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MCRD PARRIS ISLAND  
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EMAIL OF TRANSMITTAL AND U S EPA REGION IV REVISIONS TO SECTIONS OF SITE  
MANAGEMENT PLAN FOR FISCAL YEAR 2011 MCRD PARRIS ISLAND SC  
12/15/2010  
U S EPA REGION IV

**From:** [Llmas.Lila@epamail.epa.gov](mailto:Llmas.Lila@epamail.epa.gov)  
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**Subject:** MCRD FY11 SMP EPA Conditional Approval  
**Date:** Wednesday, December 15, 2010 2:09:28 PM  
**Attachments:** [SMP FY11 D2 EPA Conditional Approval Signed.pdf](#)  
[SMP 2011 Text D2final MSredlineAcceptedLilaRedline.doc](#)  
[FY11 SMP Table 1-MS R1redlineAcceptedLilaRedline.doc](#)  
[INSERT TABLE 2 FROM YOUR FILES.doc](#)  
[SMP Table 3-FY11 FINALdoc \(2\) MSredlineAcceptedLilaRedline.doc](#)

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See attached EPA Conditional Approval Letter, with Redlines of SMP Text, Table 1 and Table 3, and a reminder page to insert Table 2 from Navy files.

The signed letter has a line through each page generated by our messed up scanner. If you need a clean copy, let me know and I will send you one once the scanner is fixed. Charles, you will have a clean original hard copy coming in the mail. Maybe you could scan it for Mark for the Administrative Record.

Any questions, please call me.

Lila  
404-562-9969

(See attached file: SMP FY11 D2 EPA Conditional Approval Signed.pdf)  
(See attached file: SMP 2011 Text D2final MSredlineAcceptedLilaRedline.doc)  
(See attached file: FY11 SMP Table 1-MS R1redlineAcceptedLilaRedline.doc)  
(See attached file: INSERT TABLE 2 FROM YOUR FILES.doc)  
(See attached file: SMP Table 3-FY11 FINALdoc (2) MSredlineAcceptedLilaRedline.doc)

**TABLE 1  
NEAR TERM MILESTONES  
SITE MANAGEMENT PLAN  
MCRD PARRIS ISLAND**

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NEW NEAR-TERM MILESTONES (FFA Primary Documents)

SITE	DRAFT DOCUMENT (D1) SUBMITTAL DATE	DRAFT FINAL (D2) DOCUMENT SUBMITTAL DATE	FY11	FY12	FY 13
3	30 March 2012	30 July 2012		LUC RACR Letter D-1 & D-2	
5	1 November 2011	1 May 2012		RI Report D-1 & D-2	
5	1 November 2012	1 May 2013			FS Report D-1 & 2
27 (with 9/16/55)	30 February 2013	30 September 2013			FS Report D-1 & D-2
<del>27 (with 55)</del>	<del>20 January 2012</del>	<del>20 April 2012</del>		<del>RAWP D1 &amp; D2</del>	
<del>27 (with 55)</del>	<del>20 August 2012</del>	<del>30 September 2012</del>		<del>Post Remedial Action report D-1 &amp; D-2</del>	
45	30 June 2011	30 December 2011	FS Report D-1	FS Report D-2	
45	30 January 2013	30 August 2013			Proposed Plan D-1 & D-2
Site 8	30 May 2012	30 October 2012		SI Workplan D1&D2	<del>SI Workplan D2</del>
Site 8	30 September 2012	<del>30 December 2012</del>		<del>RI Report D-1</del>	RI Report D-2 <del>1</del>
Site 14	30 October 2010	30 August 2011	SI Workplan D-1&D-2		
Site 14	30 November 2011	30 February 2012		SI Report D-1&D-2	
Site 14	30 October 2012	30 January 2013			RI Workplan D-1&D-2
MRP Sites 2,3,4,5,6,7,8	30 June 2011		<del>Final-SI Report D-2</del>		
MRP Sites 2,3,4,5,6,7,8	30 September 2011	30 December 2011	RI Workplan D-1	RI Workplan D-2	
MRP Sites 2,3,4,5,6,7,8	30 February 2012	1 June 2012		RI Report D1&D2	
MRP Sites 2,3,4,5,6,7,8	30 October 2012	30 December 2012			FS Report D-1&D-2

Note: -If the submittal date falls on a holiday or weekend, the submittal will be due the following business day.

**TABLE 1  
NEAR TERM MILESTONES  
SITE MANAGEMENT PLAN  
MCRD PARRIS ISLAND**

NEAR-TERM MILESTONES (FFA Primary Documents) BASED ON EXTENSION REQUEST APPROVALS (FFA Primary Docs)

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SITE	DRAFT DOCUMENT (D1) SUBMITTAL DATE	DRAFT FINAL (D2) DOCUMENT SUBMITTAL DATE	FY11	FY12	
3	30 May 2011	30 August 2011	Site 3 ROD D - 1 & 2		
3	30 October 2011	1 December 2011		Site 3 LUC RD D - 1 & 2	
5		30 July 2011	RI/FS Workplan D2		
27 (with 9/16/55)	30 November 2011	30 April 2012		Site 9/16/27/55 RI Report D - 1 & 2	
45		30 June 2011	RI Addendum Report D2		

Note: ~~—~~ If the submittal date falls on a holiday or weekend, the submittal will be due the following business day. Site 27 will require an extension for the 30 November 2011 date, depending on whether the field work target dates below are being achieved.

NEW TARGET DATES (FFA Secondary Documents)

SITE	DRAFT DOCUMENT (D1) SUBMITTAL DATE	DRAFT FINAL (D2) DOCUMENT SUBMITTAL DATE	FY11	FY12	FY13
27 (with 9/16/55)	30 January 2011	30 April, 2011	EC/CA D1&D2		
27 (with 9/16/55)	30 July 2011	<del>130</del> October 2011	Removal Action Memo D1&D2		
<u>27 (with 9/16/55)</u>	<u>20 January 2012</u>	<u>20 April 2012</u>		<u>RAWP D1 &amp; D2</u>	
<u>27 (with 9/16/55)</u>	<u>20 August 2012</u>	<u>30 September 2012</u>		<u>Post Removal Action Report D-1 &amp; D-2</u>	

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Note: If submittal date falls on a holiday or weekend, the submittal will be due the following business day.

