 Plating Shop

Site 51 is a former plating shop that was located within Building 137 in NADEP, in the central portion of OU1. The plating shop consisted of an area of approximately 4,000 square ft that included a 3-ft deep sump for containment of spillage and tank overflows.

Shallow groundwater beneath the site generally flows to the southwest and the water table is encountered at approximately 9 ft bgs.

Site 51 was identified after the IAS and RFA were completed; however the Electroplating Shop Sump (SWMU N-15) was identified in the RCRA Part B permit. The plating shop operated from 1942 until 1990, when plating operations were moved to a new building. The wastes generated in the plating shop consisted of plating solution overflow and rinse water containing zinc and chromium that were discharged to the sump. The sump was constructed of steel and covered with wooden grating. Concrete piers were present in the sump so that tanks and equipment could be mounted above the sump. The sump discharged to the industrial sewer system (Site 47) until 1987, when the sump was plugged and the plating shop converted to a closed-loop system. From then until the plating shop was moved in 1990, wastes were transported to the IWTP (Site 42) in containers for batch treatment.

In October 1992, soil and wipe samples were collected to support the removal and disposal of the plating shop (Dames & Moore, 1993). It was determined that some soil contaminated with VOCs and metals remained below the concrete floor and that groundwater contaminated with VOCs was present beneath Building 137.

Building decontamination and renovation took place from 1994 to 1997 as part of a Remedial Action (OHM, 1996). During this time, the tanks and pipelines associated with plating operations were removed, the sump was backfilled with clean soil, and a concrete

floor was constructed. The area is currently used for storage of non-hazardous parts and supplies, and an autoclave has been constructed over a portion of the former plating shop.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A RI was conducted at OU1 in 2000, and additional soil, groundwater, surface water, and sediment samples were collected, including soil samples from the area around and beneath the floor of Building 137. The investigation results indicated that VOC-contaminated groundwater in the area has impacted the subsurface soil. The data indicated that unacceptable risks to human health exist from exposure to chlordane, dieldrin, and heptachlor epoxide in soil and VOCs in surficial aquifer groundwater. The results of the Step 3A ERA indicate that some risks are present from a few organic chemicals and metals in surface soil and sediment in specific areas at OU1, not including Site 51. The RI recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004. Interim groundwater monitoring was conducted May 2004.

3.1.1.9 Site 52 - Building 133 Plating Shop and Ditch

Site 52 is a former plating shop that was located within Building 133 in NADEP, in the central portion of OU1. The plating shop consisted of an area of approximately 2,000 square ft that included a 2.5-ft deep sump for containment of spillage and tank overflows.

Shallow groundwater beneath the site generally flows to the west and the water table is encountered at approximately 10 to 12 ft bgs.

Site 52 was identified after the IAS and RFA; however, SWMU N-2 (Plating Shop Cleaning Vats) and SWMU N-3 (Metal Plating Shop Degreaser) were located at the site and were identified in the RCRA Part B permit. The plating shop operated from 1942 until 1990, when plating operations were moved to a new building. The wastes generated in the plating shop consisted of plating solution overflow and rinse water that discharged to the sump. The sump was constructed of steel and covered with wooden grating. Concrete piers were present in the sump so that tanks and equipment could be mounted above the sump. The sump wastes may have discharged to the Site 15 ditch prior to the installation of the industrial sewer system (Site 47) to serve Building 133. An addition constructed on the southeastern side of the building may have subsequently covered this ditch. The sump discharged to the industrial sewer system (Site 47) until 1987, when the sump was plugged and the plating shop converted to a closed-loop system. From then until the plating shop was moved in 1990, wastes were transported to the IWTP (Site 42) in containers for batch treatment.

In October 1992, soil and wipe samples were collected to support the removal and disposal of the plating shop (Dames & Moore, 1993). It was determined that some soil contaminated

with VOCs and metals remained below the concrete floor and that groundwater contaminated with VOCs was present beneath Building 133.

Building decontamination and renovation took place from 1994 to 1997 as part of a Remedial Action (OHM, 1996). During this time, the tanks and pipelines associated with plating operations were removed, the sump was backfilled with clean soil, and a concrete floor was constructed. The area is currently used for storage of non-hazardous parts and supplies.

The Interim ROD for the NADEP Central Hot Spot Groundwater Interim Remedial Action and 2002 Five Year Review includes Site 52. A description of the findings is the same as described for Site 42 in Section 3.1.1.6.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A RI was conducted at OU1 in 2000, and additional soil, groundwater, surface water, and sediment samples were collected, including soil samples from the area around and beneath the floor of Building 133. The investigation results indicated that inorganics detected in soil may be related to the former plating operations conducted at the site; however, only a limited area around one sample (OU1-SO-SB10) may have been impacted. The data indicated that unacceptable risks to human health exist from exposure to heptachor epoxide in soil. The results of the Step 3A ERA indicate that some risks are present from a few organic chemicals and metals in surface soil and sediment in specific areas at OU1, not including Site 52. The RI recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004. Interim groundwater monitoring was conducted May 2004.

3.1.1.10 Site 83 - Building 96 Former Pesticide Mixing Area

Site 83 is a former pesticide mixing area approximately 1 acre in size located in the southwest portion of OU1, near Site 16. Adjacent to Building 96 is Building 418, and a corrugated metal roof joins the two buildings. A bermed, concrete washrack is located adjacent to Building 418. A drain from the washrack and a nearby catch basin drain formerly discharged in the area of a steep bank to the west that leads to a wetland adjacent to East Prong Slocum Creek.

The area around Building 96 is covered by asphalt/concrete with a grassy area in the west of Building 96 near the old pesticide shop. This area is relatively flat until the edge of the steep slope to the west leading to the wetland. Surface runoff generally flows toward the wetland area. Shallow groundwater beneath the site generally flows to the west, and the water table is encountered at approximately 18 to 20 ft bgs.

Building 96 was constructed prior to 1948, and was reportedly used as a pesticide mixing and storage area from 1965 to 1981, when a new pesticide shop (SWMU S-12) was built. Building 96 was subsequently used for equipment storage and administrative space until 1997. The building has since been removed, except for a concrete pad.

Site 83 was first identified by MCAS Cherry Point in 1997. A SAR was conducted in 1998 that included the collection of soil, groundwater, and sediment samples. Groundwater and soil contamination was identified and additional investigation of Site 83 was recommended as part of the comprehensive evaluation of OU1 (B&R, 1998b).

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A RI was conducted for OU1 in 2000 and additional soil, groundwater, surface water, and sediment samples were collected. Surface soil samples collected on the eastern side of Site 83 contained few inorganics at elevated concentrations. The most likely source of elevated concentrations of pesticides found in the Site 16 area is runoff from the Building 96 area. Acceptable risks to human health were identified for all exposures to soil at Site 83. Concentrations of lead, 4,4'-DDT, and chlordane in Site 83 soil were recommended for further evaluation to determine if additional ecological study or risk management is necessary. The RI recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004.

3.1.1.11 Site 92 - VOCs in Groundwater near the Stripper Barn

Site 92 is a plume of chlorinated VOC-contaminated groundwater near the Stripper Barn portion of Building 137 within the NADEP area in the central portion of OU1. The area around the site is covered with buildings and concrete, and portions of the industrial sewer system (Site 47) are located beneath and around the Stripper Barn.

Shallow groundwater beneath the site generally flows in a southwesterly direction, and the water table is encountered at approximately 8 to 9 ft bgs.

The Stripper Barn is an area where paint is removed from aircraft. In the past, large quantities of solvent were used to remove the paint and the spent solvent flowed into the industrial sewer system. The current paint removal method requires approximately 90 percent less solvent and the spent solvent is captured for proper disposal. Any historical spills that occurred outside the building may have flowed toward a storm drain (point of environmental interest [POEI] 18) located northeast of the Stripper Barn.

The Interim Record of Decision (ROD) for the NADEP Central Hot Spot Groundwater Interim Remedial Action (B&R, 1996d) recommended that a pump and treat system be installed for groundwater remediation. The pump and treat system was installed in 1998,

and groundwater has been extracted and discharged to the IWTP for treatment since that time. Prior to system start-up, an upgrade to the IWTP was implemented to ensure adequate treatment of the groundwater waste stream. The groundwater remediation system is currently operational and quarterly and annual reports of system status and routine monitoring are submitted.

Site 92 was identified during a Focused RI/FS for the NADEP Central Hot Spot area. A RI was conducted for OU1 in 2000 and additional soil, groundwater, surface water, and sediment samples were collected. The RI identified VOCs as primary contaminants in groundwater and the potential source of contamination at Site 92 as leaking underground industrial sewer lines. A FS and additional ecological evaluation were recommended for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004.

The enhanced bioremediation treatability study discussed in Section 3.1.1.7 (Site 47) was conducted beginning in 2001 at a small plume of chlorinated VOC-contaminated groundwater near the Stripper Barn.

3.1.1.12 Site 98 - VOCs in Groundwater near Building 4032

Site 98 is a small plume of VOC-contaminated groundwater near Building 4032, located southeast of the IWTP in the central portion of OU1. Site 98 was discovered by MCAS Cherry Point during an investigation of USTs at Building 4032. Site 98 was identified as a new site for inclusion in the FFA in 1999.

The area around the site is paved with some grassy areas. Shallow groundwater beneath the site generally flows toward the west, and the water table is encountered at approximately 5 to 7 ft bgs.

In July 1994, groundwater samples were collected as part of a site investigation (REW, 1995). In November 1995, soil and groundwater samples were collected as part of the Navy Relative Risk Ranking (RRR) (Baker, 1995). Several metals were detected in soil and VOCs and metals were detected in groundwater.

A RI was conducted for OU1 in 2000 and additional soil, groundwater, surface water, and sediment samples were collected. The RI identified VOCs as primary contaminants in groundwater and recommended a FS and additional ecological evaluation for OU1 (TT, 2002b). Post-RI ecological investigation work began in FY 2003 and a BERA WP for OU1 was submitted May 2004.

The Interim ROD for the NADEP Central Hot Spot Groundwater Interim Remedial Action and 2002 Five Year Review includes Site 98. A description of the findings is the same as described for Site 42 in Section 3.1.1.6.

3.1.2 Operable Unit 2

OU2 is located in the west-central portion of MCAS Cherry Point and covers approximately 104 acres. OU2 is bounded by the STP to the north, Roosevelt Boulevard to the east, a residential area to the south, and Slocum Creek to the west. There are four FFA sites grouped within OU2 because of their proximity to the Old Sanitary Landfill (Site 10). The location and boundaries of OU2 and the site locations within OU2 are shown on **Figure 3-3**.

3.1.2.1 Site 10 – Old Sanitary Landfill

Site 10, the Old Sanitary Landfill, is located west of Roosevelt Boulevard, south of the STP (Site 43), and east of Slocum Creek and covers approximately 40 acres. Site 10 is divided by Turkey Gut, a small perennial stream that flows northwest into Slocum Creek. The site consists of a sanitary landfill, former sludge impoundments, and a former drum storage area. The former drum storage area was used to store petroleum products and now consists of a fenced area that is covered with gravel. The former drum storage area is currently used to store miscellaneous equipment.

The ground surface elevation across Site 10 varies from approximately 30 ft above msl in the central portions of the landfill to approximately 1.5 ft above msl at Slocum Creek. In the central areas, the ground surface is largely relatively flat, with smaller areas of uneven terrain. At the perimeter of the landfill adjacent to Slocum Creek and Turkey Gut, the ground surface generally forms moderate to steep slopes. There are wetland areas adjacent to Slocum Creek and Turkey Gut, and a portion of the site lies within the 100-year floodplain of Slocum Creek. Surface runoff and underlying shallow groundwater generally flows either west toward Slocum Creek or north toward Turkey Gut, and the water table is encountered at approximately 6 to 9.5 ft bgs.

Site 10 was identified in the IAS, RFA, and Consent Order. The IAS indicated that Site 10 served as the primary landfill at MCAS Cherry Point beginning in 1955. Prior to the late-1970s, all landfilling activities were carried out south of Turkey Gut. Subsequent to that time, landfilling operations also occurred north of Turkey Gut. Landfill operations ceased at Site 10 in the early to mid-1980s. Industrial wastes reportedly disposed of in the landfill included POLs, solvents, and sludges. The quantity of wastes are unknown but were estimated to be thousands of tons. Hazardous liquids and POLs were also spread on the landfill surface and burned, deposited in unlined pits on the south side of Turkey Gut, and buried at the landfill.

Groundwater from monitoring wells at the site was found to be contaminated with metals and organic compounds, and in March 1982, seepage from the area was documented to be entering Turkey Gut (Water & Air Research, 1983). The IAS and RFA recommended a confirmation study, including groundwater, surface water, and sediment sampling to determine if contamination was migrating to Slocum Creek in amounts sufficient enough to cause water quality problems.

The RFA separated Site 10 into three separate units: SWMU I-10a, the Old Sanitary Landfill, SWMU I-10b, the Sludge Pits, and SWMU I-10c, the Sludge Application Site. The Sludge Pits (Former Sludge Impoundment Area) and the Sludge Application Area are now identified as Site 44A and regulated under RCRA. The Sludge Pits were located in the north-central portion of the landfill, and covered approximately 1 acre. These RCRA-regulated surface impoundments were in use from the 1950s until 1983, when the wastes were removed. Wastes disposed of reportedly consisted of hazardous sludges and liquids, including metal filings, plating sludges, paints, organic solvents, oil and grease, and miscellaneous chemicals. The impoundments were certified closed on September 18, 1984, and were undergoing closure by RCRA during the RFA (A.T. Kearney, 1988). Site 10 is identified as SWMUs I-10a and I-10b in the RCRA Part B permit. The RCRA Part B Permit and Consent Order required that an RFI be conducted at Site 10.

In 1981, six monitoring wells were installed at Site 10 as part of a hydrogeologic and geotechnical analysis. Groundwater monitoring was recommended to determine the extent, if any, of groundwater contamination (Schnabel Engineering Associates, 1981).

In 1983, soil samples were collected by Soil & Materials Engineers, Inc. and Willms Trucking Company, Inc. during closure of the former surface impoundments. Closure of the sludge impoundments consisted of excavating the sludge to about 9.5 ft bgs, backfilling the excavations with soil, and capping the area with 2 ft of clay and 2 ft of topsoil (NUS, 1991).

Between 1984 and 1987, an IRI was conducted to identify contaminated sites and included the collection of soil, groundwater, surface water, sediment, and leachate seep samples and aquifer testing at Site 10. Contamination, primarily VOCs, was verified in the shallow groundwater, soil, and sediment at Site 10. A RI/FS was recommended (NUS, 1988).

Additional monitoring wells were installed and groundwater was sampled in 1987 and 1988 for USGS Water Resources Investigation Reports (USGS, 1990) and as part of a hydrogeological assessment in 1988 (Ensafe, 1988).

For the RFI conducted between 1989 and 1991, soil, groundwater, surface water, and sediment samples were collected, and a soil-gas survey and aquifer testing were conducted at Site 10 based on data gaps identified from previous investigations (NUS, 1991). The RFI also included a HEA to determine the actual or potential risks to human health or the environment. Based on the results of the HEA, further investigation of groundwater and subsurface soil was recommended.

During 1992, a magnetometer survey was conducted, soil samples were collected, and test pits were excavated as part of the Phase I TDM (Halliburton NUS, 1992). Additional test pits and/or soil borings were recommended to further delineate the horizontal and vertical extent of soil contamination, primarily VOCs and metals, in the area just south of Turkey Gut. During the Phase II TDM, a terrain conductivity survey, additional test pit excavation, and soil sampling was conducted at Site 10. No further investigation of soils was recommended just south of Turkey Gut based on low concentrations and localized contamination found in soil. Additional soil borings were recommended in the central portion of the landfill to further delineate the horizontal and vertical extent of soil contamination, primarily VOCs and metals (Halliburton NUS, 1994a).

A RI for OU2 was conducted in 1994 and 1995, and included borehole geophysical logging; soil, groundwater, surface water, leachate seep, and sediment sample collection; and surface water level monitoring (B&R, 1997a). The RI concluded that groundwater in the surficial aquifer was contaminated with a wide range of organic contaminants (VOCs, semivolatile organic compound [SVOCs], and pesticides) and metals. In addition, there were several VOC "hot spot" areas of soil contamination identified. A FS was recommended to evaluate potential remedial actions.

Remedial alternatives for OU2 were evaluated in the FS (B&R, 1997d), presented in the Proposed Remedial Action Plan (PRAP) (B&R, 1996b), and finalized in the ROD for OU2 (TT, 1999a). The selected remedy included natural attenuation of groundwater, soil vapor extraction (SVE) at major soil "hot spots," institutional controls (ICs), and long-term monitoring (LTM) of groundwater, surface water, and sediment to ensure the effectiveness of natural attenuation. The Land Use Control Assurance Plan (LUCAP) elements in place at

OU2 are listed in **Table 3-4** and shown on **Figure 3-3**. In 1996, an SVE pilot study was conducted, and in 1997 a full-scale SVE system to treat soil at four soil "hot spot" areas was installed.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

Annual LTM of groundwater began in October 2002. A summary of the samples collected at OU2 as part of the ongoing LTM program is included in **Table 3-5**. Annual LTM will continue until it is confirmed that the constituents detected in groundwater do not exceed the performance standards identified in the ROD (CH2M HILL, 2002e).

According to the Five Year Review, SVE remedy in place at Site 10 was operating as designed since March 1998. VOC mass removal continued to increase at significant rates in hot spots 1 and 3 while little to no removal has been observed at hot spots 2 and 4. Land Use Controls (LUC) were put in place restricting site use to industrial use only, prohibiting intrusive activities below the water table, and prohibiting groundwater use (CH2M HILL 2002g).

The SVE treatment of the soil hot spots was discontinued in August 2003 because the system was no longer removing a significant mass of contamination and was not performing as a cost-effective remedial approach. After the shut down of the system, soil sampling was conducted in January 2004 and the results will be reviewed to determine whether further active remediation of soil at Site 10 is necessary.

3.1.2.2 Site 46 – Polishing Ponds No.1 and No. 2

Site 46 is located to the north of Site 10, and consists of two inactive, unlined ponds. The ponds are approximately 12 ft deep, and formerly served as aeration basins for wastewater from the STP from 1942 until 1996. The treated wastewater was discharged to Slocum Creek via an NPDES permitted outfall.

Site 46 was identified in the RFA and the Consent Order, and is identified as SWMU C-12 in the RCRA Part B permit.

The STP was upgraded and no longer requires the use of the ponds for aeration. The ponds have been retained for potential storm water management in the future, and concurrence will be obtained from the USEPA and NCDENR prior to use of these inactive ponds. MCAS Cherry Point submitted a Closure Plan for this site to the State of North Carolina in December 1988. USEPA Region IV, which formerly had primacy, agreed to waiving the closure requirements and allowing the ponds to be addressed under the NCDENR RCRA authority.

As part of the RI conducted in 1994 and 1995, sediment samples were collected from the polishing ponds and soil samples from the natural material underlying the ponds. Although

several organic compounds (VOCs, SVOCs, and pesticides) and metals were detected in the polishing pond sediment, there were no unacceptable risks to human health identified under the industrial exposure scenario.

The remainder of the site history for Site 46 (beginning with the FS conducted at OU2 in 1997) is the same as described for Site 10 in Section 3.1.2.1.

3.1.2.3 Site 76 – Vehicle Maintenance Area (Hobby Shop)

Site 76 is a fenced area located south of Site 10, and consists of a garage building and parking lot where personal vehicles are repaired. The area covers approximately 250-ft by 250-ft, and is bounded by a wooded area adjacent to Slocum Creek to the west, a residential area to the east, Site 10 to the north, and a wooded area to the south. Site 76 is the only site at OU2 that is currently active, and current site activities include general auto maintenance and auto body repair. Based on a review of historical aerial photographs, the Site 76 area was developed between 1958 and 1964.

In 1995, soil and groundwater samples were collected at Site 76 to support the Navy Relative Risk Ranking (RRR) program. Several VOCs and inorganics were detected in the soil and groundwater samples. The RRR concluded that the results indicated a potential for constituents present in site media to migrate to a point of exposure and that receptors have access to the media (Baker, 1995).

The remainder of the site history for Site 76 (beginning with the RI conducted at OU2 in 1994 and 1995) is the same as described for Site 10 in Section 3.1.2.1.

3.1.3 Operable Unit 3

OU3 is located in the west-central portion of MCAS Cherry Point and covers approximately 19 acres. OU3 is bounded by Slocum Creek Road to the north, OU2 to the south, Slocum Creek to the west, and the STP and an adjacent wooded area to the east. OU3 consists of two FFA sites that were grouped into one OU because of their proximity and common waste types. The location and boundaries of OU3 and the site locations within OU3 are shown on **Figure 3-4**.

3.1.3.1 Site 6 – Fly Ash Ponds

Site 6 formerly consisted of three unlined ponds bounded by Slocum Creek to the west, Luke Rowe's Gut to the south, and Slocum Creek Road to the north and east. T he ponds covered approximately 2.5 acres and were approximately 10 to 15 ft deep.

The earthen berms of the ponds were at an elevation of about 17 ft above msl. The ground surface west of the former pond locations slopes steeply to approximately 5 ft above msl, giving way to a flat and heavily vegetated area adjacent to Slocum Creek. There are wetland areas adjacent to Slocum Creek and Luke Rowe's Gut, and a portion of the site lies within the 100-year floodplain of Slocum Creek. The unlined ponds acted as a recharge zone for the surficial aquifer, and shallow groundwater flowed in a radial pattern away from the ponds to Slocum Creek or Luke Rowe's Gut. The water table is encountered at approximately 2 to 10 ft bgs.

Site 6 was identified in the IAS, RFA, and Consent Order. The IAS indicated that fly ash and cinders from the old power plant were disposed of in the ponds from the 1940s until about 1970. The ponds were then reportedly used for the disposal of lime/alum sludge from the potable water treatment plant from December 1980 until the new water treatment plant went on-line in mid-1994. It was also reported that up to 5,000 gallons of waste POLs were disposed of in the ponds (Water & Air Research, 1983). The IAS and RFA recommended a Confirmation Study, pending evaluation of the results from an anticipated study of Slocum Creek (Wallmeyer, 1982). The RCRA Part B Permit and Consent Order required that an RFI be conducted.

A review of historical aerial photographs indicated that the ponds were not constructed until the late 1950s, when two ponds were constructed. Earlier aerial photographs indicate the presence of a natural pond and/or shallow depressions. The third pond appeared in an aerial photograph from 1978 (B&R, 1996e).

Between 1984 and 1987, an IRI was conducted that included groundwater sampling at Site 6. The IRI recommended that Site 6 be deleted from the list of potentially contaminated sites, and that additional investigations be discontinued based on the low levels of contaminants detected (NUS, 1988).

In 1991 and 1993, soil, groundwater, surface water, and sediment samples were collected at Site 6 as part of the 21 Unit RFI. The RFI recommended the investigation of potential source areas for metals detected in groundwater, and additional soil sampling to identify all potential contaminants at the unit. Additional surface water and sediment sampling in Luke Rowe's Gut and Slocum Creek were also recommended (Halliburton NUS, 1993a).

During 1992, soil and groundwater samples were collected as part of the 10 Unit TDM. Recommendations included additional soil sampling to evaluate the presence or absence of combustion byproducts such as PAHs; groundwater, surface water, and sediment sampling; and evaluation of the interaction between groundwater, surface water, and sediment and the lime/alum ponds (Halliburton NUS, 1993b).

A RI was conducted from 1994 to 1996, and included the collection of soil, groundwater, surface water, and sediment samples; borehole geophysical logging; and surface water level monitoring. Analytical results for Site 6 indicated that this area has been relatively unaffected by incineration/burning and fly ash disposal activities that took place at Site 7; however, minimal residual material remained onsite. A FS for OU3 was recommended to evaluate remedial actions (B&R, 1996e).

Remedial alternatives for OU3 were evaluated in the FS (B&R, 1996f), presented in the PRAP (B&R, 1996c), and finalized in the ROD for OU3 (TT, 2000a). With respect to Site 6, the selected remedy included record maintenance documenting the presence of contamination, land use restrictions to limit future land use and groundwater use, aquifer use restrictions, natural attenuation for groundwater, and LTM of groundwater, surface water, and sediment to assess the progress of natural attenuation. Also as part of the remedy, the ponds were removed by solidifying and excavating the pond sludge, removing piping and debris, leveling the berms, and revegetating the site (OHM, 1998b). The LUCAP elements in place at OU3 are listed in **Table 3-4**.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

Annual LTM of groundwater began in October 2002. A summary of the samples collected at OU3 as part of the ongoing LTM program is included in **Table 3-5**. Annual LTM will continue until it is confirmed that the constituents detected in groundwater do not exceed the performance standards identified in the ROD (CH2M HILL, 2002d).

3.1.3.2 Site 7 – Old Incinerator and Adjacent Area

Site 7 formerly consisted of an incinerator and open burning ground that covered approximately 5 acres. It is bounded by the STP (Site 43) to the south and east, Luke Rowe's Gut to the north, and Slocum Creek to the west. The former incinerator was reportedly located adjacent to Luke Rowe's Gut in the eastern part of the site. The open burning area was reportedly south of Luke Rowe's Gut near its confluence with Slocum Creek.

The ground surface elevation at Site 7 varies from approximately 20 ft above msl in the south central and southeastern portions of the site to approximately 1.5 ft above msl at Slocum Creek. The ground slopes gradually to the north toward Luke Rowe's Gut, with a moderately steep bank where it meets the stream. The ground also slopes downward to the northwest toward Slocum Creek, giving way to a flat, heavily vegetated area where standing water is common on the ground surface. There are wetland areas adjacent to Slocum Creek and Luke Rowe's Gut, and a portion of the site lies within the 100-year floodplain of Slocum Creek. The water table at Site 7 is encountered from 2 to 10 ft bgs, and shallow groundwater generally flows toward Slocum Creek and Luke Rowe's Gut.

Site 7 was identified in the IAS, RFA, and Consent Order. From the 1940s until approximately 1955, waste POLs, NADEP wastes, and other wastes (including municipal refuse) were burned in the incinerator or on the adjacent open burning grounds. There are no records of the types or quantities of waste burned or disposed of at this site (Water & Air Research, 1983). The IAS and RFA recommended a Confirmation Study, pending evaluation of the results from an anticipated study of Slocum Creek (Wallmeyer, 1982). The RCRA Part B Permit and Consent Order required that an RFI be conducted.

Fly ash disposal and open burning are suspected in the western portion of Site 7. The fly ash is believed to have originated from the incinerator, and was reportedly mixed with other wastes. Aerial photographs indicate that the incinerator was removed between 1981 and 1984. Some fly ash was also found in the eastern portion of the site in some places.

Between 1984 and 1987, an IRI was conducted that included groundwater sampling at Site 7. The IRI recommended that Site 7 be deleted from the list of potentially contaminated sites and additional investigations be discontinued based on the low levels of contaminants detected (NUS, 1988).

In 1991 and 1993, soil, groundwater, surface water, and sediment samples were collected at Site 7 as part of the 21 Unit RFI. The RFI recommended the investigation of potential source areas for metals and benzene detected in groundwater, and additional soil sampling to identify all potential contaminants at the unit. Additional surface water and sediment sampling in Luke Rowe's Gut and Slocum Creek were also recommended (Halliburton NUS, 1993a).

During 1992, soil and groundwater samples were collected as part of the 10 Unit TDM. Recommendations included additional soil sampling to evaluate the presence or absence of combustion byproducts such as PAHs, and groundwater, surface water, and sediment sampling (Halliburton NUS, 1993b).

A RI was conducted from 1994 to 1996 that included the collection of soil, groundwater, surface water, and sediment samples; borehole geophysical logging; and surface water level monitoring. Compounds detected in soil at Site 7 included a number of VOCs, PAHs, pesticides, and metals. Groundwater in the area was found to be contaminated with VOCs, SVOCs, pesticides, and metals. The concentrations and number of compounds detected were higher than at Site 6 (B&R, 1996e). A FS for OU3 was recommended to evaluate remedial actions.

Remedial alternatives for OU3 were evaluated in the FS (B&R, 1996f), presented in the PRAP (B&R, 1996c), and finalized in the ROD for OU3 (TT, 2000a). With respect to Site 7, the selected remedy included record maintenance documenting the presence of contamination, land use restrictions to limit future land use and groundwater use, aquifer use restrictions, fencing and warning sign placement to prevent access to soils, natural attenuation of groundwater, enhanced in-situ bioremediation of an isolated area of contaminated soil at Site 7, and LTM of groundwater, surface water, and sediment to assess the progress of natural attenuation and bioremediation. The LUCAP elements in place at OU3 are listed in **Table 3-4**.

As part of the selected remedy, soil samples were collected and a fence and warning signs were installed at Site 7 (OHM, 1998b). In 2000, OHM installed an air sparge system for enhanced bioremediation of a localized area of soil contamination.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

According to the 2002 Five Year Review, the AS system at Site 7 was in operation 90 percent of the time, between March 16, 2000, and September 30, 2001. The AS system was generally functioning as designed (OHM, 2001 d,e,i,j). It was noted that the extent of benzene contamination in soil at Site 7 extends beyond the radius of influence of the current AS system to the southwest and northeast, based on the February 2001 confirmatory soil sampling results (OHM, 200e).

LTM began in October 2002. A summary of the samples collected at OU3 as part of the ongoing LTM program is included in **Table 3-5**. Annual LTM will continue until it is confirmed that the constituents detected in groundwater do not exceed the performance standards identified in the ROD (CH2M HILL, 2002d).

Based on soil and groundwater monitoring results indicating that the air sparge system had effectively remediated the soil hot spot, the air sparge system was turned off in mid-2003. The LTM results will be evaluated going forward to ensure that groundwater concentrations do not rebound since the air sparging was discontinued.

3.1.4 Operable Unit 4

OU4 is located in the northwest-central portion of MCAS Cherry Point and covers approximately 130 acres. OU4 consists of one FFA site, Site 4, which is a Borrow Pit/Landfill North of Runway 14. Site 4 is bounded by Mill Creek to the south and west, Rifle Range Access Road to the north, and Duffy Road to the east. The location and boundaries of OU4 are shown on **Figure 3-5**.

3.1.4.1 Site 4 – Borrow Pit/Landfill (North of Runway 14)

Site 4 consists of several borrow pits that were used for waste disposal as well as a fenced and lined drum storage area that is located in the north-central portion of the site.

The eastern portion of Site 4 is forested and the ground surface elevation over much of the site is between 20 and 25 ft above msl; however, elevations near Mill Creek drop to approximately 10 to 15 ft above msl. There are wetland areas adjacent to Mill Creek, and a small portion of OU4 lies within the 100-year floodplain. There is also a small wetland area near the drum storage area. Shallow groundwater at Site 4 flows toward Slocum Creek and the water table is encountered at less than 12 ft bgs.

Site 4 was identified in the IAS and RFA. The IAS indicated that the borrow pits were initially excavated in the 1940s. The borrow pits had been excavated to a depth below the water table, and a drain was reportedly cut to Slocum Creek. The disposal of demolition and asbestos wastes began in the 1950s. Other wastes, including wastes from NADEP, may have also been disposed of at Site 4; however, no records were maintained on the types or amounts of wastes. The date that disposal activities ceased at the site is not known (Water & Air Research, 1983). The IAS recommended a Confirmation Study and the RFA recommended additional sampling. The RCRA Part B permit required that a RFI be conducted.

The majority of historical activities at Site 4 took place in the western portion of the site where the borrow pits used for waste disposal were located. This area was used as a construction debris landfill (SWMU C-8) and an asbestos disposal area (SWMU C-9) from 1982 to the mid-1990s. These SWMUs were closed out under RCRA. The area was permitted in 1997 as an active land clearing and inert debris (LCID) landfill, and is currently used for recycling of unpainted/untreated wood, yard waste, and inert construction debris. The drum storage area, located in the northeastern corner of OU4, was identified in the 1988 aerial photograph. The area is now used for the storage of material for NADEP, not for the storage of waste material.

