



UNITED STATES MARINE CORPS
MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE
PSC BOX 20005
CAMP LEJEUNE NC 28542-0005

MCIEAST-MCB CAMLEJO 5090.10
G-F/EMB

3 APR 2013

MARINE CORPS INSTALLATIONS EAST-MARINE CORPS BASE CAMP LEJEUNE ORDER 5090.10

From: Commanding General
To: Distribution List

Subj: INSTALLATION RESTORATION PROGRAM/HAZARDOUS WASTE SITE CLEANUP
IMPLEMENTATION

Ref: (a) Navy/Marine Corps Installation Restoration Manual of August 2006 (NOTAL)
(b) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. 9601 and Superfund Amendments and Reauthorization Act (SARA) of 1986 (NOTAL)
(c) Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901 (NOTAL)
(d) 40 CFR 300 (NOTAL)
(e) 40 CFR 264
(f) OPNAVINST 8020.15A - MCO 8020.13A (NOTAL)
(g) MCO P5090.2A (NOTAL)
(h) Federal Facilities Agreement of 13 February 1991 (NOTAL)
(i) Appropriations Bill 102-154 (NOTAL)
(j) 29 CFR 1910, Occupational Safety and Health Act

Encl: (1) Installation Restoration (IR) Program Site List
(2) Active IR Program Site Map
(3) Munitions Response Program (MRP) Site List
(4) Active MRP Site List
(5) Solid Waste Management Unit (SWMU) Site List
(6) Active SWMU Site Map

1. Situation

a. In the past, a lack of stringent legislation regulating the disposal of hazardous materials led to the nationwide use of expedient disposal methods that threatened human health and the overall quality of the environment. Past hazardous waste disposal practices included burial, burning, or dumping. Although acceptable at the time, these methods caused long-term problems through release of hazardous pollutants into the soil and groundwater. Nationally, residential and municipal wells were contaminated by hazardous wastes improperly dumped or buried many years ago. In some cases, residential and commercial developments were built on old disposal sites resulting in serious human health problems. These environmental and health problems ultimately led to greatly increased national concern regarding past disposal practices.

b. For many years, the Marine Corps has used hazardous materials and produced large quantities of hazardous waste during normal operations. Therefore, the Department of the Navy (DON) established the Navy/Marine Corps Installation Restoration (IR) Program, per the Department of Defense (DoD) concept plan to identify, evaluate, control, and correct past deficient waste disposal sites and practices. Similar to other DON environmental programs,

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

8 APR 2013

the IR Program is oriented toward compliance with Federal and state environmental laws and regulations. The IR Program consists of identifying the presence of hazardous wastes and evaluating effects on the environment, as well as identifying and programming any required corrective measures.

c. To properly address the various types of contamination and adhere to their respective regulatory requirements, the Marine Corps Installations East-Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ) IR Program is managed through three separate programs. However, to be consistent with program nomenclature as described in reference (a), all Environmental Restoration activities will continue to be referred to as the IR Program.

d. IR Program. The purpose of the IR Program is to reduce the risk to human health and the environment from legacy waste disposal operations and hazardous substance releases. The IR Program adheres to the regulatory framework of reference (b).

e. Munitions Response Program (MRP). The MRP addresses response actions at munitions response sites (MRSs) where munitions and explosives of concern (MEC) and munitions constituents (MC) are present in the environment. The MRP also adheres to the CERCLA regulatory framework.

f. Solid Waste Management Unit (SWMU) Program. The SWMU Program addresses contaminated sites where the process that generated the contamination is still in operation, or the contamination is from a recent release. SWMU sites are permitted sites regulated by reference (c) corrective action guidelines as described in the Base Hazardous/Solid Waste Amendment (HWA) permit.

g. Management processes for the IR and MRP programs maintain the same framework for response actions under reference (b) as described in the processes below.

(1) Preliminary Assessment/Site Inspection (PA/SI). The PA/SI involves an extensive review and evaluation of existing records located at the Installation and elsewhere, an examination of the activity's waste disposal history, and identification of any potential or existing groundwater pollution problems at the Installation.

(a) Water and Air Research Incorporated completed the initial PA/SI of MCB CAMLEJ in April 1983, under the direction of the Naval Energy and Environmental Support Activity, Port Hueneme, California. Based on information from historical records, aerial photographs, field inspections, and personnel interviews, a total of 76 potentially contaminated sites were identified. Each site was evaluated with regard to contamination characteristics, migration pathways, and pollutant receptors. The study concluded that while none of the sites posed an immediate threat to human health or the environment, 22 sites warranted further investigation to assess potential long-term impacts. Since the initial PA/SI, 43 additional sites were added to the list bringing the total number of IR Program sites to 65.

(b) To identify all former and active ranges on MCB CAMLEJ, an Archives Search Report (ASR) and a Range Identification and Preliminary Range Assessment were performed by the United States Army Corps of Engineers in February 2000. From these reports it was determined that 22 potentially contaminated former military ranges qualified for closure under the MRP Program. Since the ASR was completed, four additional MRP sites were

8 APR 2013

identified through closure of former ranges or identification of munitions disposal areas, bringing the total number of MRP sites to 26. Although the PA phase of the PA/SI was completed through the ASR, SI phases at each site have been conducted or are currently being performed under the MRP.

(2) Remedial Investigation/Feasibility Study (RI/FS). A RI/FS verifies problems identified by the PA/SI through physical and/or analytical testing and monitoring of suspected hazardous pollutants. RI/FS studies include, but are not limited to, soil, sediment, surface water, and groundwater sampling and analysis, pollutant characterization, detailed analysis of remedial alternatives, and human and environmental health effects potentially induced by a respective IR or MRP site. RI/FS studies for IR and MRP sites at MCB CAMLEJ, as identified for further investigation, have been, are, or will be conducted by a private contractor through the Mid-Atlantic Division, Naval Facilities Engineering Command (NAVFACENGCOM). PA/SI studies and RI/FS studies for IR and MRP sites are funded from Environmental Restoration, Navy (ER,N) funds managed by NAVFACENGCOM.

(3) Remedial Design/Remedial Action (RD/RA). The RI/FS study may indicate the need for remedial actions. First priority will be given to remedial actions to control contamination migrating from Marine Corps property when such migration poses an immediate threat to human health at the Installation or within an adjacent community. RD/RA for IR and MRP sites are programmed utilizing ER,N funds.

h. Response Actions. Response actions under the RCRA framework follow a similar process as under the CERCLA but are permitted by the North Carolina Department of Environment and Natural Resources (NCDENR) under the Base HSWA permit. Funding for RCRA regulated sites are procured through the MCB CAMLEJ portion of the USMC O&M account (Activity Funds).