**TABLE 3  
ANNUAL UPDATE FOR FFA APPENDIX C  
LISTING OF SITES WHICH REQUIRE FURTHER INVESTIGATION  
SITE MANAGEMENT PLAN  
MCRD PARRIS ISLAND**

Site	SWMU	OU	Description	Status
3	3	3	Causeway Landfill	Fish tissue sampling provided refinement of HHRA and SERA. Technical memo submitted proposed plan submitted
4	4	TBD	Dredge Spoils Fire Training w/SWMU13	SI/CS Investigation in progress.
5	5	6	Former Paint Shop Disposal Area	SI/CS Investigation near complete. RI/FS in progress
7	7	13	Page Field Fire Training Pit	SI/CS Investigation near complete. RI/FS in progress.
8	8(AOC A&B)	TBD	PCB Spill Areas	SI in progress
9	9	7	Paint Waste Storage (RFA AOC C)	RI/FS Investigation of overlapping sites 9/16/27/55 funded in FY06. RI /FS in progress. Team will consider whether Sites 9/16 RI/FS can proceed independent of Sites 27/55 progress.
13	13	11	Inert disposal Dredge Spoils Area C	SI/CS Investigation in progress.
14	14	12	Storm Sewer Outfall	SI in progress.
16	16	8	Pesticide Rinsate Disposal Area	RI/FS Investigation of overlapping sites 9/16/27/55 funded in FY06. RI /FS in progress. Team will consider whether Sites 9/16 RI/FS can proceed independent of Sites 27/55 progress.
21	21	TBD	Weapons Power Plant Oil/Water Separator	Existing OWS to be removed by Depot; closure sampling will provide data to support RI/FS advance.
27	27	9	Equipment Parade Deck	RI/FS Investigation of overlapping sites 9/16/27/55 funded in FY06. <del>RI/FS on hold until completion of removal action.</del>
32	32	4	Laundry SAA with SWMU 45	With Site 45.
35	35	TBD	DRMO	SI/CS Investigation in progress.
39	39	TBD	Electrolyte Basin	PA required.
45	45	4	Dry Cleaning Facility	Treatability Studies FY06 – FY10; FS in progress. Vapor Intrusion Study FY10 , RI/FS FY10-11

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**TABLE 3  
ANNUAL UPDATE FOR FFA APPENDIX C  
LISTING OF SITES WHICH REQUIRE FURTHER INVESTIGATION  
SITE MANAGEMENT PLAN  
MCRD PARRIS ISLAND**

Site	SWMU	OU	Description	Status
46	46	TBD	Hobby Shop	PA/SI required. <u>Will consider if</u> Initial sampling effort to be included with Site 14 storm water outfall investigation.
47	47	TBD	Old Photo Shop	PA/SI required. <u>Will consider if</u> Initial sampling effort to be included with Site 14 storm water outfall investigation.
48	48	TBD	Existing Photo Shop	PA/SI required. <u>Will consider if</u> Initial sampling effort to be included with Site 14 storm water outfall investigation.
49	49	TBD	DRMO	PA/SI required. <u>Will consider if</u> Initial sampling effort to be included with Site 14 storm water outfall investigation.
50	50	TBD	Hue City Range Waste Munitions Disposal Site	To be addressed when the range closes
52	52	TBD	Old Weapons Cleaning Areas	PA/SI required. <u>Will consider if</u> Initial sampling effort to be included with Site 14 storm water outfall investigation.
53	53	TBD	Debris near Causeway	Trash removal FY04; EMAC Report reviewed. Team to determine path forward.
54	54	TBD	Old Waste Water Treatment Plant	Demolition and confirmation sampling FY04; EMAC Report reviewed. SAR reviewed. Marsh area to be investigated with Site 14.
55	55	10	Fiber Optic Vault	RI/FS investigation of overlapping sites 9/16/27/55 funded in FY06. <u>RI/FS on hold until completion of removal action.</u>

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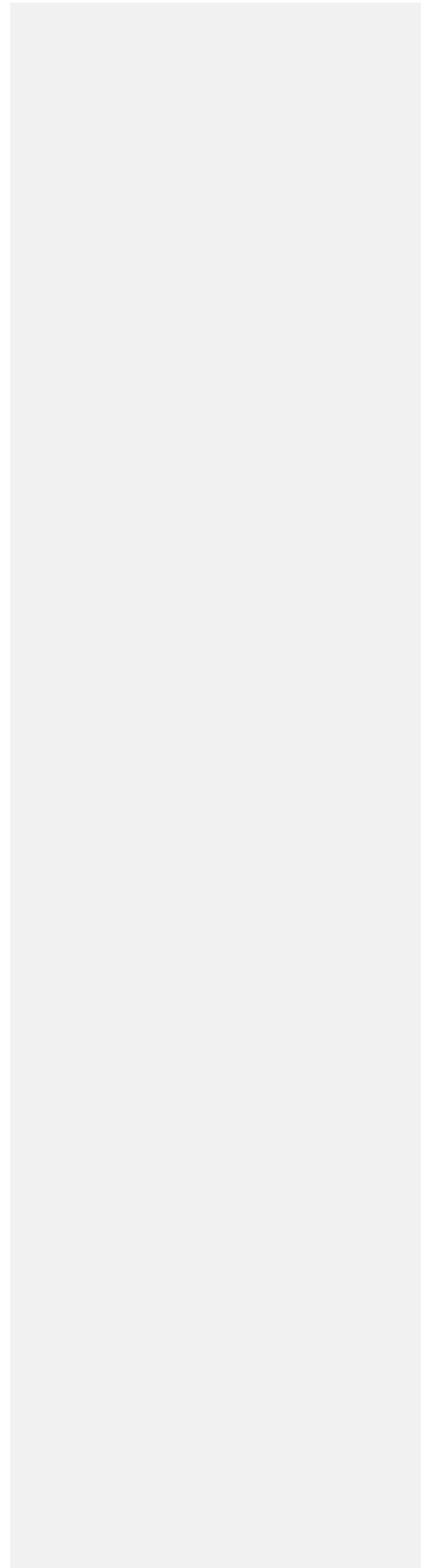
Note : The team will consider the following: For Sites where initial sampling is included with Site 14, while identification of contamination may be adequate to trigger a need for further investigation, a lack of identified contamination may not be adequate for NFA. This result would require the Team to consider the analytical results and PA findings to determine the appropriate next steps.

**List of Acronyms in Table**

CS/SI - Confirmatory Sampling/Site Investigation  
 FY – Fiscal Year  
 NFA - No Further Action  
 PA - Preliminary Assessment  
 RI/FS - Remedial Investigation/ Feasibility Study  
 SAA - Satellite Accumulation Area

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ANNUAL UPDATE FOR FFA APPENDIX C  
LISTING OF SITES WHICH REQUIRE FURTHER INVESTIGATION  
SITE MANAGEMENT PLAN  
MCRD PARRIS ISLAND**

TBD – To be Determined



~~December~~~~September~~ 2010

**FINAL DRAFT (D2)**  
**MARINE CORPS RECRUIT DEPOT PARRIS ISLAND**  
**FEDERAL FACILITIES AGREEMENT**  
**SITE MANAGEMENT PLAN**  
**AMENDMENT**

**FISCAL YEAR 2011**  
(1 October 2010 – 30 September 2011)

PREPARED BY

Navy Region Southeast  
NAVFAC SE SC IPT ENV IR  
Building 135  
Jacksonville, Florida 32212

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### **Tables:**

Table 1: Near-Term Milestones Listing (FY, FY+1, FY+2)	
Table 2: Out-Year Milestones Listing (FY+3 and beyond)	
Table 3: Update of FFA Appendix C	
Table 4: Five Year review <u>Schedule</u>	

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### **ACRONYMS AND ABBREVIATIONS**