Between 1984 and 1987, soil, groundwater, surface water, and sediment samples were collected at Site 4 as part of an IRI to identify contaminated sites. Metals and VOCs were

found in only one monitoring well, and surface water did not appear to have been impacted. Quarterly groundwater monitoring was recommended to monitor potential migration of contaminants detected in groundwater (NUS, 1988).

In 1991 and 1993, groundwater, soil, surface water, and sediment samples were collected during the 21 Unit RFI. VOCs were found in groundwater. Given the fact that VOC concentrations had declined over the years, it was concluded that the source was probably relatively small, and that much of the contamination had attenuated. Another round of groundwater sampling and an additional surface water sample were recommended to determine whether the groundwater concentrations were continuing to decline and whether surface water had been affected. Soil sampling was recommended to determine whether a subsurface source of inorganic contamination existed. An additional round of surface water and sediment sampling was also recommended (Halliburton NUS, 1993a).

During 1992, groundwater and surface water samples were collected as part of the 10 Unit TDM. Site 4 was recommended for further investigation because the source area for contamination had not been defined and low levels of VOC contamination remained onsite. Additional soil, surface water, and sediment sampling was recommended to develop a cohesive picture of the site and to determine if subsurface inorganic contamination existed. (Halliburton NUS, 1993b)

In 1994 and 1999, a soil gas survey was conducted at Site 4, and soil, groundwater, surface water, sediment, and fish tissue samples were collected as part of a RI. Organic compounds were detected infrequently in soil, except for acetone and methylene chloride. Chlorinated VOCs, pesticides, and metals were detected in surficial aquifer groundwater at concentrations above State standards. One pesticide was detected in one surface water sample. A wide variety of organic compounds (mostly pesticides) were detected in sediment. No pesticides were detected in samples collected after 1994. The RI recommended that a FS be conducted for OU4 (TT, 2002d).

Elevated lead concentrations were found during the RI in Mill Creek sediments in the eastern part of Site 4. Subsequent investigation revealed that the lead concentrations increased moving upstream from OU4, and were greatest near an inactive skeet and trap range located to the northeast. It was concluded that the lead in Mill Creek sediments did not originate from site activities at OU4, but from the skeet and trap range. Since the lead originated from a military munition at an operational military range, it was determined that the lead was not a RCRA solid waste or the result of a release regulated under CERCLA. Therefore, the USEPA and NCDENR agreed to remove the lead from consideration as a contaminant of concern in OU4 remedy selection process. The Navy and MCAS Cherry Point is independently conducting a site investigation of the skeet and trap range to determine the extent of lead contamination in all media, and to evaluate ways to mitigate further lead migration, if necessary.

Fish tissue samples were collected from Slocum Creek adjacent to OUs 1, 2, 3, and 4 in 1998 and the results indicated no potential unacceptable risk to human health from fish tissue ingestion (TT, 1999b). In 1999, surface water and sediment samples were collected adjacent to OUs 1, 2, 3, and 4 as part of a SLERA in Slocum Creek (TT, 2001b). No consistent patterns of contamination were observed. The results suggested that the presence of high concentrations of numerous trace metals in bottom sediments of Slocum Creek reflect a

substantial impact upon the overall environmental quality of the Slocum Creek estuarine system.

A Final Focused FS was submitted May 2004. The Navy and MCAS Cherry Point initiated interim groundwater monitoring in October 2003 to monitor VOC and SVOC concentrations that were found to exceed State groundwater quality standards during the RI. Interim groundwater monitoring was conducted May 2004.

3.1.5 Operable Unit 5

OU5 is located in the northeastern portion of MCAS Cherry Point. OU5 consists of two FFA sites (Sites 1 and 2) that were grouped into one OU because of their proximity, history, and common waste types. Site 19 (Borrow Pit/Landfill North of Runway 32) was formerly part of OU5, but was transferred to OU13 because the site is closer to the other OU13 sites. The location and boundaries of OU5 is shown on **Figure 3-6**.

Sites 1 and 2 were borrow pit areas that served as waste disposal sites beginning in the late 1950s and continuing for an unknown period of time. No records were kept detailing the quantities or types of wastes disposed of at these sites, but there is no indication that these were principal disposal areas for the base (such as the landfill at Site 10) or that they were regularly used for a significant period of time. Surface debris typically associated with fill material is present at Sites 1 and 2, including concrete, metal, and wood construction debris. However, several empty, crushed 55-gallon drums and vehicle batteries have been observed at several locations. Both Sites 1 and 2 currently consist of wooded land, and contain surface water bodies on and adjacent to each site.

3.1.5.1 Site 1 - Borrow Pit/Landfill

Site 1 is located west of an access road in the northeastern portion of MCAS Cherry Point. It is a former borrow pit area that was later used for waste disposal. The total disturbed area of Site 1 was estimated to be approximately 4 acres. The northern boundary of Site 1 is approximately 100 ft south of Reed's Gut, and the other boundaries include an unnamed tributary to the west, a line 200 ft north of an unpaved road to the south, and the unpaved access road to the east. Portions of the site are within the 100-year floodplain.

The elevation of the southwestern portion of Site 1 is approximately 20 ft above msl and slopes to approximately 5 ft above msl to the southeast toward the unnamed tributary. Based upon topographical relief, surface water runoff likely drains toward the unnamed tributary to the west, to a pond located in the central area of the northern portion of Site 1, or directly into Reed's Gut. Groundwater in the surficial aquifer generally flows north northeast toward Reed's Gut, and the water table is encountered from 1 to 12.5 ft bgs.

Site 1 was identified in the IAS and RFA. The IAS indicated that the area was originally used as a borrow pit area, but was later used as a disposal site. Site use reportedly began in the mid- to late-1950s, and continued for an unknown period of time. No records were kept detailing the quantities or types of wastes that were disposed of at the site. Some chemical waste was reported to have been disposed of at the site, but only small amounts of rubble and trash were seen onsite during the IAS (Water & Air Research, 1983). The IAS and RFA recommended a Confirmation Study. The RCRA Part B permit required that an RFI be conducted.

Between 1985 and 1987, groundwater samples were collected at Site 1 as part of an IRI to identify contaminated sites. The IRI concluded that groundwater had not been affected by historical waste practices at Site 1, and that no further investigation was recommended (NUS, 1988).

A 21 Unit RFI was conducted in 1991 that included groundwater sampling at Site 1. No releases were confirmed to groundwater; however seepage was observed and it was not possible to conclude that there had been no releases from the borrow pits. Therefore, additional groundwater monitoring and sampling of surface water and sediment surrounding the sites was recommended (Halliburton NUS, 1993a).

During the OU5 RI conducted in 2002, soil, groundwater, surface water, and sediment samples were collected. The RI results did not indicate any significant risks to human health or the environment; however, VOC concentrations slightly exceeded State groundwater standards in several monitoring wells. The Draft RI Report was submitted for regulatory review in December 2003, and is scheduled to be finalized in FY 2004.

The Navy and MCAS Cherry Point initiated interim groundwater monitoring in October 2003 to monitor VOC concentrations that were found to exceed State groundwater quality standards during the RI. Interim groundwater monitoring was conducted May 2004.

3.1.5.2 Site 2 - Borrow Pit/Landfill

Site 2 is located east of an access road in the northeastern portion of MCAS Cherry Point, directly opposite Site 1. Like Site 1, it is a former borrow pit area that was later used for waste disposal. The total disturbed area of Site 2 was estimated to be approximately 6 acres. Site 2 is bounded on the east and northeast by an unnamed tributary to Reed's Gut, an unpaved road to the south and southwest, and the unpaved access road to the west.

The elevation of the northwestern portion of Site 2 is approximately 20 ft above msl and slopes to approximately 5 ft above msl to the southeast toward the unnamed tributary. Based upon topographic relief, surface water runoff likely drains toward the north and east in the direction of Reed's Gut and its unnamed tributary. Portions of the site are within the 100-year floodplain. Groundwater flow in the surficial aquifer is generally north northeast toward Reed's Gut, and the water table is encountered from 1 to 12.5 ft bgs.

Historically, Site 2 has been investigated in tandem with Site 1. The history and status of Site 2, from its initial identification in the IAS and RFA to the present, are the same as described in the preceding subsection (3.1.5.1) for Site 1.

The Navy and MCAS Cherry Point initiated interim groundwater monitoring in October 2003 to monitor VOC concentrations that were found to exceed State groundwater quality standards during the RI. Interim groundwater monitoring was conducted May 2004.

3.1.6 Operable Unit 6

OU6 consists of the eastern portion of Runway 28, an east-west trending runway along the eastern edge of MCAS Cherry Point. OU6 includes one FFA site, Site 12, the Crash Crew Training Area. The boundaries and location of OU6 are shown on **Figure 3-7**.

3.1.6.1 Site 12 - Crash Crew Training Area

Site 12 is the Crash Crew Training Area located along the south-central portion of Runway 28. The runway is bordered by grassy areas to the north, south, and east, with dense woods beyond the grass. Hancock Creek is located approximately 700 ft east of the eastern end of Runway 28.

The runway represents a topographic high in the immediate area, with the ground surface sloping away gently to the north and east, and more rapidly to the south. At Site 12, ground surface elevations range from about 20 to 24 ft above msl. With the exception of runoff captured by the trench drain surrounding the concrete burn pit at Site 12, the majority of surface runoff flows southward across the asphalt-paved runway into a mowed, grassy area south of the runway that forms a broad swale oriented east to west. Shallow groundwater flow generally mimics the topography, and flows east toward Hancock Creek. The water table is encountered at approximately 11 ft bgs.

Site 12 was identified in the IAS and RFA. The IAS indicated that Site 12 has been used for crash crew training activities since the mid-1960s. According to the IAS, waste POLs and "waste burnable (i.e., probably non-chlorinated) solvents" were formerly burned in "one of two circular bermed areas" on Runway 28, but that only "contaminated fuel" was burned at the time the report was written. The IAS also indicated that "spills and leaks" from the burn pits were evident at the time of the report, and that stained and oily soil was present in the drainage swale south of Runway 28. A 152-ft deep potable water well located near building 1776 (several hundred ft east of the burn pit) was reportedly sampled in 1981 and 1982, and no fuel contamination was detected (Water & Air Research, 1983). The well could not be located during the site visits conducted by CH2M HILL in 1999, and EAD personnel at MCAS Cherry Point were not able to confirm the existence of a well near Building 1776 during an internal investigation. The IAS recommended NFA. The RFA recommended sampling to determine if residual contamination existed (A.T. Kearney, 1988). The RCRA Part B permit required that an RFI be conducted.

The Crash Crew Training Area (SWMU I-12) includes a Crash Crew Burn Pit (SWMU F-13) and Oil/Water Separator (SWMU F-14) identified in the RFA. The Crash Crew Burn Pit is a circular concrete pad currently used to burn waste JP-5 to train crash crews to extinguish fires. The concrete burn pit was reportedly constructed in 1985, and is approximately 100 ft in diameter with a 5-inch high curb around the circumference (Halliburton NUS, 1993a). The burn pit itself is drained through subsurface piping to a nearby oil/water separator, as is a circular trench drain that rings the outside of the burn pit to capture fire water not contained within the burn pit.

The Oil/Water Separator is an in-ground, rectangular concrete and steel structure that is approximately 5-ft wide, 10-ft in length, and 8-ft deep. The oil/water separator reportedly operated as such from 1985 to 1990. During that time period, effluent was discharged through a NPDES-permitted outfall to the nearby drainage swale (Halliburton NUS, 1993a). Around 1990, the effluent pipe of the separator was welded shut, and facilities maintenance personnel currently pump all liquids from the oil/water separator after training exercises or heavy rainfall, and transport them to the IWTP.

During a 1999 site visit conducted by CH2M HILL, some clarification was obtained regarding the nature of the burn pits that pre-dated the current concrete burn pit

constructed in 1985. According to interviewed crash crew personnel, the former burn pits were constructed of dirt placed on top of the asphalt runway surface and shaped into circular berms. The crash crew personnel recalled the existence of two dirt burn pits of this type, and indicated that fuels (including gas and diesel) and magnesium aircraft parts were formerly burned in the pits. A review of historic aerial photographs revealed five separate locations where earthen burn pits had once been located since the early 1960s, with either two or three of the burn pits being present at any one time.

During a 21 Unit RFI in 1991, soil, groundwater, surface water, and sediment samples were collected at Site 12. Total Petroleum Hydrocarbon (TPH) contamination was detected in the soil and sediment samples, and additional sampling of all media was recommended (Halliburton NUS, 1993a).

Additional soil, groundwater, and sediment samples were collected in 1993 as part of the 10 Unit TDM. TPH contamination was found to be limited in area and depth; however, further investigation of inorganic constituents in soil and groundwater was recommended at Site 12 (Halliburton NUS, 1993b).

During a RI for Site 12 conducted in 1999, soil, groundwater, surface water, and sediment samples were collected. The Draft Final RI concluded that, based on the limited number of constituents that pose potential human health risk only within an unrealistic exposure pathway, a FS does not appear to be warranted for OU6, and NFA was recommended (CH2M HILL, 2002b). However, regulator concerns regarding the extent of sampling beneath historic burn pit locations were expressed, and a Supplemental Investigation was initiated in October 2003. The investigation includes additional soil and groundwater sampling beneath the former burn pit locations. The results will be presented in the Final RI Report, which is expected to be completed in FY 2004.

3.1.7 Operable Unit 13

OU13 is located in the southeastern portion of MCAS Cherry Point near Runway 32, and covers approximately 61 acres. Several sites were grouped within OU13 because of their proximity to each other. There are two FFA sites within the boundaries of OU13. OU13 also includes releases to groundwater from Site 44B, which was a former sludge application area. OU13 is not currently used for any active purpose other than providing a buffer of cleared land adjacent to Runway 32. The location and boundaries of OU13 and the site locations within OU13 are shown on **Figure 3-8**.

3.1.7.1 Site 19 – Borrow Pit/Landfill (South of Runway 32)

Site 19 consists of an area of approximately 16 acres that includes several borrow pits that were reportedly used for waste disposal. Site 19 is located on the northern side of Runway 32, with Hancock Creek and the tributary Shop Branch bound the site to the north and east. There are wetland areas adjacent to Hancock Creek and Shop Branch.

Based on the topography of the area, surface water runoff would generally drain toward Hancock Creek; however, the site is well vegetated and relief is low, except for the areas immediately adjacent to the stream bank. A portion of Site 19 lies within the 100-year flood plain of Hancock Creek. The water table in the surficial aquifer beneath the site generally

mimics the topography, sloping toward Shop Branch to the northwest and Hancock Creek to the east.

Site 19 was identified in the IAS and RFA. The IAS indicated that parts of the area were first disturbed in 1949 and used through the early 1960s. Fly ash from the steam plant, wastes from NADEP, and asbestos-lined piping may have been disposed of in the borrow pits (Water & Air Research, 1983). No records were kept detailing quantities or specific types of wastes. The IAS and RFA recommended a Confirmation Study. The RCRA Part B permit and Consent Order required that an RFI be conducted.

Between 1985 and 1987, groundwater samples were collected at Site 19 as part of an IRI to identify contaminated sites. The IRI recommended that Site 19 be deleted from the list of sites potentially containing hazardous waste and that additional investigative activities be discontinued (NUS, 1988).

In November 1991, additional groundwater samples were collected at Site 19 as part of the 21 Unit RFI to support a Corrective Measures Study and to verify releases from various sites. The RFI concluded that Site 19 had not adversely affected groundwater. However, potential impacts on sediment and surface water were not defined, and additional investigation was recommended (Halliburton NUS, 1993a).

During the RI field activities for OU13 conducted in 1994 and 1999, soil, groundwater, surface water, sediment, and fish tissue samples were collected. A FS was recommended to evaluate remedial alternatives associated with potential unacceptable risks to human health based on concentrations of VOCs, pesticides, and/or inorganic constituents that exceeded screening criteria in groundwater and surface water (TT, 2002c). A Final Focused FS was submitted July 2004.

The Navy and MCAS Cherry Point initiated interim groundwater monitoring in October 2003 to monitor VOC concentrations that were found to exceed State groundwater quality standards during the RI. Interim groundwater monitoring was conducted May 2004.

3.1.7.2 Site 21 – Borrow Pit/Landfill (South of Runway 32)

Site 21 consists of an area of approximately 36 acres that includes several borrow pits that were reportedly used for waste disposal. Site 21 is located south of Runway 32, and Shop Branch runs through Site 21 before crossing under the runway.

Based on the topography of the area, surface water runoff would generally drain toward Hancock Creek; however, the site is well vegetated and relief is low, except for the areas immediately adjacent to the stream bank. A portion of Site 21 lies within the 100-year flood plain of Hancock Creek. The water table in the surficial aquifer beneath the site generally mimics the topography, sloping toward Shop Branch to the northwest and Hancock Creek to the east.

Site 21 was identified in the IAS and RFA. The IAS indicated that parts of the area were first disturbed in 1949 and used through the early 1960s. Fly ash from the steam plant, wastes from NADEP, and asbestos-lined piping may have been disposed of in the borrow pits (Water & Air Research, 1983). No records were kept detailing quantities or specific types of wastes. The IAS and RFA recommended a Confirmation Study. The RCRA Part B Permit and Consent Order required that an RFI be conducted.

Between 1985 and 1987, groundwater and soil samples were collected at Site 21 as part of an IRI to identify contaminated sites. The IRI recommended that Site 21 groundwater be monitored quarterly for VOCs. An upgradient well contained contaminants above relevant screening criteria (NUS, 1988).

In November 1991, additional groundwater and soil samples were collected at Site 21 as part of the 21 Unit RFI. Additional investigations were recommended at Site 21 to identify the upgradient boundaries and the extent of groundwater contamination. A sediment and surface water investigation of Hancock Creek was also recommended (Halliburton NUS, 1993a).

As part of the 10 Unit TDM in 1993, groundwater samples were collected at Site 21. Recommendations included additional groundwater investigations to identify source areas and soil, sediment, and surface water sampling (Halliburton NUS, 1993b).

During the RI field activities for OU13 conducted in 1994 and 1999, soil, groundwater, surface water, sediment, and fish tissue samples were collected. A FS was recommended to evaluate remedial alternatives associated with potential unacceptable risks to human health based on concentrations of VOCs, pesticides, and/or inorganic constituents that exceeded screening criteria in groundwater and surface water (TT, 2002c). A Final Focused FS was submitted in June 2004.

The Navy and MCAS Cherry Point initiated interim groundwater monitoring in October 2003 to monitor VOC concentrations that were found to exceed State groundwater quality standards during the RI. Interim groundwater monitoring was conducted May 2004.

3.1.7.3 Site 44B – Former Sludge Application Area

Site 44B consists of a relatively flat 11-acre area adjacent to Site 21 where sludge from the STP was applied. The area was reportedly a landfill in the 1950s and 1960s, and the waste reportedly included asbestos pipe. Between September and November 1987, liquid sludge from the STP digesters was reportedly land-applied at Site 44B (as well as Site 44A). The sludge may have contained organic compounds and other constituents that were not digested during the sewage treatment process.

Site 44B was identified in the RFA, which suggested RCRA closure. The RCRA Part B Permit and Consent Order required that an RFI be conducted.

In November 1991, soil samples were collected at Site 44B as part of the 21 Unit RFI. The report concluded that the applied sludge was not a hazardous waste, and no further action was recommended (Halliburton NUS, 1993a).

During the RI field activities for OU13 conducted in 1994 and 1999, soil, groundwater, surface water, sediment, and fish tissue samples were collected. A FS was recommended to evaluate remedial alternatives associated with potential unacceptable risks to human health based on concentrations of VOCs, pesticides, and/or inorganic constituents that exceeded screening criteria in groundwater and surface water (TT, 2002c). A Final Focused FS was submitted July 2004.

The Navy and MCAS Cherry Point initiated interim groundwater monitoring in October 2003 to monitor VOC concentrations that were found to exceed State groundwater quality standards during the RI. Interim groundwater monitoring was conducted May 2004.

3.1.8 Operable Unit 14

OU14 is located in the southern portion of MCAS Cherry Point. OU14 consists of one FFA site, Site 90. The location and boundaries of OU14 are shown on **Figure 3-9**.

3.1.8.1 Site 90 – Building 130 VOC-Contaminated Groundwater

Site 90 is a plume of groundwater contaminated with chlorinated VOCs that was first identified near Hangar (Building) 130. Prior to the RI currently underway, there have been no investigations or remedial activities specific to Site 90; however, numerous groundwater samples have been collected as part of investigations at the Hangar 130 area abandoned fuel pipeline. This abandoned aviation fuel pipeline in the area is being addressed under the MCAS Cherry Point UST program.

In July 1994, soil and groundwater samples were collected in the Site 90 area to support a Base Realignment and Closure (BRAC) project. The purpose of the investigation was to identify contamination that may require cleanup prior to demolition of existing structures and site preparation required for construction of facilities, Building 130 was designated as BRAC Site 7. The study indicated that low levels of TPH and some VOCs, SVOCs, pesticides, and metals were present in soil and groundwater near Building 130. No significant risks were identified; however, the report stated that remediation was needed for soils impacted with TPH above State criteria (Halliburton NUS, 1994b).

From January to March 1995, Law Engineering, Inc. collected soil and groundwater samples as part of a Site Assessment. The focus of the study was the abandoned underground aviation fuel line system. The soils indicated TPH contamination and the groundwater data indicated a broader distribution of contamination types. These data appeared to indicate that multiple releases of jet fuel and gasoline-grade fuels have occurred at several different locations over time in the area. The presence of free product was also observed at the western end of Building 130 (Law, 1995).

In June 1995, Law Engineering and Environmental Services, Inc. collected soil and groundwater samples and conducted aquifer testing as part of a Site Assessment addendum. The study was conducted to further evaluate the extent of free-product accumulation, the extent of contamination, and to assess the potential for exposure to subsurface contaminants. Soil contamination consisting of TPH and VOCs was found. The groundwater data suggested that while most of the contamination was located along the abandoned fuel piping along Sixth Avenue, multiple releases of jet fuel and gasoline-grade fuels have occurred at several different locations over time in the area. Further investigation of the extent of dissolved-phase groundwater contamination upgradient and downgradient of Building 130 was recommended. However, the report stated that sufficient information existed to prepare the Corrective Action Plan (CAP) for the petroleum-related groundwater contamination within the surficial aquifer near Building 130 (Law, 1996).

In 1997, Law submitted a CAP that included the recovery of free product and the restoration of petroleum-contaminated soil and groundwater at Building 130. The proposed

remediation system in the Building 130 area consisted of free product recovery, remediation of dissolved-phase groundwater with air sparging, and treatment of TPH-impacted soil by SVE (Law, 1997). In June 2000, a WP for a Remedial Action Contract (RAC) was submitted to describe the effort needed to construct and implement these subsurface petroleum remediation systems at Building 130 (Jones, 2000). In 2001, the remedial action at Building 130 was implemented.

In 2000, Tetra Tech NUS collected groundwater samples as part of the OU1 RI and petroleum-related compounds and chlorinated VOCs were detected in groundwater. Based on this groundwater data it was decided that Site 90 be addressed separately from OU1 and a RI for Site 90 was initiated in 2001 with the preparation and regulatory approval of the RI Work Plan. Phase I fieldwork for the RI was completed in October 2002, and included groundwater and soil sampling. The Phase I results, and the results of independent groundwater sampling for chlorinated VOCs conducted by the UST Program, indicated that the chlorinated VOC plume in the Hangar 130 area extended quite a bit further downgradient than anticipated. Consequently, a Phase I RI Interim Report was prepared that recommended that a Phase II investigation be performed to determine the full extent of the chlorinated VOC plume in the surficial aquifer (CH2M HILL, 2003e). The Phase II investigation consisted of the sampling of approximately 60 monitoring wells along the flightline area extending from Site 90 to the northwest, and was performed in October 2003. The Phase II results will determine the need for further investigation. The Draft OU14 RI Report is scheduled to be submitted in late FY 2004 or FY 2005, depending on the extent of data gaps remaining after Phase II investigation results have been received.

3.2 Preliminary Screening Areas (PSAs)

The sites described in this section have been identified by the pending FFA as requiring desk-top audits. These sites may have been previously referred to as Points of Environmental Interest (POEIs). POEI terminology has been retained for documents that have already been produced.

3.2.1 POEIs 22 and 23 - Radioactive Waste Storage Areas #1 and #2

The storage areas are located near Buildings 133 and 422 in NADEP (**Figure 3-1**). The areas each consist of a concrete pad and curb covered with an overhead roof that is fenced to control site access. These POEIs were identified during February and April 1998 site visits. The areas were historically used to store low-level radioactive solids (aircraft engine and transmission parts).

Consensus was reached by the Tier I Partnering Team in September 2000 to retain these areas as POEIs pending receipt of additional information regarding actual operations at the sites in question. Interviews were conducted with Station Radiological Affairs Support Office (RASO) personnel and the following information was provided:

All operations at these sites were conducted in strict adherence to Standard Operating Procedures for Ionizing Radiation (Air Station INST IR-001 published and maintained by Occupational Safety and Health Division, Naval Aviation Depot, MCAS Cherry Point).

The material stored at these POEIs was very low-level radioactive magnesium thorium and was a byproduct of the manufacture of J79 transfer, rear, and inlet gearbox casings. All parts were machined in Building 133 and waste scrap, millings, etc. were strictly managed in accordance with IAW IR-001 (placed in sealed 55-gallon drums, properly labeled, stored and disposed of by safety office personnel (Code 6.8.810)). By following the Standard Operating Procedure, there was extremely low probability for a release at the POEIs. Based on this information, closure of POEIs 22 and 23 was recommended in October 2000 as part of a POEI Closure Document.

In January 2001, the USEPA responded by letter to the POEI Closure document. The letter indicated that the USEPA was waiting on feedback from their Radiological Support Staff and were not yet able to provide concurrence on the proposed closure of Radioactive Waste Storage Areas #1 and #2 (P-22 and P-23). The USEPA also requested a copy of the Standard Operating Procedures for Ionizing Radiation.

3.3 Site Screening Areas (SSAs)

The sites described in this section have been identified by the pending FFA as requiring screening for possible inclusion in the CERCLA RI/FS process. Some of the sites on this list may have been previously referred to as Points of Environmental Interest (POEIs). POEI terminology has been retained for documents that have already been produced.

3.3.1 POEI 35a - High Power Engine Run-Up Area and Test Cells

POEI 35a consists of the eastern end of Runway 28, near OU6 (**Figure 3-10**). The runway surface in this area is mostly asphalt, with a number of relatively small concrete pads. The runway represents a topographic high in the immediate area, and is bordered with grassy areas with dense woods beyond. Most of the area is used for engine high power run-up activities, and consists of a series of test pads where aircraft engines are mounted on racks and run at high speeds for maintenance purposes. The southwestern portion of POEI 35a is currently used for experimentation regarding long-term storage and preservation of aircraft. POEI 35a was identified during a 1997 regulator site visit as a potential contaminant source area based on the nature of historical site activities. Shallow groundwater flow at Site 35a generally flows east toward Hancock Creek. The water table is encountered at approximately 11 ft bgs.

In 1996, soil and groundwater samples were collected at POEI 35a, and TPH, oil and grease, and inorganic constituents were detected in the soil samples (REW, 1996). Lead and a trace of one VOC were detected in the groundwater. Based on these results, a POEI Evaluation was conducted in 1999 that included the collection of soil, groundwater, surface water, and sediment samples. The POEI Evaluation sampling results were presented in the *Draft POEI Evaluation Report* in April 2001, which concluded that there had not been a significant release of contaminants to the environment from Site 35a. The detected constituents that exceeded human health screening criteria did not appear to be related to site-specific activities, and NFA was recommended (CH2M HILL, 2001c). The Final POEI Evaluation Report and a Decision Document recommending NFA was submitted in June 2004.

3.3.2 Site 85 - Hobby Shop Disposal Area

Site 85 is a waste disposal area located near the eastern shoreline of Slocum Creek that covers approximately 0.33 acres (OHM, 1998d). Site 85 is situated immediately west of a group of military family residences and an auto hobby shop (Site 76, part of OU2) and is a short distance south and west from OU2 (**Figure 3-11**).

Much of Site 85 consists of a relatively flat forested area bordering the tidal open waters of Slocum Creek to the west. In the eastern part of the site, a short slope leads eastward toward the adjoining developed areas (CH2M HILL, 2001b).

Site 85 historically contained a significant amount of largely surface debris that had been disposed of at the site. No records indicating the quantities or types of wastes disposed of at the site are known to exist, nor is it specifically known when disposal activities occurred. The exposed debris included empty 55-gallon drums, empty 5 to 15-gallon steel pails, automobiles, concrete debris, office equipment, rubber tires, fire hoses, steel matting, pipes, a set of metal spectator bleachers, and various other items (OHM, 1998d).

In 1997, site inspections revealed evidence that MCAS Cherry Point residents, including children, had trespassed onto Site 85, and had used the site for play activities. A rope swing was found hanging from a tree. As a result of this discovery, an emergency response action was taken to secure the site with fencing to prevent potential human exposure. A wetlands delineation was completed in 1997 to minimize wetlands impacts during a planned debris removal at Site 85 (B&R, 1988). Debris removal activities were completed in 1998. Approximately 30 to 40 cubic yards of metal and debris were removed from the site (OHM, 1998d).

In 2001, a Site Screening Process (SSP) investigation was conducted at Site 85. The SSP investigation included the collection of soil and groundwater samples to determine if residual contamination remained at the site following the debris removal, and whether groundwater had been impacted by past disposal activities. The SSP Report concluded that there was not significant contamination, and NFA was recommended (CH2M HILL, 2003d). A Decision Document (DD) signed in September 2003 documented regulatory concurrence with the NFA recommendation.