(1) RCRA Facility Assessment (RFA). In accordance with the HSWA of 1984, EPA and NCDENR conducted a RFA site inspection at MCB CAMLEJ from January 9 to 13, 1989. A RFA report was prepared to present the results of an extensive file survey and the RFA site inspection as required by Section 3004(u). The RFA report also integrated the DoN's future RCRA/HSWA responsibilities with ongoing CERCLA/SARA activities at MCB CAMLEJ. An additional RFA was performed in July 1996 to include units such as landfills, surface impoundments, waste piles, tanks, container storage, septic tanks, drain fields, wastewater treatment plants and storm water conveyances. To date, 172 SWMU sites have been identified on MCB CAMLEJ.

(2) SWMU Assessment Report (SAR). For all newly discovered sites, a SAR is to be submitted upon direction of the State. The SAR may include sampling of the release area, or an evaluation of the site and recommendation for further investigation, interim remedial measures, or No Further Action (NFA). The Base may elect to move directly to an Interim Measure (IM), a Confirmatory Sampling Investigation (CSI), or a RCRA Facility Investigation (RFI) in lieu of preparing a SAR.

(3) CSI. If there is reason to suspect a release has occurred, a CSI is warranted to evaluate if site contamination is present at concentrations that would require remedial action. CSIs traditionally include only soil sampling, with the assumption that if the soil samples are contaminated (exceed screening criteria) then the underlying groundwater may be contaminated. If soil contamination is encountered during the CSI, a Phase II CSI may be conducted to further delineate the soil contamination and to

3 APR 2013

conduct groundwater sampling. Based on the findings, the Base may elect to move directly to an IM or RFI in lieu of conducting a CSI.

(4) RFI. An RFI may be performed to characterize the site and to evaluate the risk associated with exposure to site contaminants. Fate and transport of the site contaminants are evaluated, and a baseline human health risk assessment (HHRA) and a screening level or baseline ecological risk assessment (ERA) (if there are ecological receptors) would be performed in conjunction with the RFI. The RFI is intended to provide a basis for decision for further response actions or NFA.

(5) IM. An IM is an action necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and implemented. IMs may be conducted at any point in the RCRA corrective action process, and are typically implemented either upon discovery of a current threat to human health or the environment or upon completion of delineation. For remedial measures that are simple and relatively low-cost, IMs are often conducted before the Corrective Measures Study (CMS), and may lead to removal of site contamination and NFA. IMs may address only elevated levels of contamination, resulting in the remaining portion of the site under land use controls (LUCs) or long-term monitoring (LTM).

(6) Corrective Measures Study (CMS). A CMS is used to identify and develop remedial alternatives, evaluate the alternatives, and justify corrective measures at a SWMU. Remedial Goal Objectives (RGOs) are often developed during the CMS to identify corrective action levels that would be within acceptable risk levels for the proposed receptors. As described in the Part B RCRA Permit, the alternative technology types and process options are screened on the basis of the qualitative evaluation of four criteria: performance, reliability, implementability, and safety. Relative cost is also used in the evaluation of technology options.

(7) Corrective Measures Implementation (CMI). After the specific remedial technology is selected and approved, the corrective measures are implemented. The implementation includes preparing a Corrective Measures Design and conducting the RA. It may also include preparing a community involvement plan, LUC Implementation Plan (LUCIP), LTM plan, and the routine reports associated with RA operation.

2. Cancellation. BO 5090.10.

3. Mission

a. MCIEAST-MCB CAMLEJ shall develop policy, prescribe procedures, and assign responsibilities for the implementation of the IR Program for the cleanup of past and newly discovered hazardous waste sites located aboard MCB CAMLEJ and Marine Corps Air Station (MCAS), New River complex.

b. Summary of Revision. This Order has been revised in its entirety and should be thoroughly reviewed.

8 APR 2013

4. Executiona. Commander's Intent and Concept of Operations

(1) Commander's Intent. The Marine Corps' policy, under references (f) and (g), is to comply with local, state, and Federal regulations concerning investigation and remediation of hazardous waste sites. This Order implements the IR Program to determine where hazardous wastes have been deposited in the past, assess the present and future environmental and health effects of the wastes, and provide for control measures and remediation.

(2) Concept of Operations. This Order and guidance applies to all contractors, DoD agencies, military organizations and other authorized activities located on the MCB CAMLEJ and MCAS New River complex and applies to all known and discovered hazardous waste sites. This Order formally establishes the IR Program for the MCB CAMLEJ and MCAS New River complex per references (a) through (h). Reference (d) establishes significant requirements for Federal facilities concerning CERCLA regulated sites. It defines the process for the identification, evaluation, and remediation of past hazardous waste sites under reference (b). Reference (e) defines the process for the identification, evaluation and remediation of past hazardous waste sites under reference (c).

b. Subordinate Element Missions

(1) The Environmental Management Division (EMD), G-F is responsible for:

(a) The Director, EMD, G-F is assigned responsibility for implementation of the IR Program at MCB, Camp Lejeune and MCAS New River.

(b) The IR Program Manager, EQB, is designated the Installation point of contact to establish, direct, maintain, and coordinate the MCIEAST-MCB CAMLEJ and MCAS New River complex IR Program. The IR Program Manager will coordinate accomplishment of specific tasks with the Environmental Compliance Branch, EMD, the Environmental Conservation Branch, EMD, the Environmental Quality Branch (EQB), EMD, the Office of the Staff Judge Advocate (OSJA), Public Affairs Office (PAO), Eastern Area Counsel Office (EACO), Assistant Chief of Staff (AC/S), G-3/5, Director, AC/S G-4, AC/S G-F, Officer in Charge of Construction (OICC)/Resident Officer in Charge of Construction (ROICC) and Environmental, Safety, and Geospatial Services (ESGS), MCAS New River. The IR Program Manager is responsible for long-term planning and management to accomplish the goals and objectives of the MCIEAST-MCB CAMLEJ IR Program. Responsibilities include:

1. Documenting of IR, Munitions Response Program (MRP) and Solid Waste Management Unit (SWMU) program studies and actions to include the maintenance of the administrative record. Details on the specific phases of each program can be found in references (a) and (g).

