# Defense Environmental Restoration Program/Formerly Used Defense Sites Program, NC

CONGRESSIONAL DISTRICT: NC 1, 3, 6, 8, 9, and 12 DATE: 23 February 2015

### **BACKGROUND:**

The U.S. Army Corps of Engineers, Savannah District is the Program Manager for the DERP/FUDS program in North Carolina with the U.S. Army Corps of Engineers, Wilmington District as the Project Manager.

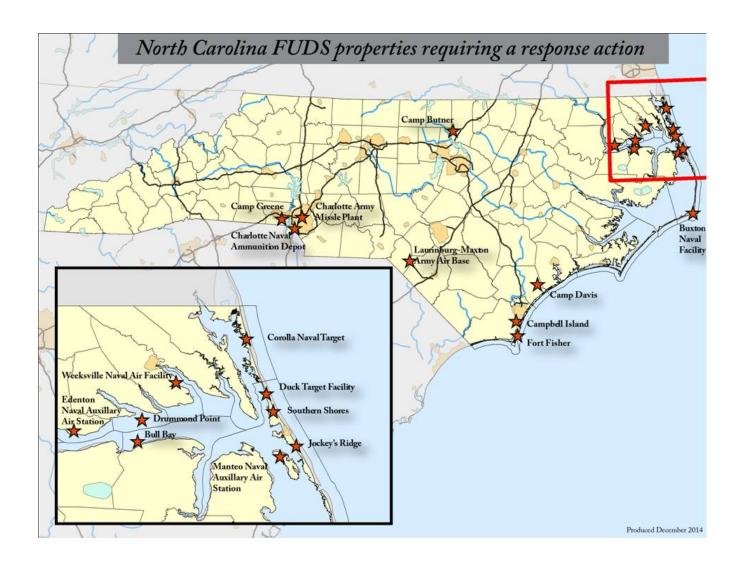
#### **PROGRAM STATUS:**

- To date, 211 DERP/FUDS sites have been identified in the state of North Carolina.
- Of the initial 211 sites, 102 sites were determined to be eligible for the FUDS program. Of these 102 sites, 68 sites were determined to have no hazard present. Potential hazards have been identified at the remaining 34 sites. No Further Action (NFA) or No Defense Action Indicated (NDAI) has been determined at 16 of these 34 sites.
- There are 18 FUDS remaining with 25 projects at these 18 sites in North Carolina identified for response or project closeout under the Military Munitions Response Program (MMRP), Hazardous, Toxic & Radioactive Waste (HTRW), Containerized/ Hazardous Toxic & Radioactive Waste (CON/HTRW), and Potentially Responsible Party (PRP/HTRW) programs. Work will be conducted on 9 of the 25 projects in the FY2015 program.
  - The FY 2015 DERP/FUDS work plan for the Wilmington District is approximately \$763,100.
  - Expected FY 2016 program funding is \$353,000.

## **PROJECT HIGHLIGHTS:**

- **Buxton Naval Facility, NC:** (NC-3) Ongoing groundwater monitoring underway of low level petroleum hydrocarbons in the groundwater.
- Camp Butner, NC: (NC-1, 6) Remedial investigation conducted in 2013 discovered several
  munitions and explosives of concern including high explosive projectiles, mortars, rockets,
  and hand grenades. The Corps is currently addressing comments on the remedial
  investigation report from the North Carolina Department of Environment and Natural
  Resources and the Environmental and Munitions Center of Expertise.
- Charlotte Army Missile Plant, NC: (NC-12) Revised feasibility study will recommend monitored natural attenuation with land use controls such as groundwater use restrictions to address chlorinated solvent contamination in the groundwater.

- Charlotte Naval Ammunition Depot, NC: (NC-9) The remedial action system has been completed which consists of injection wells, structures to house a water tank, molasses tank, and electronic controls to inject a diluted molasses solution to address chlorinated solvent contamination in the groundwater. The first injection event was completed in late 2014.
- Corolla Naval Target, NC: (NC-3) A contract was awarded in late FY14 to conduct the remedial action to address munitions and explosives of concern (highly explosive 20 mm projectiles) historically identified at the site. No munitions and explosives of concern were discovered during the remedial investigation in 2013. The remedial action includes land use controls and will include the installation of unexploded ordnance warning signs.
- Duck Target Facility, NC: (NC-3) Historical discoveries of munitions and explosives of concern (primarily practice munitions with a spotting charge) have occurred at this site. A remedial investigation is currently being conducted and will proceed to a feasibility study and recommended course of action. The majority of the property is currently owned by the Department of Defense.
- Greensboro Overseas Replacement Depot, NC: (NC-12) A preliminary assessment is being conducted to determine if there are any hazards associated with this World War II era basic training center/overseas replacement depot.
- Manteo Naval Auxiliary Air Station, NC: (NC-3) Ongoing groundwater monitoring underway of low level petroleum hydrocarbons in the groundwater.
- Naval Auxiliary Air Station Edenton, NC: (NC-3) Ongoing groundwater monitoring underway of low level petroleum hydrocarbons in the groundwater.