TABLE 3-1
Current Status of FFA Sites
FY 2005 Site Management Plan
MCAS Cherry Point, North Carolina

OU	Current Site/SWMU	Description	Other Identifications	Current IRP Status	History	Documentation of Closure
CERCLA RI/FS SITES						
OU 1	Site 14	Motor Transportation	SWMU I-14	FS and BERA for OU1 in progress.	IAS recommended NFA; RFA recommended soil sampling and potential removal action; SAR recommended surfactant placement on ground surface; RCRA Part B Permit and Consent Order required RFI; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 15	Ditch and Area Behind NADEP	SWMU I-15	FS and BERA for OU1 in progress.	IAS recommended Confirmation Study; RFA recommended sampling; RCRA Part B Permit and Consent Order required RFI; IRI and 21 Unit RFI recommended NFA; Additional sampling conducted directly behind NADEP during OU1 RI; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 16	Landfill at Sandy Branch	SWMU I-16	AS/SVE system is operational; FS and BERA for OU1 in progress .	IAS recommended Confirmation Study; RFA recommended sampling; RCRA Part B Permit and Consent Order required RFI; IRI recommended an RI; RFI identified groundwater contamination; Phase I and II TDM confirmed groundwater contamination; AS/VE system installed for groundwater remediation; RI recommended an FS and additional ecological evaluation.	
OU1	Site 17	DRMO Drainage Ditch	SWMU 17; SWMU I-17	FS and BERA for OU1 in progress.	IAS and RFA recommended Confirmation Study; IRI recommended an RI/FS; RFI recommended further evaluation of soil; 1995 soil and sediment removal conducted; RCRA Part B Permit modified for NFA in November 1996; Additional sampling was conducted as part of the OU1 RI; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 18	Facilities Maintenance Compound	SWMU I-18	FS and BERA for OU1 in progress.	IAS recommended Confirmation Study; RFA recommended sampling; RCRA Part B Permit and Consent Order required RFI; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 42	Industrial Wastewater Treatment Plant	SWMU C-4	Pump and Treat system is operational for NADEP Central Hot Spot Groundwater Remediation; FS and BERA WP for OU1 in progress.	Soil and groundwater contamination identified in 1991; Interim ROD was signed for the NADEP Central Hot Spot Groundwater Interim Remedial Action and a groundwater pump and treat system was installed in 1998; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 47	Industrial Area Sewer System		FS and BERA for OU1 in progress.	Phase I and II infiltration and leakage studies conducted and repairs are ongoing; RI recommended an FS and additional ecological evaluation; Bioremediation treatability study implemented in 2001 and 1-year of monitoring completed.	
OU 1	Site 51	Building 137 Plating Shop		FS and BERA for OU1 in progress.	RFI identified soil and groundwater contamination; Building was decontaminated and renovated and the Plating Shop was removed; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 52	Building 133 Plating Shop and Ditch		FS and BERA for OU1 in progress.	RFI identified soil and groundwater contamination; Building was decontaminated and renovated and the Plating Shop was removed; Interim ROD was signed for the NADEP Central Hot Spot Groundwater Interim Remedial Action and a groundwater pump and treat system was installed in 1998; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 83	Building 96 Former Pesticide Mixing Area		FS and BERA for OU1 in progress.	SAR identified soil and groundwater contamination; site was investigated during OU1 RI; RI recommended an FS and additional ecological evaluation.	
OU 1	Site 92	VOCs in Groundwater near the Stripper Barn		FS and BERA for OU1 in progress.	Focused RI/FS identified the hot spot; RI recommended an FS and additional ecological evaluation; Bioremediation treatability study implemented in 2001 and 1-year of monitoring completed.	
OU 1	Site 98	VOCs in Groundwater near Building 4032		FS and BERA for OU1 in progress.	RRR indicated VOCs in groundwater; Interim ROD was signed for the NADEP Central Hot Spot Groundwater Interim Remedial Action and a groundwater pump and treat system was installed in 1998; RI recommended an FS and additional ecological evaluation.	
OU2	Site 10	Old Sanitary Landfill	SWMUs I-10a, I-10b	LTM initiated in 2002.	IAS recommended Confirmation Study; RFA recommended RCRA Closure for SWMU I-10b; RCRA Part B Permit requires RFI; RFI recommended soil and groundwater investigation; TDMs recommended additional soil investigation; RI concluded shallow groundwater and soil hot spots and recommended an FS; FS completed; PRAP and ROD completed; Land Use Controls were implemented; RA (SVE) for soil completed.	

TABLE 3-1
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OU	Current Site/SWMU	Description	Other Identifications	Current IRP Status	History	Documentation of Closure
CERCLA RI/FS SITES (continued)						
OU2	Site 46	Polishing Ponds No. 1 and No. 2	SWMU C-12	LTM initiated in 2002.	IAS recommended Confirmation Study; RFA recommended RCRA Closure; OU2 RI concluded shallow groundwater and soil hot spots and recommended an FS; FS completed; PRAP and ROD completed; Land Use Controls were implemented; RA (SVE) for soil completed.	
OU2	Site 76	Vehicle Maintenance Area (Hobby Shop)	Hobby Shop	LTM initiated in 2002.	OU2 RI concluded shallow groundwater and soil hot spots and recommended an FS; FS completed; PRAP and ROD completed; Land Use Controls were implemented; RA (SVE) for soil completed.	
OU3	Site 6	Fly Ash Ponds	SWMU I-6	LTM initiated in 2002.	IAS and RFA recommended Confirmation Study pending results of Slocum Creek study; RCRA Part B Permit required RFI; IRI concluded NFA; 21 Unit RFI recommended NFA; 10 Unit TDM recommended additional investigation; RI/FS submitted; ROD was signed; Land Use Controls were implemented.	
OU3	Site 7	Old Incinerator and Adjacent Area	SWMU I-7	LTM initiated in 2002.	IAS and RFA recommended Confirmation Study pending results of Slocum Creek study; RCRA Part B Permit required RFI; IRI concluded NFA; 21 Unit RFI recommended NFA; 10 Unit TDM recommended additional investigation; RI/FS submitted; ROD was signed; RA (air sparging) for soil completed; Land Use Controls were implemented.	
OU4	Site 4	Borrow Pit/Landfill (North of Runway 14)	SWMU I-4	Voluntary groundwater monitoring in progress.	IAS and RFA recommended Confirmation Study; RCRA Part B Permit required RFI; IRI recommended groundwater monitoring; 21 Unit RFI and 10 Unit TDM recommended additional investigation; RI recommended an FS; FS recommended LTM.	
OU5	Site 1	Borrow Pit/Landfill	SWMU I-1	RI in progress; Voluntary groundwater monitoring to further evaluate state criteria exceedances found during the RI	IAS and RFA recommended Confirmation Study; RCRA Part B Permit required RFI; IRI recommended NFA; 21 Unit RFI recommended additional investigation; Pre-Draft RI completed in January 2003.	
OU5	Site 2	Borrow Pit/Landfill	SWMU I-2	RI in progress; Voluntary groundwater monitoring to further evaluate state criteria exceedances found during the RI	IAS and RFA recommended Confirmation Study; RCRA Part B Permit required RFI; IRI recommended NFA; 21 Unit RFI recommended additional investigation; Pre-Draft RI completed in January 2003.	
OU6	Site 12	Crash Crew Training Area	SWMUs I-12, F-13, F-14	RI and Supplemental Site Investigation in progress.	IAS recommended NFA; RFA recommended sampling; RCRA Part B Permit required RFI; 21 Unit RFI and 10 Unit TDM recommended additional investigation; Draft Final RI submitted in 2002; Supplemental Site Investigation conducted in October 2003.	
OU13	Site 19	Borrow Pit/Landfill (South of Runway 32)		Voluntary groundwater monitoring in progress.	IAS and RFA recommended Confirmation Study; RCRA Part B Permit required RFI; IRI and 21 Unit RFI recommended additional investigation; RI recommended an FS.	
OU13	Site 21	Borrow Pit/Landfill (South of Runway 32)	SWMU I-21	Voluntary groundwater monitoring in progress.	RFA recommended Confirmation Study; RCRA Part B Permit required RFI; RI recommended an FS; FS recommended LTM.	
OU13	Site 44B	Former Sludge Application Area	SWMU C-10		RFA recommended RCRA Closure; RCRA Part B Permit required RFI; 21 Unit RFI concluded further investigations under Sites 10 and 21; RCRA SWMU Management Report (2001) recommended to address the site under the IR Program; RI recommended an FS; FS recommended LTM.	
OU14	Site 90	Building 130 VOC-Contaminated Groundwater		RI in progress	Chlorinated solvents and fuel-related compounds detected in groundwater during Site Assessments of abandoned aviation fuel pipeline; Remedial Action implemented in 2001; Phase II of the RI completed in October 2003.	
PRELIMINARY SCREENING AREAS (PSAs)						
	POEI 22 (PSA 22)	Radioactive Waste Storage Area #1		Recommended for NFA	Recommended for Closure in a October 2000 as part of a POEI Closure Document. Letter from USEPA (January 2001) did not provide consent for closure. Awaiting feedback from Radiological Support Staff.	POEI Closure Document dated October 31, 2000
	POEI 23 (PSA 23)	Radioactive Waste Storage Area #2		Recommended for NFA	Recommended for Closure in a October 2000 as part of a POEI Closure Document. Letter from USEPA (January 2001) did not provide consent for closure. Awaiting feedback from Radiological Support Staff.	

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SITE SCREENING AREAS (SSAs)						
	POEI 35a (SSA 35a)	High Power Engine Run-Up Area and Test Cells	Part of OU6	DD submitted	During the SWMU site visit in July 1997, USEPA recommended sampling; Draft Evaluation Report was submitted in April 2001 and recommends NFA. NFA DD submitted June 2004.	
	Site 85	Hobby Shop Disposal Area		NFA	RA completed; SSA conducted and recommended NFA; NFA DD signed October 2003 .	DD, September 2003
SITES REQUIRING NO FURTHER ACTION UNDER CERCLA						
	Site 44A	Former Sludge Application Area	SWMU I-10c, formerly of OU2	NFA	IAS recommended Confirmation Study; RFA recommended RCRA Closure; RCRA SWMU Management Report (2001) recommended to address the site under the IR Program; Investigated under CERCLA: OU2 RI concluded shallow groundwater and soil hot spots and recommended an FS; FS completed; PRAP and ROD completed; RA (SVE) for soil completed; Land Use Controls were implemented. This site is a RCRA post closure unit and OU2 LTM currently satisfies NCDENR requirements for performance monitoring.	
	Site 55	Third LAAM Tank	formerly of OU7	NFA	Site Assessment recommended investigation of chlorinated compounds; 10 Unit TDM recommended source area investigation; Contaminants found have been attributed to petroleum and operations related to petroleum management. Transferred to the UST program	Letter to UST Program; July 2003 Tier I Partnering Team Meeting Minutes; NCDENR letter of concurrence, July 2003; EPA letter of concurrence, July 2003.
OU15	Site 82	Slocum Creekin the Vicinity of OU2 and OU3		NFA	Impacts on aquatic environment identified the site as a separate OU during the OU2 RI; No unacceptable risk to human health from fish ingestion identified; ERA conducted and no unacceptable risks to ecological receptor identified; NFA PRAP and ROD completed.	NFA ROD signed June 2003
	POEI 1	Magnesium and Alodine Treatment	Building 133	NFA	Draft Letter recommended NFA.	POEI Closure Document dated October 31, 2000 and USEPA Letter dated January 5, 2001
	POEI 3	Cleaning Vats	Building 137	NFA	Draft Letter recommended NFA.	POEI Closure Document dated October 31, 2000 and USEPA Letter dated January 5, 2001
	POEI 5	Lead Foundry	Building 137	NFA	Draft Letter recommended NFA.	POEI Closure Document dated October 31, 2000 and USEPA Letter dated January 5, 2001
	POEI 6	Sump	Building 245	NFA	Draft Letter recommended NFA.	POEI Closure Document dated October 31, 2000 and USEPA Letter dated January 5, 2001
	POEI 11	Condensate Catch Bucket	Building 4173	NFA	Draft Letter recommended NFA.	POEI Closure Document dated October 31, 2000 and USEPA Letter dated January 5, 2001

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OU	Current Site/SWMU	Description	Other Identifications	Current IRP Status	History	Documentation of Closure
SITES REQUIRING NO FURTHER ACTION UNDER CERCLA (continued)						
	POEI 16	Hazardous Waste Accumulation Area	Building 4525	NFA	Draft Letter recommended NFA.	POEI Closure Document dated October 31, 2000 and USEPA Letter dated January 5, 2001
	POEI 17	Ditch Next to Coal Storage Yard		NFA	Draft Letter recommended NFA.	POEI Closure Document dated October 31, 2000 and USEPA Letter dated January 5, 2001
	UST 41	S-A Fuel Line Leak Site	formerly of OU12	NFA; regulated as UST site	RFA recommended a clean confirmation or sampling; RCRA Part B Permit required RFI; 21 Unit RFI recommended removal from Consent Order to address as a UST site.	21 Unit RFI
		MACS 6 Battery Room Leach Field		Recommended for NFA	Not listed in RCRA Part B Permit; SAR was submitted and recommended NFA.	
	SWMU 3	EOD Range	Site 3; SWMU I-3; formerly of OU11	NFA	IAS recommended NFA; RFA recommended soil sampling; RCRA RCRA Part B Permit required RFI; 21 Unit RFI recommended NFA if unit operates within Permit conditions; RCRA SWMU Management Report (2001) recommended NFA.	RCRA SWMU Management Report, April 2001
	SWMU 5	Storage Tank for Waste POL	Site 5; SWMU I-5; formerly of OU8	NFA	IAS and RFA recommended Confirmation Study or Direct Site Mitigation; RFI/CMS and Statement of Basis was completed; site was remediated and RAR submitted; RCRA Part B Permit modified for NFA in November 1996.	RCRA Part B Permit modification issued in November 1996.
	SWMU 11	MAG 14 Supply Site	Site 11; SWMU I-11	NFA	IAS recommended NFA, RFA recommended soil sampling, RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU 20	Training Area Four	Site 20; SWMU I-20	NFA	IAS recommended NFA; RFA recommended inspections for leaks, sampling, and construction of controls; RCRA Part B Permit requires NFA; Building was removed.	RCRA Part B Permit
	SWMU 33	VMGR 252 Accumulation Area	Site 33; SWMU F-22; formerly of OU10	NFA	RFA recommended soil sampling; RCRA Part B Permit required RFI; 21 Unit RFI included soil excavation and confirmation samples; 10 Unit TDM recommended RAR; RAR recommended NFA in 1994; RCRA SWMU Management Report (2001) recommended additional soil and groundwater investigation; RCRA SWMU Management Report (2003) recommended NFA.	RCRA SWMU Management Report, January 2003
	SWMU 34	Crash Crew Accumulation Area	Site 34; SWMU F-38; formerly of OU10	Further evaluation under RCRA in progress.	RFA recommended soil sampling; RCRA Part B Permit required RFI; 21 Unit RFI included soil excavation and confirmation samples; 10 Unit TDM recommended RAR; RAR recommended NFA in 1994; CRA SWMU Management Report (2001) recommended further investigation of soil and groundwater; RCRA SWMU Management Report (2003) recommended further soil and groundwater investigation.	
	SWMU 35	MAG 14 Accumulation Area	Site 35; SWMU F-42; formerly of OU10	NFA	RFA recommended soil sampling; RCRA Permit recommended RFI; 21 Unit RFI included soil excavation and confirmation samples; 10 Unit TDM recommended RAR; RAR recommended NFA in July 1994; RCRA SWMU Management Report (2001) recommended NFA.	RCRA SWMU Management Report, April 2001
	SWMU 36	H&HS 28 Accumulation Area	Site 36; SWMU S-6; formerly of OU10	Further evaluation under RCRA in progress.	RFA recommended soil sampling; RCRA Part B Permit required RFI; 21 Unit RFI included soil excavation and confirmation samples; 10 Unit TDM recommended RAR; RAR recommended SSE; SSE conducted in October 1995 recommended NFA; RCRA SWMU Management Report (2001) recommended additional soil and groundwater investigation; RCRA SWMU Management Report (2003) recommended further soil and groundwater investigation.	

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SITES REQUIRING NO FURTHER ACTION UNDER CERCLA (continued)						
	SWMU 37	MWCS 28 Accumulation Area	Site 37; SWMU S-11; formerly of OU9	Further evaluation under RCRA in progress.	RFA recommended soil sampling; RCRA Part B Permit required RFI; 21 Unit RFI included soil excavation and confirmation samples; RAR recommended groundwater investigation in 1994; RCRA SWMU Management Report (2001) recommended additional soil and groundwater investigation; RCRA SWMU Management Report (2003) recommended further soil and groundwater investigation.	
	SWMU 38	DRMO Hazardous Waste Storage Facility	Site 38; SWMU C-1; formerly of OU11	NFA	RFA recommended continued compliance with RCRA; 21 Unit RFI recommended NFA; March 17, 1993 meeting recommended investigating under Site 17; 10 Unit TDM recommended NFA; facility active under RCRA Part B Permit as a RCRA storage unit and the site should be closed under RCRA; USEPA recommended sampling in the scrap yard in July 1997 and samples were collected as part of the OU1 RI; RCRA SWMU Management Report (2003) recommended NFA.	RCRA SWMU Management Report, April 2001
	SWMU 39	Facilities Maintenance Hazardous Waste Storage Facility	Site 39; SWMU C-2; formerly of OU11	NFA	RFA recommended continued compliance with RCRA; 21 Unit RFI recommended further investigation; RCRA SWMU Management Report (2001) recommended NFA.	RCRA SWMU Management Report, April 2001
	SWMU 40	NADEP Former Drum Storage Area	Site 40; SWMU N-22; formerly of OU1	NFA	IAS determined RCRA-regulated unit undergoing closure, remediated under RCRA authority, Closure Plan submitted, RCRA Part B Permit requires NFA.	Closure Plan submitted October 1992 and the RCRA Part B Permit requires NFA.
	SWMU 43	Sewage Treatment Plant	Site 43; SWMU C-5; formerly of OU11	NFA	RFA recommended NFA; 21 Unit RFI indicated regulation under NPDES Permit; RCRA Part B Permit requires NFA; Former STP Outfall to Slocum Creek under investigation as part of OU 15.	RCRA Part B Permit
	SWMU 45	Current Sludge Application Areas	Site 45; SWMU C-11; formerly of OU11	NFA	RFA recommended continued compliance with RCRA; 21 Unit RFI recommended NFA and further investigation at Sites 10 and 21; RCRA SWMU Management Report (2001) recommended NFA.	RCRA SWMU Management Report, April 2001
	SWMU 46	Polishing Ponds No. 1 and No. 2	Site 46; SWMU C-12; formerly of OU2	NFA	RFA recommended closure under RCRA; RCRA Part B Permit required RFI; 21 Unit RFI conducted and Closure Plan submitted; now incorporated under OU2 and ROD has been signed.	Closure Plan; ROD
	SWMU 48	MASS 1 Wash Rack	Site 48; SWMU S-10	NFA	RFA recommended investigation of tank integrity and sampling; 21 Unit RFI and RFI/CMS Task I Report Description of Current Conditions (1991) recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU 49A	MWCS 28 Oil/Water Separator and Leach Field near Building 1013 (MASS - 1)	Site 49A; SWMU C-17; formerly of OU9	Further evaluation under RCRA in progress.	RFA recommended soil sampling; RCRA Permit recommended RFI; 21 Unit RFI included soil excavation, confirmation samples, and sample groundwater; RAR recommended SSE in July 1994; SSE completed in October 1995; additional samples recommended; RCRA SWMU Management Report (2003) recommended further soil and groundwater investigation.	
	SWMU 49B	MWCS 28 Oil/Water Separator and Leach Field near Building 1786	Site 49B; SWMU C-17; formerly of OU9	Further evaluation under RCRA in progress.	RFA recommended soil sampling; RCRA Permit recommended RFI; 21 Unit RFI included soil excavation, confirmation samples, and sample groundwater; RAR recommended SSE in July 1994; SSE completed in October 1995; RCRA SWMU Management Report (2003) recommended further soil and groundwater investigation.	
OU1	SWMU 50	PCB Transformer Spill	Site 50; AOC C-A	NFA	RFA recommended sampling; RCRA Part B Permit required RFI; 21 Unit RFI conducted; SI recommended NFA; Site 50 was removed from Consent Order.	Final SI, August 1994
	SWMU 67	FS Smoke Buildings 1234 and 1235		NFA	Not listed in RCRA Part B Permit; SAR was submitted; building doors have been locked to prevent access as a result of site visit in July 1997; RCRA SWMU Management Report (2003) recommended NFA.	RCRA SWMU Management Report, January 2003

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SITES REQUIRING NO FURTHER ACTION UNDER CERCLA (continued)						
	SWMU 68	Cryogenics Area		NFA	Not listed in RCRA Part B Permit; SAR was submitted; Debris was removed; RCRA SWMU Management Report (2003) recommended NFA.	RCRA SWMU Management Report, January 2003
OU1	SWMU 71	Building 3909 Weapons Cleaning Area		Further evaluation under RCRA in progress.	Not listed in RCRA Part B Permit; SAR was submitted; additional sampling was recommended in July 1997; RCRA SWMU Management Report (2003) recommended further groundwater investigation.	
	SWMU 80	MALS 14 Gunshop			Not listed in RCRA Part B Permit; SAR was submitted; additional sampling was recommended in July 1997; Sample Strategy Plan is pending.	
	SWMU 84	Golf Course Maintenance Area		Further evaluation under RCRA in progress.	Not listed in RCRA Part B Permit; Debris (including batteries) were removed; RCRA SWMU Management Report (2003) recommended further soil and groundwater investigation.	SAR
	SWMU 99	Old Hospital Area			Not listed in RCRA Part B Permit; identified by MCAS Cherry Point in 1999; elevated FID readings, debris and garbage detected in soil borings in the Winter of 1998.	
	SWMU C-3	PCB-Contaminated Soil Pile		NFA	RFA recommended soil removal; soil was removed; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU C-4	Industrial Wastewater Treatment Plant (Structures)	formerly of OU1	NFA	RFA suggested air sampling and covering, RCRA Part B Permit required RFI, 21 Unit RFI indicated regulation under NPDES Permit, soil and groundwater will be investigated and remediated as Site 42	NPDES Permit
	SWMU C-6	Fly Ash Holding Tank		NFA	RFA recommended observation of the unit; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU C-7	Coal Yard Catchment Basin		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU C-8	Construction Landfill	formerly of OU4	NFA; regulated under State Solid Waste Program	RFA recommended continued compliance with RCRA; RCRA Part B Permit required RFI; Currently Permitted under State Solid Waste Program and after completion of OU4 IR work future work will be handled under that program.	
	SWMU C-9	Asbestos Disposal Area	formerly of OU4	NFA	RFA recommended continued compliance with NCDHRCD; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU C-13	Drainage System		NFA; included under site-specific investigations	RFA recommended investigation of sewer lines integrity and conduct sampling; 21 Unit RFI recommended separate investigations per site; RCRA Part B Permit requires RFI. SWMU includes all lines leading to IWTP, STP, and storm discharge points. The lines leading to the IWTP were investigated and are addresses under Site 47.	21 Unit RFI
	SWMU C-15	Oil/Water Separators		NFA; further evaluation under RCRA in progress.	RFA recommended investigation of integrity and conduct sampling; RCRA Part B Permit requires RFI. 37 Separators included that are not identified as separate sites (49A and 49B; RCRA SWMU Management Report (2003) recommended further soil and groundwater investigation.	
	SWMU C-16	PCB Transformer Storage Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-1	HMS 14 Wash Rack		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-2	HMS 14 UST		NFA	RFA recommended finding the tanks, investigating the integrity, and sample collection; RCRA Part B Permit requires NFA.	
	SWMU F-3	Hangar 250 Sump		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-4	VMGR 252 Aircraft Wash Rack		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-5	VMAQ 2 Aircraft Wash Rack		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-6	VMA 332 Aircraft Wash Rack		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-7	HMS 32 Wash Rack		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-8	MAG 32 Waste Oil UST		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-9	MAG 32 Waste Hydraulic Fluid Storage Tank		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-10	MAG 32 Paint Booth		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-11	VMA 542 Waste Oil Aboveground Storage Tank		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit

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SITES REQUIRING NO FURTHER ACTION UNDER CERCLA (continued)						
	SWMU F-12	MAG 32 Aircraft Wash Rack and Sump		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-15	Crash Crew Fuel Tanker		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-16	HMS 14 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-17	HMS 14 Spent Battery Storage Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-18	HMS GSE #1 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-19	HMS GSE #2 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-20	VMGR 253 #1 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-21	VMGR 253 #2 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-23	VMAQ 2 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-24	HMS 14 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-25	VMA 332 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-26	VMA 533 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-27	SOES Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-28	VMAT 203 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-29	HMS 32 #1 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-30	HMS 32 #2 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-31	HMS 32 GSE #1 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-32	HMS 32 GSE #2 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-33	VMA 223 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-34	VMA 542 #1 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-35	VMA 542 #2 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-36	VMA 231 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-37	VMA 332 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-39	HMS 32 Accumulations Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-40	Crash Crew Burn Pit Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU F-41	MAG 32 #1 Accumulation Area		NFA	RFA recommended NFA; RCRA Part B Permit requires NFA.	RCRA Part B Permit
	SWMU N-1	Paint Shop Water Curtain	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-2	Plating Shop Cleaning Vats	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-3	Metal Plating Shop Degreaser	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-4	Metal Cleaning Shop Vats	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-5	Cleaning Shop Vats	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-6	Chemical Stripline Cleaning Vats	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit

TABLE 3-1
Current Status of FFA Sites
FY 2005 Site Management Plan
MCAS Cherry Point, North Carolina

OU	Current Site/SWMU	Description	Other Identifications	Current IRP Status	History	Documentation of Closure
SITES REQUIRING NO FURTHER ACTION UNDER CERCLA (continued)						
	SWMU N-7	Photo Lab and Cleaning Shop Holding Tank	formerly of OU1	NFA	RFA recommended investigation of structural integrity of the tank and subsequent soil sampling, RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-8	Silver Recovery Tank in Photo Shop	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-9	Roto Head Repair Shop Parts Cleaner	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-10	Down Draft Paint Sump	formerly of OU1	NFA	RFA recommended investigation of structural integrity of the unit and subsequent soil sampling, RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-11	Zinc Rinse Paint Sump	formerly of OU1	NFA	RFA recommended investigation of structural integrity of the unit and subsequent soil sampling, RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-12	Plating System Tank	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-13	Anodizing Solution Tank	formerly of OU1	NFA	RFA recommended investigation of structural integrity of the unit and subsequent soil sampling, RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-14	Typical Container Accumulation Area	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-15	Electroplating Shop Sump	formerly of OU1	NFA	RFA recommended investigation of structural integrity of the unit and subsequent soil sampling, RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-16	Paint Shop Water Curtain	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-17	Cleaning Vats	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-18	Aircraft Paint Stripping Shop Sump	formerly of OU1	NFA	RFA recommended investigation of structural integrity of the unit and subsequent soil sampling, RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-19	Central Transfer Area	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-20	Down Draft Aircraft Paint Booth	formerly of OU1	NFA	RFA recommended investigation of structural integrity of the unit and subsequent soil sampling, RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU N-21	Plastic Media Blasting Cyclone	formerly of OU1	NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-1	Boat Dock Waste Oil Aboveground Storage Tank		NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-2	Navy Boat Dock Accumulation Area			RFA recommended sampling; RCRA Part B Permit requires NFA; In Fall 1997 MCAS Cherry Point indicated the potential for contamination and conducted a data review.	
	SWMU S-3	Generator Shop Accumulation Area		NFA	RFA recommended sampling and relocating the unit further from surface water; RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-4	MWSS 271 Accumulation Area		NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-5	MWSS 274 Accumulation Area		NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-7	MACS 6 Accumulation Area		NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-8	MACS 6 Wash Rack		NFA	RFA recommended documentation of removal/cleaning or sampling; RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-9	MASS 1 Accumulation Area		NFA	RFA and RCRA Part B Permit recommended NFA.	RCRA Part B Permit
	SWMU S-12	Pesticide Mixing Area New Shop		NFA	RFA recommended inspection of integrity and potential sampling and repairs; RCRA Part B Permit recommended NFA	RCRA Part B Permit

Note: Shading indicates those sites that require No Further Action (NFA)

TABLE 3-2

Summary of Environmental Studies, Investigations, and Actions Completed to Date at IR Sites Identified in the FFA

FY 2005 Site Management Plan

MCAS Cherry Point, North Carolina

OU No.	Site No.	Preliminary Studies		Preliminary Investigations	PS/TS	Removal Actions	RI/FS	RI	FS	Remedial Designs/Actions	DD	PRAP	Interim ROD	ROD
		IAS (1983)	RFA (1988)											
1	Site 14	X	X	SAR - 1994				2002						
	Site 15	X	X	IRI - 1988 RFI - 1993				2002						
	Site 16	X	X	IRI - 1988 RFI - 1991 TDM - 1992 & 1994	AS/VE PS - 1996	Debris Piles - 1997 AS/VE - 1998	1996	2002						
	Site 18	X	X	IRI - 1988				2002						
	Site 42						1996	2002		NADEP Groundwater Pump and Treat - 1999			NADEP GW - 1996	
	Site 47			Infiltration & Leakage Study - 1992	Bioremediation/ HRC TS - 2001		1999	2002						
	Site 51							2002		Building Decon and Renovation - 1996				
	Site 52							2002		Building Decon and Renovation - 1996				
	Site 83			SAR - 1998				2002						
	Site 92						1996	2002		NADEP Groundwater Pump and Treat - 1999			NADEP GW - 1996	
	Site 98			Site Check - 1994 RRR - 1995				2002						
2	Site 10	X	X	IRI - 1988 RFI - 1991 TDM - 1992 & 1994	SVE PS - 1996		1997			SVE - 1997		1997		1999
	Site 46		X				1997					1997		1999
	Site 76			RRR - 1995			1997					1997		1999
3	Site 6	X	X	IRI - 1988 RFI - 1993			1996			Sludge Removal and Site Revegetation - 1996		1996		2000
	Site 7	X	X	IRI - 1988 RFI - 1993 TDM - 1993			1996			Fence & Warning Signs Installed - 1996 Air Sparging - 2000		1996		2000
4	Site 4	X	X	IRI - 1988 RFI - 1993 TDM -1993				2001	2004					
5	Site 1	X	X	IRI - 1988 RFI - 1993				2003						
	Site 2	X	X	IRI - 1988 RFI - 1993				2003						
6	Site 12	X	X	RFI - 1993 TDM - 1993				2002						
13	Site 19	X	X	IRI - 1988 RFI - 1993				2002	2004					

TABLE 3-2

Summary of Environmental Studies, Investigations, and Actions Completed to Date at IR Sites Identified in the FFA

FY 2005 Site Management Plan

MCAS Cherry Point, North Carolina

OU No.	Site No.	Preliminary Studies		Preliminary Investigations	PS/TS	Removal Actions	RI/FS	RI	FS	Remedial Designs/Actions	DD	PRAP	Interim ROD	ROD
		IAS (1983)	RFA (1988)											
	Site 21	X	X	IRI - 1988 RFI - 1993 TDM - 1993				2002						
	Site 44B			RFI - 1993				2002						
14	Site 90			SA - 1995 & 1996 CAP - 1997						Subsurface Petroleum Remediation (RAC) - 2001				
	POEI 35a (SSA 35a)			Site Evaluation - 2001							2004			
	Site 85			SSA - 2003		Solid Waste Removal - 1998					2003			

ERA - Ecological Risk Assessment
FFA - Federal Facilities Assessment
FS - Feasibility Study
IAS - Initial Assessment Study
IRI - Interim Remedial Investigation
PRAP - Proposed Remedial Action Plan
PS - Pilot Study
RFA - RCRA Facility Assessment
RFI - RCRA Facilities Investigation
RI - Remedial Investigation
ROD - Record of Decision
RRR - Relative Risk Ranking
SA - Site Assessment
SAR - SWMU Assessment Report
SI - Site Investigation
SRI - Supplemental Remedial Investigation
SSA - Site Screening Assessment
SSP - Site Screening Process Report
TDM - Technical Direction Memorandum
TS - Treatability Study

TABLE 3-3
Document Submittals for FFA Sites
FY 2005 Site Management Plan
MCAS Cherry Point, North Carolina