2. Establishing and implementing a Technical Review Committee or Restoration Advisory Board to review and comment on MCB CAMLEJ actions and proposed actions with respect to releases or threatened releases of hazardous substances from IR and MRP sites (SWMU program sites are RCRA permitted and information is distributed through the permit process). Membership shall include the Environmental Protection Agency (EPA), DoD,

3 APR 2013

appropriate state and local authorities, Natural Resource Trustees, and representatives of the affected community.

3. Developing and implementing a concise action plan in accordance with the IR Program's short and long-term objectives incorporating references (h) and (i).

4. Complying with Federal and state regulations under references (c) through (e).

5. Identifying program requirements and projects and forwarding funding requirement information to Commandant of the Marine Corps, Headquarters Marine Corps and Marine Corps Installations Command, G-F.

6. Coordinating with the EPA, appropriate state and local authorities, the IR Program Technical Review Committee, or Restoration Advisory Board, Natural Resource Trustees, environmental groups, DoD, DON and Marine Corps representatives, and the local community.

7. Negotiating all agreements related to the IR Program under references (b) through (i).

8. Notifying any IR, MRP or SWMU Program site requiring no further action and/or being deleted from reference (h) and enclosures (1) through (6) to all interested parties.

9. Developing and implementing a formal Community Involvement Plan (CIP) for both remedial and removal actions. Guidelines are detailed in references (a), (g), and (h).

10. Coordinating, directing, and reviewing IR Program work, assuring compliance with the National Contingency Plan (NCP), and recommending action for decisions. Based on reference (a), the IR Program Manager's "period of responsibility begins prior to initiation of the [Remedial Investigation/ Feasibility Study (RI/FS)] (for CERCLA regulated sites), and continues through design, [remedial action (RA)], No Further Response Action Planned (NFRAP) phase, or deletion of the site from the [National Priorities List (NPL)]."

11. Coordinating with staff experts in the Environmental Conservation Branch and the Environmental Compliance Branch to ensure mitigation of environmental impacts of RA's on the affected resources and review proposed actions submitted to the EIWG for impact to the IR, MRP or SWMU Programs.

(2) The OSJA and EACO are responsible for:

(a) Providing legal advice and recommendations to ensure compliance with federal and state regulations.

(b) Assisting in developing necessary interagency agreements required related to and resulting in Records of Decision.

(c) Assisting in citizen suits and other legal considerations such as Tort Claims, personal liability, and Freedom of Information Act (FOIA) requests.

3 APR 2016

(3) The PAO is responsible for:

(a) Developing public affairs guidance concerning IR program activities.

(b) Serving as the initial point of contact for inquiries from environmental groups, private citizens, and the media.

(4) The OICC/ROICC is responsible for:

(a) Managing construction associated with remedial actions (RA).

(b) Ensuring that the work is accomplished in accordance with plans and specifications, and in a fashion, which protects human health and the environment.

(c) Oversight of procedures to ensure compliance with reference (b), as well as review the contractor's Health and Safety Plans, ensuring that any comments are addressed and necessary revisions are made by the contractor.

(d) Ensuring that the approved Quality Assurance/Quality Control plan is followed, both for implementing the selected alternative and for accomplishing field sampling to verify that cleanup levels are attained.

(e) Contracting administration and management between MCIEAST-MCB CAMLEJ and RA contractors engaged in remedial designs/actions.

(f) Because the RA has been agreed on in consultation with regulatory agencies, the OICC/ROICC shall not make contract modifications or field changes without first coordinating with the IR Program Manager. In addition, the IR Program Manager will not give direction to contractors managed through the OICC/ROICC.

(g) Before the completion of the contract/delivery order, representatives from EQB and the OICC/ROICC office must jointly inspect the constructed remedial system.

(5) All commands and organizations charged with planning or implementing construction projects, field activities, and troop training exercises are responsible for coordinating and ensuring that those activities do not affect and are not affected by the IR, MRP or SWMU sites identified in enclosures (1) through (6). This includes the adverse human health effects, which may arise from exposure of personnel, as well as site disturbance, which may exacerbate contamination and/or complicate the remediation process. All such activities in the proximity of identified IR sites should be coordinated with the Director, EMD, via the Environmental Impact Working Group, to ensure protection of human health and to maintain the remedial process. Enclosures (2), (4) and (6) are maps identifying the general location of active IR, MRP and SWMU Program sites. If any planned activities are in the proximity of any site denoted on enclosures (2), (4) and (6), the organization planning the activity should contact the IR Program Manager for more detailed site information. (As these areas may change over time, it is recommended that the Base IR Program Manager be contacted for updated maps as appropriate.)

3 APR 2013

c. Coordinating Instructions. Intrusive Activities: Any planned activity that potentially impacts an IR, MRP, or SWMU site or is to occur within 500 feet of the outer perimeter of an IR, MRP or SWMU site, must be coordinated through the IR Program Manager, EMD before commencing. Any individual/organization discovering either a previously unidentified hazardous substance or any buried or abandoned material deemed as suspicious or odd in appearance should call immediately to notify the IR Program Manager, EMD at 451-5068 and secure the site to the best extent possible to avoid disturbance of any contaminated material. Intrusive Activity training is provided annually by the IR Program section of the EMD to include the distribution of updated IR Program site maps as appropriate

5. Administration and Logistics. Not applicable.

6. Command and Signal

a. Command. This Order is applicable to MCB CAMLEJ, MCAS New River, and all tenant and subordinate organizations.

b. Signal. This Order is effective the date signed.


BRIAN. T. PALMER
Deputy Commander

DISTRIBUTION: A/B/C

Installation Restoration (IR) Program Site List

I. List of Active Installation Restoration Program Sites

<u>IR #</u>	<u>SITE DESCRIPTION</u>
IR-3	Old Creosote Plant
IR-6	Storage Lots 201 and 203
IR-35	Camp Geiger Area Fuel Farm
IR-36	Camp Geiger Area Dump
IR-49	MCAS Suspected Minor Dump
IR-69	Rifle Range Chemical Dump
IR-73	Courthouse Bay Liquid Disposal Area
IR-78	Hadnot Point Industrial Area
IR-82	Piney Green Road VOC Area
IR-86	Tank Area AS419-AS421 at MCAS
IR-88	Bldg. 25 Base Dry Cleaners
IR-89	STC-868
IR-93	TC-942 Tanks
IR-96	Building 1817 UST (Formerly SWMU 360)