AOC	Area of Concern
CCR (RACR)	Construction Completion Report (Remedial Action Completion Report)
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLEAN CS	Comprehensive Long-Term Environmental Action, Navy Confirmatory Sampling
DMRAP	Document Memorializing Remedial Action Complete
DRMO	Defense Reutilization and Marketing Office
1,2-DCE	1,2,- Dichloroethene
EMAC	Environmental Multi-Award Contract
EPA	Environmental Protection Agency
ER,N	Environmental Restoration, Navy
FEC SE	Naval Facilities Engineering Command, Southeast
FFA	Federal Facility Agreement
FY	Fiscal Year
HSWA	Hazardous and Solid Waste Amendments
IAS	Initial Assessment Study
IM	Interim Measures
IR	Installation Restoration
IRA	Interim Removal Action
LTM	Long Term Monitoring
LUC	Land Use Control
LUC RD	Land Use Control Remedial Design
MCAS	Marine Corps Air Station
MCRD	Marine Corps Recruit Depot

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NCP	National Contingency Plan
NFA	No Further Action
NPL	National Priority List
NTCRA	Non-Time Critical Removal Action
PA	Preliminary Assessment
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethene
PP	Proposed Plan
RACR	Remedial Action Completion Report
RAWP	Remedial Action Workplan
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI/FS	Remedial Investigation / Feasibility Study
ROD	Record Of Decision
SAA	Satellite Accumulation Area
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SCDHEC	South Carolina Department of Health and Environmental Control
SMP	Site Management Plan
SSA	Site Screening Area
SWMU	Solid Waste Management Unit
TCE	Trichloroethene
UST	Underground Storage Tank
VOC	Volatile Organic Compound

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### **KEY DEFINITIONS**

~~“D1 (Draft)” – first formal submittal of a draft primary document. Milestones are set for this submittal.~~

~~“D1 Revisions” – subsequent revisions to D1. Milestones are not set for these submittals and time frames for review are the same as for D1.~~

~~“D2 (Draft Final)” - formal submittal of a draft final primary document. Milestones are set for this submittal. The D2 becomes final as soon as documents are approved, per FFA.~~

~~“Deadlines” - are “Near Term Milestones” for the current Fiscal Year (FY). They can be either: (1) a date for the start or completion of any "Primary Actions," (2) a date for the submission of any Primary Document, or (3) any specified "Project End Date" if any of these are placed within the current fiscal year's schedule. Deadlines are subject to stipulated penalties.~~

~~“Milestones” - are dates for either: (1) the start or completion of any “Primary Actions,” (2) the submission of any Primary Document or (3) any specified “Project End Date.” Specific types of “Milestones” include:~~

- “Near Term”
- “Out-Year”
- “Primary Actions” and
- “Project End Dates”

~~“Near Term Milestones” - are "Milestones" for each of the following:~~

- Current FY (a.k.a. “Deadlines”)
- Budget Year (i.e., FY+1), and
- Planning Year (i.e., FY+2)

~~“Out Year Milestones” - are "Milestones" within the years after the FY+2 Planning Year until the completion of the cleanup of the entire facility or a given phase of the cleanup (i.e., they are "Milestones" within FY+3 through the Project End Date(s).~~

~~“D1 (Draft)” – first formal submittal of a draft primary document. Milestones are set for this submittal.~~

~~“D1 Revisions” – subsequent revisions to D1. Milestones are not set for these submittals and time frames for review are the same as for D1.~~

~~“D2 (Draft Final)” – formal submittal of a draft final primary document. Milestones are set for this submittal. The D2 becomes final as soon as documents are approved, per FFA.~~

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~~“Deadlines” are “Near Term Milestones” for the current Fiscal Year (FY). They can be either: (1) a date for the start or completion of any “Primary Actions,” (2) a date for the submission of any Primary Document, or (3) any specified “Project End Date” if any of these are placed within the current fiscal year’s schedule. Deadlines are subject to stipulated penalties.~~

**“Primary Actions”** - are those major, discrete actions identified as such in the SMP. The Team should identify all major and discrete actions for which there is sufficient information to be confident that the date for taking such an action is implementable. Note: dates for the submission of Primary Documents are not "Primary Actions" per se, but could be either enforceable "Deadlines," "Near-Term Milestones" or "Out-Year Milestones" depending upon the fiscal year in which the document submission date is placed.

**“Project End Dates”** - are date(s) for the completion of major portions of the cleanup or the completion of the entire cleanup of the Facility. In many cases, a higher degree of flexibility is appropriate due to uncertainties associated with establishing such dates.

**“Schedule”** - a timetable or plan that indicates the time and sequence of events.

**“Target Dates”** - dates for the completion and transmission of Secondary Documents. Target Dates are not subject to Dispute Resolution and are not “Milestones.”

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## **1. INTRODUCTION**

This Site Management Plan (SMP) Update is a requirement of the Federal Facilities Agreement (FFA) signed by the Department of the Navy (Navy), the US Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC), for the Marine Corps Recruit Depot (MCRD) Parris Island, South Carolina (the Site). Each Party entered into the FFA pursuant to those specific legal authorities identified in the FFA.

The general purposes of the FFA as identified therein are to:

- Ensure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated and appropriate remedial action taken as necessary to protect the public health, welfare and the environment;
- Establish a procedural framework and Schedule for developing, implementing and monitoring appropriate response actions at the Site in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act/ Superfund Amendments and Reauthorization Act (CERCLA/SARA), the National Contingency Plan (NCP), Superfund guidance and policy, Resource Conservation and Recovery Act (RCRA), RCRA guidance and policy, and applicable state law; and,
- Facilitate cooperation, the exchange of information and participation of the Parties in such actions.

Additional specific purposes are detailed in the FFA. The FFA became effective on 31 March 2006. Copies of the FFA have been placed in the Administrative Record for the Site and the Information Repository located in the Beaufort County Library.

As required by the FFA, this SMP Amendment identifies those "Milestones" (Near Term, Out Year, Primary Actions and Project End Dates) associated with currently anticipated CERCLA investigative and remedial activities at MCRD Parris Island. Thus, it reflects those significant Installation Restoration Program events scheduled to occur in the current fiscal year; and that are projected for the next fiscal year and beyond to the extent they can be reasonably foreseen.

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## **2. ANNUAL UPDATING OF THE SMP**

Section 13.4 of the FFA requires the Navy to submit all draft proposed amendments to the MCRD SMP to EPA and SCDHEC by 15 June of each year. Per Section 12.3, all Milestones set forth in this plan shall reflect the priorities agreed to by the Parties through a process of 'risk plus other factors' priority setting. Prior to proposing any changes to Milestones in any annual amendment to the SMP, the Navy is required to offer to meet with the EPA and SCDHEC to discuss those proposed changes. The Navy believes it has satisfied that requirement via the discussion of schedule and priority-of-document-review agenda items at past MCRD Partnering Team meetings.

Per FFA Section 12.1, if any activity is fully funded in the current FY, Milestones associated with the performance of Primary Actions and the submittal of Draft and Draft Final Primary Documents associated with such actions (even if they extend beyond the current FY) shall be enforceable Deadlines. Conversely, some anticipated work activities are identified in the following text and tables, but funding is not yet available and the date of future funding is currently indeterminate. In this case, reasonable estimates have been provided.