OU No.	Activity	Author	Sites Included	Final Submittal/ Completion Date	ROD/IROD Signature Date
1	Initial Assessment Study	Water and Air Research	14, 15, 16, 18	March 1983	
	RCRA Facility Assessment	A. T. Kearney	14, 15, 16, 18	June 1988	
	Interim Remedial Investigation	NUS Corporation	15, 16	October 1988	
	Wastewater Treatment Facility Assessment	ATEC	42	May 1991	
	RCRA Facilities Investigation	NUS Corporation	16	May 1991	
	RFI Trip Report	Halliburton NUS	51, 52	November 1991	
	Phase I Technical Direction Memorandum	Halliburton NUS	16	November 1992	
	21 Unit RCRA Facilities Investigation	Halliburton NUS	15	June 1993	
	90% Completion Report	Dames & Moore	51, 52	September 1993	
	Infiltration and Leakage Study	Halliburton NUS	47	November 1993	
	SWMU Assessment Report	U.S. Marine Corps	14	May 1994	
	Phase II Technical Direction Memorandum	Halliburton NUS	16	June 1994	
	Site Check	R. E. Wright Associates	98	May 1995	
	Relative Risk Ranking	Baker Environmental	98	November 1995	
	Focused Remedial Investigation/Feasibility Study	Brown & Root Environmental	16, 42	February 1996	
	Remedial Action Report	OHM Remediation Services	51, 52	August 1996	
	Interim Record of Decision for NADEP Groundwater	Brown & Root Environmental	42	August 1996	September 10, 1996
	Basis of Design Report	Brown & Root Environmental	16	April 1997	
	Sampling and Analysis Plan for Air Sparging and SVE	OHM Remediation Services	16	December 1997	
	Debris Pile Time-Critical Removal Action	OHM Remediation Services	16	January 1998	
	SWMU Assessment Report	Brown & Root Environmental	83	March 1998	
	Slocum Creek Fish Ingestion Report	Tetra Tech	OU1, OU2, OU3, OU4	June 1999	
	Remedial Action Report	OHM Remediation Services	42, 92	November 1999	
	Work Plan	CH2M HILL	47	January 2000	
	Long-Term Remedial Action Plan	OHM Remediation Services	42	January 2000	
	4th Quarter O&M Status Report for 1999	OHM Remediation Services	16, 42	February 2000	
	Long-Term Remedial Action Plan	OHM Remediation Services	16	April 2000	
	Remedial Action Report	OHM Remediation Services	16	November 2000	
	Remedial Investigation/Feasibility Study Work Plan	Tetra Tech	14, 15, 16, 18, 42, 47, 51, 52, 83, 90, 92, 98	November 2000	
	O&M Status Report	OHM Remediation Services	16	February 2001	
	Treatability Study Work Plan	CH2M HILL	47	March 2001	
	O&M Status Report	OHM Remediation Services	42	May 2001	
	Remedial Investigation	Brown & Root Environmental	14, 15, 16, 18, 42, 47, 51, 52, 83, 90, 92, 98	May 2002	
	Slocum Creek Screening Level Ecological Risk Assessment	Tetra Tech	OU1, OU2, OU3, OU4	November 2001	
	Annual Report 2001	Shaw	16	March 2002	
	Long Term Remedial Action Plan	Shaw	16	June 2002	
	Long Term Remedial Action Plan P&T/IWTP	Shaw	42, 92	June 2002	
	Annual Report 2002	Shaw	42, 92	June 2002	
	Ecological Risk Assessment Step 3A Addendum	CH2M HILL	14, 15, 16, 18, 42, 47, 51, 52, 83, 92, 98	July 2003	
	Treatability Study Technical Memoranda	CH2M HILL	47	August 2003	
	Baseline Ecological Risk Assessment Work Plan	CH2M HILL	14, 15, 16, 18, 42, 47, 51, 52, 83, 92, 98	May 2004	

TABLE 3-3
Document Submittals for FFA Sites
FY 2005 Site Management Plan
MCAS Cherry Point, North Carolina

OU No.	Activity	Author	Sites Included	Final Submittal/ Completion Date	ROD/IROD Signature Date
2	Hydrogeologic and Geotechnical Analysis	Schnabel Engineering	10	December 1981	
	Initial Assessment Study	Water and Air Research	10	March 1983	
	RCRA Facility Assessment	A. T. Kearney	10, 44A, 46	June 1988	
	Interim Remedial Investigation	NUS Corporation	10	October 1988	
	Groundwater Assessment	Ensafe	10	December 1988	
	Evaluation of Sludge Impoundment Area	Halliburton NUS	10	December 1991	
	RCRA Facility Investigation	NUS Corporation	10	May 1991	
	Phase I Technical Direction Memorandum	Halliburton NUS	10	November 1992	
	21 Unit RCRA Facilities Investigation	Halliburton NUS	44A	June 1993	
	Phase II Technical Direction Memorandum	Halliburton NUS	10	June 1994	
	Relative Risk Ranking	Baker Environmental	76	November 1995	
	Proposed Remedial Action Plan	Brown & Root Environmental	10, 44A, 46, 76	June 1996	
	Basis of Design Report for Air Sparging System	Brown & Root Environmental	10	April 1997	
	Remedial Investigation	Brown & Root Environmental	10, 44A, 46, 76	April 1997	
	Feasibility Study	Brown & Root Environmental	10, 44A, 46, 76	July 1997	
	Sampling and Analysis Plan	OHM Remediation Services	10, 44A, 46, 76	November 1997	
	Air Sparge Work Plan	OHM Remediation Services	10	December 1997	
	O&M Plan for SVE	OHM Remediation Services	10, 44A, 46, 76	June 1998	
	Record of Decision	Tetra Tech	10, 44A, 46, 76	March 1999	September 29, 1999
	LTM Remedial Action Plan	OHM Remediation Services	10, 44A, 46, 76	May 1999	
	Remedial Action Report	OHM Remediation Services	10, 44A, 46, 76	May 1999	
	Remedial Design Work Plan for Baseline LTM	CH2M HILL	10, 44A, 46, 76	May 1999	
	Slocum Creek Fish Ingestion Report	Tetra Tech	OU1, OU2, OU3, OU4	June 1999	
	Land Use Control Assurance Plan	U.S. Marine Corps	10, 44A, 46, 76	October 2000	
	O&M Status Report	OHM Remediation Services	10, 44A, 46, 76	December 2000	
	O&M Status Report	OHM Remediation Services	10, 44A, 46, 76	January 2001	
	Remedial Design/Remedial Action Report	CH2M HILL	10, 44A, 46, 76	October 2001	
	Slocum Creek Screening Level Ecological Risk Assessment	Tetra Tech	OU1, OU2, OU3, OU4	November 2001	
	Remedial Action Report	Shaw	10	January 2002	
	Long Term Remedial Action Report	Shaw	10	May 2002	
	LTM Work Plan	CH2M HILL	10, 44A, 46, 76	October 2002	
	LTM Annual Report	CH2M HILL	10, 44A, 46, 76	July 2003	
3	Initial Assessment Study	Water and Air Research	6, 7	March 1983	
	RCRA Facility Assessment	A. T. Kearney	6, 7	June 1988	
	Interim Remedial Investigation	NUS Corporation	6, 7	October 1988	
	21 Unit RCRA Facilities Investigation	Halliburton NUS	6, 7	June 1993	
	10 Unit Technical Direction Memorandum	Halliburton NUS	6, 7	August 1993	
	Proposed Remedial Action Plan	Brown & Root Environmental	6, 7	June 1996	
	Remedial Investigation	Brown & Root Environmental	6, 7	December 1996	
	Feasibility Study	Brown & Root Environmental	6, 7	December 1996	
	Remedial Action Report	OHM Remediation Services	6, 7	January 1998	

TABLE 3-3
Document Submittals for FFA Sites
FY 2005 Site Management Plan
MCAS Cherry Point, North Carolina

OU No.	Activity	Author	Sites Included	Final Submittal/ Completion Date	ROD/IROD Signature Date
	Sampling and Analysis Plan	OHM Remediation Services	6, 7	January 1999	
	Work Plan for Air Sparge System	OHM Remediation Services	7	January 1999	
	Remedial Design Work Plan for Baseline LTM	CH2M HILL	6, 7	May 1999	
	Slocum Creek Fish Ingestion Report	Tetra Tech	OU1, OU2, OU3, OU4	June 1999	
	O&M Plan	OHM Remediation Services	6, 7	May 2000	
	LTM Remedial Action Plan	OHM Remediation Services	6, 7	June 2000	
	Remedial Action Report	OHM Remediation Services	6, 7	August 2000	
	Record of Decision	Tetra Tech	6, 7	August 2000	October 24, 2000
	Land Use Control Assurance Plan	U.S. Marine Corps	6, 7	October 2000	
	O&M Status Report	OHM Remediation Services	6, 7	April 2001	
	Remedial Design/Remedial Action Report	CH2M HILL	6, 7	October 2001	
	Slocum Creek Screening Level Ecological Risk Assessment	Tetra Tech	OU1, OU2, OU3, OU4	November 2001	
	LTM Remedial Action Report - Air Sparging	Shaw	7	April 2002	
	Remedial Action Report	Shaw	7	May 2002	
	LTM Work Plan	CH2M HILL	6, 7	September 2002	
	Annual Report	Shaw	7	February 2003	
	LTM Monitoring Report	CH2M HILL	6, 7	October 2003	
	LTM Annual Report	CH2M HILL	6, 7	October 2003	
	LTM Quarterly Sampling Tech Memo	CH2M HILL	6,7	January 2004	
4	Initial Assessment Study	Water and Air Research	4	March 1983	
	RCRA Facility Assessment	A. T. Kearney	4	June 1988	
	Interim Remedial Investigation	NUS Corporation	4	October 1988	
	21 Unit RCRA Facilities Investigation	Halliburton NUS	4	June 1993	
	10 Unit Technical Direction Memorandum	Halliburton NUS	4	August 1993	
	Slocum Creek Fish Ingestion Report	Tetra Tech	OU1, OU2, OU3, OU4	June 1999	
	Remedial Investigation/Feasibility Study Work Plan	Tetra Tech	4	June 1999	
	Slocum Creek Screening Level Ecological Risk Assessment	Tetra Tech	OU1, OU2, OU3, OU4	November 2001	
	Remedial Investigation	Tetra Tech	4	June 2002	
	Focused Feasibility Study	CH2M HILL	4	June 2004	
5	Initial Assessment Study	Water and Air Research	1, 2	March 1983	
	RCRA Facility Assessment	A. T. Kearney	1, 2	June 1988	
	Interim Remedial Investigation	NUS Corporation	1, 2	October 1988	
	21 Unit RCRA Facilities Investigation	Halliburton NUS	1, 2	June 1993	
	Work Plan	CH2M HILL	1, 2	February 2002	
6	Initial Assessment Study	Water and Air Research	12	March 1983	
	RCRA Facility Assessment	A. T. Kearney	12	June 1988	
	21 Unit RCRA Facilities Investigation	Halliburton NUS	12	June 1993	
	10 Unit Technical Direction Memorandum	Halliburton NUS	12	August 1993	
	Work Plan	CH2M HILL	12	January 1999	
	Supplemental Investigation Plan	AGVIQ/CH2M HILL	12	September 2003	
	Remedial Investigation	CH2M HILL	12		

TABLE 3-3
Document Submittals for FFA Sites
FY 2005 Site Management Plan
MCAS Cherry Point, North Carolina

OU No.	Activity	Author	Sites Included	Final Submittal/ Completion Date	ROD/IROD Signature Date
13	Initial Assessment Study	Water and Air Research	19, 21	March 1983	
	RCRA Facility Assessment	A. T. Kearney	19, 21	June 1988	
	Interim Remedial Investigation	NUS Corporation	19, 21	October 1988	
	21 Unit RCRA Facilities Investigation	Halliburton NUS	19, 21, 44B	June 1993	
	10 Unit Technical Direction Memorandum	Halliburton NUS	21	August 1993	
	Remedial Investigation/Feasibility Study Work Plan	Tetra Tech	19, 21, 44B	June 1999	
	Remedial Investigation	Tetra Tech	19, 21, 44B	March 2002	
	Focused Feasibility Study	CH2M HILL	19, 21, 44B	July 2004	
14	Site Characterization and Evaluation Report for BRAC	Halliburton NUS	90	December 1994	
	Site Assessment Report	Law Engineering	90	June 1995	
	Site Assessment Addendum	Law Engineering	90	March 1996	
	Corrective Action Plan	Law Engineering	90	January 1997	
	RAC Action Work Plan	J.A. Jones Environmental	90	June 2000	
	Remedial Investigation Work Plan	CH2M HILL	90	August 2002	
	Phase I Remedial Investigation Interim Report	CH2M HILL	90	October 2003	
	Wetland Delineation report for Site 85	Brown & Root Environmental	85	February 1998	
	Action Memorandum, Debris Removal	OHM Remediation Services	85	November 1998	
	Site Screening Process Work Plan	CH2M HILL	85	April 2001	
	Site Screening Process Report	CH2M HILL	85	November 2002	
	Site Screening Area Decision Document	CH2M HILL	85	September 2003	
	Soil/Groundwater Study	R. E. Wright Associates	35a	September 1996	
	Evaluation Report	CH2M HILL	35a	June 2004	
	Decision Document	CH2M HILL	35a	June 2004	

Notes:
TBD = To be determined

TABLE 3-4

Summary of LUCAP Boundaries

FY 2005 Site Management Plan

MCAS Cherry Point, North Carolina

Operable Unit	Sites	LUCAP Controls	Estimated Area (Acres)	Date Implemented
2	10, 46, 76	Industrial Use Only	94.64	September 29, 1999
		Restricted Access - Fencing/Signs Required	85.55	
		Intrusive Activities Prohibited - Groundwater	94.64	
		Aquifer Use Prohibited	100.36	
3	6, 7	Industrial Use Only	12.57	October 24, 2000
		No Use Authorized - Site 7	6.17	
		Restricted Access - Fencing/Signs Required	6.76	
		Intrusive Activities Prohibited	6.17	
		Aquifer Use Prohibited	18.74	

TABLE 3-5

Summary of Samples Collected as part of the LTM Program

FY 2005 Site Management Plan

MCAS Cherry Point, North Carolina

OU2				OU3			
Surficial Aquifer Groundwater	**Yorktown Aquifer Groundwater**	**Turkey Gut Surface Water and Sediment**	**Slocum Creek Surface Water and Sediment**	**Surficial Aquifer Groundwater**	**Yorktown Aquifer Groundwater**	**Luke Rowe's Gut Surface Water and Sediment**	**Slocum Creek Surface Water and Sediment**
OU2-10GW29	OU2-MW02	OU2-SW/SDLT03	OU2-SW/SDLT04	OU3-6GW08	OU3-MW04	OU3-SW/SDLT03	OU3-SW/SDLT04
OU2-10EGW02	OU2-MW03	OU2-SW/SDLT02	OU2-SW/SDLT05	OU3-6GW09		OU3-SW/SDLT02	OU3-SW/SDLT05
OU2-10EGW03	OU2-MW04	OU2-SW/SDLT01		**OU3-7GW01**		OU3-SW/SDLT01	
OU2-10EGW05	OU2-MW05			OU3-7GW02			
OU2-10GW09	OU2-10GW24			OU3-7GW03			
OU2-10GW10				**OU3-7GW04**			
OU2-10GW11				**OU3-7GW06**			
OU2-10GW41				**OU3-7GW07**			
OU2-10GW92				OU3-7GW08			
OU2-10GW94				**OU3-7GW09**			
OU2-10GW95							
OU2-10GW97							
OU2-85GW01							
OU2-MW14							
OU2-MW17							
OU2-MW19							
OU2-MW20							
OU2-MW21							

Notes:

Bold indicates wells that are sampled for Natural Attenuation parameters.

Shading indicates a well background location.

Annual LTM will continue until performance standards listed in the RODs are not exceeded, confirmation sampling is conducted, and regulatory concurrence has been received.

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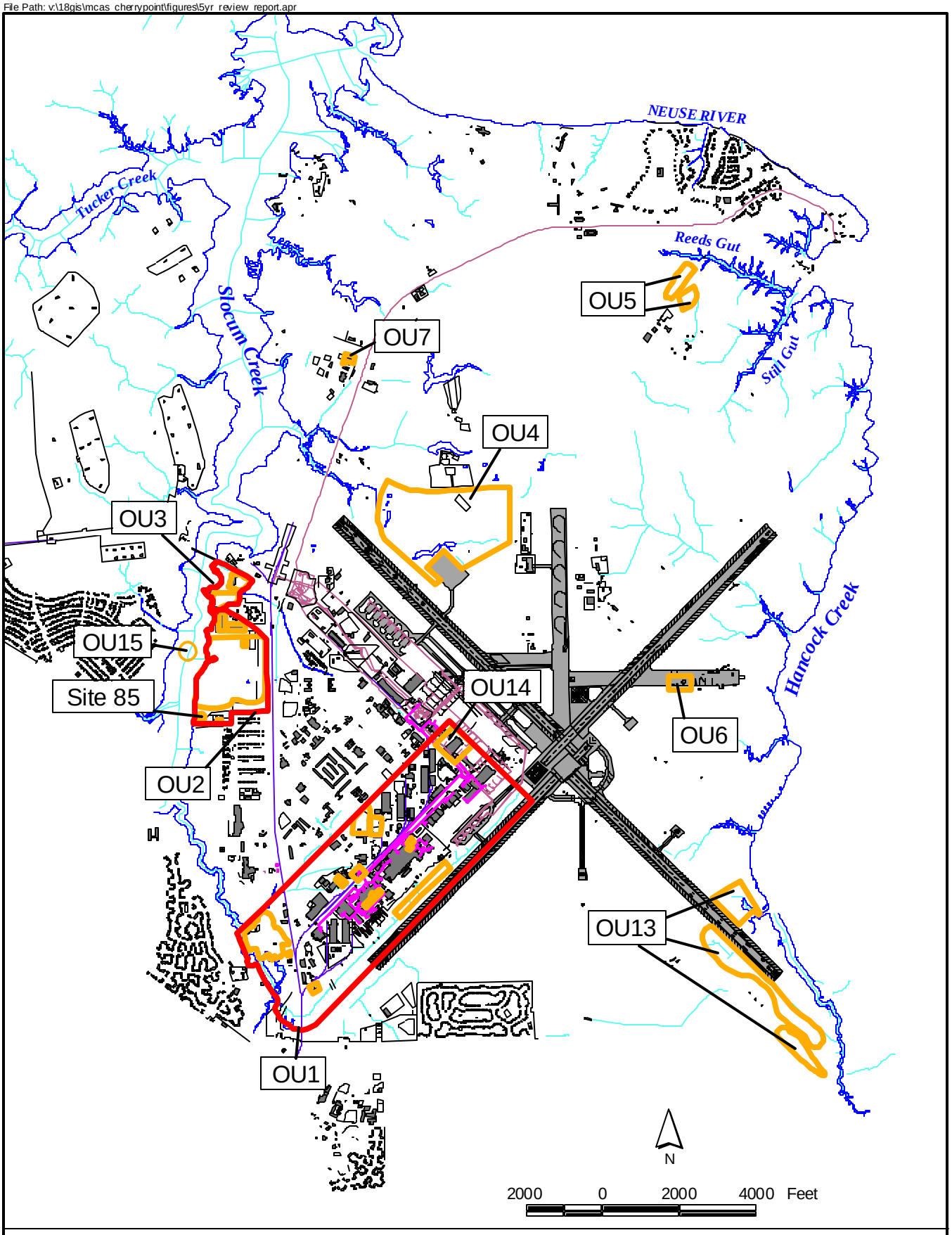

LEGEND

- Operable Unit Boundary
- Site Boundary
- Buildings & Structures
- Airfield Pavement
- Road Centerline
- Water Bodies
- Shorelines
- Water Courses
- Industrial Area Sewer System

Figure 3-1
Operable Units
Location Map
MCAS Cherry Point, NC

CH2MHILL

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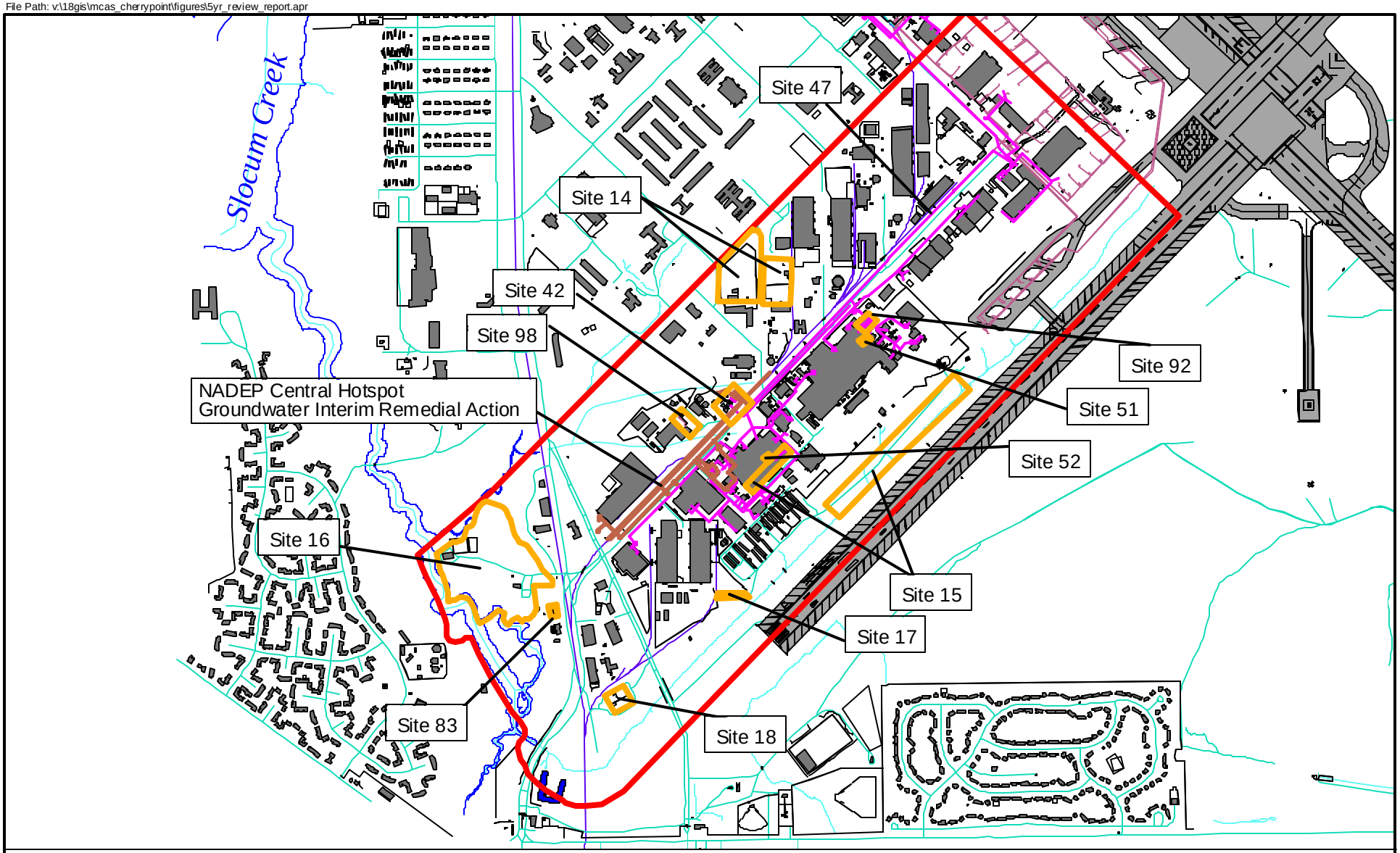

Figure 3-2
OU1 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

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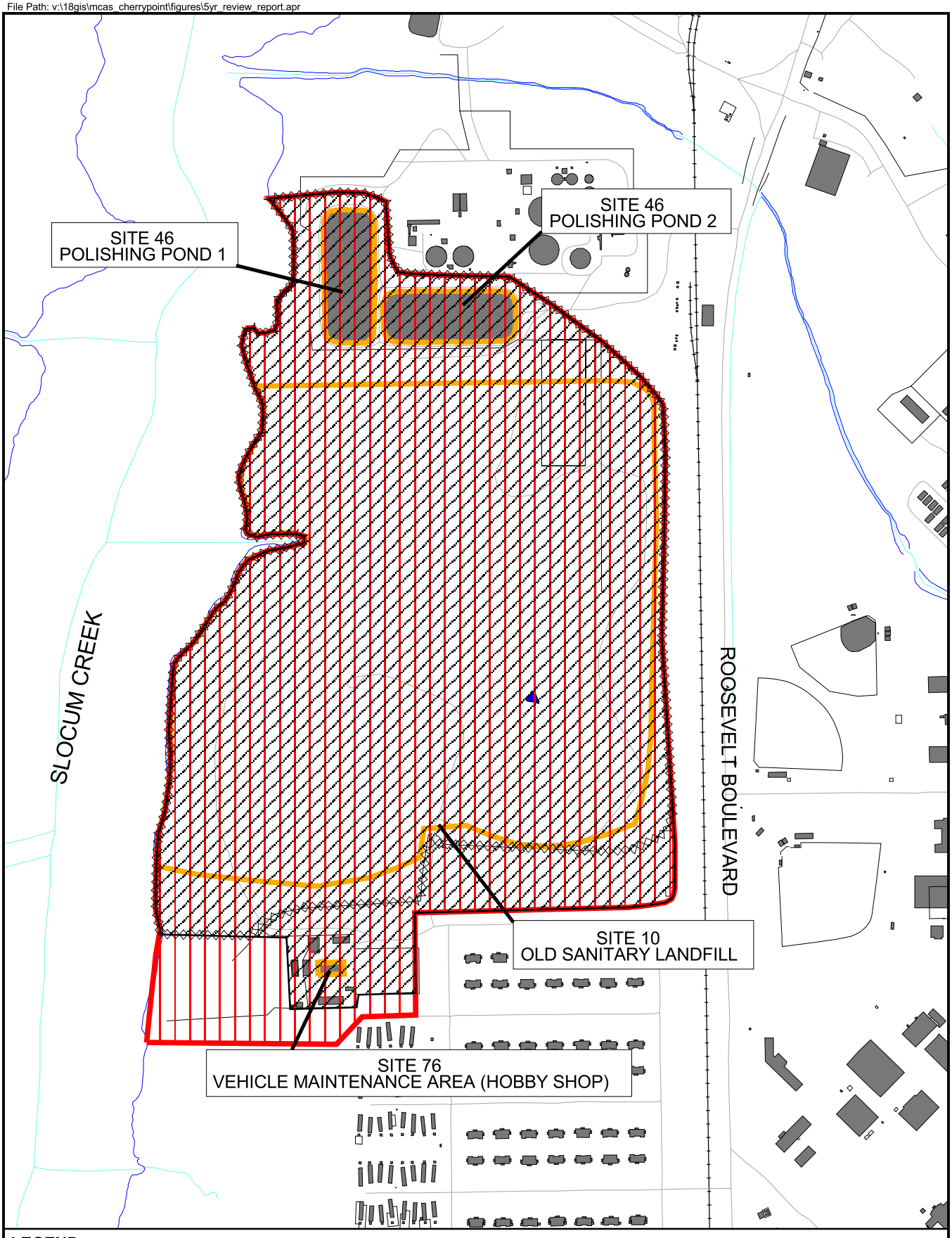

LEGEND

- Site Use Restricted - Industrial Use Only; Intrusive Activities Below the Water Table Prohibited
- Groundwater Use Prohibited
- Restricted Access - Fence and/or Signs Required
- Site Boundary

N

0 300 600 Feet

Figure 3-3
OU2 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

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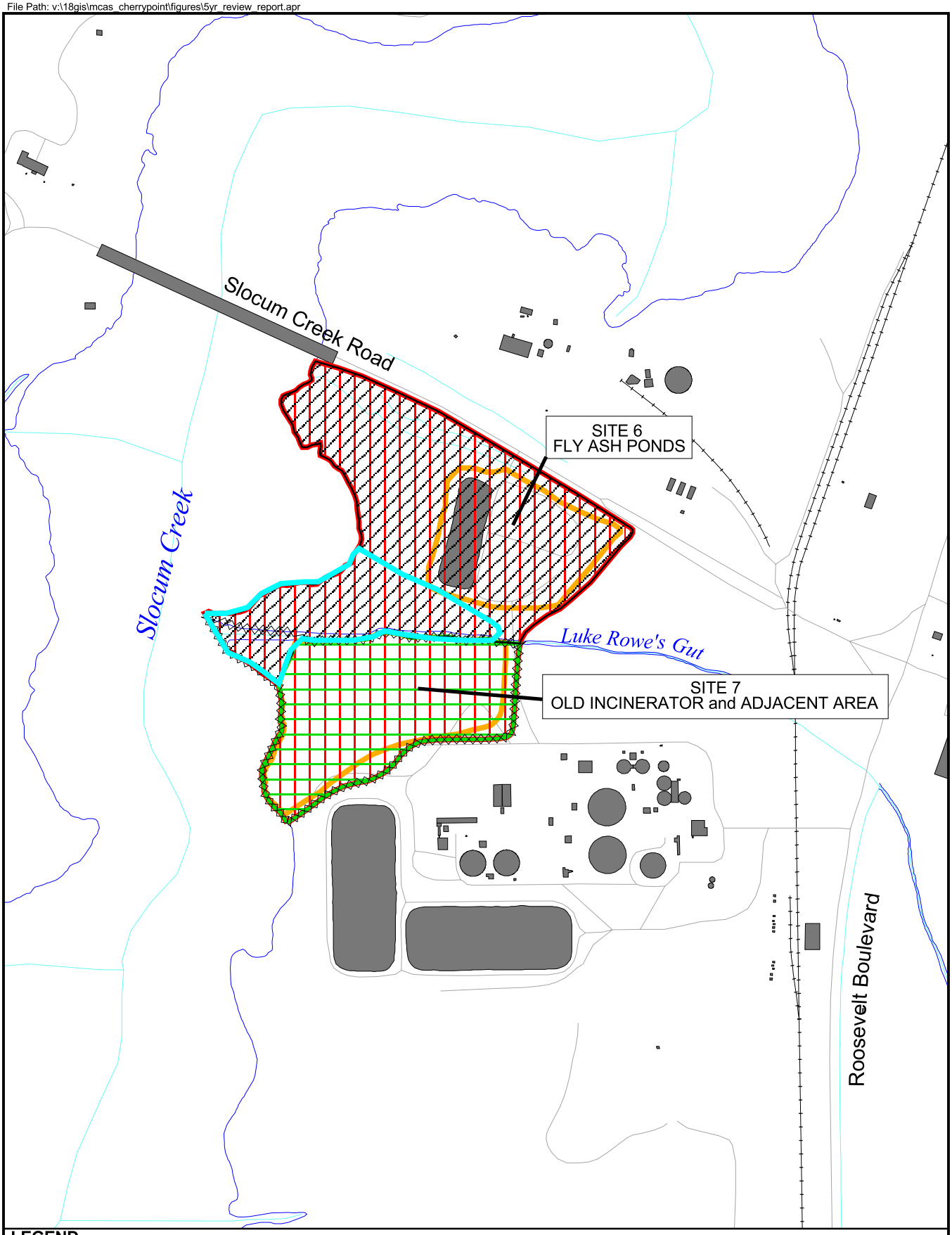

Figure 3-4
OU3 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

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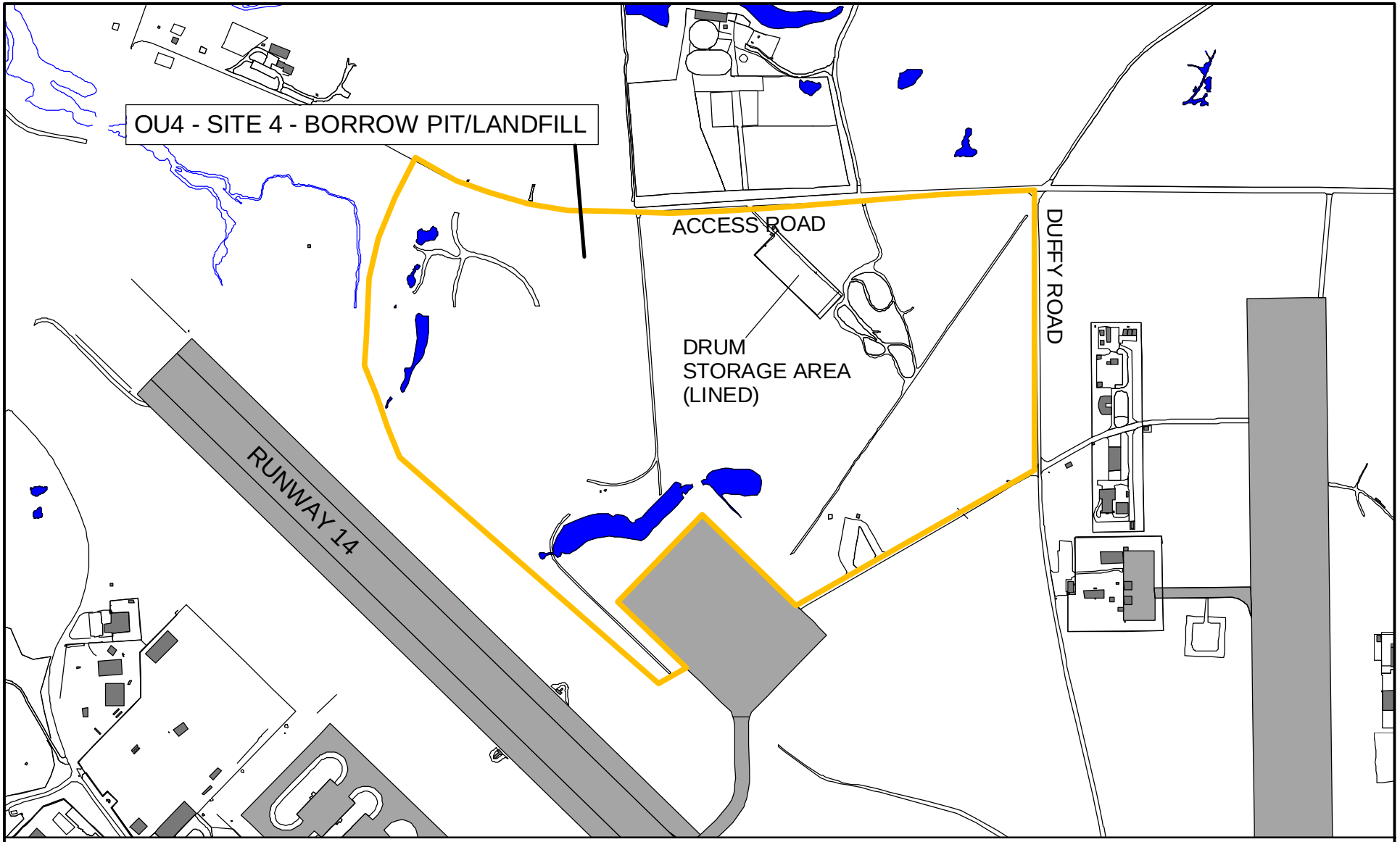