II. List of Installation Restoration Program Sites that Require No Further Action but Maintain Land Use Controls

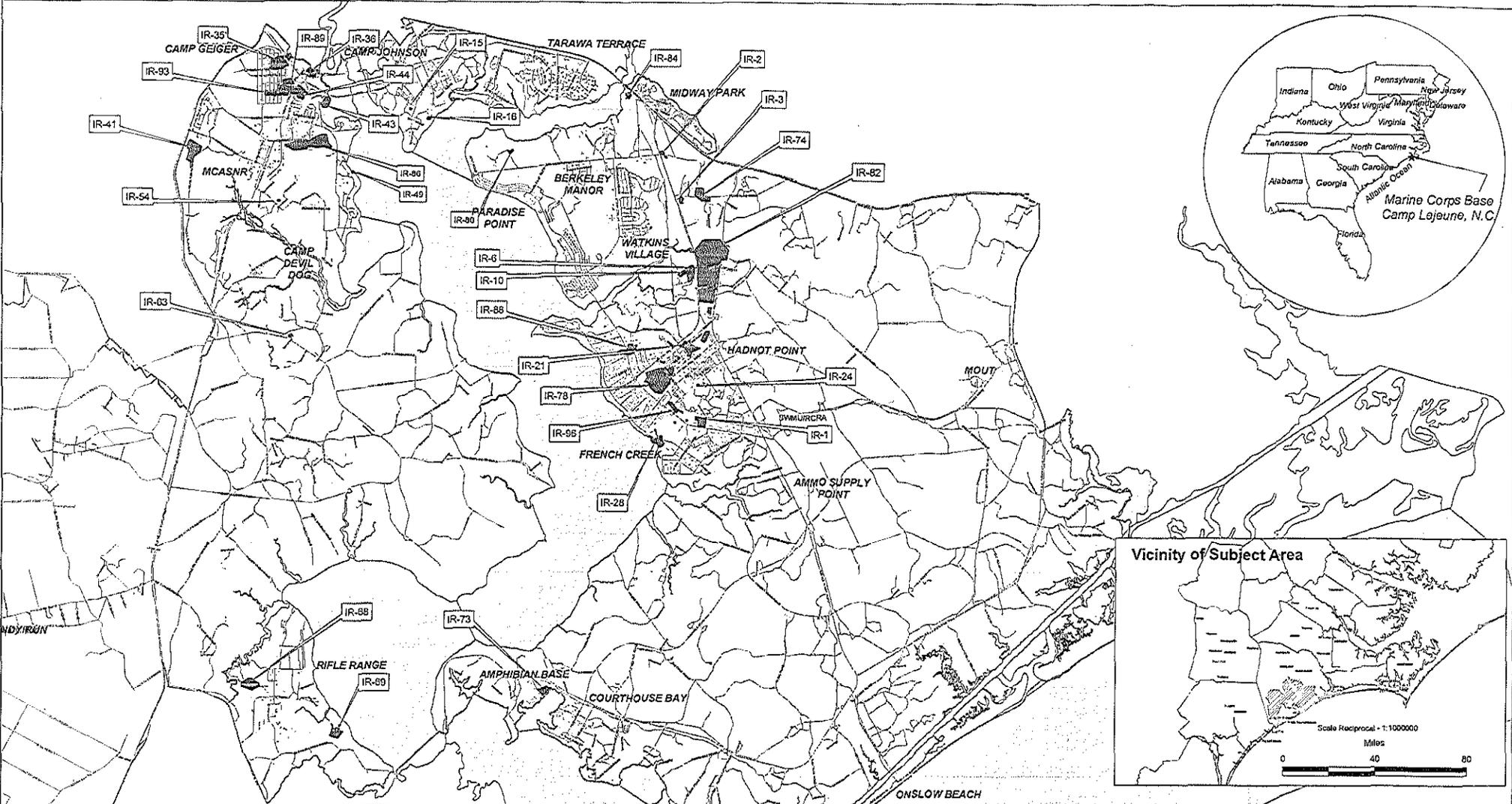
<u>IR #</u>	<u>SITE DESCRIPTION</u>
IR-1	French Creek Liquids Disposal Area
IR-2	Former Nursery/Day Care Center
IR-10	Original Base Dump
IR-15	Montford Point Dump Site (1948-1958)
IR-16	Montford Point Burn Dump
IR-21	Transformer Storage Lot 140
IR-24	Industrial Area Fly Ash Dump
IR-28	Hadnot Point Burn Dump
IR-41	Camp Geiger Dump Near Former Trailer Point
IR-43	Agan Street Dump
IR-44	Jones Street Dump
IR-54	Crash Crew Fire Training Burn Pit at MCAS New River
IR-63	Verona Loop Road Dump
IR-68	Rifle Range Dump
IR-74	Mess Hall Grease Disposal Area
IR-80	Paradise Point Golf Course Maintenance Area
IR-84	Building 45 Area

III. List of Installation Restoration Program Sites that Require No Further Action

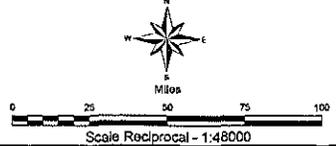
<u>IR #</u>	<u>SITE DESCRIPTION</u>
IR-4	Sawmill Road Construction Debris Dump
IR-5	Piney Green Road
IR-7	Tarawa Terrace Dump
IR-8	Flammable Storage Warehouse Building TP-451 & TP- 452
IR-9	Firefighting Training Pit at Piney Green Road
IR-12	EOD-1 Range (Formerly EOD (G-4A))
IR-13	Golf Course Construction Dump Site