Per FFA Section 12.4, SMP annual amendments are required to include:

- a. A description of actions necessary to mitigate any immediate threat to human health or the environment;
- b. A listing of all currently identified Site Screening Areas (SSAs) (if applicable), Operable Units, Interim Remedial Actions (IRA), Supplemental Response Actions, and Critical and Non-Time Critical Removal Actions covered or identified pursuant to this Agreement;
- c. Activities and Schedules for response actions covered by the Plan, including at a minimum:
  - Identification of any Primary Actions;
  - All Deadlines;
  - All Near Term Milestones;
  - All Out Year Milestones;
  - All Target Dates;
  - Schedule for initiation of Remedial Designs, Interim Response Actions, Non-Time Critical Removal Actions, and any initiation of other planned response action(s) covered by this Agreement; and,
  - All Project End Dates.

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In response, the Navy provides the following information to the MCRD Partnering Team:

- a. The Navy is not aware of any actions necessary to mitigate any immediate threat to human health or the environment at MCRD Parris Island.
- b. The tables and text that constitute the remainder of this SMP identify all SSAs. Base-wide, only one IRA, for Site 3, was previously completed. No supplemental response actions are planned. No critical removal actions are planned. One or non time critical removal action (NTCRA) is planned. Although the Team does not use OU language and references on a routine basis, EPA is tracking work with the CERCLIS database by OUs.

The current record of OUs and associated sites is as follows:

- OU1 = Sites 1 and 41
- OU2 = Sites 2 and 15
- OU3 = Site 3
- OU4 = Site 45 and 32
- OU5 = Site 12
- OU6 = Site 5
- OU7 = Site 9
- OU8 = Site 16
- OU9 = Site 27
- OU10 = Site 55
- OU 11 = Site 13C
- OU 12 = Site 14
- OU 13 = Site 7

A path forward has yet to be determined for Sites 4, 8, 21, 35, 39, 46, 47, 48, 49, 50, 52, 53, and 54. Sites and site work were organized into these OUs by EPA based on factors based on a combination of risk and maximum flexibility needs. The Navy and MCRD intend to work with EPA and the State to further refine the grouping of sites into OUs for future years' SMP Reports as needed.

- c. The tables and text that constitute the remainder of this SMP provide those activities and schedules for those response actions covered by the Plan. At this time, several sites are slated for investigation in the next several years. It is not currently known whether (with the exception of site 27) these sites will eventually require response actions (including remedial designs, IRAs, or NTCRA). Therefore, some site specific and any base-wide Project End Dates are unknown. As data from future site investigations becomes available, the Navy will put forth either site specific or a base-wide proposed Project End Date(s) at

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the earliest opportunity.

The Navy believes that all Milestones that have been changed in this Amendment to the original SMP for MCRD Parris Island are based upon one or more of the following justifications as provided for in Section 12.6 the FFA:

- The identification of significant new site conditions at the Facility;
- Reprioritization of activities under this Agreement caused by changing priorities or new site conditions elsewhere in the Navy;
- Reprioritization of activities under this Agreement caused by budget adjustments (e.g., rescissions, inflation adjustments, and reduced Congressional appropriations);
- An event of Force Majeure;
- A delay caused by another Party's failure to meet any requirement of this Agreement;
- A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;
- A delay caused, or which is likely to be caused, by the grant of an extension in regard to another Deadline and/or Schedule; and
- Any other event or series of events mutually agreed to by the Parties as constituting good cause.

d. As allowed for in Section 8.2 (a) of the FFA, the Parris Island Partnering Team has agreed to revise the review and comment periods for EPA and SCDHEC, as well as the response to comment and revision periods for the Navy/MCRD, on an annual basis as part of the SMP amendment process. This year the Team has agreed to timeframes as identified in the following table:

Document D1 - Draft Due	EPA/SC Comments	EPA/SC Written Extension Request	Navy/MCRD RTC and Draft Final Scoping	Navy/MCRD RTC and D2 Draft Final Submittal	Navy/MCRD Written Extension Request	EPA/SC Approval or Dispute
On or Before SMP Due Date for Draft Document Submittal (D1). See Table 1.	Due within 45 days of receipt or SMP Due Date of D1 Draft Document, whichever is the latter.	20 days automatic; more upon approval of other FFA parties.	Within 75 days after comment period closes (including extension period if this applies) and before RTC/Draft Final (D2) Due Date.	On or Before SMP Due Date for Draft Final Document Submittal (D2). See Table 1.	20 days automatic; more upon approval of other FFA parties per Section XI of the FFA.	Review within 45 days of receipt or SMP Due Date, whichever is the latter, with no extension. D2 is either approved or not and the dispute process should be initiated where applicable.

The document review and comment periods should also be reflected in each Fiscal Year's Cooperative Agreement Work Plan to be developed by the Navy and SCDHEC in consultation with U.S.EPA, consistent with requirements of the Department of Defense and State Memorandum of Agreement (DSMOA).

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### **3. OVERALL SITE MANAGEMENT APPROACH**

The US Marines at MCRD Parris Island perform a variety of operations, some requiring the handling, storage, or disposal of hazardous materials. Through accidental spills, leaks, and past disposal practices, hazardous materials may have entered the environment. The Department of Defense initiated various programs to investigate and remedy conditions related to suspected past releases of hazardous materials at their facilities. One of these programs is called the Installation Restoration (IR) Program.

The IR Program investigations being conducted at the MCRD Parris Island comply with applicable requirements established under CERCLA. Consistent with Section VI of the FFA, they will also comply with RCRA requirements to the extent they are also applicable to those efforts. Additional guidance for conducting investigations is contained in the United States EPA Guidance For Conducting Remedial Investigations and Feasibility Studies under CERCLA (1988) and the Navy / Marine Corps Installation Restoration Manual (February 1997).

The Naval Facilities Engineering Command, Southeast, located in Jacksonville, Florida, is responsible for conducting the Navy's IR Program for the Chief of Naval Operations within its geographical area of cognizance which includes South Carolina. Thus, FEC SE is tasked to implement the IR Program for MCRD Parris Island and has prepared this SMP on behalf of MCRD Parris Island. FEC SE will also be submitting all documentation such as work plans and reports directly to EPA and SCDHEC on behalf of MCRD Parris Island and will be submitting updates to the SMP annually as required by the FFA. Typically FEC SE contracts with private environmental consulting firms to conduct the necessary investigations and remedial activities required and provides technical and financial oversight of those efforts.

NAVFAC SE also relies on the efforts of USGS, in-house NAVY support staff, EPA in-house support and SC in-house support to provide focused expert technical assistance.

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#### 4. UNIFORM FEDERAL POLICY GUIDANCE

During FY09, the Navy issued guidance for use in preparation of all future Sampling and Analysis Plans. This SMP incorporates the guidance into scheduling the development and reviews of deliverables. The MCRD PI Tier 1 Environmental Team has initiated this policy on five projects (-Site 3 fish tissue sampling and MRP Sites in 2009 and Site 5, site 14 and Site 27 as well as MRP Sites in 2010) .