LEGEND

- OU/Site Boundary
- Buildings & Structures
- Roads

N

0 400 800 Feet

Figure 3-5
OU4 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

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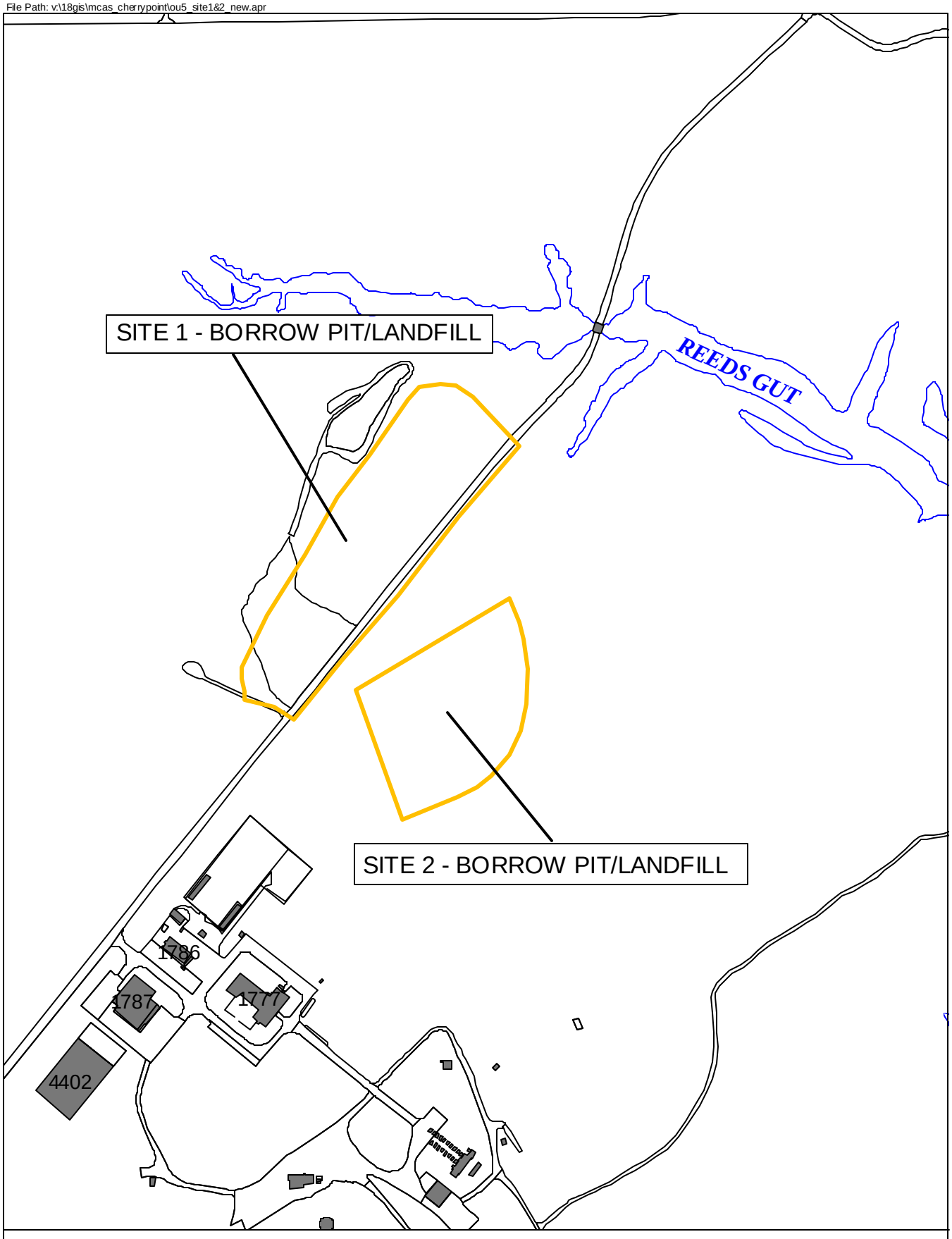

LEGEND

- OU/Site Boundary
- Buildings & Structures
- Roads

N

200 0 200 400 Feet

Figure 3-6
OU5 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

File Path: v:\18gis\mcas_cherrypoint\figures\5yr_review_report.apr

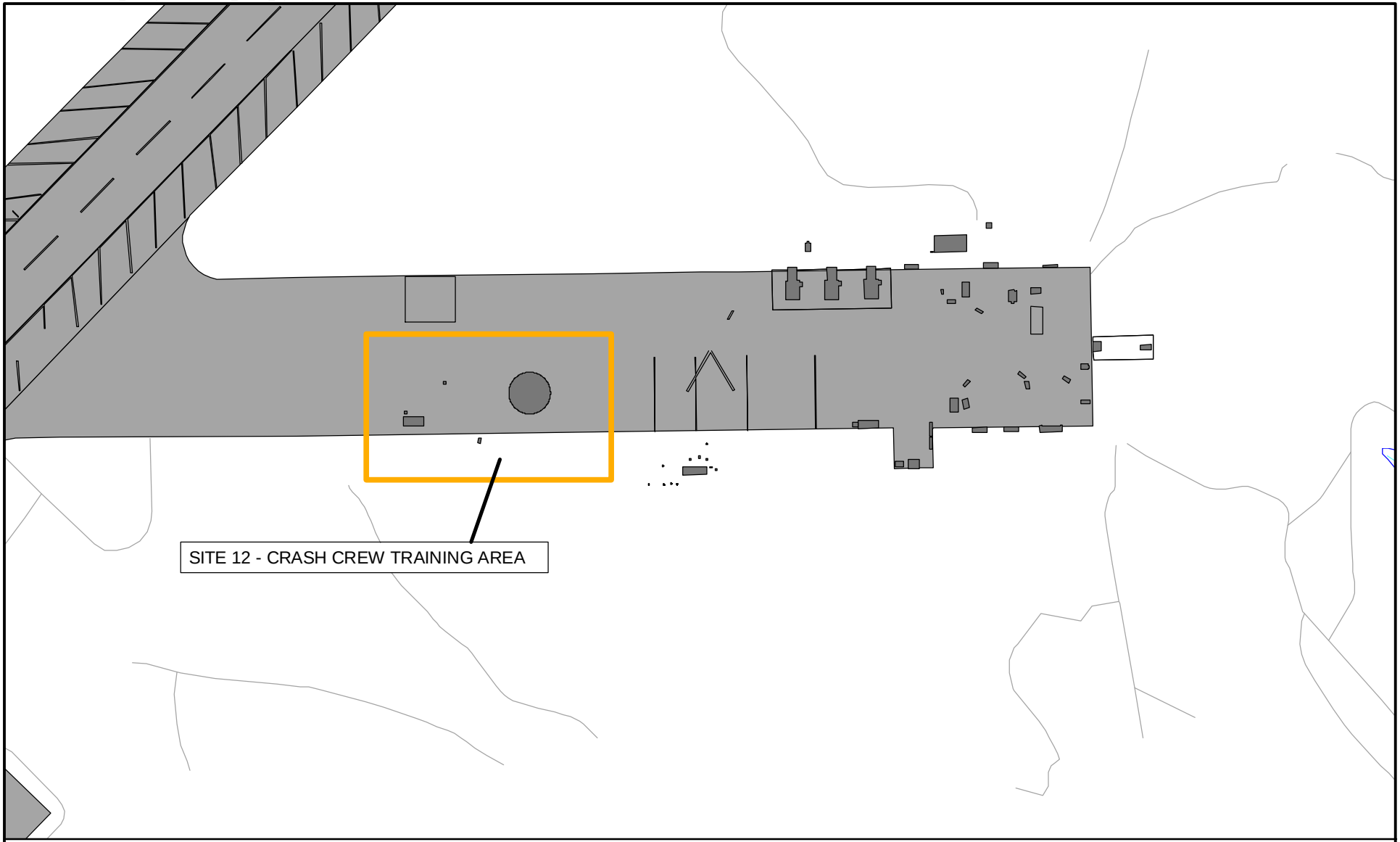

Figure 3-7
OU6 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

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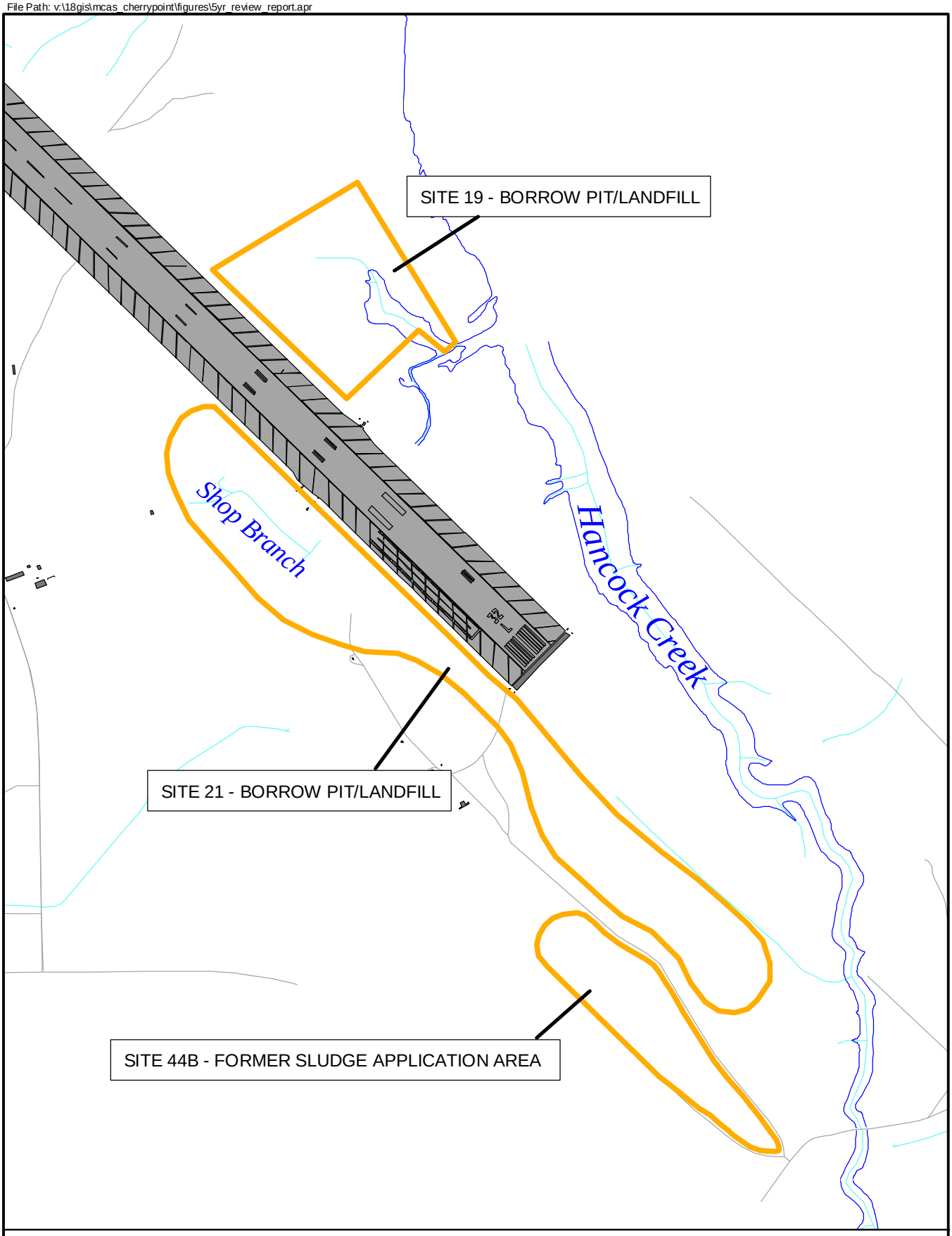


Figure 3-8
OU13 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

File Path: v:\18gis\mcas_cherrypoint\figures\5yr_review_report.apr

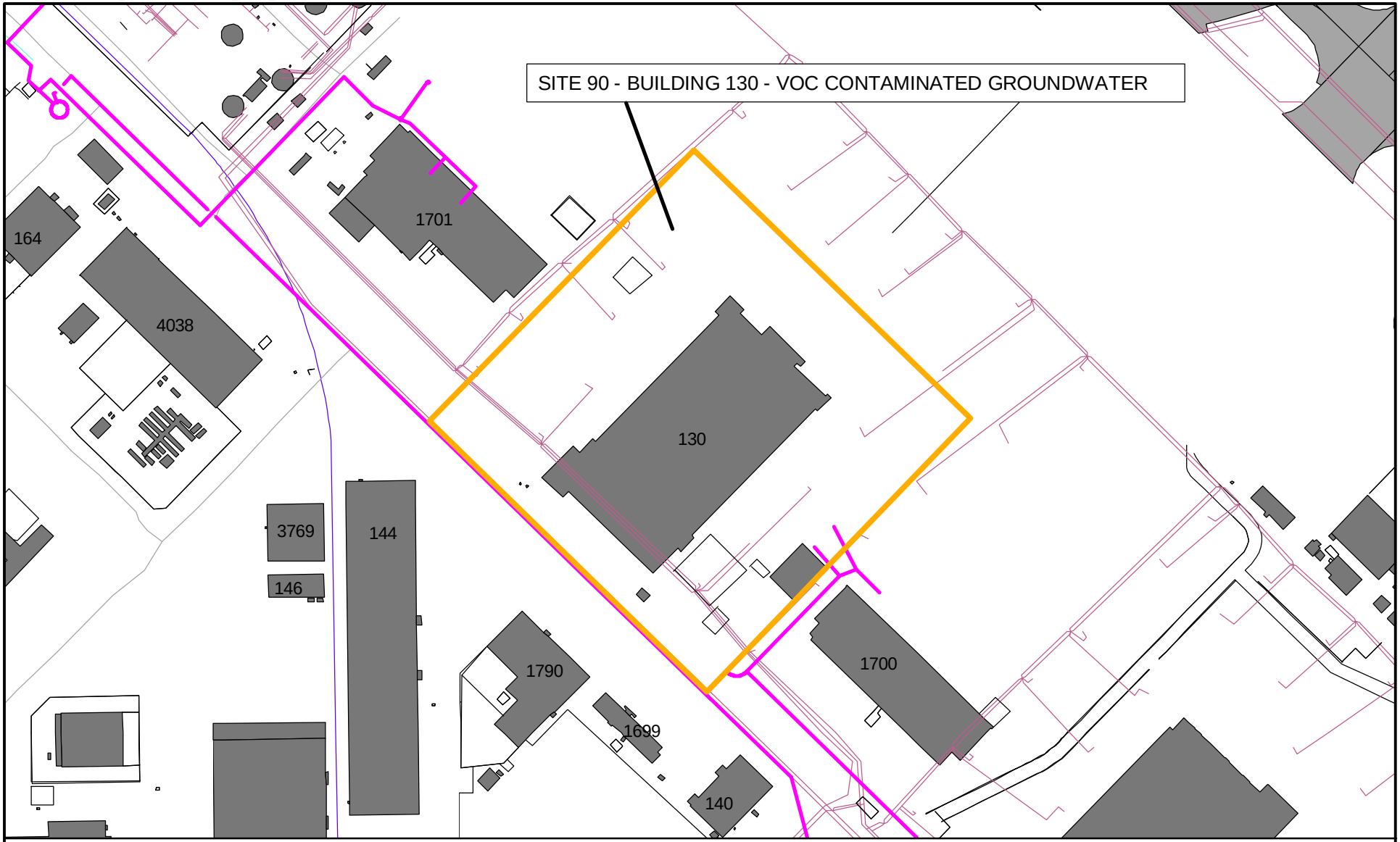
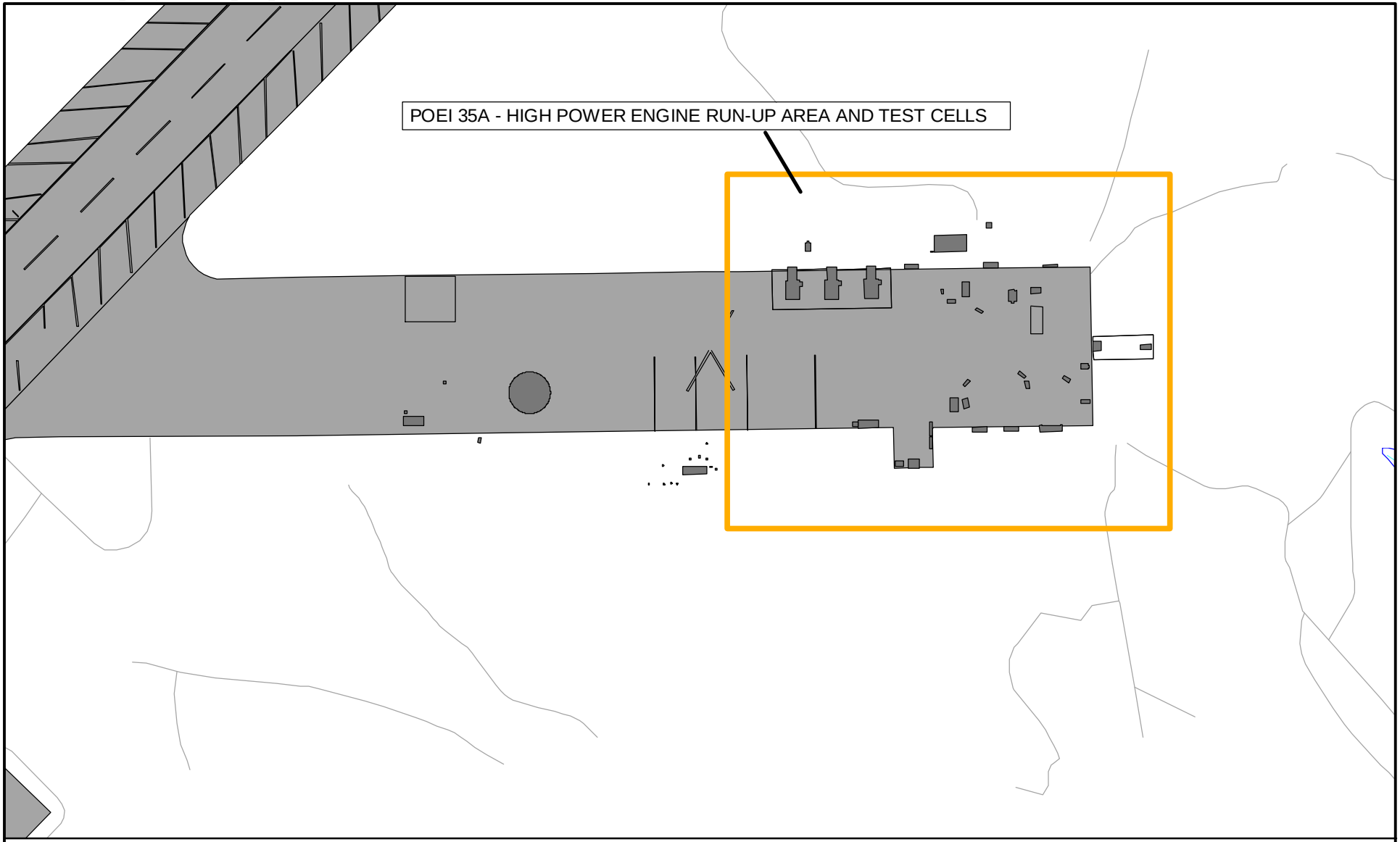


Figure 3-9
OU14 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

File Path: v:\18gis\mcas_cherrypoint\figures\5yr_review_report.apr



LEGEND

- Buildings & Structures
- Airfield Pavement
- Road Centerline
- Water Bodies
- Shorelines
- Water Courses
- OU/Site Boundary

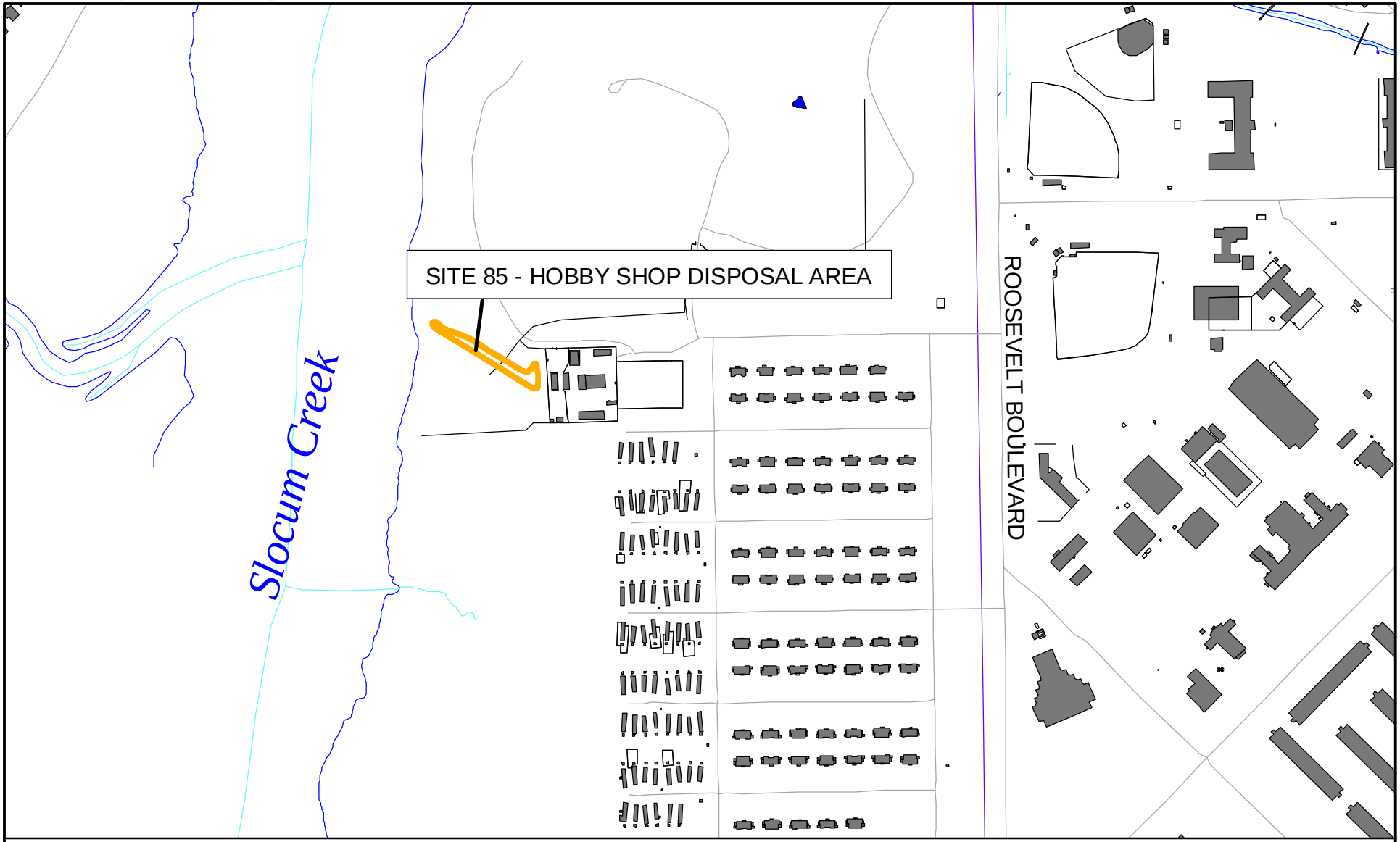
N

0 300 600 Feet

Figure 3-10
POEI 35a (SSA 35a) Site Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

File Path: v:\18gis\mcas_cherrypoint\figures\5yr_review_report.apr



LEGEND

- Buildings & Structures
- Airfield Pavement
- Road Centerline
- Water Bodies
- Shorelines
- Water Courses
- Site Boundary

N

0 400 800 Feet

Figure 3-11
Site 85 Location Map
FFA Sites
MCAS Cherry Point, NC

CH2MHILL

SECTION 4

Removal Actions and Interim Remedial Actions

Removal actions are taken to prevent immediate and substantial harm to human health. Remedial Actions (RAs) are conducted to prevent a potential release of contaminants and/or further migration of contaminants. RAs are conducted as part of the final site remedy. Historic removal and remedial actions that have been conducted or identified at MCAS Cherry Point FFA sites are presented below, listed according to the OU and site. The Navy will continue to identify possible removal and remedial actions as investigation activities proceed.

4.1 Historic Removal Actions and Remedial Actions

4.1.1 Operable Unit 1

4.1.1.1 Site 16-Landfill at Sandy Branch

A time-critical removal action was conducted in 1997. Debris piles containing asbestos, steel storage tanks, and soil contaminated with petroleum hydrocarbons were removed from the southern portion of the site.

A pilot-scale AS/SVE system was installed in 1996. A full-scale AS/SVE system was installed in 1998 as part of a NTCRA to treat contaminated groundwater in the surficial aquifer before it discharged to East Prong Slocum Creek and Sandy Branch. The system is currently in operation.

4.1.1.2 NADEP Central Hot Spot Groundwater Interim Remedial Action

The Interim ROD for the NADEP Central Hot Spot Groundwater Interim Remedial Action (B&R, 1996d) called for the installation of a pump and treat system for groundwater remediation. The groundwater extraction wells were installed in 1998 and the system has recovered groundwater for discharge to the IWTP for treatment since 1999. Prior to system start-up, an upgrade to the IWTP was implemented to ensure adequate treatment.

4.1.1.3 Site 47- Industrial Area Sewer System and Site 92-VOCs in Groundwater near the Stripper Barn

An enhanced bioremediation treatability study involving the injection of Hydrogen Release Compound (HRC®) into surficial aquifer groundwater was initiated in May 2001. The purpose of the treatability study was to determine the effectiveness of the technique to remediate a small plume of chlorinated VOCs in the shallow groundwater beneath a portion of Site 47. Groundwater monitoring of VOCs and geotechnical parameters was conducted prior to the HRC injection in late 2001 and during six post-injection monitoring events conducted over a 1-year period. At the end of the 1-year period, the concentration of total chlorinated VOCs had been reduced over 90 percent in the heart of the plume, but individual constituents remained at concentrations that exceeded regulatory screening

criteria (CH2M HILL, 2003c). The study concluded that, if necessary, additional treatment would be required to further reduce residual concentrations.

4.1.2 Operable Unit 2

4.1.2.1 Site 10-Old Sanitary Landfill

The ROD for OU2 presented selected remedies for Site 10 that included natural attenuation of groundwater, SVE at major soil "hot spots," ICs, and LTM of groundwater, surface water, and sediment to ensure the effectiveness of natural attenuation (TT, 1999a). The boundaries of the various LUCs in place at OU2 are listed in **Table 3-4**. In 1996, a SVE pilot study was conducted and in 1997, OHM installed a SVE system to treat soil contaminated with VOCs at four soil "hot spot" areas. A fenceline upgrade/replacement was conducted in 2003. The SVE treatment was discontinued in late 2003 due to diminished system effectiveness, and in January 2004, soil sampling was conducted and the results will be reviewed to determine a path forward and whether further SVE is warranted. LTM began in October 2002. Annual LTM will continue until it is confirmed that the constituents detected in groundwater do not exceed the performance standards identified in the ROD.

4.1.3 Operable Unit 3

4.1.3.1 Site 6-Fly Ash Ponds

The ROD for OU3 presented selected remedies for Site 6 that included record maintenance documenting the presence of contamination, land use restrictions to limit future land use and groundwater use, aquifer use restrictions, natural attenuation of groundwater, and LTM of groundwater, soil, surface water, and sediment to assess contaminant migration (TT, 2000a). Also as part of the remedy, solidified pond sludge was removed, piping and debris were removed, the berms were graded, and the site was revegetated with pine seedlings in 1996 by MCAS Cherry Point personnel as part of a "Longleaf Pine Initiative" to return the land to it's natural state (OHM, 1998b). The boundaries of the various LUCs in place at OU3 are listed in **Table 3-4**. LTM began in October 2002 and annual LTM will continue until it is confirmed that the constituents detected in groundwater do not exceed the performance standards defined in the OU3 ROD. A fenceline upgrade/replacement was conducted in 2003.

4.1.3.2 Site 7-Old Incinerator and Adjacent Area

The ROD for OU3 presented selected remedies for Site 7 that included record maintenance documenting the presence of contamination, land use restrictions to limit future land use and groundwater use, aquifer use restrictions, fencing and warning sign placement at Site 7 to prevent access to soils, natural attenuation of groundwater, enhanced in-situ bioremediation of an isolated area of contaminated soil at Site 7, and LTM of groundwater, soil, surface water, and sediment to assess contaminant migration and the progress of natural attenuation and bioremediation (TT, 2000a). In 1996, a fence and warning signs were installed at Site 7. The boundaries of the various LUCs in place at Site 7 are listed in **Table 3-4**.

In 2000, OHM installed an air sparging system to treat a localized area of soil contamination at Site 7. LTM began in October 2002 and annual LTM will continue until it is confirmed that

the constituents detected in groundwater do not exceed the performance standards defined in the OU3 ROD. A fenceline upgrade/replacement was conducted in 2003.

4.1.4 Site 85-Hobby Shop Disposal Area

Site 85 contained a significant amount of largely surface debris that had been disposed of at the site. The exposed debris included empty 55-gallon drums, empty 5 to 15-gallon steel pails, automobiles, concrete debris, office equipment, rubber tires, fire hoses, steel matting, pipes, metal spectator bleachers, and various other items (OHM, 1998d).

In 1997, site inspections revealed evidence that MCAS Cherry Point residents, including children, had trespassed onto Site 85, and had used the site for play activities. A rope swing was found hanging from a tree. As a result of this discovery, an emergency response action was taken to secure the site with fencing to prevent potential human exposure. A wetlands delineation was completed in 1997 to minimize wetlands impacts during a planned debris removal at Site 85 (B&R, 1988). A removal action was conducted in 1998 to remove exposed solid waste and debris. Approximately 30 to 40 cubic yards of metal and debris were removed from the site (OHM, 1998d).

SECTION 5

Site Management Schedules

This section presents the project schedules for basewide activities, for each of the sites discussed in Section 3, and for sites which will begin study, investigation, or remedial activities in FY 2005. These schedules are adjusted annually in the SMP and periodically throughout the FY, as future site activities are further defined and various administrative issues, including funding, are addressed. The project schedules may change depending on funding availability.