3 APR 2013

<u>IR #</u>	<u>SITE DESCRIPTION</u>
IR-14	Knox Area Riprap
IR-17	Montford Point Area Riprap
IR-18	Watkins Village (E) Site
IR-19	Naval Research Lab Dump
IR-20	Naval Research Lab Incinerator
IR-23	Roads and Grounds Building 1105
IR-25	Base Incinerator
IR-27	Naval Hospital Area Riprap
IR-30	Sneads Ferry Road - Fuel Tank Sludge Area
IR-31	Engineer Stockade - G4 Range Road
IR-32	French's Creek
IR-33	Onslow Beach Road
IR-34	Ocean Drive
IR-37	Camp Geiger Area Surface Dump
IR-38	Camp Geiger Construction Dump
IR-39	Camp Geiger Construction Slab Dump
IR-40	Camp Geiger Area Borrow Pit
IR-42	Building 705 BOQ Dump
IR-46	MCAS Main Gate Dump
IR-47	MCAS Riprap Near Stick Creek
IR-48	Marine Corps Air Station Mercury Dump
IR-50	MCAS Small Craft Berthing Riprap
IR-51	MCAS Football Field
IR-52	MCAS Direct Refuel Depot
IR-53	MCAS Building 3525 Area
IR-55	Air Station East Perimeter Dump
IR-56	MCAS Oiled Roads to Marina
IR-57	Runway 36 Dump
IR-58	MCAS Tank Training Area
IR-59	MCAS Infantry Training Area
IR-60	EOD K-326 Range
IR-61	Rhodes Point Road Dump
IR-62	Race Course Area Dump
IR-64	Marines Road - Sneads Ferry Road MOGAS Spill
IR-65	Engineer Area Dump
IR-66	AMTRAK Landing Site and Storage Area
IR-67	Engineers TNT Burn Site
IR-70	Oak Grove Field - Surface Dump
IR-71	Oak Grove Buried Dump
IR-72	Oak Grove Coal Pile
IR-75	MCAS Basketball Court Site
IR-76	MCAS Curtis Road Site
IR-85	Camp Johnson Battery Dump
IR-87	MCAS Officer's Housing Area (Formerly Site A)
IR-90	BB-9 Tanks
IR-91	BB-51 Tanks
IR-92	BB-46 Tanks
IR-94	1613 1-4 MWR Gas Station
IR-95	Animal Dipping Vat



Enclosure 2
Active Installation Restoration (IR) Program Sites
Marine Corps Installation East-
Marine Corps Base Camp Lejeune, NC



- INFRASTRUCTURE**
- Existing Buildings
 - Base Boundary
 - Lakes & Ponds
 - Creeks & Streams
 - Water Courses

EQB DATA
 IR Program Sites

Prepared by: Ms. Charity Rychak;
G-FIEMD/EOB
 Prepared for: MCEAST-MCS CAMLEJO 5090.10a
 Date: 18 July 2012
 Contact G-FIEMD/EOB for Additional Information
 POC: C. Rychak 910-451-9285

Map Generated using the Geographic Information System Managed by the Installation Geospatial Information & Services (IGIS) Office Geospatial Information & Services Division, G-7 MCEAST/MCSB CAMP LEJUNE, NC

NOTE: THIS MAP IS FOR REFERENCE ONLY

Although every effort has been made to ensure the accuracy of information, errors and omissions originating from the physical sources used to develop the database may be reflected in the data displayed. The requester must be aware of data conditions and ultimately bear responsibility for the appropriate use of the information with respect to possible errors, original map scale, collection methodology, currency of data, and other specific conditions to various data.

Munitions Response Program (MRP) Site List

I. List of Active Munitions Response Program Sites

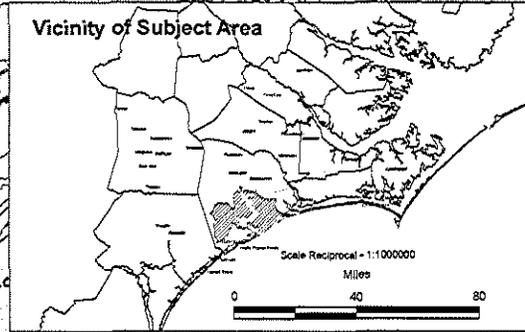
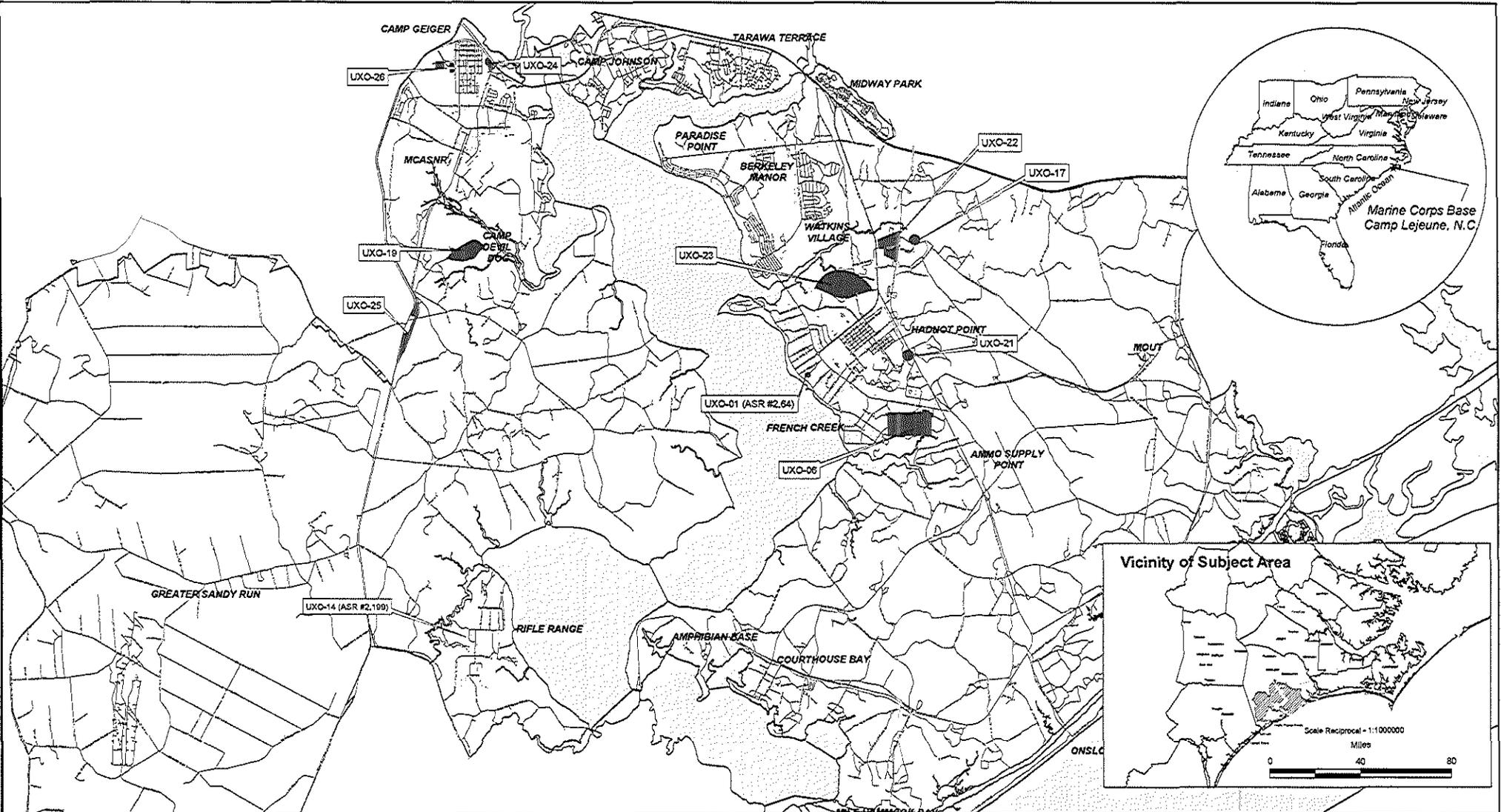
<u>MR #</u>	<u>SITE DESCRIPTION</u>
UXO-01	D-6, 50-FOOT INDOOR RIFLE AND PISTOL RANGE (ASR #2.64)
UXO-06	D-27, FORTIFIED BEACH ASSAULT AREA
UXO-14	INDOOR PISTOL RANGE (RIFLE RANGE AREA)
UXO-19	CAMP DEVIL DOG
UXO-21	GAS CHAMBER (2D MAR DIV) (FORMERLY UXO-01)
UXO-22	LOTS 201 & 203 MUNITIONS DISPOSAL AREA
UXO-23	D-9 SKEET RANGE
UXO-24	CAMP GEIGER SOI MUNITIONS SITE
UXO-25	VERONA LOOP
UXO-26	B-3 GAS CHAMBER (FORMERLY UXO-01)