## **5. SITE DESCRIPTIONS AND FY2011 DOCUMENT DELIVERABLES**

### **Site 1/SWMU 1: Incinerator Landfill**

Description: The Incinerator Landfill is located in the northeast section of Horse Island. MCRD discarded incinerator ash, liquid, and solid wastes in this landfill from 1921 to 1965. SWMU 41, Former Incinerator, was located inside Site I/SWMU 1.

Concern: The sources of waste include the paint shop, former Naval Hospital, pest control shop, automotive hobby shop, dry cleaning plant, dental clinic, mechanical trade shop, electrical shop, and furniture/upholstery shop. It is likely that quantities of hazardous wastes from these sources were co-disposed in this landfill.

Status: Investigation complete (contaminants above acceptable levels defined). ROD was completed 12 September 2006. Physical construction is complete. Marsh grass is not re-establishing as quickly as anticipated, but continues to progress. (Remediation proceeded prior to ROD completion because of agreement in the technical aspects of the remedy and uncertainty in timing of the ROD completion based on delays in completing the FFA.) The Draft Long Term Monitoring Work Plan (LTM WP) and Draft Construction Completion Report (CCR) have been submitted and approved. The Land Use Control (LUC) Remedial Design (RD) is complete. A LUC Remedial Action (RA) Completion Letter Report (RACR) was submitted to document LUC implementation completion. The RACR addressed minor outstanding issues from the CCR.

<b>FY 2011 PRIMARY DELIVERABLES</b>	<b>DUE DATE</b>
None.	N/A

### **Site 2/SWMU 2: Borrow Pit Landfill**

Description: This construction debris landfill is believed to be located in the central portion of Horse Island in the north section of the Depot. The site is approximately 100 feet from a tidal inlet and reportedly operated from 1966 to 1968. A section of Site 15/SWMU I5 (Dirt Roads) is located adjacent to the landfill.

Concern: Past records indicated that possibly some quantity of hazardous waste (e.g., paint thinner, solid paint wastes, and tetrachloroethene [PCE] still bottoms) may have been disposed of in the Borrow Pit Landfill.

Status: Investigation complete (no wastes or contaminants identified). A No-Further-Action ROD was completed on 12 September 2006.

<b>FY 2011 PRIMARY DELIVERABLES</b>	<b>DUE DATE</b>
None.	N/A

### Site 3/SWMU 3: Causeway Landfill

Description: During 1960 to 1972, this landfill was created from solid waste and fill materials, forming a causeway connecting Horse island to Parris Island. Material was deposited directly into the salt marsh.

Concern: Hazardous waste (e.g., polychlorinated biphenyl [PCB] oil and solid paint waste) were reportedly disposed into this landfill.

Status: Investigation complete (contaminants above acceptable levels defined). Interim decision document is complete. Interim remedial action is complete. Final decision document, for LUC and long-term groundwater monitoring is in progress, however en-route it was determined that both the human health and ecological risk assessments should be updated to address post-remedy conditions and current exposure scenarios. As part of this effort in FY10, Fish Tissue sampling was conducted in the adjacent pond. A Technical Memo that references the fish tissue study is in process of being finalized. This work is in progress and will result in a more robust stand-alone administrative-record ready document to support remedy selection. LUC RD and LUC RACR will be submitted following finalization of the ROD if found to be necessary.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
Site 3 ROD D-1	30 May 2011
Site 3 ROD D-2	30 August 2011

### Site 4/SWMU 4: Dredge Spoils Area Fire Training Pit (FTP)

Description: This site is located approximately 600 feet northeast of Cuba Street and Ballast Creek junction in the east section of the Depot. The exact location of the training pit is unknown since the original site has been covered with dredged spoils. This site was used for fire-fighting training between the 1940s and 1960s.

Concern: Waste fuels, oils, and small quantities of petroleum-based solvents were placed into the training pit. Approximately 300 to 400 gallons of flammable liquids were burned per training session. One training session was conducted each month.

Status: Investigation in progress. SI/CS indicated minimal contamination and proposes

an extended SI to sample the hummock area. This site has been grouped with site 13c for funding purposes. The path forward for this site is being considered by the team.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

#### Site 5/SWMU 5: Former Paint Shop Disposal Area

Description: The Former Paint Shop Disposal Area is suspected to be located behind the Main Power Plant, Building 160, on about a 30-square-foot area on the shore; however, the exact location of the area is unknown. Tidal action and periodic storms have washed away the remains. The site was covered with marsh soil and construction rubble during 1972.

Concern: From the 1930s to the 1960s dried waste paint and solvents were allegedly dumped at the edge of the Beaufort River potentially impacting sediments and subsurface soils.

Status: Investigation in progress. SI/CS indicated minimal contamination. FY08 funding has been provided for this site, and preparation of a work plan, following recent Uniform Federal Policy Sampling and Analysis Plan (UFP-SAP) has been drafted. The RI Work plan is completed.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
RI/FS Workplan D-2	30 July 2011

#### Site 7/SWMU 7: Page Field Fire Training Pit

Description: The former concrete pit was located at the south end of Henderson Street at Page Field in the central section of the Depot. The concrete pit was constructed on a concrete pad that was on the apron of the former runway. The site has been abandoned and the structure demolished.

Concern: The pit held waste fuels and waste oils which were burned for training purposes from the mid-1960s to 1976. Use was discontinued when a leak was discovered.

Status: Investigation in progress. SI/CS indicated minimal contamination, and suggests

that following soil excavation the site could be suitable for clean closure. FY08 funding has been provided for this site, but at this time the path forward is uncertain. Additional information has been requested by the regulators with regard to presents or absents of proposed pipe and if present whether petroleum is still in the pipe.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
<del>None/A</del>	<del>N/A</del>

**Site 8/AOC A and B: PCB Spill Areas**

Description: In 1983 and 1984, two PCB spills from transformers occurred. The first occurred on an asphalt pad adjacent to Building 450 in the northeast section of the Depot. The second occurred on a grass-covered area adjacent to Building 111 in the northeast section of the Depot. In November 1985, PCB-contaminated soil was excavated and disposed of off site

Concern: The effectiveness/completeness of the contaminated soil removal has not been demonstrated.

Status: A focused SI Investigation pending. Project was funded in FY10. Since a removal action has occurred, the effectiveness of the removal action will be evaluated.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None	N/A

**Site 9/SWMU 8: Paint Waste Storage Area**

Description: The Paint Waste Storage Area is an unpaved area adjacent to Building 864. This area was used by the paint shop as a temporary storage area for paint wastes from 1969 to 1984. In 1984, approximately 6 inches of surface soil were removed and disposed. The area was covered with concrete pavement.

Concern: The effectiveness/completeness of the contaminated soil removal has not been demonstrated.