The project schedule for basewide and site-specific activities is presented in **Figure 5-1**. The project schedule includes a detailed listing of activities projected for near (FY05) and long term milestones, the duration of each activity, the deliverables, and submittal dates. The review and comment periods are based on the government/agency review times specified in the FFA for MCAS Cherry Point. All Draft Primary Documents have a 60-day review period. A 90-day period is allocated to respond to and reach concurrence on review comments as well as to prepare and submit the Final document.

Information concerning basewide activities and the OUs and sites that will be active during FY05 is summarized in the subsections below. A summary table of enforceable and potentially enforceable milestones is included at the end of this SMP (**Table 5-1**) and is appended to the FFA as Appendix B.

5.1 Multisite and Basewide Activities for FY 2005

5.1.1 Federal Facilities Agreement

The listing of MCAS Cherry Point on the NPL requires that the Navy, USEPA, and NCDENR enter into an Inter-Agency written agreement, an FFA, that will lay out how and when CERCLA-related activities will be conducted at the base.

5.1.2 Preparation of the Site Management Plan Update for FY 2006

The SMP will be updated for MCAS Cherry Point for FY 2006 in FY 2005. The SMP will meet CERCLA's requirements as set forth in the FFA. The SMP will be used as a management tool by the MCAS Cherry Point Partnering Team and their respective organizations (LANTDIV, MCAS Cherry Point, USEPA, and NCDENR) in the planning and scheduling of environmental remedial response activities to be conducted at MCAS Cherry Point. The SMP is a working document that is updated yearly to maintain current documentation and a summary of environmental actions at the base.

5.1.3 Master Field Sampling Plan and Master Quality Assurance Plan Updates

The Master Field Sampling Plan (MFSP) and Master Quality Assurance Plan (MQAP) for MCAS Cherry Point will be updated in FY 2005 to reflect current standards and guidance. The MFSP will include current standard operating procedures (SOPs) that are consistent

with regulatory guidance. The MQAP will be updated to include current regulatory guidance and approved sampling methodologies.

5.1.4 Community Involvement Plan

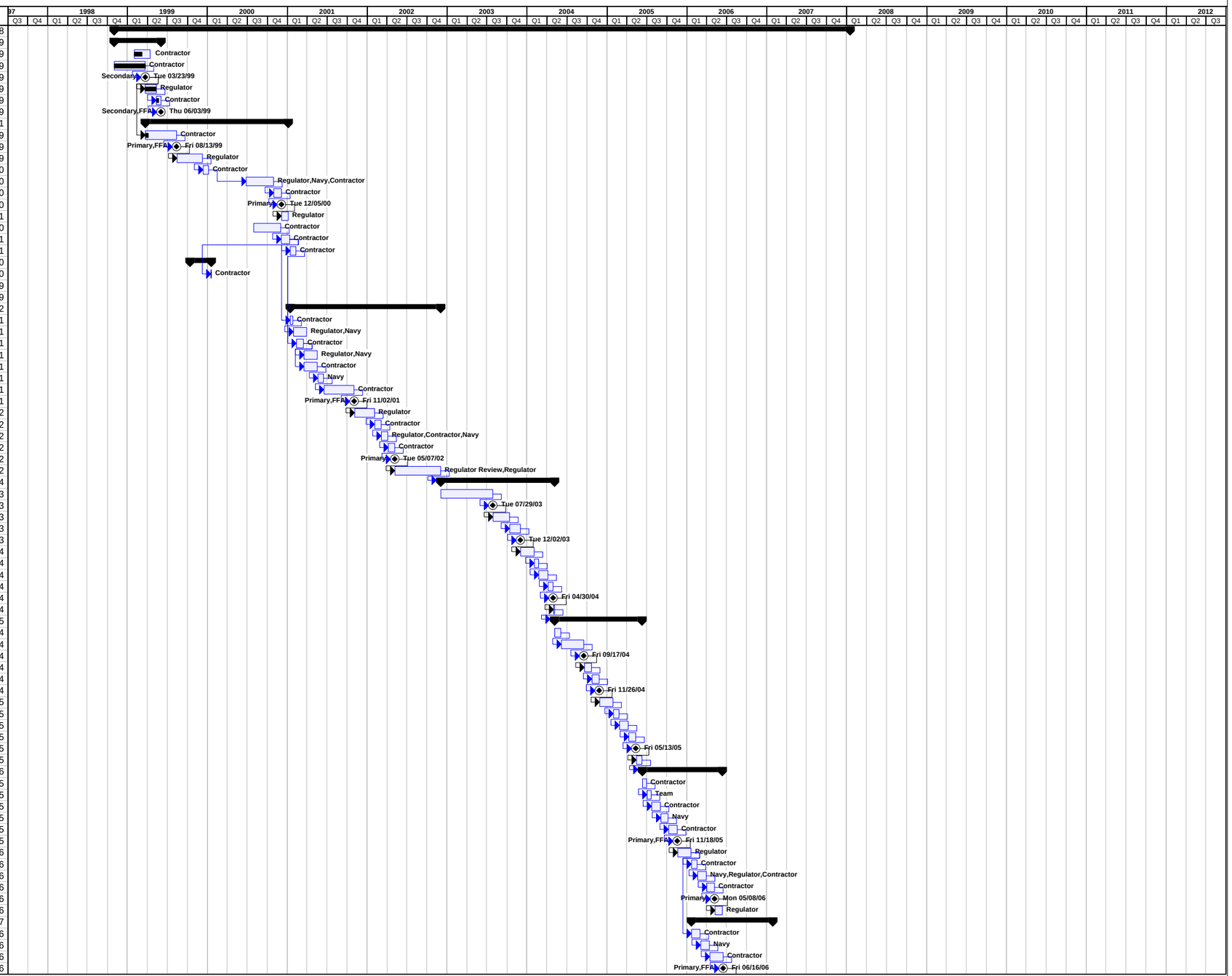
A Community Involvement Plan (CIP) will be prepared for MCAS Cherry Point in FY 2005. The CIP is a part of the public's "right-to-know" process. The CIP documents the findings of interviews to identify community concerns and outlines community relations activities to be carried out by the Navy as part of the IRP process. The Navy's objectives during the entire IRP process are to provide information that is factual and timely, to encourage community involvement, to obtain feedback from the concerned communities, to answer questions, and to further understanding about the IRP.

TABLE 5-1
Enforceable/Potentially Enforceable Milestones for FY 2005 through FY 2007
FY2005 Site Management Plan
MCAS Cherry Point, North Carolina

Operable Unit	Submittal Date	FY05	FY06	FY07
OU1	11/18/2005		Feasibility Study	
	06/16/2006		PRAP for OU GW	
	06/16/2006		PRAP for OU soil/sediment	
	11/10/2006			ROD
	02/09/2007			RD/RA Work Plan
OU4	03/24/2005	RD/RA Work Plan		
	03/01/2006		Remedial Action Implementation	
OU5	03/25/2005	ROD		
	06/24/2005	RD/RA Work Plan		
	06/01/2006		Remedial Action Implementation	
OU6	01/03/2005	Feasibility Study		
	06/06/2005	PRAP		
	11/07/2005		ROD	
	02/06/2006		RDRA Work Plan	
	01/12/2007			Remedial Action Implementation
OU13	02/17/2005	RD/RA Work Plan		
	01/25/2006		Remedial Action Implementation	
OU14	07/27/2005	RI		
	04/27/2006		Feasibility Study	
	01/05/2007			PRAP
	06/08/2007			ROD
	09/07/2007			RD/RA Work Plan
	08/14/2007			Five Year Review Assessment

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start	Finish
1	OU1 Remedial Investigation to ROD	2405 days	Mon 11/02/98	Thu 01/17/08
2	OU1 Sample Strategy Plan	155 days	Mon 11/02/98	Thu 06/03/99
3	Receive UST Data	54 days	Mon 02/01/99	Thu 04/15/99
4	Prepare/Present Draft SSP	102 days	Mon 11/02/98	Tue 03/23/99
5	Submit Draft SSP	0 days	Tue 03/23/99	Tue 03/23/99
6	Review/Resolve Draft SSP	38 days	Tue 03/23/99	Thu 05/13/99
7	Prepare/Present SSP	17 days	Thu 05/13/99	Thu 06/03/99
8	Submit SSP	0 days	Thu 06/03/99	Thu 06/03/99
9	OU1 RI Work Plan	469 days	Wed 03/24/99	Fri 01/05/01
10	Draft RI WP	104 days	Wed 03/24/99	Fri 08/13/99
11	Submit Draft RI WP	0 days	Fri 08/13/99	Fri 08/13/99
12	Review Draft RI WP	85 days	Mon 08/16/99	Fri 12/10/99
13	RTC Draft RI WP	20 days	Mon 12/13/99	Fri 01/07/00
14	CMT Resolution Draft RI WP	90 days	Tue 06/27/00	Mon 10/30/00
15	Draft Final RI WP	26 days	Tue 10/31/00	Tue 12/05/00
16	Submit Draft Final RI WP	0 days	Tue 12/05/00	Tue 12/05/00
17	Approve RI Work Plan	23 days	Wed 12/06/00	Fri 01/05/01
18	RI Fieldwork	90 days	Mon 07/31/00	Fri 12/01/00
19	Laboratory Analysis	30 days	Mon 12/04/00	Fri 01/12/01
20	Data Validation	20 days	Mon 01/15/01	Fri 02/09/01
21	OU1 HHRA Conceptual Outline	69 days	Fri 10/15/99	Wed 01/19/00
22	Questionnaire(Recommend Action E-mail)	2 days	Mon 01/17/00	Wed 01/19/00
23	Review Questionnaire	5 days	Fri 10/15/99	Thu 10/21/99
24	Draft Final Outline	5 days	Sat 10/16/99	Fri 10/22/99
25	OU1 RI Report	492 days	Mon 01/15/01	Tue 12/03/02
26	BRA Assumptions Submittal	10 days	Mon 01/15/01	Fri 01/26/01
27	Review BRA Assumptions Submittal	45 days	Mon 01/29/01	Fri 03/30/01
28	Pre-RI Data Presentation	25 days	Mon 02/12/01	Fri 03/16/01
29	Review Pre-RI Data Presentation	45 days	Mon 03/19/01	Fri 05/18/01
30	Pre-Draft RI Report	45 days	Mon 03/19/01	Fri 05/18/01
31	Review Pre-Draft RI Report	20 days	Mon 05/21/01	Fri 06/15/01
32	Draft RI Report	100 days	Mon 06/18/01	Fri 11/02/01
33	Submit Draft RI Report	0 days	Fri 11/02/01	Fri 11/02/01
34	Review Draft RI Report	66 days	Mon 11/05/01	Mon 02/04/02
35	RTC Draft RI Report	22 days	Tue 02/05/02	Wed 03/06/02
36	CMT Resolution Draft RI Report	22 days	Thu 03/07/02	Fri 04/05/02
37	Draft Final RI Report	22 days	Mon 04/08/02	Tue 05/07/02
38	Submit Draft Final RI Report	0 days	Tue 05/07/02	Tue 05/07/02
39	Approve RI Report	150 days	Wed 05/08/02	Tue 12/03/02
40	OU1 BERA	372 days	Wed 12/04/02	Thu 05/06/04
41	Prepare Pre-Draft BERA WP (Incl. Step 3A Addendum)	170 days	Wed 12/04/02	Tue 07/29/03
42	Submit Pre-Draft BERA WP	0 days	Tue 07/29/03	Tue 07/29/03
43	Review Pre-Draft BERA WP	55 days	Wed 07/30/03	Tue 10/14/03
44	Prepare Draft BERA WP	35 days	Wed 10/15/03	Tue 12/02/03
45	Submit Draft BERA WP	0 days	Tue 12/02/03	Tue 12/02/03
46	Review Draft BERA WP	45 days	Wed 12/03/03	Tue 02/03/04
47	RTC Draft BERA WP	15 days	Wed 02/04/04	Tue 02/24/04
48	CMT Resolution Draft BERA WP	30 days	Wed 02/25/04	Tue 04/06/04
49	Draft Final BERA WP	18 days	Wed 04/07/04	Fri 04/30/04
50	Submit Draft Final BERA WP	0 days	Fri 04/30/04	Fri 04/30/04
51	Approve BERA WP	4 days	Mon 05/03/04	Thu 05/06/04
52	BERA Field Investigation	286 days	Fri 05/07/04	Fri 06/10/05
53	Complete BERA Field Investigation	21 days	Fri 05/07/04	Fri 06/04/04
54	Prepare Pre-Draft BERA Report	75 days	Mon 06/07/04	Fri 09/17/04
55	Submit Pre-Draft BERA Report	0 days	Fri 09/17/04	Fri 09/17/04
56	Review Pre-Draft BERA Report	25 days	Mon 09/20/04	Fri 10/22/04
57	Prepare Draft BERA Report	25 days	Mon 10/25/04	Fri 11/26/04
58	Submit Draft BERA Report	0 days	Fri 11/26/04	Fri 11/26/04
59	Review Draft BERA Report	45 days	Mon 11/29/04	Fri 01/28/05
60	RTC Draft BERA Report	20 days	Mon 01/31/05	Fri 02/25/05
61	CMT Resolution Draft BERA Report	30 days	Mon 02/28/05	Fri 04/08/05
62	Draft Final BERA Report	25 days	Mon 04/11/05	Fri 05/13/05
63	Submit Draft Final BERA Report	0 days	Fri 05/13/05	Fri 05/13/05
64	Approve BERA Report	20 days	Mon 05/16/05	Fri 06/10/05
65	OU1 FS	261 days	Mon 06/13/05	Mon 06/12/06
66	Reach Consensus on FS Approach	15 days	Mon 06/13/05	Fri 07/01/05
67	Develop FS Approach Memo	15 days	Mon 07/04/05	Fri 07/22/05
68	Prepare Pre-Draft FS Report	30 days	Mon 07/25/05	Fri 09/02/05
69	Review Pre-Draft FS Report	25 days	Mon 09/05/05	Fri 10/07/05
70	Draft FS Report	30 days	Mon 10/10/05	Fri 11/18/05
71	Submit Draft FS Report	0 days	Fri 11/18/05	Fri 11/18/05
72	Review Draft FS Report	45 days	Mon 11/21/05	Fri 01/20/06
73	RTC Draft FS Report	20 days	Mon 01/23/06	Fri 02/17/06
74	CMT Resolution Draft FS Report	30 days	Mon 02/20/06	Fri 03/31/06
75	Draft Final FS Report	26 days	Mon 04/03/06	Mon 05/08/06
76	Submit Draft Final FS Report	0 days	Mon 05/08/06	Mon 05/08/06
77	Approve FS Report	23 days	Thu 05/11/06	Mon 06/12/06
78	OU1 PRAP/ROD	266 days	Mon 01/23/06	Mon 01/29/07
79	Pre-Draft PRAP/ROD	30 days	Mon 01/23/06	Fri 03/03/06
80	Review Pre-Draft ROD/PRAP	30 days	Mon 03/06/06	Fri 04/14/06
81	Draft ROD/PRAP	45 days	Mon 04/17/06	Fri 06/16/06
82	Submit Draft PRAP	0 days	Fri 06/16/06	Fri 06/16/06

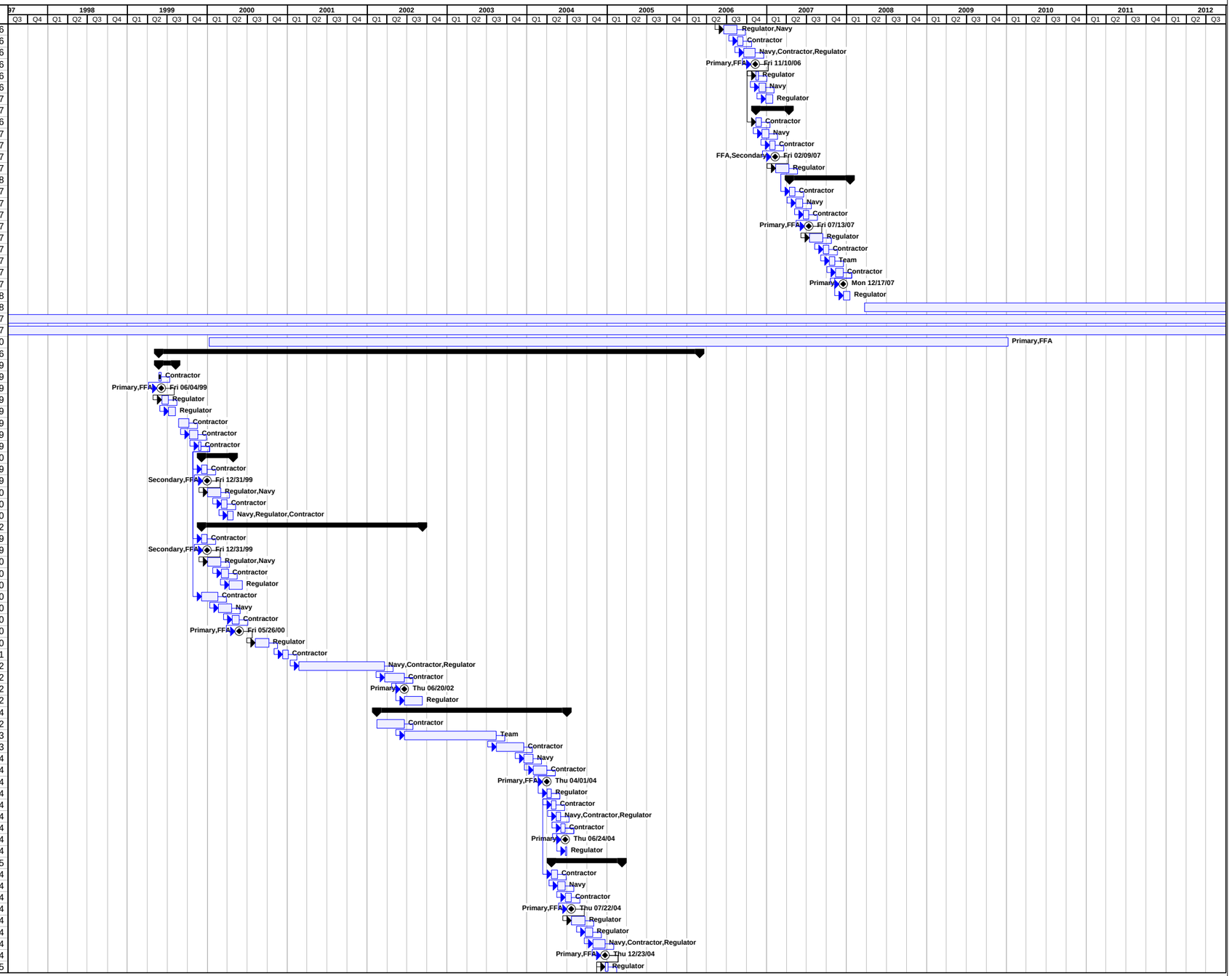


Project Manager:
Date: Thu 08/05/04

Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start	Finish
83	Review Draft ROD/PRAP	45 days	Mon 06/19/06	Fri 08/18/06
84	Revise ROD/PRAP	20 days	Mon 08/21/06	Fri 09/15/06
85	CMT Resolution & Public CMT Period	40 days	Mon 09/18/06	Fri 11/10/06
86	Submit Draft ROD/LUCIP	0 days	Fri 11/10/06	Fri 11/10/06
87	State Approval Letter	10 days	Mon 11/13/06	Fri 11/24/06
88	ROD Signature (General)	23 days	Mon 11/27/06	Wed 12/27/06
89	ROD Signature (EPA)	23 days	Thu 12/28/06	Mon 01/29/07
90	OU1 Remedial Design Work Plan	110 days	Mon 11/13/06	Fri 04/13/07
91	Pre-Draft RD WP	20 days	Mon 11/13/06	Fri 12/08/06
92	Review Pre-Draft RD WP	25 days	Mon 12/11/06	Fri 01/12/07
93	Draft RD WP	20 days	Mon 01/15/07	Fri 02/09/07
94	Submit Draft RD WP	0 days	Fri 02/09/07	Fri 02/09/07
95	Review Draft RD WP	45 days	Mon 02/12/07	Fri 04/13/07
96	OU1 Remedial Design	199 days	Mon 04/16/07	Thu 01/17/08
97	Pre-Draft RD	20 days	Mon 04/16/07	Fri 05/11/07
98	Review Pre-Draft RD	25 days	Mon 05/14/07	Fri 06/15/07
99	Draft RD	20 days	Mon 06/18/07	Fri 07/13/07
100	Submit Draft RD	0 days	Fri 07/13/07	Fri 07/13/07
101	Review Draft RD	45 days	Mon 07/16/07	Fri 09/14/07
102	RTC Draft RD	20 days	Mon 09/17/07	Fri 10/12/07
103	CMT Resolution Draft RD	20 days	Mon 10/15/07	Fri 11/09/07
104	Draft Final RD	26 days	Mon 11/12/07	Mon 12/17/07
105	Submit Draft Final RD	0 days	Mon 12/17/07	Mon 12/17/07
106	Approve Remedial Design	23 days	Tue 12/18/07	Thu 01/17/08
107	OU1 Project End Date (Soil & GW) (20yr monitoring)	5220 days	Mon 03/24/08	Fri 03/24/28
108	OU2 Project End Date (Soil & GW) (20yr monitoring)	5220 days	Tue 07/01/97	Wed 06/28/17
109	OU3 Project End Date (Soil & GW) (20yr monitoring)	5220 days	Tue 07/01/97	Wed 06/28/17
110	OU3 Project End Date (Soil & GW) (10yr monitoring)	2610 days	Mon 01/10/00	Fri 01/08/10
111	OU4 RI/FS/PRAP/ROD	1767 days	Tue 05/25/99	Wed 03/01/06
112	OU4 RI WP	55 days	Tue 05/25/99	Mon 08/09/99
113	Draft RI WP	9 days	Tue 05/25/99	Fri 06/04/99
114	Submit Draft RI WP	0 days	Fri 06/04/99	Fri 06/04/99
115	Review Draft RI WP	23 days	Mon 06/07/99	Wed 07/07/99
116	Approve RI Work Plan	23 days	Thu 07/08/99	Mon 08/09/99
117	Fieldwork	35 days	Mon 08/23/99	Sat 10/09/99
118	Laboratory Analysis	30 days	Mon 10/11/99	Fri 11/19/99
119	Data Validation	10 days	Mon 11/22/99	Fri 12/03/99
120	Data Gap Findings/ SLERA Report	105 days	Mon 12/06/99	Fri 04/28/00
121	SLERA Report	20 days	Mon 12/06/99	Fri 12/31/99
122	Submit SLERA Report	0 days	Fri 12/31/99	Fri 12/31/99
123	Review SLERA Report	45 days	Mon 01/03/00	Fri 03/03/00
124	RTC SLERA Report	20 days	Mon 03/06/00	Fri 03/31/00
125	CMT Resolution SLERA Report	20 days	Mon 04/03/00	Fri 04/28/00
126	OU4 RI Report	722 days	Mon 12/06/99	Tue 09/10/02
127	BRA Assumptions Submittal	20 days	Mon 12/06/99	Fri 12/31/99
128	Submit BRA Assumptions Submittal	0 days	Fri 12/31/99	Fri 12/31/99
129	Review BRA Assumptions Submittal	45 days	Mon 01/03/00	Fri 03/03/00
130	Pre-RI Data Presentation	25 days	Mon 03/06/00	Fri 04/07/00
131	Review Pre-RI Data Presentation	45 days	Mon 04/10/00	Fri 06/09/00
132	Pre-Draft RI Report	55 days	Mon 12/06/99	Fri 02/18/00
133	Review Pre-Draft RI Report	45 days	Mon 02/21/00	Fri 04/21/00
134	Draft RI Report	25 days	Mon 04/24/00	Fri 05/26/00
135	Submit Draft RI Report	0 days	Fri 05/26/00	Fri 05/26/00
136	Review Draft RI Report	45 days	Tue 08/08/00	Mon 10/09/00
137	RTC Draft RI Report	20 days	Mon 12/11/00	Fri 01/05/01
138	CMT Resolution Draft RI Report	280 days	Fri 02/23/01	Thu 03/21/02
139	Draft Final RI Report	65 days	Fri 03/22/02	Thu 06/20/02
140	Submit Draft Final RI Report	0 days	Thu 06/20/02	Thu 06/20/02
141	Approve RI Report	58 days	Fri 06/21/02	Tue 09/10/02
142	OU4 FS Report	620 days	Fri 02/15/02	Thu 07/01/04
143	Develop OU4 FS Approach Memo	90 days	Fri 02/15/02	Thu 06/20/02
144	Reach Consensus on FS Approach	300 days	Fri 06/21/02	Thu 08/14/03
145	Prepare Pre-Draft FFS Report	90 days	Fri 08/15/03	Thu 12/18/03
146	Review Pre-Draft FFS Report	30 days	Fri 12/19/03	Thu 01/29/04
147	Draft FFS Report	45 days	Fri 01/30/04	Thu 04/01/04
148	Submit Draft FFS Report	0 days	Thu 04/01/04	Thu 04/01/04
149	Review Draft FFS Report	15 days	Fri 04/02/04	Thu 04/22/04
150	RTC Draft FFS Report	15 days	Fri 04/23/04	Thu 05/13/04
151	CMT Resolution Draft FFS Report	15 days	Fri 05/14/04	Thu 06/03/04
152	Draft Final FFS Report	15 days	Fri 06/04/04	Thu 06/24/04
153	Submit Draft Final FFS Report	0 days	Thu 06/24/04	Thu 06/24/04
154	Approve FFS Report	5 days	Fri 06/25/04	Thu 07/01/04
155	OU4 PRAP/ROD	231 days	Fri 04/23/04	Fri 03/11/05
156	Pre-Draft PRAP/ROD	20 days	Fri 04/23/04	Thu 05/20/04
157	Review Pre-Draft ROD/PRAP	25 days	Fri 05/21/04	Thu 06/24/04
158	Draft ROD/PRAP	20 days	Fri 06/25/04	Thu 07/22/04
159	Submit Draft PRAP	0 days	Thu 07/22/04	Thu 07/22/04
160	Review Draft ROD/PRAP	45 days	Fri 07/23/04	Thu 09/23/04
161	Revise ROD/PRAP	25 days	Fri 09/24/04	Thu 10/28/04
162	CMT Resolution & Public CMT Period	40 days	Fri 10/29/04	Thu 12/23/04
163	Submit Draft ROD/LUCIP	0 days	Thu 12/23/04	Thu 12/23/04
164	State Approval Letter	10 days	Fri 12/24/04	Thu 01/06/05

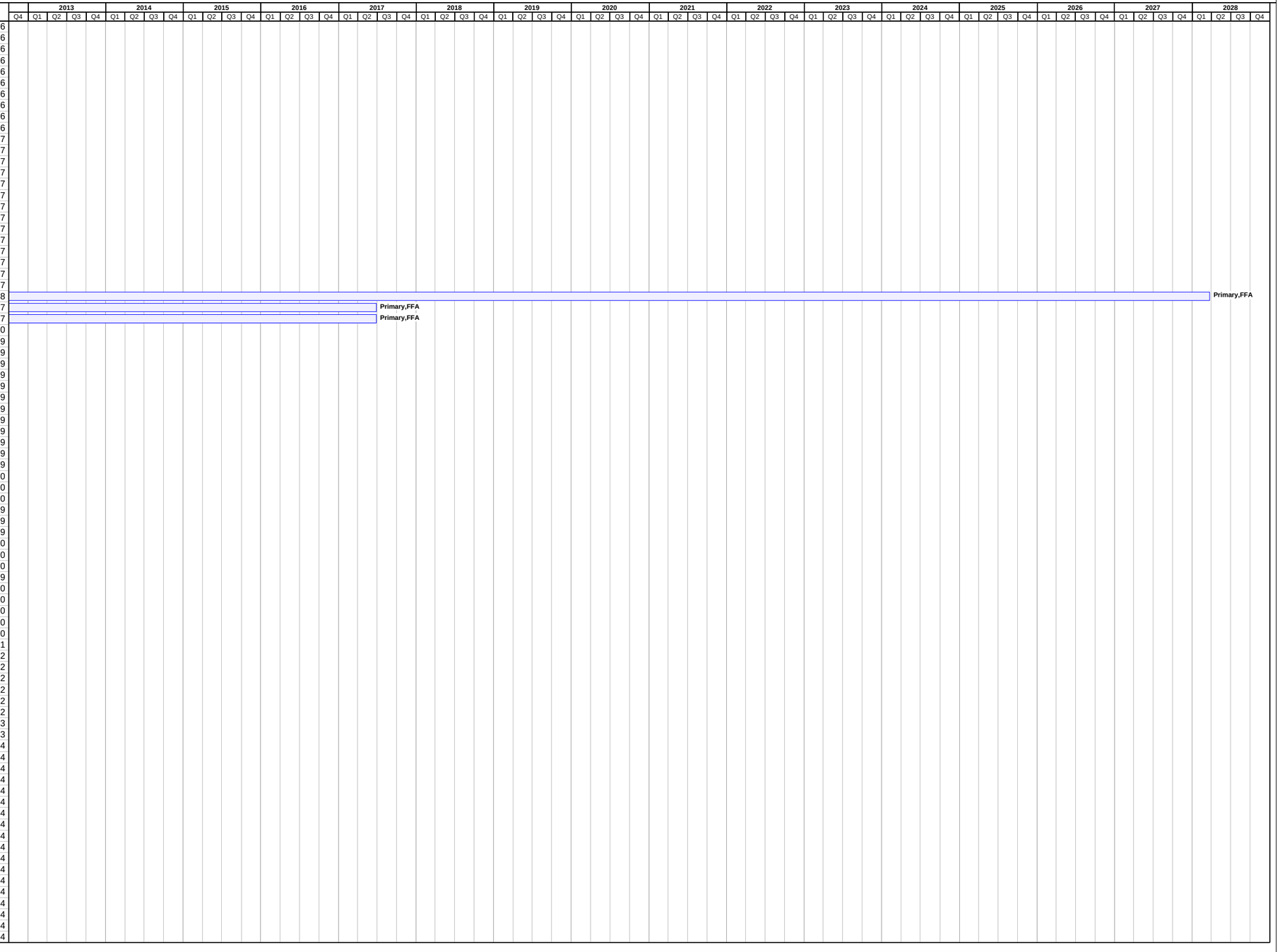


Project Manager:
Date: Thu 08/05/04

Task | Progress | Milestone | Summary | External Tasks | Project Summary | Split | Rolled Up Split | External Milestone | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start
83	Review Draft ROD/PRAP	45 days	Mon 06/19/06
84	Revise ROD/PRAP	20 days	Mon 08/21/06
85	CMT Resolution & Public CMT Period	40 days	Mon 09/18/06
86	Submit Draft ROD/LUCIP	0 days	Fri 11/10/06
87	State Approval Letter	10 days	Mon 11/13/06
88	ROD Signature (General)	23 days	Mon 11/27/06
89	ROD Signature (EPA)	23 days	Thu 12/28/06
90	OU1 Remedial Design Work Plan	110 days	Mon 11/13/06
91	Pre-Draft RD WP	20 days	Mon 11/13/06
92	Review Pre-Draft RD WP	25 days	Mon 12/11/06
93	Draft RD WP	20 days	Mon 01/15/07
94	Submit Draft RD WP	0 days	Fri 02/09/07
95	Review Draft RD WP	45 days	Mon 02/12/07
96	OU1 Remedial Design	199 days	Mon 04/16/07
97	Pre-Draft RD	20 days	Mon 04/16/07
98	Review Pre-Draft RD	25 days	Mon 05/14/07
99	Draft RD	20 days	Mon 06/18/07
100	Submit Draft RD	0 days	Fri 07/13/07
101	Review Draft RD	45 days	Mon 07/16/07
102	RTC Draft RD	20 days	Mon 09/17/07
103	CMT Resolution Draft RD	20 days	Mon 10/15/07
104	Draft Final RD	26 days	Mon 11/12/07
105	Submit Draft Final RD	0 days	Mon 12/17/07
106	Approve Remedial Design	23 days	Tue 12/18/07
107	OU1 Project End Date (Soil & GW) (20yr monitoring)	5220 days	Mon 03/24/08
108	OU2 Project End Date (Soil & GW) (20yr monitoring)	5220 days	Tue 07/01/97
109	OU3 Project End Date (Soil & GW) (20yr monitoring)	5220 days	Tue 07/01/97
110	OU3 Project End Date (Soil & GW) (10yr monitoring)	2610 days	Mon 01/10/00
111	OU4 RI/FS/PRAP/ROD	1767 days	Tue 05/25/99
112	OU4 RI WP	55 days	Tue 05/25/99
113	Draft RI WP	9 days	Tue 05/25/99
114	Submit Draft RI WP	0 days	Fri 06/04/99
115	Review Draft RI WP	23 days	Mon 06/07/99
116	Approve RI Work Plan	23 days	Thu 07/08/99
117	Fieldwork	35 days	Mon 08/23/99
118	Laboratory Analysis	30 days	Mon 10/11/99
119	Data Validation	10 days	Mon 11/22/99
120	Data Gap Findings/ SLERA Report	105 days	Mon 12/06/99
121	SLERA Report	20 days	Mon 12/06/99
122	Submit SLERA Report	0 days	Fri 12/31/99
123	Review SLERA Report	45 days	Mon 01/03/00
124	RTC SLERA Report	20 days	Mon 03/06/00
125	CMT Resolution SLERA Report	20 days	Mon 04/03/00
126	OU4 RI Report	722 days	Mon 12/06/99
127	BRA Assumptions Submittal	20 days	Mon 12/06/99
128	Submit BRA Assumptions Submittal	0 days	Fri 12/31/99
129	Review BRA Assumptions Submittal	45 days	Mon 01/03/00
130	Pre-RI Data Presentation	25 days	Mon 03/06/00
131	Review Pre-RI Data Presentation	45 days	Mon 04/10/00
132	Pre-Draft RI Report	55 days	Mon 12/06/99
133	Review Pre-Draft RI Report	45 days	Mon 02/21/00
134	Draft RI Report	25 days	Mon 04/24/00
135	Submit Draft RI Report	0 days	Fri 05/26/00
136	Review Draft RI Report	45 days	Tue 08/08/00
137	RTC Draft RI Report	20 days	Mon 12/11/00
138	CMT Resolution Draft RI Report	280 days	Fri 02/23/01
139	Draft Final RI Report	65 days	Fri 03/22/02
140	Submit Draft Final RI Report	0 days	Thu 06/20/02
141	Approve RI Report	58 days	Fri 06/21/02
142	OU4 FS Report	620 days	Fri 02/15/02
143	Develop OU4 FS Approach Memo	90 days	Fri 02/15/02
144	Reach Consensus on FS Approach	300 days	Fri 06/21/02
145	Prepare Pre-Draft FFS Report	90 days	Fri 08/15/03
146	Review Pre-Draft FFS Report	30 days	Fri 12/19/03
147	Draft FFS Report	45 days	Fri 01/30/04
148	Submit Draft FFS Report	0 days	Thu 04/01/04
149	Review Draft FFS Report	15 days	Fri 04/02/04
150	RTC Draft FFS Report	15 days	Fri 04/23/04
151	CMT Resolution Draft FFS Report	15 days	Fri 05/14/04
152	Draft Final FFS Report	15 days	Fri 06/04/04
153	Submit Draft Final FFS Report	0 days	Thu 06/24/04
154	Approve FFS Report	5 days	Fri 06/25/04
155	OU4 PRAP/ROD	231 days	Fri 04/23/04
156	Pre-Draft PRAP/ROD	20 days	Fri 04/23/04
157	Review Pre-Draft ROD/PRAP	25 days	Fri 05/21/04
158	Draft ROD/PRAP	20 days	Fri 06/25/04
159	Submit Draft PRAP	0 days	Thu 07/22/04
160	Review Draft ROD/PRAP	45 days	Fri 07/23/04
161	Revise ROD/PRAP	25 days	Fri 09/24/04
162	CMT Resolution & Public CMT Period	40 days	Fri 10/29/04
163	Submit Draft ROD/LUCIP	0 days	Thu 12/23/04
164	State Approval Letter	10 days	Fri 12/24/04