II. List of Munitions Response Program Sites that Require
No Further Action but Maintain Land Use Controls

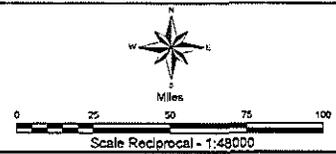
<u>MR #</u>	<u>SITE DESCRIPTION</u>
UXO-17	FIRING POSITION # 2

III. List of Munitions Response Program Sites that Require
No Further Action

<u>MR #</u>	<u>SITE DESCRIPTION</u>
UXO-01	LIVE HAND GRENADE COURSE (ASR #2.23)
UXO-02	UNNAMED EXPLOSIVE CONTAMINATED RANGE
UXO-03	D-3, PRACTICE HAND GRENADE COURSE
UXO-04	KNOX TRAILER PARK GRENADE (AREA A)
UXO-05	MINI ANTI-TANK RANGE (TANK BATT. TENT CAMP)
UXO-07	D-6, PRACTICE HAND GRENADE COURSE
UXO-08	BASE CS CHAMBER AND NBC TRAINING TRAIL
UXO-08	LEJEUNE CANTONMENT 2.36" BAZOOKA RANGE,
UXO-08	D-7, GAS CHAMBER
UXO-09	F-9, TRIANGULATION RANGE
UXO-10	D-11A, FLAME TANK AND FLAME THROWER RANGE
UXO-11	B-5, PRACTICE HAND GRENADE COURSE
UXO-12	1000-INCH RANGE (TENT CAMP AREA)
UXO-14	GAS CHAMBER (RIFLE RANGE AREA)
UXO-15	1000-INCH RANGE (AMPHIBIOUS BASE AREA)
UXO-16	GUN POSITIONS 41A & 41B
UXO-18	B-6, 50-FOOT SMALL ARMS RANGE
UXO-20	1000-INCH RANGE MONTFORD POINT AND A-1 50-FOOT .22 CALIBER RANGE



Enclosure 4
Active Munitions Response Program (MRP) Sites
Marine Corps Installation East
Marine Corps Base Camp Lejeune, NC



- INFRASTRUCTURE**
- Existing Buildings
 - Base Boundary
 - Lakes & Ponds
 - Creeks & Streams
 - Water Courses
- EQB DATA**
- MRP Sites

Prepared by: Ms. Charly Rychak;
 G-FIEMD/EQB
 Prepared for: MCB EAST-MCB CAMP LEJUNE 5090.10a
 Date: 29 October 2012
 Contact G-FIEMD/EQB for Additional Information
 POC: C. Rychak 910-451-9385

Map Generated using the Geographic Information System
 Managed by the Intelligence, Operational Information & Services (IOI&S) Office
 Operational Information & Services Division (OISD)
 MCB EAST-MCB CAMP LEJUNE, NC

NOTE: THIS MAP IS FOR REFERENCE ONLY

Although every effort has been made to ensure the accuracy of information, errors and omissions or originating from the original source used to develop the database may be reflected in the data supplied. The recipient must be aware of data conditions and ultimately bear responsibility for the appropriate use of the information with respect to possible errors, engaged user needs, collection methodology, currency of data, and other specific conditions as stated above.

Solid Waste Management Unit (SWMU) Site List

I. List of Active Solid Waste Management Unit Program Sites

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
43	IR-11 Pest Control shop
97	RCRA 90-day Storage Facility (Building S-962)
124	RCRA 90-day Storage Facility (Building AS-4225)
177	UST-333-C 2d MLG Inspector's Office
269	816 O/W 8 th Engineer 2d MLG
299	AS114-Used Oil AST MCAS Auto Hobby Shop
322	Old Sneads Ferry Road Base Sanitary Landfill (Permit #67-03)
323	Existing Landfill (Permit # 67-08)
343	RCRA Interim Status G-10 OB/OD Facility (20,000 lb/hr)
350	UST-STT61-66 Used Oil Storage Tanks
574	Building 908 HAZMART
575	AS-1000 Petroleum Release
576	Parachute Tower Road Drums

II. List of Solid Waste Management Unit Program Sites that Require No Further Action but Maintain Land Use Controls

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
423	Building 970 Area

III. List of Solid Waste Management Unit Program Sites that Require No Further Action

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
1	1014 - Container Storage
2	1700 Pond A Base Maintenance
3	236 Backwash Marine Corps Base Swimming Pool
4	540 Backwash Marine Corps Base Area 5 Training Pool
5	575-Rack 2d LAR, 2d MarDiv Wash Rack
6	Al-Rack 2d AABN, 2d MarDiv
10	AS-Curtis Ditch Skimmer MCAS11
11	AS-Longstaff-Ditch Skimmer MCAS New River
12	AS-Primington-Ditch Skimmer MCAS New River
13	AS199-Rack Base Motor Transport
14	AS226 Solvent Reclamation Still
15	AS3003 Ditch Skimmer MCAS
16	AS4151 Basin Base Maintenance Oil/Water Separator/Spill Containment Basin
17	AS5020 MCAS New River Drainage Ditch Skimmer
20	Backwash Pond for Building 670 WTP
21	Backwash Pond for Onslow Beach WTP
22	Backwash Basins for Hadnot Point WTP
23	Backwash Ponds for MCAS New River WTP
24	BB-190 Backwash Basin