#### PROJECT STATUS FOR PRIORITY PROJECTS:

- Buxton Naval Facility, NC: (NC-3) The site consists of about 50 acres and is located in Buxton, North Carolina. The site is owned by the National Park Service (NPS) and is part of the Cape Hatteras National Seashore (CHNS). From 1956 until 1982, the U.S. Navy used the site as a submarine monitoring station. Soil and groundwater contamination have been identified at the site as the result of several fuel storage tanks and an oil change rack associated with the former Naval Facility, which were previously removed. Petroleum contamination in the groundwater is currently in the long term maintenance (LTM) phase with groundwater monitoring scheduled for FY15.
- Camp Butner, NC: (NC-1) WW II artillery training facility which covered approximately 45,000 acres of property in Granville, Person, and Durham Counties. An Engineering Evaluation/Cost Analysis (EE/CA) investigation completed in 2004 recommended unexploded ordnance (UXO) clearance for several areas of interest. The recommended clearance activities were completed in December 2010. A Restoration Advisory Board (RAB) comprised of

representatives from the Corps, North Carolina Department of the Environment & Natural Resources (NCDENR), local government, and community meets semi-annually to facilitate communication regarding issues associated with this project. UXO discovered near residences at Camp Butner in FY2010 include a 60 mm mortar, (5) 81 mm mortars, a 2.36" rocket, and a 155 mm High Explosive (HE) projectile. A contract for the Remedial Investigation/Feasibility Study (RI/FS) was awarded in FY11. Field work for the RI was completed in early FY14. The RI/FS report and subsequent proposed plan and decision documents will be prepared in FY15.

- Charlotte Army Missile Plant, NC: (NC-12) The site consists of 81 acres and is located in downtown Charlotte, North Carolina. Site of the Charlotte Quartermaster Depot post World War II and utilized to produce NIKE guided missiles and repair parts from 1954-1967. The site is currently used as an industrial park and has several owners. A Remedial Investigation (RI) was completed in April 1999 and October 2000 and identified a chlorinated solvent plume (trichloroethylene TCE) in the groundwater. The feasibility study (FS) was completed in November 2008 and a public meeting was held in September 2009 to present the proposed plan for the remedial action. Groundwater data and modeling is currently being reevaluated to determine if the recommended alternative in the proposed plan is the most cost effective. A baseline groundwater monitoring event was conducted in FY12 and indicated TCE groundwater concentrations are consistent with historical results. Bio-traps were installed in early FY13 in various selected wells and analytical results will be included in the remedial alternative evaluation. The revised FS will be finalized in FY15. The subsequent proposed plan and decision document will be prepared in FY15.
- Charlotte Naval Ammunition Depot, NC: (NC-9) The site consists of 2,266 acres and is located in Mecklenburg County, 10 miles southwest of downtown Charlotte, NC. The site was used as a 40-millimeter shell loading and assembly plant, beginning in 1941, by the U.S. Rubber Company under contract with the U.S. Navy. In 1941, operation of the facility was transferred to the U.S. Navy. A Remedial Investigations (RI) was completed in April 1995 and October 2005 and identified a chlorinated solvent plume (trichloroethylene TCE) in the groundwater. The feasibility study (FS) was completed in February 2009 and a public meeting was held in September 2009 to present the proposed plan for the remedial action. The ROD was approved in April 2011 and a contract was awarded in FY11 to conduct the remedial action (RA) which is enhanced reductive chlorination (ERD) and monitored natural attenuation (MNA). Construction of the remedial action system was completed in September 2014. Implementation of the remedial action will continue with additional ERD injections in FY15.
- Corolla Naval Target, NC: (NC-3) The site consists of 297 acres and is located on the Outer Banks north of Corolla, North Carolina. The site is part of the Currituck National Wildlife Refuge and is owned by the Department of Interior. The site was used by the U.S. Navy as a target area from 1944 through 1965. UXO has been discovered on the site and may present an explosive hazard. A Remedial Investigations (RI) was conducted in 2008 and 2009 and several UXO (20 mm projectiles) were discovered. The primary landowner, U.S. Fish and Wildlife Service, identified data gaps which will be addressed by a second phase of the RI in 2012. A time critical removal action (TCRA) was conducted in 2011 to address the potential for UXO to exist on the surface. UXO was not discovered during the TCRA. The second phase of the RI was completed in FY12 with no UXO