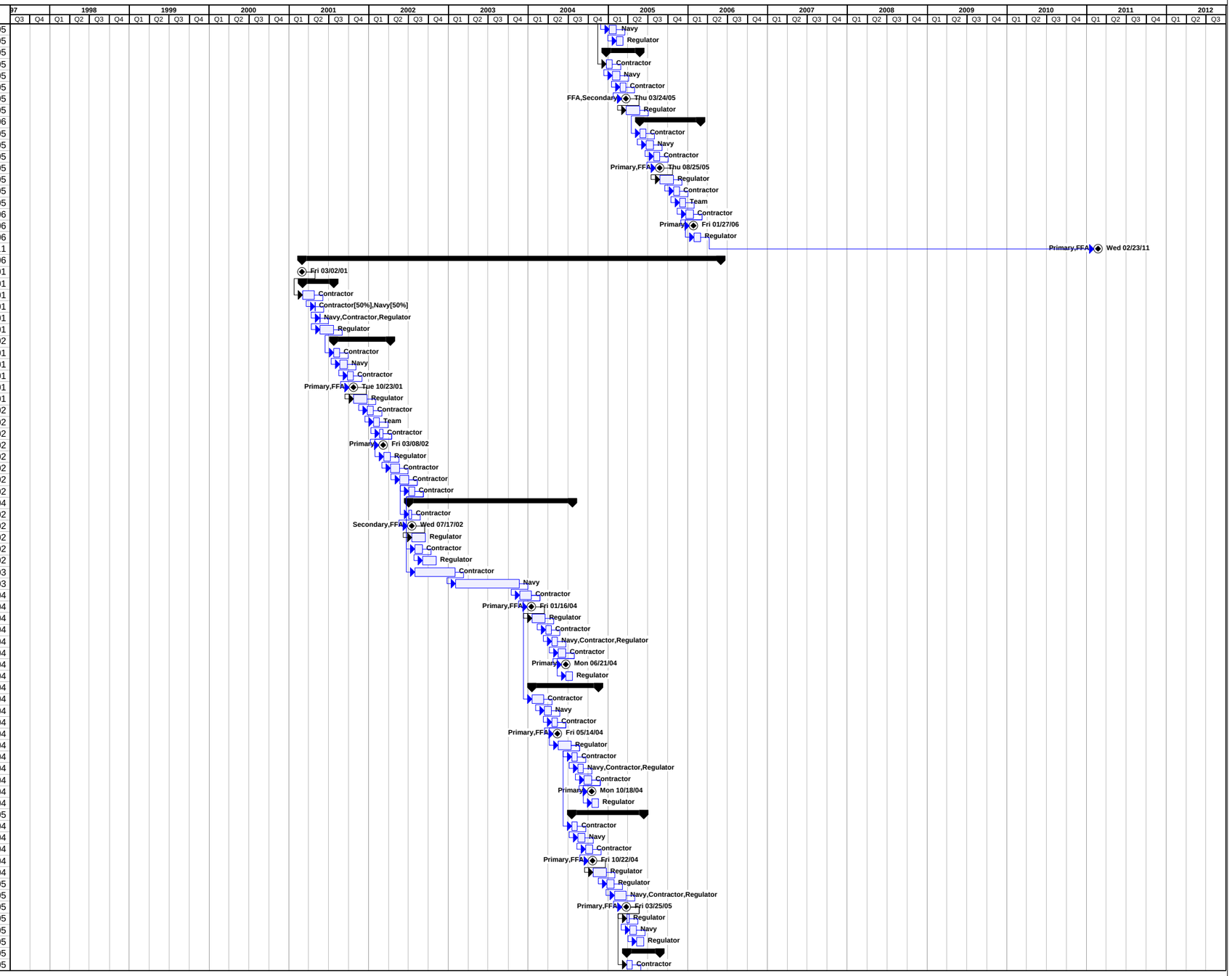


Project Manager:
Date: Thu 08/05/04

Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start	Finish
165	ROD Signature (General)	23 days	Fri 01/07/05	Tue 02/08/05
166	ROD Signature (EPA)	23 days	Wed 02/09/05	Fri 03/11/05
167	OU4 Remedial Design Work Plan	110 days	Fri 12/24/04	Thu 05/26/05
168	Pre-Draft RD WP	20 days	Fri 12/24/04	Thu 01/20/05
169	Review Pre-Draft RD WP	25 days	Fri 01/21/05	Thu 02/24/05
170	Draft RD WP	20 days	Fri 02/25/05	Thu 03/24/05
171	Submit Draft RD WP	0 days	Thu 03/24/05	Thu 03/24/05
172	Review Draft RD WP	45 days	Fri 03/25/05	Thu 05/26/05
173	OU4 Remedial Design	199 days	Fri 05/27/05	Wed 03/01/06
174	Pre-Draft RD	20 days	Fri 05/27/05	Thu 06/23/05
175	Review Pre-Draft RD	25 days	Fri 06/24/05	Thu 07/28/05
176	Draft RD	20 days	Fri 07/29/05	Thu 08/25/05
177	Submit Draft RD	0 days	Thu 08/25/05	Thu 08/25/05
178	Review Draft RD	45 days	Fri 08/26/05	Thu 10/27/05
179	RTC Draft RD	20 days	Fri 10/28/05	Thu 11/24/05
180	CMT Resolution Draft RD	20 days	Fri 11/25/05	Thu 12/22/05
181	Draft Final RD	26 days	Fri 12/23/05	Fri 01/27/06
182	Submit Draft Final RD	0 days	Fri 01/27/06	Fri 01/27/06
183	Approve Remedial Design	23 days	Mon 01/30/06	Wed 03/01/06
184	OU4 Project End Date (5yr monitoring)	0 days	Wed 02/23/11	Wed 02/23/11
185	OU5 RI/FS/PRAP/ROD	1370 days	Fri 03/02/01	Thu 06/01/06
186	Notice to Proceed	0 days	Fri 03/02/01	Fri 03/02/01
187	OU5 SSP	102 days	Mon 03/05/01	Tue 07/24/01
188	SSP	40 days	Mon 03/05/01	Fri 04/27/01
189	Draft SSP Presentation to Navy	1 day	Mon 04/30/01	Mon 04/30/01
190	Draft SSP Presentation to Team	1 day	Tue 05/22/01	Tue 05/22/01
191	Review SSP	45 days	Wed 05/23/01	Tue 07/24/01
192	OU5 RI Work Plan	186 days	Wed 07/25/01	Wed 04/10/02
193	Pre-Draft RI WP	20 days	Wed 07/25/01	Tue 08/21/01
194	Review Pre-Draft RI WP	25 days	Wed 08/22/01	Tue 09/25/01
195	Draft RI WP	20 days	Wed 09/26/01	Tue 10/23/01
196	Submit Draft RI WP	0 days	Tue 10/23/01	Tue 10/23/01
197	Review Draft RI WP	45 days	Wed 10/24/01	Tue 12/25/01
198	RTC Draft RI WP	20 days	Wed 12/26/01	Tue 01/22/02
199	CMT Resolution Draft RI WP	20 days	Wed 01/23/02	Tue 02/19/02
200	Draft Final RI WP	13 days	Wed 02/20/02	Fri 03/08/02
201	Submit Draft Final RI WP	0 days	Fri 03/08/02	Fri 03/08/02
202	Approve RI Work Plan	23 days	Mon 03/11/02	Wed 04/10/02
203	Conduct Field Work	30 days	Thu 04/11/02	Wed 05/22/02
204	Laboratory Analysis	30 days	Thu 05/23/02	Wed 07/03/02
205	Data Validation	20 days	Thu 07/04/02	Wed 07/31/02
206	OU5 RI Report	536 days	Thu 07/04/02	Thu 07/22/04
207	BRA Assumptions Submittal	10 days	Thu 07/04/02	Wed 07/17/02
208	Submit BRA Assumptions Submittal	0 days	Wed 07/17/02	Wed 07/17/02
209	Review BRA Assumptions Submittal	45 days	Thu 07/18/02	Wed 09/18/02
210	Pre-RI Data Presentation	25 days	Thu 08/01/02	Wed 09/04/02
211	Review Pre-RI Data Presentation	45 days	Thu 09/05/02	Wed 11/06/02
212	Pre-Draft RI Report	132 days	Thu 08/01/02	Fri 01/31/03
213	Review Pre-RI RI Report	210 days	Mon 02/03/03	Fri 11/21/03
214	Draft RI Report	40 days	Mon 11/24/03	Fri 01/16/04
215	Submit Draft RI Report	0 days	Fri 01/16/04	Fri 01/16/04
216	Review Draft RI Report	45 days	Mon 01/19/04	Fri 03/19/04
217	RTC Draft RI Report	20 days	Mon 03/22/04	Fri 04/16/04
218	CMT Resolution Draft RI Report	20 days	Mon 04/19/04	Fri 05/14/04
219	Draft Final RI Report	26 days	Mon 05/17/04	Mon 06/21/04
220	Submit Draft Final RI Report	0 days	Mon 06/21/04	Mon 06/21/04
221	Approve RI Report	23 days	Tue 06/22/04	Thu 07/22/04
222	OU5 FFS Report	219 days	Mon 01/19/04	Thu 11/18/04
223	Pre-Draft FFS Report	40 days	Mon 01/19/04	Fri 03/12/04
224	Review Pre-Draft FFS Report	25 days	Mon 03/15/04	Fri 04/16/04
225	Draft FFS Report	20 days	Mon 04/19/04	Fri 05/14/04
226	Submit Draft FFS Report	0 days	Fri 05/14/04	Fri 05/14/04
227	Review Draft FFS Report	45 days	Mon 05/17/04	Fri 07/16/04
228	RTC Draft FFS Report	20 days	Mon 07/19/04	Fri 08/13/04
229	CMT Resolution Draft FFS Report	20 days	Mon 08/16/04	Fri 09/10/04
230	Draft Final FFS Report	26 days	Mon 09/13/04	Mon 10/18/04
231	Submit Draft Final FFS Report	0 days	Mon 10/18/04	Mon 10/18/04
232	Approve FFS Report	23 days	Tue 10/19/04	Thu 11/18/04
233	OU5 PRAP/ROD	236 days	Mon 07/19/04	Mon 06/13/05
234	Pre-Draft PRAP/ROD	20 days	Mon 07/19/04	Fri 08/13/04
235	Review Pre-Draft ROD/PRAP	25 days	Mon 08/16/04	Fri 09/17/04
236	Draft ROD/PRAP	25 days	Mon 09/20/04	Fri 10/22/04
237	Submit Draft PRAP	0 days	Fri 10/22/04	Fri 10/22/04
238	Review Draft ROD/PRAP	45 days	Mon 10/25/04	Fri 12/24/04
239	Revise ROD/PRAP	25 days	Mon 12/27/04	Fri 01/28/05
240	CMT Resolution & Public CMT Period	40 days	Mon 01/31/05	Fri 03/25/05
241	Submit Draft ROD/LUCIP	0 days	Fri 03/25/05	Fri 03/25/05
242	State Approval Letter	10 days	Mon 03/28/05	Fri 04/08/05
243	ROD Signature (General)	23 days	Mon 04/11/05	Wed 05/11/05
244	ROD Signature (EPA)	23 days	Thu 05/12/05	Mon 06/13/05
245	OU5 Remedial Design Work Plan	110 days	Mon 03/28/05	Fri 08/26/05
246	Pre-Draft RD WP	20 days	Mon 03/28/05	Fri 04/22/05

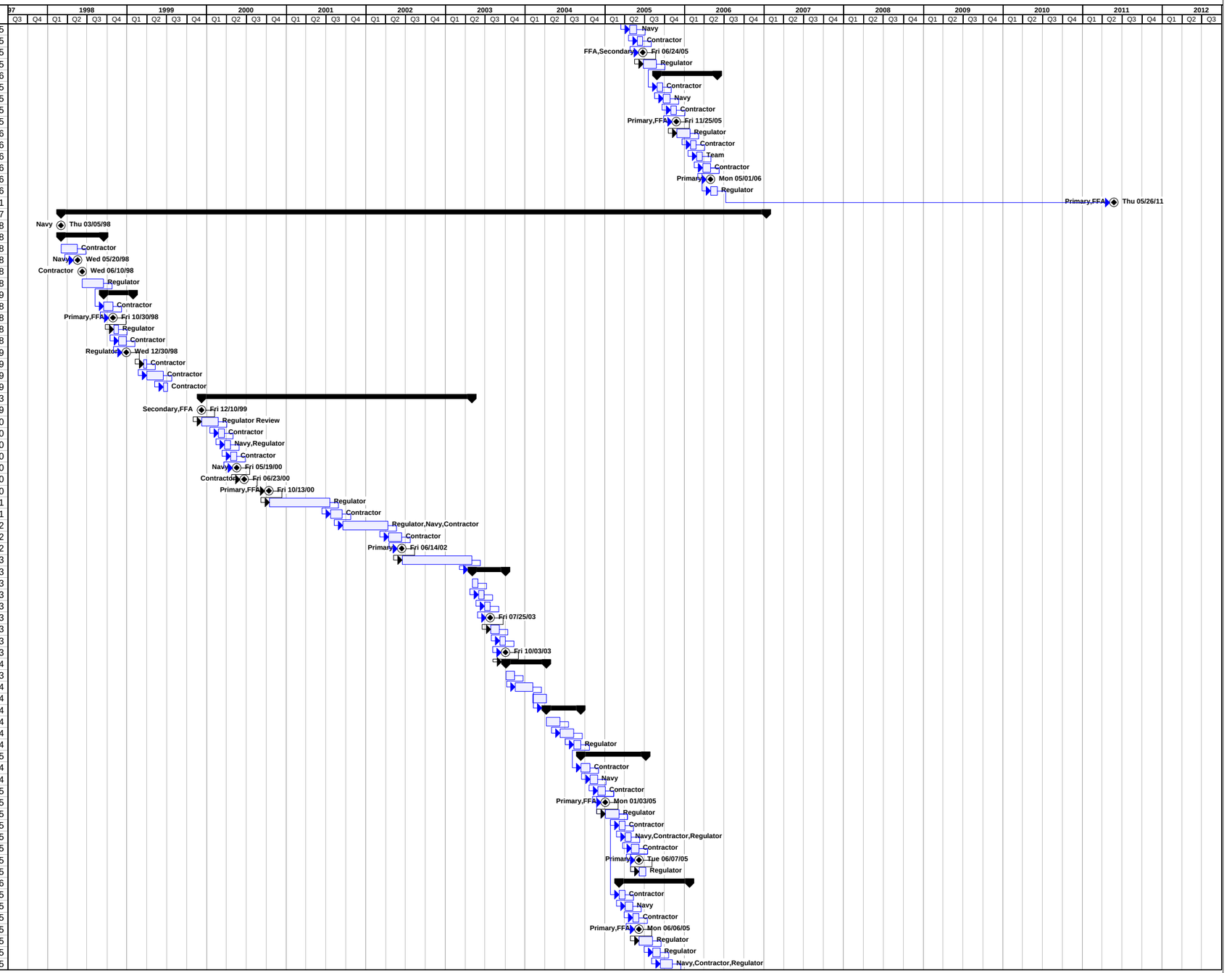


Project Manager:
Date: Thu 08/05/04

Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start	Finish
247	Review Pre-Draft RD WP	25 days	Mon 04/25/05	Fri 05/27/05
248	Draft RD WP	20 days	Mon 05/30/05	Fri 06/24/05
249	Submit Draft RD WP	0 days	Fri 06/24/05	Fri 06/24/05
250	Review Draft RD WP	45 days	Mon 06/27/05	Fri 08/26/05
251	OU5 Remedial Design	199 days	Mon 08/29/05	Thu 06/01/06
252	Pre-Draft RD	20 days	Mon 08/29/05	Fri 09/23/05
253	Review Pre-Draft RD	25 days	Mon 09/26/05	Fri 10/28/05
254	Draft RD	20 days	Mon 10/31/05	Fri 11/25/05
255	Submit Draft RD	0 days	Fri 11/25/05	Fri 11/25/05
256	Review Draft RD	45 days	Mon 11/28/05	Fri 01/27/06
257	RTC Draft RD	20 days	Mon 01/30/06	Fri 02/24/06
258	CMT Resolution Draft RD	20 days	Mon 02/27/06	Fri 03/24/06
259	Draft Final RD	26 days	Mon 03/27/06	Mon 05/01/06
260	Submit Draft Final RD	0 days	Mon 05/01/06	Mon 05/01/06
261	Approve Remedial Design	23 days	Tue 05/02/06	Thu 06/01/06
262	OU5 Project End Date (5yr monitoring)	0 days	Thu 05/26/11	Thu 05/26/11
263	OU6 RI/FS/PRAP/ROD - CH2M HILL	2314 days	Thu 03/05/98	Fri 01/12/07
264	Notice to Proceed	1 day	Thu 03/05/98	Thu 03/05/98
265	OU6 SSP	140 days	Thu 03/05/98	Tue 09/15/98
266	SSP	54 days	Thu 03/05/98	Mon 05/18/98
267	Draft SSP Presentation to Navy	1 day	Wed 05/20/98	Wed 05/20/98
268	Draft SSP Presentation to Team	1 day	Wed 06/10/98	Wed 06/10/98
269	Review SSP	70 days	Wed 06/10/98	Tue 09/15/98
270	OU6 RI WP	98 days	Wed 09/16/98	Fri 01/29/99
271	RI WP	32 days	Wed 09/16/98	Thu 10/29/98
272	Submit Draft RI WP	0 days	Fri 10/30/98	Fri 10/30/98
273	Review Draft RI WP	16 days	Mon 11/02/98	Mon 11/23/98
274	RTC Draft RI WP	26 days	Tue 11/24/98	Tue 12/29/98
275	Approve RI Work Plan	23 days	Wed 12/30/98	Fri 01/29/99
276	Conduct RI Field Work	10 days	Fri 03/19/99	Thu 04/01/99
277	Laboratory Analysis	55 days	Fri 04/02/99	Wed 06/16/99
278	Data Validation	14 days	Thu 06/17/99	Tue 07/06/99
279	OU6 Draft RI Report	886 days	Fri 12/10/99	Fri 05/02/03
280	Submit SLERA/HHRA Int. Deliv.	0 days	Fri 12/10/99	Fri 12/10/99
281	Review SLERA/HHRA Int. Deliv.	55 days	Fri 12/10/99	Thu 02/24/00
282	RTC SLERA/HHRA Int. Deliv.	20 days	Fri 02/25/00	Thu 03/23/00
283	CMT Resolution SLERA - HHRA	20 days	Fri 03/24/00	Thu 04/20/00
284	Prepare Pre-Draft RI Report	20 days	Fri 04/21/00	Thu 05/18/00
285	Review Pre-Draft RI Report	25 days	Fri 05/19/00	Thu 06/22/00
286	Draft RI Report	31 days	Fri 06/23/00	Fri 08/04/00
287	Submit Draft RI Report	0 days	Fri 10/13/00	Fri 10/13/00
288	Review Draft RI Report	200 days	Mon 10/16/00	Fri 07/20/01
289	RTC Draft RI Report	40 days	Mon 07/23/01	Fri 09/14/01
290	CMT Resolution Draft RI Report	150 days	Mon 09/17/01	Fri 04/12/02
291	Draft Final RI Report	45 days	Mon 04/15/02	Fri 06/14/02
292	Submit Draft Final RI Report	0 days	Fri 06/14/02	Fri 06/14/02
293	Review Draft Final RI/Path Forward Resolution	230 days	Mon 06/17/02	Fri 05/02/03
294	Site 12 Supplemental WP	110 days	Mon 05/05/03	Fri 10/03/03
295	Prepare Pre-Draft Site 12 Supplemental WP	20 days	Mon 05/05/03	Fri 05/30/03
296	Review Pre-Draft Site 12 Supplemental WP	20 days	Mon 06/02/03	Fri 06/27/03
297	Draft Site 12 Supplemental WP	20 days	Mon 06/30/03	Fri 07/25/03
298	Submit Draft Site 12 Supplemental WP	0 days	Fri 07/25/03	Fri 07/25/03
299	Review Draft Site 12 Supplemental WP	30 days	Mon 07/28/03	Fri 09/05/03
300	Prepare Final Site 12 Supplemental WP	20 days	Mon 09/08/03	Fri 10/03/03
301	Submit Final Site 12 Supplemental WP	0 days	Fri 10/03/03	Fri 10/03/03
302	Site 12 Supplemental Field Investigation	134 days	Mon 10/06/03	Thu 04/08/04
303	Complete Site 12 Supplemental Field Investigation	30 days	Mon 10/06/03	Fri 11/14/03
304	Prepare Site 12 Supplemental Investigation TM	60 days	Mon 11/17/03	Fri 02/06/04
305	Review Site 12 TM	45 days	Fri 02/06/04	Thu 04/08/04
306	Final OU6 RI Report	113 days	Thu 04/08/04	Mon 09/13/04
307	Prepare Final OU6 RI Report	45 days	Thu 04/08/04	Wed 06/09/04
308	Review Final OU6 RI Report	45 days	Thu 06/10/04	Wed 08/11/04
309	Approve RI Report	23 days	Thu 08/12/04	Mon 09/13/04
310	OU6 FFS Report	214 days	Tue 09/14/04	Fri 07/08/05
311	Pre-Draft FFS Report	30 days	Tue 09/14/04	Mon 10/25/04
312	Review Pre-Draft FFS Report	25 days	Tue 10/26/04	Mon 11/29/04
313	Draft FFS Report	25 days	Tue 11/30/04	Mon 01/03/05
314	Submit Draft FFS Report	0 days	Mon 01/03/05	Mon 01/03/05
315	Review Draft FFS Report	45 days	Tue 01/04/05	Mon 03/07/05
316	RTC Draft FFS Report	20 days	Tue 03/08/05	Mon 04/04/05
317	CMT Resolution Draft FFS Report	20 days	Tue 04/05/05	Mon 05/02/05
318	Draft Final FFS Report	26 days	Tue 05/03/05	Tue 06/07/05
319	Submit Draft Final FFS Report	0 days	Tue 06/07/05	Tue 06/07/05
320	Approve FFS Report	23 days	Wed 06/08/05	Fri 07/08/05
321	OU6 PRAP/ROD	231 days	Tue 03/08/05	Tue 01/24/06
322	Pre-Draft PRAP/ROD	20 days	Tue 03/08/05	Mon 04/04/05
323	Review Pre-Draft ROD/PRAP	25 days	Tue 04/05/05	Mon 05/09/05
324	Draft ROD/PRAP	20 days	Tue 05/10/05	Mon 06/06/05
325	Submit Draft PRAP	0 days	Mon 06/06/05	Mon 06/06/05
326	Review Draft ROD/PRAP	45 days	Tue 06/07/05	Mon 08/08/05
327	Revise ROD/PRAP	25 days	Tue 08/09/05	Mon 09/12/05
328	CMT Resolution & Public CMT Period	40 days	Tue 09/13/05	Mon 11/07/05