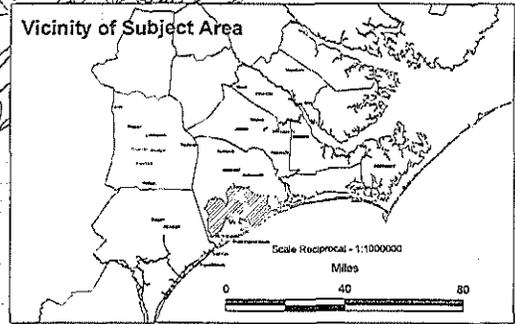
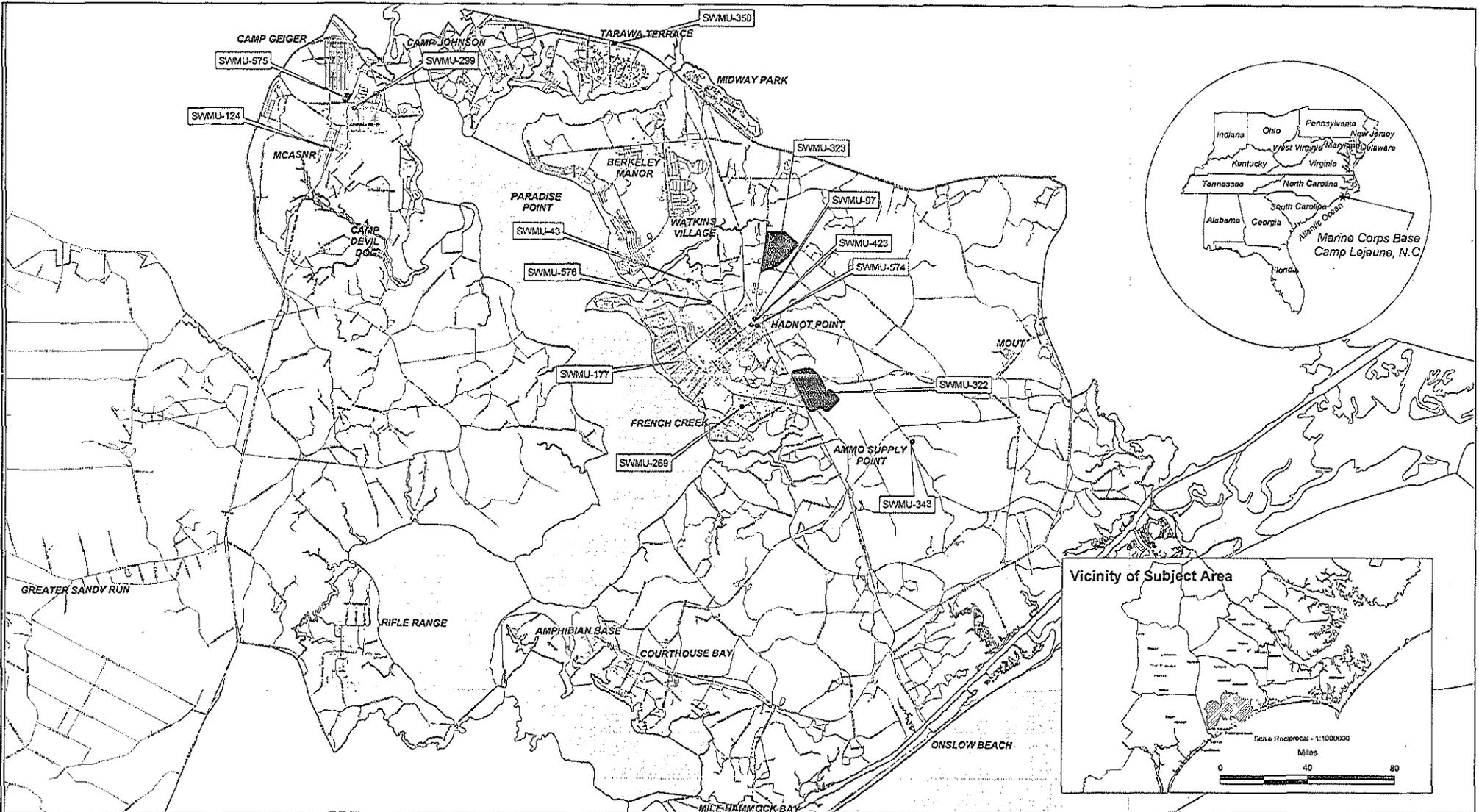
3 APR 2013

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
25	BB9-Basin Marine Corps Base (Spill Containment Basin)
26	Industrial Dumpsters, Basewide (169)
27	Non-Industrial Dumpsters, Basewide (2885)
30	FC19 Rack H&S Battalion, 2d MLG Wash Rack
31	Grease Traps Basewide (33)
32	H36 Rack HQSVCO Engr II MEF Wash Rack
33	Less than 90-Day HW Sites, Basewide (81)
35	M105 Rack
36	Oil/Water Separators Basewide (97)
37	PCB Warehouse TP-464
38	PT33-Pile MCB
39	S1001 Basin Marine Corps Base
40	Sanitary Sewer Basewide
41	SAS137 Basin Building SAS137
42	Silver Recovery Units, Basewide (32)
53	IR-26 Coal Storage Area
89	SCLH785-Basin Base Maintenance
90	SM264 Rack
91	ST32-Construction Debris Soil Pile - Tarawa Terrace
92	STC872-Pile DRMO
93	Stormwater Collection System
94	TC364 Basin
95	TP45-Rack Truck Driving School
96	Used Oil Tanks Basewide (190)
130	UST-AS-4159-2 Refueling Bay
196	45-Pond Marine Corps Base
207	DRMO Yard Near Building TC-861
209	Former SA22-Pile Near Building SA 21
253	1205-AST H&S Company HQSVC Co. II MEF Used Oil
254	1408 Base Motor Transport Dumpster
255	1502-O/W-1 Marine Corps Base Logistics Vehicle Maintenance Oil/Water Separator and Grit Chamber
256	1700-OW-1 Base Maintenance
257	1700-OW-2 Base Maintenance
258	1745-O/W Truck Company Operations, HQ Battery, 2d MarDiv
259	1775 Dumpster
260	1780-O/W-1 Truck Company Maintenance, HQBN 2d MarDiv 1780-UST-1 Truck Company, Maintenance, HQBN 2d MarDiv
262	1780-UST-2 Truck Co. Maintenance, HQBN 2d MarDiv
263	1808 Dumpster
264	2611-Container Gun Club
265	2615-O/W Officer's Club
266	2616 Officer's Club BOQ Dumpster
267	511 2d MarDiv - Recon BN Dumpster
268	522 2d MarDiv Dumpster
270	902 2d MLG Dumpster
271	AS410 MWR Gas Station Dumpster
272	AS137-Basin MCAS New River
273	BA 128/BA 105 Dumpster
274	BB-245 Exchange Dumpster
275	BB-48 Construction Shop Dumpster
276	BB-49 Base Maintenance Dumpster
277	FC 120 2d MLG, CBTEngBN
278	FC-190 2d MLG Dumpster