PROJECT INFORMATION – Defense Environmental Restoration Program / Formerly Used Defense Sites Program, NC – Continued

being discovered. The RI/Feasibility Study (FS) document has been submitted to the stakeholders (NCDENR and USFWS) for their review. The RI/FS was finalized and the Proposed Plan public meeting was conducted in FY13. The Decision Document will be finalized and a contract was awarded to implement the remedial action (land use controls) in FY14. The remedial action will be implemented in FY15.

- Duck Target Facility, NC: (NC-3) The site consists of about 176 acres and is located approximately 0.5 miles north of Duck, North Carolina. The site currently consists of the U.S. Army Corps of Engineer Research and Development Center (ERDC), Field Research Facility (FRF). The site was used by the U.S. Navy as a bombing and rocket target range from 1941 until 1965. The property is known or suspected to contain military munitions and explosives of concern (MEC) and therefore may present an explosive hazard. A non-time removal action (NTCRA) was conducted in 2000. The site has been in long term monitoring (LTM) since 2000. The 1st MMRP Recurring Review Final Report (five-year review) was prepared in August 2006 and recommended a removal action to address potential hazards with MEC. This removal action was completed and a MEC item was discovered. A MMRP Site Inspection (SI) Report was completed in June 2009 and recommended a modified Remedial Investigations/Feasibility Study(RI/FS) focusing on a long-term management program, based on numerous previous actions, including an Engineering Evaluation/Cost Analysis(EE/CA), several removal actions, and the site is already in a long-term management program. A RI/FS report will be prepared in FY15. The Proposed Plan and Decision Documents will be prepared in FY15 as well.
- Greensboro Overseas Replacement Depot, NC: (NC-12) The site consists of 651.81 acres in Greensboro, North Carolina. The site is currently owned by the North Carolina A&T State University, numerous private residences and commercial and industrial businesses. The site was used as a Basic Training Center initially and an Overseas Replacement Depot (ORD) from 1943 until 1946. There are no known or suspected hazards associated with the FUDS property while under Department of Defense (DOD) jurisdiction. A Preliminary Assessment (PA) is currently being conducted to evaluate whether hazards due to DOD use of the Greensboro ORD exist. The PA is scheduled to be finalized in FY15.
- Manteo Naval Auxiliary Air Station, NC: (NC-3) The site consists of 250 acres and is located in Manteo, North Carolina. The site is currently the Manteo Airport. The site was used by the U.S. Navy in the 1940s as an auxiliary landing field. Two 50,000-gallon concrete petroleum above ground storage tanks (ASTs) associated with the landing field were removed in September 2007. Petroleum contamination was identified in the soil and groundwater and is currently being addressed. A Final Corrective Site Assessment (CSA) was completed in March 2010. Soil contamination (petroleum hydrocarbons) was identified, at several locations at former underground storage tanks (USTs) and distribution lines, above the North Carolina soil screening levels. Groundwater concentrations also exceeded the North Carolina groundwater quality standards (NCGQS) at several monitoring wells. The CSA recommended excavation of the contaminated soil above the screening levels and installation of additional monitoring wells to further delineate the groundwater contamination. Soil excavation conducted in 2011 concluded no further action was

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PROJECT INFORMATION – Defense Environmental Restoration Program / Formerly Used Defense Sites Program, NC – Continued

required for the soil. Groundwater monitoring will continue to be conducted in FY15 to address petroleum contamination detected above the NCGQS in several wells.

• Naval Auxiliary Air Station Edenton, NC: (NC-3) The site consists of 3,108 acres and is located in Edenton, North Carolina. The site is currently occupied by the local airport, industrial park, farmland, and several residences. The site was used by the U.S. Marine Corps as an air station in the 1940s through 1955 and by the U.S. Navy as an auxiliary air station from 1955 through 1959. Soil and groundwater contamination have been identified at the site as a result of several fuel storage tanks associated with the former air station, which were previously removed. Residual petroleum contamination in the soil and groundwater is currently being addressed. Soil excavation was conducted at monitoring well locations (MW-15/21 and 22), where persistent groundwater concentrations have exceeded the NCGQS for petroleum hydrocarbons in 2011. These wells have been replaced and additional monitoring will be conducted in FY15 to address groundwater concentrations which exceed the NCGQS.