Status: FY06 funding was provided for an RI/FS of overlapping Sites 9/16/27/55. Two phases of investigation were already anticipated due to the particular data gaps at this site; however while the initial mobilization addressed some data gaps several new data gaps were identified. Site 27 SAP and sites 55/9/16 SAP were prepared separately and submitted for regulatory review. Field work at Sites 27/55/9/16 was conducted

before formal review of the SAPs was completed. On location regulatory oversight was conducted by both DHEC and EPA. Since the original RI work plan was already approved and implemented, and since these sites are a high priority to the Navy and MCRD based on MILCON schedules, a milestone due date for the addendum work plan was not necessary. An EE/CA and Non Time Critical Removal Action (NTCRA) are planned for FY 2011 at Sites 9/16/27/55.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A
<b>FY 2011 TARGET DATES</b>	<b>DUE DATE</b>
<u>See Site 27</u>	<u>See Site 27</u>

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**Site 12/SWMU 10: Jericho Island Disposal Area**

Description: This area is located along the central part of the southern edge of Jericho Island in the northwest section of the Depot. The City of Beaufort and residents of Beaufort County disposed of incinerator ash and domestic waste from 1955 to 1968. The wastes were disposed of on the edge of the island stretching southward into the marsh. Parris Island took possession of Jericho Island in 1968.

Concern: Ash and waste residues may be impacting soil, sediment, surface water, and/or groundwater.

Status: Investigation complete (contaminants above acceptable levels defined). ROD completed 2 October 2006. Physical construction is complete. (Remediation proceeded prior to ROD completion because of agreement amongst the Partnering Team members regarding the technical aspects of the remedy, available funding and uncertainty in timing of ROD completion based on delays encountered in finalizing the FFA.) The Construction Completion Report and LUC RD were completed in FY08. Marsh grass revegetation efforts have not appeared to be highly successful, however apparent natural revegetation is progressing. NCSU conducted a study to develop options for improving vegetation.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 13/SWMU 13: Inert Disposal Area C**

Description: Site 13 consists of three dredge spoils area. However, based on prior investigation, only Disposal area C remains a concern for dredge materials. This area is located at the same location as Dredge Spoils Area FTP (Site 4/SWMU 4). Inert Disposal Area C received dredge spoils from the marina basin and Ballast Creek. The Dredge Spoils Area Fire Training Pit is located beneath the dredge spoils at the site.

Concern: Contaminated soils from the former Fire Training Pit (Site 4/SWMU 4) may be mixed with the dredge spoils.

Status: Investigation in progress. Funding was provided in FY10 RI/FS, however revised SI/CS report will indicate that no further action may be appropriate. This report is being reviewed by the regulators. Options include the following : no further action, an expanded SI, or an RI/FS. For funding purposes this site is grouped with site 4.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 14/SWMU 14: Storm Sewer Outfalls**

Description: A storm sewer piping system that has been in place since 1918 and exists throughout the Depot. The system includes more than 60 outfalls that empty into the surrounding surface waters. Sampling to support the Site 14 RI will include a former OWS location near a Storm Sewer Outfall on Elliot's Beach.

Concern: Reportedly, waste from garages and other maintenance shops, a dispensary, dental clinic, photo laboratory, steam plant, and cooling tower could have been discharged into the storm sewers before the mid 1970s.

Status: FY08 funding has been provided for this site, and preparation of a work plan, following recent Uniform Federal Policy Sampling and Analysis Plan (UFP-SAP) is in progress. Sampling at the Elliot's Beach OWS may be dependent on funding participation from MCRD. Field studies have been completed for the purpose of preparing a scoping document. These field studies were used to develop a basis for the team to develop data quality objectives. A UFP SAP is in the process of being completed and should be final prior to the end of the FY10 or early FY 11.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
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SI Workplan D-1	30 October 2010
SI Workplan D-2	30 August 2011

**Site 15/SWMU 15: Dirt Roads**

Description: Throughout Parris Island, waste oils were deposited on dirt roads from 1941 to 1966 for dust control. Many of these roads are now paved. The roads that most recently received oils are a 1.5 mile section of a dirt road accessing Elliot's Beach and the road accessing the Inert Disposal Area B.

Concern: Release of waste oil constituents to the environment.

Status: Investigation complete (no wastes or contaminants identified). Site was addressed with Site/SWMU 2 decision documents. A No-Further Action ROD was completed on 12 September 2006.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 16/SWMU 16: Pesticide Rinsate Disposal Area**

Description: This bare soil area used for disposal of pesticide rinsate is located next to Building N-282 in the northeast section of the Depot. From 1950 to 1978, Depot personnel poured rinse water from pesticide use on the ground at this site. A deep water well, connected to the underlying limestone aquifer, is about 80 feet from this site. This well is used to monitor aquifer capacity by the state. This well has been damaged and may provide a pathway to the underlying limestone aquifer. More information on this well will be provided during the January 2011 partnering meeting. The specific impacts this well may cause will be evaluated during in the RI report.

Concern: The area received pesticide sprays and rinse water containing various pesticides.

Status: FY06 funding was provided for an RI/FS of overlapping Sites 9/16/27/55. Two

phases of investigation were already anticipated due to the particular data gaps at this site; however while the initial mobilization addressed some data gaps several new data gaps were identified. Site 27 SAP and sites 55/9/16 SAP were prepared separately and submitted for regulatory review. Field work at Sites 27/55/9/16 was conducted before formal review of the SAPs was completed. On location regulatory oversight was conducted by both DHEC and EPA. Since the original RI work plan was already approved and implemented, and since these sites are a high priority to the Navy and MCRD based on MILCON schedules, a milestone due date for the addendum work plan was not necessary. An EE/CA and Non Time Critical Removal Action (NTCRA) are planned for FY 2011 at Sites 9/16/27/55.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A
<b>FY 2011 TARGET DATES</b>	<b>DUE DATE</b>
<u>See Site 27</u>	<u>See Site 27</u>

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**SWMU 21: Weapons Power Plant Oil/Water Separator**

Description: The oil/water separator is located in the west section of the Depot. Active since the 1980s this site receives runoff from a fuel oil unloading area. Effluent from the separator is discharged into the marsh.

Concern: Effluent from the separator is discharged to the marsh. Releases to surface water are dependent on the effectiveness of the separator.

Status: Investigation in progress. An RI has been submitted, but not completed. Regulators supported removal and replacement of existing OWS via the UST program. Post-removal sampling results will be provided to the Team and together with existing RI (and/or PA) results, a path forward will be determined. Potential additional marsh sampling and completion of a PA report for the part of the unit on land is possible. A more specific path forward/schedule has not been determined to date. Removal of the oil water separator is planned for FY 2011 by funding associated with UST/ AST removal.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**SWMU 27: Equipment Parade Deck Satellite Accumulation Area (SAA)**

Description: The SAA is located on an asphalt pad located in the northeast section of the Depot (on the former 3rd Battalion Parade Deck). The site is approximately one acre in size. The Depot uses this site as an equipment laydown area and for storage of salvage items,

Concern: Signs of stained and cracked asphalt have been noted in the vicinity of the SAA.