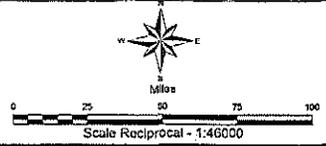
8 APR 2000

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
279	FC200-O/W 8 th Engr 2d MLG
280	FC285-AST Maintenance Bn, 2d MLG
281	H100 2d MarDiv, 8 th Marines Dumpster
282	LCH 4034 MWR Gas Station/7 Day Store Dumpster
283	Release (FC279) 8 th Motor Transport 2d MLG
284	S947-Container Environmental Management Dumpster
285	S947-O/W Environmental Management
286	S947-Pile Environmental Management Waste Pile
287	Site 45 Base Maintenance Dumpster
289	TT 2453 MWR Hobby Shop Dumpster
290	TT 2478 MWR Gas Station Dumpster
291	034 Ditch 5 th Bn, 10 th Marines, 2d MarDiv
292	1106/1107-Used Oil AST Motor T Auto Hobby Shop MWR
293	1106/1107-O/W Motor T Auto Hobby Shop
294	1203-O/W Base Maintenance
295	1601-Used Oil AST 2d MLG
296	1700-Basin-B Base Maintenance Coal Pile Runoff Collection Basin
297	1780-O/W-2 Truck Company Maintenance, HQ Battery, 2d MarDiv
298	1780-OW-3 Near Bldg. 1780
300	AS118-Used Oil AST Logistic Motor Transportation
301	AS4115-AST HMLA-167, MAG-26, 2d MAW
302	AS504-AST HMH-362 (AS 566)
304	BA130-O/W Motor T, 2d Recon Bn, 2d MarDiv
305	BB224-Pile MCB
306	FC230-O/W-1 8 th Comm Bn, 2d MLG
307	G649-Rack Base Maintenance Wash Rack
308	GP19-O/W 8 th Engineers 2d MLG
309	NH118 UST
310	PT33-Pond-O/W MCB Kitchen Grease Dewatering Unit
311	S1619-O/W 8 th Communications Bn, 2d MLG
312	S1735-O/W Base Maintenance
313	S1753-O/W-AST Small Craft Co, HQ BN 2d MarDiv
314	SM187-O/W Marine Corps Combat Service Support Schools
315	SM269-Basin Near Building M 200 Containment Basin
316	TC733-O/W School of Infantry
317	TT2453-Release Near Building TT 2453
319	Camp Geiger Wastewater Treatment Plant
320	Camp Johnson Wastewater Treatment Plant
321	Courthouse Bay Wastewater Treatment Plant
324	Hadnot Point Wastewater Treatment Plant
325	Existing Permitted Hazardous Waste Container Storage Facility (Buildings TP-451 and TP-463)
326	Incinerator NH-100
327	Onslow Beach Wastewater Treatment Plant
328	Stormwater Ponds Basewide (12)
329	Rifle Range Wastewater Treatment Plant
330	Tarawa Terrace Wastewater Treatment Plant
331	FC-286-6 2d MLG, Vat 1
332	FC-286 2d MLG, Vat 2
333	FC-280 2d MLG, Vat 3
334	FC-280 2d MLG, Vat 4
335	FC-280 2d MLG, Vat 5
336	Paint Stripper Tank Bldg 4106, MALS-29

<u>SWMU #</u>	<u>SITE DESCRIPTION</u>
337	Paint Stripper Tank, Building 518, MALS-26
338	FSC-282 2d MLG Storage
339	Sandblaster, Building 4146, MALS-26
342	RCRA Interim Status K-2 OB/OD Facility (5000 lb/hr)
347	UST-S889/S891 Above Ground Storage Tanks (2)
358	Borrow Pit, Battery Dump
362	Dog 11 Area
363	M-21 Arresting Gear
420	Former Hazardous Waste Container Storage Facility and current 90-day Storage Facility (Building 490)
468	UN234 - Septic Tank
469	UN1184 - Septic Tank
470	Courthouse Bay BB28 POL Contaminated Site
471	GSRA Asbestos Shingle Dump Site
473	HP-237 Hydraulic Lifts
474	Courthouse Bay BB52 Maintenance Facility Dump Site
475	MCASNR White Street Stormwater Pond
476	Old Landfill Septic Leachfield
477	Dogwood Road Mixed Waste Dump Site
482	GSRA Reserve Center Dump Site
483	Camp Johnson Battery Dump Site
484	GSRA Carbon Fiber Soil Contamination
485	RCRS Used Oil Containment Release
501	BB-50 Trench
502	BB-177 Floor Drain
503	MCAS Steam Plant Stockpiled Soils
506	Asbestos Shingle Pile



Enclosure 6
Active Solid Waste Management Unit (SWMU)
Program Sites
Marine Corps Installation East-
Marine Corps Base Camp Lejeune, NC



- INFRASTRUCTURE**
- Existing Buildings
 - Base Boundary
 - Lakes & Ponds
 - Creeks & Streams
 - Water Courses

EQB DATA
 SWMU Sites

Prepared by: Ms. Charity Rychak;
G-FEM/EOB
 Prepared for: MCEAST-MCB CAMLEJO 5090.10a
 Date: 18 July 2012
 Contact G-FEM/EOB for Additional Information
 POC: C. Rychak 910-451-9385

Map Generated using the Geographic Information System
 Managed by the Installation Computational Information & Services (ICIS) Office
 Geospatial Information & Services Division, GIP
 MCEAST-MCB CAMLEJO, NC

NOTE: THIS MAP IS FOR REFERENCE ONLY

Although every effort has been made to ensure the accuracy of information, errors and omissions may occur. The user must be aware of data limitations and maintain their responsibility for the appropriate use of the information with respect to possible errors, original map scale, data source methodology, currency of data, and other specific conditions to certain data.