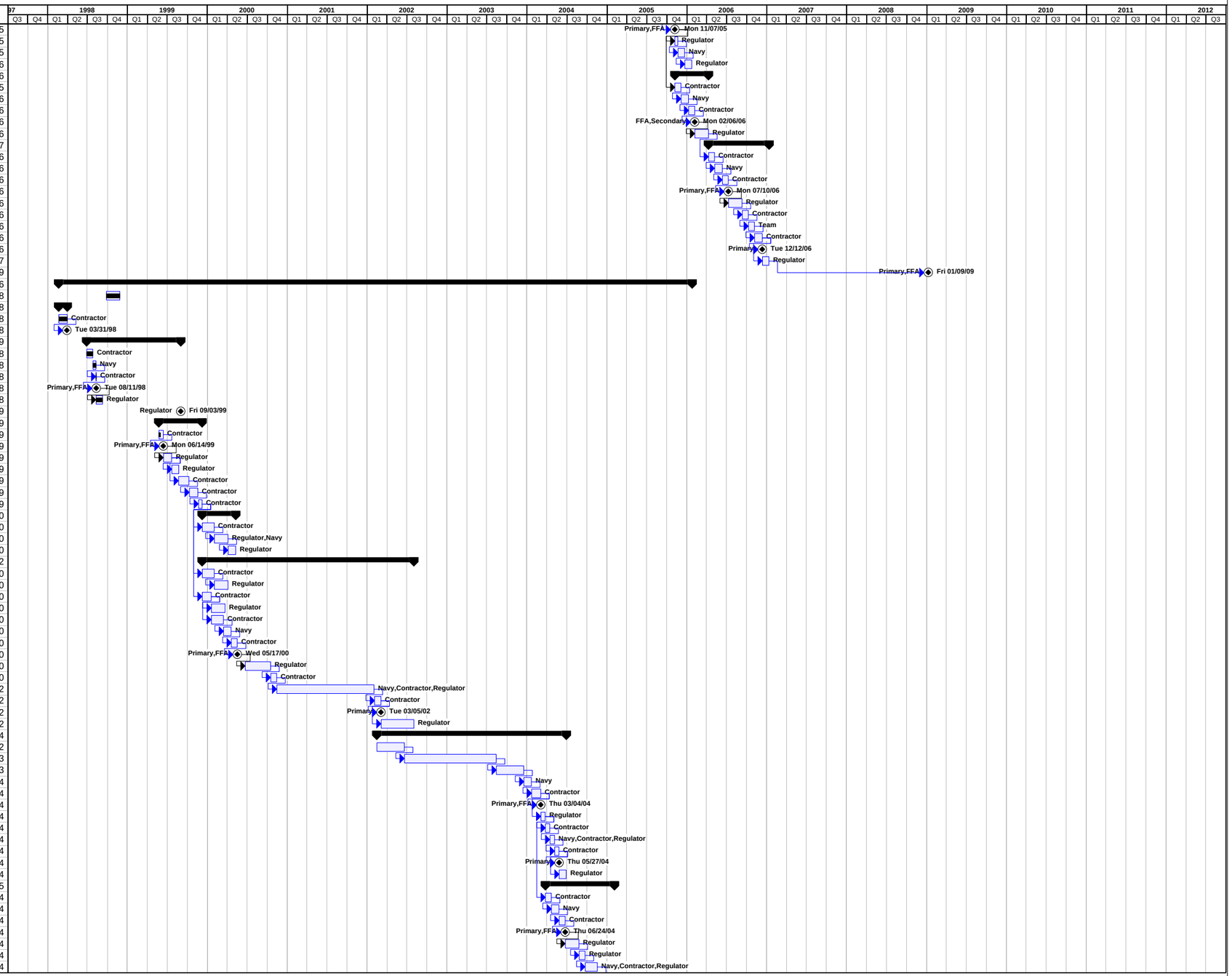


Project Manager:
Date: Thu 08/05/04

Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start	Finish
329	Submit Draft ROD/LUCIP	0 days	Mon 11/07/05	Mon 11/07/05
330	State Approval Letter	10 days	Tue 11/08/05	Mon 11/21/05
331	ROD Signature (General)	23 days	Tue 11/22/05	Thu 12/22/05
332	ROD Signature (EPA)	23 days	Fri 12/23/05	Tue 01/24/06
333	OU6 Remedial Design Work Plan	110 days	Tue 11/08/05	Mon 04/10/06
334	Pre-Draft RD WP	20 days	Tue 11/08/05	Mon 12/05/05
335	Review Pre-Draft RD WP	25 days	Tue 12/06/05	Mon 01/09/06
336	Draft RD WP	20 days	Tue 01/10/06	Mon 02/06/06
337	Submit Draft RD WP	0 days	Mon 02/06/06	Mon 02/06/06
338	Review Draft RD WP	45 days	Tue 02/07/06	Mon 04/10/06
339	OU6 Remedial Design	199 days	Tue 04/11/06	Fri 01/12/07
340	Pre-Draft RD	20 days	Tue 04/11/06	Mon 05/08/06
341	Review Pre-Draft RD	25 days	Tue 05/09/06	Mon 06/12/06
342	Draft RD	20 days	Tue 06/13/06	Mon 07/10/06
343	Submit Draft RD	0 days	Mon 07/10/06	Mon 07/10/06
344	Review Draft RD	45 days	Tue 07/11/06	Mon 09/11/06
345	RTC Draft RD	20 days	Tue 09/12/06	Mon 10/09/06
346	CMT Resolution Draft RD	20 days	Tue 10/10/06	Mon 11/06/06
347	Draft Final RD	26 days	Tue 11/07/06	Tue 12/12/06
348	Submit Draft Final RD	0 days	Tue 12/12/06	Tue 12/12/06
349	Approve Remedial Design	23 days	Wed 12/13/06	Fri 01/12/07
350	OU6 Project End Date (2yr monitoring)	0 days	Fri 01/09/09	Fri 01/09/09
351	OU13 RI/FS/PRAP/ROD	2070 days	Sat 02/21/98	Wed 01/25/06
352	Site Investigation Analysis	45 days	Sun 09/27/98	Fri 11/27/98
353	Site Specific SAP/SSP	29 days	Sat 02/21/98	Wed 04/01/98
354	Prepare Draft Site Specific SAP/SSP	29 days	Sat 02/21/98	Wed 04/01/98
355	Submit Draft Site Specific SAP/SSP	0 days	Tue 03/31/98	Tue 03/31/98
356	Data Gap Determination Fieldwork	310 days	Mon 06/29/98	Fri 09/03/99
357	Prepare Pre-Draft WP (FSP/QAP)	21 days	Mon 06/29/98	Mon 07/27/98
358	Review Pre-Draft WP (FSP/QAP)	11 days	Mon 07/27/98	Mon 08/10/98
359	Prepare Draft WP (FSP/QAP)	2 days	Mon 08/10/98	Tue 08/11/98
360	Submit Draft WP (FSP/QAP) (2)	0 days	Tue 08/11/98	Tue 08/11/98
361	Review Draft WP (FSP/QAP)**	22 days	Tue 08/11/98	Wed 09/09/98
362	RI WP Concurrence Letter (EPA/NC)	0 days	Fri 09/03/99	Fri 09/03/99
363	OU13 RI Work Plan	142 days	Tue 05/25/99	Wed 12/08/99
364	Draft RI WP	15 days	Tue 05/25/99	Mon 06/14/99
365	Submit Draft RI WP	0 days	Mon 06/14/99	Mon 06/14/99
366	Review Draft RI WP	28 days	Tue 06/15/99	Thu 07/22/99
367	Approve RI Work Plan	22 days	Fri 07/23/99	Mon 08/23/99
368	Fieldwork	35 days	Mon 08/23/99	Sat 10/09/99
369	Laboratory Analysis	30 days	Mon 10/11/99	Fri 11/19/99
370	Data Validation	13 days	Mon 11/22/99	Wed 12/08/99
371	Data Gap Findings/ SLERA Report	110 days	Thu 12/09/99	Wed 05/10/00
372	SLERA Report	40 days	Thu 12/09/99	Wed 02/02/00
373	Review SLERA Report	45 days	Thu 02/03/00	Wed 04/05/00
374	CMT Resolution SLERA Report	25 days	Thu 04/06/00	Wed 05/10/00
375	OU13 RI Report	692 days	Thu 12/09/99	Fri 08/02/02
376	BRA Assumptions Submittal	40 days	Thu 12/09/99	Wed 02/02/00
377	Review BRA Assumptions Submittal	45 days	Thu 02/03/00	Wed 04/05/00
378	Pre-RI Data Presentation	30 days	Thu 12/09/99	Wed 01/19/00
379	Review Pre-RI Data Presentation	45 days	Thu 01/20/00	Wed 03/22/00
380	Pre-Draft RI Report	40 days	Thu 01/20/00	Wed 03/15/00
381	Review Pre-Draft RI Report	25 days	Thu 03/16/00	Wed 04/19/00
382	Draft RI Report	20 days	Thu 04/20/00	Wed 05/17/00
383	Submit Draft RI Report	0 days	Wed 05/17/00	Wed 05/17/00
384	Review Draft RI Report	82 days	Fri 06/23/00	Mon 10/16/00
385	RTC Draft RI Report	20 days	Tue 10/17/00	Mon 11/13/00
386	CMT Resolution Draft RI Report	319 days	Tue 11/14/00	Fri 02/01/02
387	Draft Final RI Report	22 days	Mon 02/04/02	Tue 03/05/02
388	Submit Draft Final RI Report	0 days	Tue 03/05/02	Tue 03/05/02
389	Approve RI Report	108 days	Wed 03/06/02	Fri 08/02/02
390	OU13 FFS Report	618 days	Fri 02/15/02	Tue 06/29/04
391	Develop OU13 FS Approach Memo	90 days	Fri 02/15/02	Thu 06/20/02
392	Reach Consensus on FS Approach	300 days	Fri 06/21/02	Thu 08/14/03
393	Prepare Pre-Draft FFS Report	90 days	Fri 08/15/03	Thu 12/18/03
394	Review Pre-Draft FFS Report	25 days	Fri 12/19/03	Thu 01/22/04
395	Draft FFS Report	30 days	Fri 01/23/04	Thu 03/04/04
396	Submit Draft FFS Report	0 days	Thu 03/04/04	Thu 03/04/04
397	Review Draft FFS Report	15 days	Fri 03/05/04	Thu 03/25/04
398	RTC Draft FFS Report	15 days	Fri 03/26/04	Thu 04/15/04
399	CMT Resolution Draft FFS Report	15 days	Fri 04/16/04	Thu 05/06/04
400	Draft Final FFS Report	15 days	Fri 05/07/04	Thu 05/27/04
401	Submit Draft Final FFS Report	0 days	Thu 05/27/04	Thu 05/27/04
402	Approve FFS Report	23 days	Fri 05/28/04	Tue 06/29/04
403	OU13 PRAP/ROD	226 days	Fri 03/26/04	Fri 02/04/05
404	Pre-Draft PRAP/ROD	20 days	Fri 03/26/04	Thu 04/22/04
405	Review Pre-Draft ROD/PRAP	25 days	Fri 04/23/04	Thu 05/27/04
406	Draft ROD/PRAP	20 days	Fri 05/28/04	Thu 06/24/04
407	Submit Draft PRAP	0 days	Thu 06/24/04	Thu 06/24/04
408	Review Draft ROD/PRAP	45 days	Fri 06/25/04	Thu 08/26/04
409	Revise ROD/PRAP	20 days	Fri 08/27/04	Thu 09/23/04
410	CMT Resolution & Public CMT Period	40 days	Fri 09/24/04	Thu 11/18/04



Project Manager:
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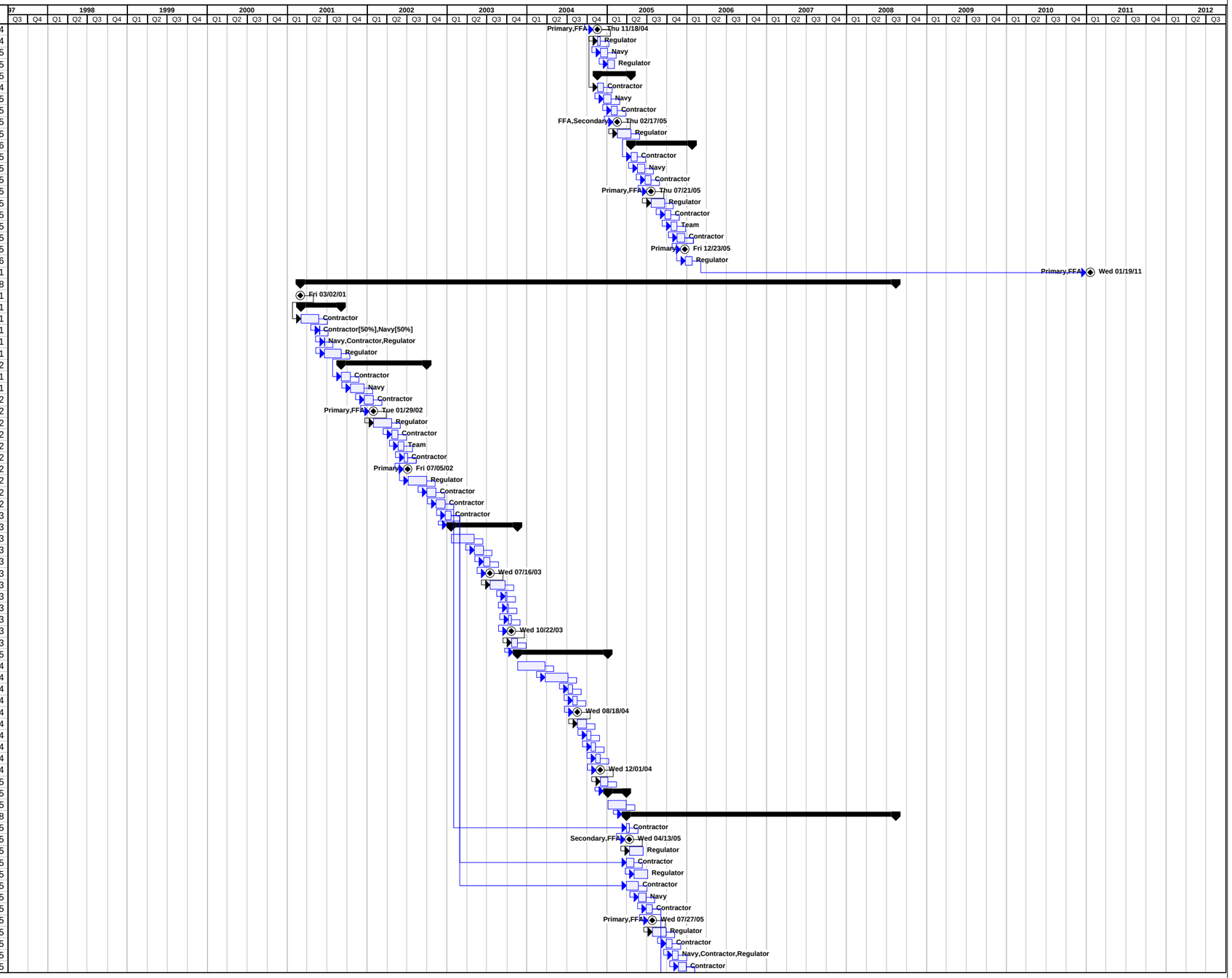
Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start	Finish
411	Submit Draft ROD/LUCIP	0 days	Thu 11/18/04	Thu 11/18/04
412	State Approval Letter	10 days	Fri 11/19/04	Thu 12/02/04
413	ROD Signature (General)	23 days	Fri 12/03/04	Tue 01/04/05
414	ROD Signature (EPA)	23 days	Wed 01/05/05	Fri 02/04/05
415	OU13 Remedial Design Work Plan	110 days	Fri 11/19/04	Thu 04/21/05
416	Pre-Draft RD WP	20 days	Fri 11/19/04	Thu 12/16/04
417	Review Pre-Draft RD WP	25 days	Fri 12/17/04	Thu 01/20/05
418	Draft RD WP	20 days	Fri 01/21/05	Thu 02/17/05
419	Submit Draft RD WP	0 days	Thu 02/17/05	Thu 02/17/05
420	Review Draft RD WP	45 days	Fri 02/18/05	Thu 04/21/05
421	OU13 Remedial Design	199 days	Fri 04/22/05	Wed 01/25/06
422	Pre-Draft RD	20 days	Fri 04/22/05	Thu 05/19/05
423	Review Pre-Draft RD	25 days	Fri 05/20/05	Thu 06/23/05
424	Draft RD	20 days	Fri 06/24/05	Thu 07/21/05
425	Submit Draft RD	0 days	Thu 07/21/05	Thu 07/21/05
426	Review Draft RD	45 days	Fri 07/22/05	Thu 09/22/05
427	RTC Draft RD	20 days	Fri 09/23/05	Thu 10/20/05
428	CMT Resolution Draft RD	20 days	Fri 10/21/05	Thu 11/17/05
429	Draft Final RD	26 days	Fri 11/18/05	Fri 12/23/05
430	Submit Draft Final RD	0 days	Fri 12/23/05	Fri 12/23/05
431	Approve Remedial Design	23 days	Mon 12/26/05	Wed 01/25/06
432	OU13 Project End Date (5yr monitoring)	0 days	Wed 01/19/11	Wed 01/19/11
433	OU14 RI/FS/PRAP/ROD	1945 days	Fri 03/02/01	Thu 08/14/08
434	Notice to Proceed	0 days	Fri 03/02/01	Fri 03/02/01
435	OU14 SSP	132 days	Mon 03/05/01	Tue 09/04/01
436	SSP	60 days	Mon 03/05/01	Fri 05/25/01
437	Draft SSP Presentation to Navy	1 day	Mon 05/28/01	Mon 05/28/01
438	Draft SSP Presentation to Team	1 day	Tue 06/19/01	Tue 06/19/01
439	Review SSP	55 days	Wed 06/20/01	Tue 09/04/01
440	OU14 RI Work Plan	279 days	Wed 09/05/01	Mon 09/30/02
441	Pre-Draft RI WP	30 days	Wed 09/05/01	Tue 10/16/01
442	Review Pre-Draft RI WP	45 days	Wed 10/17/01	Tue 12/18/01
443	Draft RI WP	30 days	Wed 12/19/01	Tue 01/29/02
444	Submit Draft RI WP	0 days	Tue 01/29/02	Tue 01/29/02
445	Review Draft RI WP	60 days	Wed 01/30/02	Tue 04/23/02
446	RTC Draft RI WP	20 days	Wed 04/24/02	Tue 05/21/02
447	CMT Resolution Draft RI WP	20 days	Wed 05/22/02	Tue 06/18/02
448	Draft Final RI WP	13 days	Wed 06/19/02	Fri 07/05/02
449	Submit Draft Final RI WP	0 days	Fri 07/05/02	Fri 07/05/02
450	Approve RI Work Plan	61 days	Mon 07/08/02	Mon 09/30/02
451	Conduct Field Work	30 days	Tue 10/01/02	Mon 11/11/02
452	Laboratory Analysis	30 days	Tue 11/12/02	Mon 12/23/02
453	Data Validation	20 days	Tue 12/24/02	Mon 01/20/03
454	OU14 Phase II WP	217 days	Tue 01/21/03	Wed 11/19/03
455	Pre-Draft Phase II WP	75 days	Tue 01/21/03	Mon 05/05/03
456	Review Pre-Draft Phase II WP	30 days	Tue 05/06/03	Mon 06/16/03
457	Draft Phase II WP	22 days	Tue 06/17/03	Wed 07/16/03
458	Submit Draft Phase II WP	0 days	Wed 07/16/03	Wed 07/16/03
459	Review Draft Phase II WP	50 days	Thu 07/17/03	Wed 09/24/03
460	RTC Draft Phase II WP	5 days	Thu 09/25/03	Wed 10/01/03
461	CMT Resolution DraftPhase II WP	5 days	Thu 10/02/03	Wed 10/08/03
462	Draft Final Phase II WP	10 days	Thu 10/09/03	Wed 10/22/03
463	Submit Draft FinalPhase II WP	0 days	Wed 10/22/03	Wed 10/22/03
464	Approve Phase II Work Plan	20 days	Thu 10/23/03	Wed 11/19/03
465	OU14 Phase II Fieldwork	295 days	Thu 11/20/03	Wed 01/05/05
466	OU14 Phase II Fieldwork	90 days	Thu 11/20/03	Wed 03/24/04
467	Pre-Draft Phase II TM	75 days	Thu 03/25/04	Wed 07/07/04
468	Review Pre-Draft Phase II TM	15 days	Thu 07/08/04	Wed 07/28/04
469	Draft Phase II TM	15 days	Thu 07/29/04	Wed 08/18/04
470	Submit Draft Phase II TM	0 days	Wed 08/18/04	Wed 08/18/04
471	Review Draft Phase II TM	30 days	Thu 08/19/04	Wed 09/29/04
472	RTC Draft Phase II TM	15 days	Thu 09/30/04	Wed 10/20/04
473	CMT Resolution DraftPhase II TM	15 days	Thu 10/21/04	Wed 11/10/04
474	Draft Final Phase II TM	15 days	Thu 11/11/04	Wed 12/01/04
475	Submit Draft FinalPhase II TM	0 days	Wed 12/01/04	Wed 12/01/04
476	Approve Phase II TM	25 days	Thu 12/02/04	Wed 01/05/05
477	OU14 Phase III Fieldwork	60 days	Thu 01/06/05	Wed 03/30/05
478	OU14 Phase III Fieldwork	60 days	Thu 01/06/05	Wed 03/30/05
479	OU14 RI Report	881 days	Thu 03/31/05	Thu 08/14/08
480	BRA Assumptions Submittal	10 days	Thu 03/31/05	Wed 04/13/05
481	Submit BRA Assumptions Submittal	0 days	Wed 04/13/05	Wed 04/13/05
482	Review BRA Assumptions Submittal	45 days	Thu 04/14/05	Wed 06/15/05
483	Pre-RI Data Presentation	25 days	Thu 03/31/05	Wed 05/04/05
484	Review Pre-RI Data Presentation	45 days	Thu 05/05/05	Wed 07/06/05
485	Pre-Draft RI Report	40 days	Thu 03/31/05	Wed 05/25/05
486	Review Pre-RI RI Report	25 days	Thu 05/26/05	Wed 06/29/05
487	Draft RI Report	20 days	Thu 06/30/05	Wed 07/27/05
488	Submit Draft RI Report	0 days	Wed 07/27/05	Wed 07/27/05
489	Review Draft RI Report	45 days	Thu 07/28/05	Wed 09/28/05
490	RTC Draft RI Report	20 days	Thu 09/29/05	Wed 10/26/05
491	CMT Resolution Draft RI Report	20 days	Thu 10/27/05	Wed 11/23/05
492	Draft Final RI Report	26 days	Thu 11/24/05	Thu 12/29/05



Project Manager:
Date: Thu 08/05/04

Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start	Finish
493	Submit Draft Final RI Report	0 days	Thu 12/29/05	Thu 12/29/05
494	Approve RI Report	23 days	Fri 12/30/05	Tue 01/31/06
495	OU14 FS Report	219 days	Fri 12/30/05	Wed 11/01/06
496	Pre-Draft FS Report	40 days	Fri 12/30/05	Thu 02/23/06
497	Review Pre-Draft FS Report	25 days	Fri 02/24/06	Thu 03/30/06
498	Draft FS Report	20 days	Fri 03/31/06	Thu 04/27/06
499	Submit Draft FS Report	0 days	Thu 04/27/06	Thu 04/27/06
500	Review Draft FS Report	45 days	Fri 04/28/06	Thu 06/29/06
501	RTC Draft FS Report	20 days	Fri 06/30/06	Thu 07/27/06
502	CMT Resolution Draft FS Report	20 days	Fri 07/28/06	Thu 08/24/06
503	Draft Final FS Report	26 days	Fri 08/25/06	Fri 09/29/06
504	Submit Draft Final FS Report	0 days	Fri 09/29/06	Fri 09/29/06
505	Approve FS Report	23 days	Mon 10/02/06	Wed 11/01/06
506	OU14 PRAP/ROD	236 days	Mon 10/02/06	Mon 08/27/07
507	Pre-Draft PRAP/ROD	20 days	Mon 10/02/06	Fri 10/27/06
508	Review Pre-Draft ROD/PRAP	25 days	Mon 10/30/06	Fri 12/01/06
509	Draft ROD/PRAP	25 days	Mon 12/04/06	Fri 01/05/07
510	Submit Draft PRAP	0 days	Fri 01/05/07	Fri 01/05/07
511	Review Draft ROD/PRAP	45 days	Mon 01/08/07	Fri 03/09/07
512	Revise ROD/PRAP	25 days	Mon 03/12/07	Fri 04/13/07
513	CMT Resolution & Public CMT Period	40 days	Mon 04/16/07	Fri 06/08/07
514	Submit Draft ROD/LUCIP	0 days	Fri 06/08/07	Fri 06/08/07
515	State Approval Letter	10 days	Mon 06/11/07	Fri 06/22/07
516	ROD Signature (General)	23 days	Mon 06/25/07	Wed 07/25/07
517	ROD Signature (EPA)	23 days	Thu 07/26/07	Mon 08/27/07
518	OU14 Remedial Design Work Plan	110 days	Mon 06/11/07	Fri 11/09/07
519	Pre-Draft RD WP	20 days	Mon 06/11/07	Fri 07/06/07
520	Review Pre-Draft RD WP	25 days	Mon 07/09/07	Fri 08/10/07
521	Draft RD WP	20 days	Mon 08/13/07	Fri 09/07/07
522	Submit Draft RD WP	0 days	Fri 09/07/07	Fri 09/07/07
523	Review Draft RD WP	45 days	Mon 09/10/07	Fri 11/09/07
524	OU14 Remedial Design	199 days	Mon 11/12/07	Thu 08/14/08
525	Pre-Draft RD	20 days	Mon 11/12/07	Fri 12/07/07
526	Review Pre-Draft RD	25 days	Mon 12/10/07	Fri 01/11/08
527	Draft RD	20 days	Mon 01/14/08	Fri 02/08/08
528	Submit Draft RD	0 days	Fri 02/08/08	Fri 02/08/08
529	Review Draft RD	45 days	Mon 02/11/08	Fri 04/11/08
530	RTC Draft RD	20 days	Mon 04/14/08	Fri 05/09/08
531	CMT Resolution Draft RD	20 days	Mon 05/12/08	Fri 06/06/08
532	Draft Final RD	26 days	Mon 06/09/08	Mon 07/14/08
533	Submit Draft Final RD	0 days	Mon 07/14/08	Mon 07/14/08
534	Approve Remedial Design	23 days	Tue 07/15/08	Thu 08/14/08
535	OU14 Project End Date (5yr monitoring)	0 days	Thu 08/08/13	Thu 08/08/13
536	MCAS Cherry Five Year Review	199 days	Tue 05/15/07	Fri 02/15/08
537	Pre-Draft Five Year Review	40 days	Wed 08/15/07	Tue 10/09/07
538	Review Pre-Draft Five Year Review	40 days	Tue 05/15/07	Tue 07/10/07
539	Draft Five Year Review	25 days	Tue 07/10/07	Tue 08/14/07
540	Submit Draft Five Year Review	0 days	Tue 08/14/07	Tue 08/14/07
541	Review Draft Five Year Review	45 days	Tue 08/14/07	Mon 10/15/07
542	RTC Five Year Review	20 days	Tue 10/16/07	Mon 11/12/07
543	CMT Resolution Five Year Review	20 days	Tue 11/13/07	Mon 12/10/07
544	Draft Final Five Year Review	26 days	Tue 12/11/07	Tue 01/15/08
545	Submit Draft Final Five Year Review	0 days	Tue 01/15/08	Tue 01/15/08
546	Approve Five Year Review	23 days	Wed 01/16/08	Fri 02/15/08

Project Manager:
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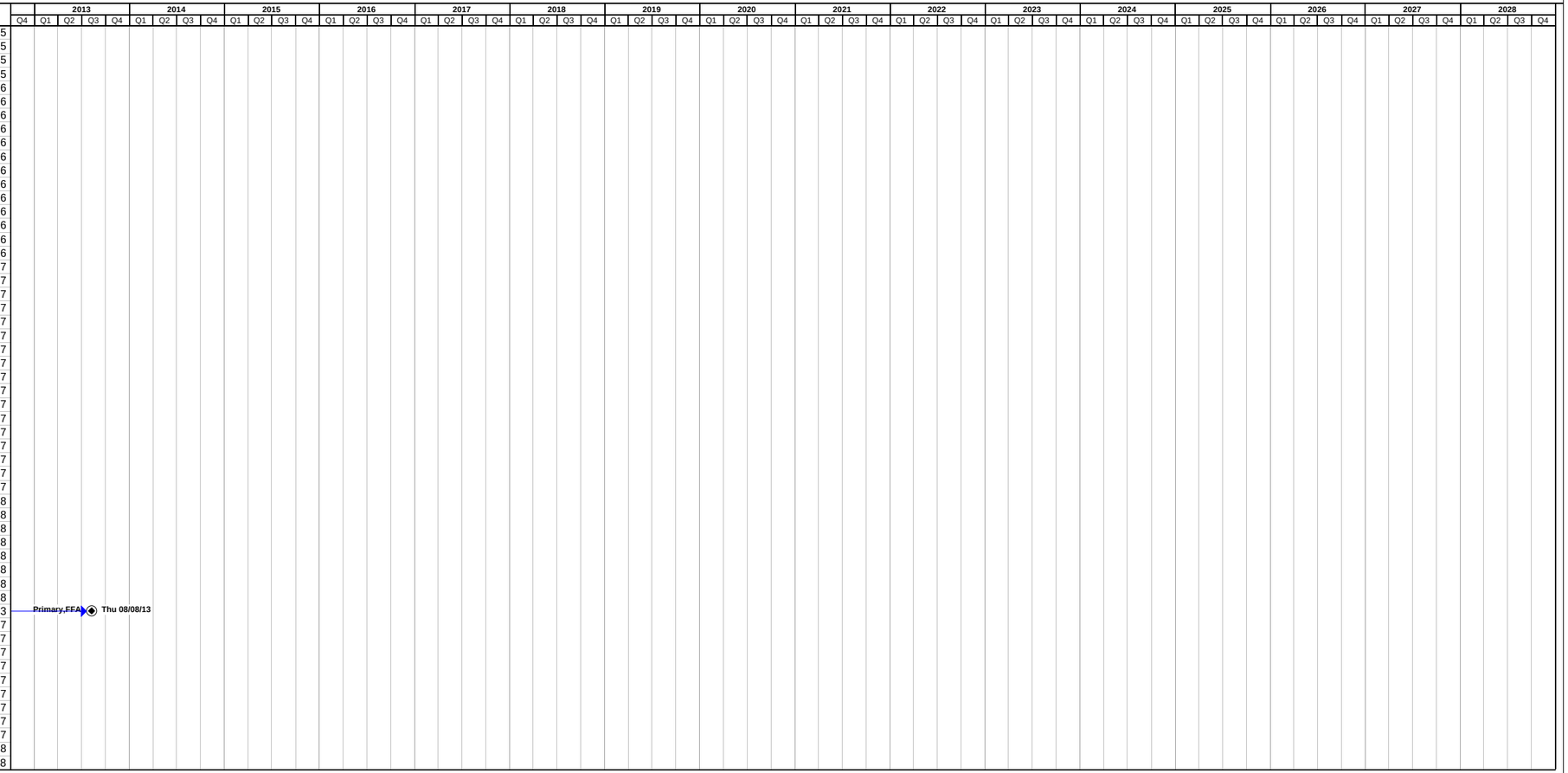
Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

Figure 5-1
Schedules and Milestones
IR Site Management Plan (SMP)
MCAS Cherry Point, North Carolina

ID	Task Name	Duration	Start
493	Submit Draft Final RI Report	0 days	Thu 12/29/05
494	Approve RI Report	23 days	Fri 12/30/05
495	OU14 FS Report	219 days	Fri 12/30/05
496	Pre-Draft FS Report	40 days	Fri 12/30/05
497	Review Pre-Draft FS Report	25 days	Fri 02/24/06
498	Draft FS Report	20 days	Fri 03/31/06
499	Submit Draft FS Report	0 days	Thu 04/27/06
500	Review Draft FS Report	45 days	Fri 04/28/06
501	RTC Draft FS Report	20 days	Fri 06/30/06
502	CMT Resolution Draft FS Report	20 days	Fri 07/28/06
503	Draft Final FS Report	26 days	Fri 08/25/06
504	Submit Draft Final FS Report	0 days	Fri 09/29/06
505	Approve FS Report	23 days	Mon 10/02/06
506	OU14 PRAP/ROD	236 days	Mon 10/02/06
507	Pre-Draft PRAP/ROD	20 days	Mon 10/02/06
508	Review Pre-Draft ROD/PRAP	25 days	Mon 10/30/06
509	Draft ROD/PRAP	25 days	Mon 12/04/06
510	Submit Draft PRAP	0 days	Fri 01/05/07
511	Review Draft ROD/PRAP	45 days	Mon 01/08/07
512	Revise ROD/PRAP	25 days	Mon 03/12/07
513	CMT Resolution & Public CMT Period	40 days	Mon 04/16/07
514	Submit Draft ROD/LUCIP	0 days	Fri 06/08/07
515	State Approval Letter	10 days	Mon 06/11/07
516	ROD Signature (General)	23 days	Mon 06/25/07
517	ROD Signature (EPA)	23 days	Thu 07/26/07
518	OU14 Remedial Design Work Plan	110 days	Mon 06/11/07
519	Pre-Draft RD WP	20 days	Mon 06/11/07
520	Review Pre-Draft RD WP	25 days	Mon 07/09/07
521	Draft RD WP	20 days	Mon 08/13/07
522	Submit Draft RD WP	0 days	Fri 09/07/07
523	Review Draft RD WP	45 days	Mon 09/10/07
524	OU14 Remedial Design	199 days	Mon 11/12/07
525	Pre-Draft RD	20 days	Mon 11/12/07
526	Review Pre-Draft RD	25 days	Mon 12/10/07
527	Draft RD	20 days	Mon 01/14/08
528	Submit Draft RD	0 days	Fri 02/08/08
529	Review Draft RD	45 days	Mon 02/11/08
530	RTC Draft RD	20 days	Mon 04/14/08
531	CMT Resolution Draft RD	20 days	Mon 05/12/08
532	Draft Final RD	26 days	Mon 06/09/08
533	Submit Draft Final RD	0 days	Mon 07/14/08
534	Approve Remedial Design	23 days	Tue 07/15/08
535	OU14 Project End Date (5yr monitoring)	0 days	Thu 08/08/13
536	MCAS Cherry Five Year Review	199 days	Tue 05/15/07
537	Pre-Draft Five Year Review	40 days	Wed 08/15/07
538	Review Pre-Draft Five Year Review	40 days	Tue 05/15/07
539	Draft Five Year Review	25 days	Tue 07/10/07
540	Submit Draft Five Year Review	0 days	Tue 08/14/07
541	Review Draft Five Year Review	45 days	Tue 08/14/07
542	RTC Five Year Review	20 days	Tue 10/16/07
543	CMT Resolution Five Year Review	20 days	Tue 11/13/07
544	Draft Final Five Year Review	26 days	Tue 12/11/07
545	Submit Draft Final Five Year Review	0 days	Tue 01/15/08
546	Approve Five Year Review	23 days	Wed 01/16/08



Project Manager:
Date: Thu 08/05/04

Task | Milestone | External Tasks | Split | External Milestone
Progress | Summary | Project Summary | Rolled Up Split | Deadline

SECTION 6

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Appendix B
Enforceable/Potentially Enforceable Milestones

Enforceable/Potentially Enforceable Milestones for FY 2005 through FY 2007
FY2005 Site Management Plan
MCAS Cherry Point, North Carolina

Operable Unit	Submittal Date	FY05	FY06	FY07
OU1	11/18/2005		Feasibility Study	
	06/16/2006		PRAP for OU GW	
	06/16/2006		PRAP for OU soil/sediment	
	11/10/2006			ROD
	02/09/2007			RD/RA Work Plan
OU4	03/24/2005	RD/RA Work Plan		
	03/01/2006		Remedial Action Implementation	
OU5	03/25/2005	ROD		
	06/24/2005	RD/RA Work Plan		
	06/01/2006		Remedial Action Implementation	
OU6	01/03/2005	Feasibility Study		
	06/06/2005	PRAP		
	11/07/2005		ROD	
	02/06/2006		RDRA Work Plan	
	01/12/2007			Remedial Action Implementation
OU13	02/17/2005	RD/RA Work Plan		
	01/25/2006		Remedial Action Implementation	
OU14	07/27/2005	RI		
	04/27/2006		Feasibility Study	
	01/05/2007			PRAP
	06/08/2007			ROD
	09/07/2007			RD/RA Work Plan
	08/14/2007			Five Year Review Assessment