Status: FY06 funding was provided for an RI/FS of overlapping Sites 9/16/27/55. Two phases of investigation were already anticipated due to the particular data gaps at this site; however while the initial mobilization addressed some data gaps several new data gaps were identified. Site 27 SAP and sites 55/9/16 SAP were prepared separately and submitted for regulatory review. Field work at Sites 27/55/9/16 was conducted before formal review of the SAPs was completed. On location regulatory oversight was conducted by both DHEC and EPA. Since the original RI work plan was already approved and implemented, and since these sites are a high priority to the Navy and MCRD based on MILCON schedules, a milestone due date for the addendum work plan was not necessary. A Remedial Action Contract has been issued for this site. The LNAPL discovered in the area of the vault and the area hot spots in 9/16/27/55 will be addressed in FY10/11. An EE/CA and Non Time Critical Removal Action (NTCRA) are planned for FY 2011.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A
FY 2011 TARGET DATES	DUE DATE
EE/CA D-1	30 January 2011
EE/CA D-2	30 April 2011
Removal Action Memo D-1	<del>30</del> July 2011
<del>Removal Action Memo D-2</del>	<del>1 October 2011</del>

**SWMU 32: Laundry SAA**

Description: This site was located at the former Building 193, Depot Dry Cleaners. Fifty-five gallon drums are staged in the vicinity of the dry-cleaning machines on concrete floors. Building 193 has been demolished.

Concern: The SAA received PCE still bottoms.

Status: Investigation in progress (SWMU 32 will be addressed in conjunction with Site/SWMU 45). The two sites were linked in the RI/FS Master Work Plan.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
See Site 45 for deliverables information.	N/A

### **SWMU 35: Defense Reutilization and Marketing Office (DRMO) Salvage Yard**

Description: The salvage yard is located on Horse Island in the north section of the Depot. Since 1964, this 3-acre site has received salvage items from Parris Island and the Marine Corps Air Station (MCAS). Potential Hazardous Wastes are no longer received from either SWMU 21 or MCAS. Approximately 80% of the yard is paved with asphalt. Cracked asphalt was noted beneath lead-acid batteries placed in the area. All batteries were required to be drained prior to DRMO receiving the material, and currently, only sealed batteries are accepted.

Concern: Potential release of as yet to be determined contaminants to the environment from stored materials.

Status: SI/CS Investigation in progress. EPA collected additional samples of an area subject to runoff from the unit. . It is possible that the part of the unit continuing in service will be separated and addressed at the time of the closure of the unit while the area subject to runoff will be addressed separately. The team needs to determine a path forward at the site.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

### **SWMU 39: Electrolyte Basin**

Description: A battery acid tank is suspected to have been present outside the battery room at Motor Transportation, Building 155 in the northeast section of the Depot. Employees no longer deposit acid into this tank. Details of the tanks size and associated piping are unknown.

Concern: The tank collected used battery acid removed during battery maintenance.

Status: PA Investigation pending. Timing and scope for investigation uncertain based on low relative risk.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

#### **SWMU 41: Former Incinerator**

Description: The Former Incinerator was located adjacent to the Incinerator Landfill (Site 1/SWMU 1) on Horse Island in the north section of the Depot. Operations ceased in 1959 and the incinerator has been removed since that time.

Concern: In addition to domestic trash, the Former Incinerator received solid paint Wastes which may have resulted in releases in need of remediation.

Status: Investigation complete (contaminants above acceptable levels defined). ROD was completed 12 September 2006. Physical construction is complete. Marsh grass is not re-establishing as quickly as anticipated. (Remediation proceeded prior to ROD completion because of agreement in the technical aspects of the remedy and uncertainty in timing of the ROD completion based on delays in completing the FFA.) See Site 1 for complete status update.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
See Site 1 for deliverables information.	N/A

#### **Site 45/SWMU 45: Dry Cleaning Facility Spill Area**

Description: This area is adjacent to a former dry cleaning facility. In March 1994, Parris Island personnel responded to an accidental spill of PCE from the PCE storage tank, and determined that there had been current and past dry-cleaning solvent releases at the site. The impacted soils from the recent release were removed and properly disposed of in a hazardous waste landfill.

Concern: Releases have impacted soil and groundwater at the site (including beneath the former building footprint). The former BOQ building adjacent to the site has been demolished down to the slab and is no longer a human health pathway.

Status: RI Report conditionally approved pending completion of an RI Addendum to update the extent of plume migration due to the period of time that had elapsed since the original RI field effort and to address vapor intrusion. Treatability Study(s) in progress. Treatability study results may support the FS, and the Team has reached

consensus that the treatability data available to date is sufficient to start the FS. In addition, USGS and US EPA have collected data at the site that better defines the site conceptual model and therefore might support more refined remedy selection. The emulsified zero-valent iron injection treatability study group has received funding for long-term monitoring. An RI Addendum has been provided for regulatory review. A joint RI/FS document is planned for submittal before FY10. The RI addendum and the FS will both address vapor intrusion. Although the RI addendum will be submitted with the FS, the submittal of the two will be tracked separately.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
RI <del>Report</del> Addendum <del>D-2</del>	30 June 2011
FS_-D-1	30 June 2011

**Site 46: Hobby Shop**

This Site will have a Preliminary Assessment. Timing for funding for additional investigation uncertain based on low relative risk.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 47: Old Photo Shop**

This Site will have a Preliminary Assessment. Timing for funding for additional investigation uncertain based on low relative risk.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 48: Existing Photo Shop**

This Site will have a Preliminary Assessment. Timing for funding for additional investigation uncertain based on low relative risk.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 49: Defense Reutilization and Marketing Office (DRMO)**

This Site will have a Preliminary Assessment. Timing for funding for additional investigation uncertain based on low relative risk.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 50: Hue City Range**

Description: The Hue City range has been the site of marksmanship training since 1918. During reconstruction of the site some small arms ammunition was discovered, some broken, and some severely corroded/leaking. Soils containing the majority of these rounds were excavated with a front-end loader and re-deposited in an adjacent area near the Nak Tong pistol range parking lot. This soil pile was covered to protect it from the weather. The contractor working on the site stopped work until the ammunition was removed from the site and the rifle range was cleared for further work. The soil was removed and disposed in a regulatory-compliant manner.

Concern: Contamination associated with current and historic range operations.

Status: When the range closes it is anticipated that contamination investigative and/or remedial activities will be undertaken as shall then be required under CERCLA / RCRA and applicable small arms range and munitions related regulatory requirements.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 52: Old Weapons Cleaning Areas**

This Site will have a Preliminary Assessment. Timing for funding for additional investigation uncertain based on low relative risk.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

#### Site/SWMU 53: Horse Island Debris Area

Description: This site is located in the east-central portion of Horse Island, adjacent to Site/SWMU 3 Causeway Landfill. The site consists of surface debris, including asphalt waste, corroded drums, and concrete rubble, which may have served as a dumping area for a former asphalt plant reportedly located in the general area. The site is along a steep embankment near the Ribbon Creek marsh.

Concern: That asphalt constituents and/or the unknown contents of the corroded drums may have impacted the environment.

Status: Investigation in progress. A trash removal followed by confirmation sampling was conducted in FY05. The follow-up report is not yet completed. Some trash still remains on site, ESVs were exceeded, and a path forward needs to be determined. Timing for funding for additional action uncertain based on low relative risk. Trash removal and evaluation of risk at the site is still required.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

#### Site 54: Old Waste Water Treatment Plant

Description: This site is located in the northeast section of Parris Island. The site is a three chamber concrete holding tank apparently used to treat wastewater from nearby buildings that have since been demolished.

Concern: That the tank may have received solvents and other waste materials that could have permeated the tank walls or associated piping and outfall.

Status: EPA collected samples in 2003 in order to support discussions about the path forward. The tank was removed in 2004 as a general maintenance activity under an EMAC contract, with a completion report submitted in March 2005. The closure sampling results have shifted the attention at this unit to the unit discharge line to the marsh.

A SWMU Assessment Report (SAR) was submitted in 2002 by MCRD. The site documentation is still being reviewed and the path forward has not yet been determined, although it is expected that additional marsh characterization will be completed during the investigation for Site 14, Storm Sewer Outfalls.

FY 2011 PRIMARY DELIVERABLES	DUE DATE
None.	N/A

**Site 55: Fiber Optic Vault**

Description: The vault was installed in 2001 to support the installation and maintenance of a fiber optic network. Pesticide operations have taken place in this area (northeast) of Parris Island since the 1940s. Pesticide operations in Quonset huts hydraulically up gradient of the site (which existed in the 1940s and 1950s) are the likely source of contamination for this site. In September 2001, contaminated hydrocarbons were observed in the vault and a soil sample was collected and analyzed. Benzene was detected in the soil at 19.7 mg/kg. In October 2001, approximately 0.5 inch of free product was observed in the vault floating on approximately 1 foot of water and a facility-funded assessment began, originally following the underground storage tank (UST) program guidelines. When groundwater analytical results showed chlorobenzene and pesticides in addition to BTEX constituents, the site was transferred to the IR Program. Recent results also indicate the presence of a floating layer of fuel.

Concern: The presence of chlorobenzene and pesticides in addition to BTEX constituents in groundwater.

Status: A PA/SI report has been completed indicating volatile organic compounds (VOC) and pesticide contamination from an as-yet unidentified source. FY06 funding was provided for an RI/FS of overlapping Sites 9/16/27/55. Two phases of investigation were already anticipated due to the particular data gaps at this site; however while the initial mobilization addressed some data gaps several new data gaps were identified. Site 27 SAP and sites 55/9/16 SAP were prepared separately and submitted for regulatory review. Field work at Sites 27/55/9/16 was conducted before formal review of the SAPs was completed. On location regulatory oversight was conducted by both DHEC and EPA. Since the original RI work plan was already approved and implemented, and since these sites are a high priority to the Navy and MCRD based on MILCON schedules, a milestone due date for the addendum work plan was not necessary. A Remedial Action Contract has been issued for this site. The LNAPL discovered in the area of the vault and the area hot spots in 9/16/27/55 will be addressed in FY11. An EE/CA and Non Time Critical Removal Action (NTCRA) are planned for FY 2011.

FY 2011 <u>PRIMARY DELIVERABLE</u> <u>TARGET DATES</u>	<u>DUE DATE</u>
<u>None</u> <u>See site 27</u>	<u>N/A</u>
<u>FY 2011 TARGET DATES</u>	<u>DUE DATE</u>
<u>See Site 27</u>	<u>See Site 27</u>

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**Munitions Response Program Sites:**

There were originally eight UXO sites that required investigation. UXO 1 – Grenade Range ~~was recommended for no did not require~~ further investigation; therefore, there are only seven UXO sites ~~recommended for that require~~ further investigation.

- Rifle Range at Ballast Creek (UXO2)
- Aerial Bombing Target at Parade Deck (UXO3)
- Field Artillery West Main Range( UXO4)
- Field Artillery East Shrapnel Range ( UXO5 and UXO6)
- Aerial Bombing Target at Golf Course ( UXO 7)
- Aerial Bombing Target at Southern Tidal Flats (UXO 8)

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**UXO Site 2 Rifle Range at Ballast Creek**

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Description: The Rifle Range at Ballast Creek (UXO2) was the first identified range in use (-1916-1918). The site is located on the high ground inside bend of Ballast Creek. Munitions employed were 30 caliber cartridges. After World War I and until 1922 the area was used as an aircraft flying field.

Concern: Lead ~~f~~From bullets.

Status: The draft SI recommended no further action based on the low number of samples that exceeded ESVs and the small area those samples represent. Additionally, there were no noted exceedances of human health criterion. No further action is proposed at the site.

**UXO 3 Aerial Bombing Target at Parade Deck**

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Description: The munitions used at this range were miniature practice bombs and pyrotechnic signal flares. The bombs contained a 10 gauge shot gun shell as well as a smoke generating mixture of red phosphorous and black powder.

Concern:  
The practice bombs of them selves do not represent a large hazard. The possibility of other ordinance being present is the largest concern at the site.

Status:

The SI recommends continuing with a focused RI to assure other ordinance is not present at the site.

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**UXO 4 Field Artillery West Main Range**

Description:

In 1937 the Marines had two impact areas for field artillery firing the largest being Field Artillery West Main Range. Artillery is known to have included HE and shrapnel rounds from the 75-mm Model 1897 gun, as well as the 75-mm pack howitzer, M1. Other calibers such as 2.95 inch mountain gun, 37-mm anti-tank and 105-mm howitzer may have been fired, but no evidence has been uncovered to support this.

Concern:

The primary types of munitions constituents that may be present at UXO 4 include the following: lead pellets, TNT, Antimony, Arsenic, and RDX (based on the potential use during 1940). Two firing points were evaluated during the SI. Both UXO (firing area) and discarded UXO (firing point) are possibilities that need to be evaluated.

Status:

The SI revealed numerous anomalies that will be evaluated in the RI. MC has been found with concentrations above ecological screening levels in one sample. Additional investigation will be conducted in this area.

**UXO 5 and 6 East Shrapnel Range**

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Description:

The field artillery East Shrapnel Range has been designated as UXO 5 (northern portion which includes the firing point) and UXO 6 (southern portion which includes the target impact areas).

Concern:

The presence of surface anomalies requires follow up investigation in the RI. Much of the area was not accessible by boat or by foot during the SI. These areas will need to be evaluated during the RI.

Status:

The site will move to the RI phase in order to fill data gaps and to determine the presence of MEC. Additional investigation will be conducted in this area.

**UXO 7 Aerial Bombing Target at Golf Course**

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Description:

Aerial Bombing Target at Golf Course ( UXO 7). This site was used as an aerial Bombing Target using practice bombs from 1942 to 1946.

Concern:

The practice bombs of them selves do not represent a large hazard. The possibility of other ordinance being present is the largest concern at the site.

Status:

The SI recommends continuing with a focused RI to assure other ordinance is not present at the site.

**(UXO 8) Aerial Bombing Target at Southern Tidal Flats**

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Description:

Several types of practice bombs were used;-the heaviest weight ~~ing~~ -100-lbs.

Concern:

The practice bombs of them selves do not represent a large hazard. The possibility of other ordinance being present is the largest concern at the site.

Status:

Federal Facilities Agreement  
Site Management Plan - Fiscal Year 2011  
MCRD Parris Island

~~December~~September 2010

Final

The SI -recommends continuing with a focused RI to assure other ordinance is not present at the site.

**Final decisions regarding these MRP sites will be made through the normal FFA process.**

<b>MRP-FY 2011 PRIMARY DELIVERABLES</b>	<b>DUE DATE</b>
SI Report D-2	30 June 2011
RI Workplan D-1	30 September 2011

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