

## SITE SUMMARY



Images from Charles Everett via ed-thelen.org



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### DEFENSE ENVIRONMENTAL RESTORATION PROGRAM FOR FORMERLY USED DEFENSE SITES

Across the country, the Department of Defense acquired properties, often during times of war, to use for military training, testing, and demonstrations. When no longer needed, many of these properties were cleaned up according to the best practices available at the time and then transferred to other owners such as private individuals or other government entities. These Formerly Used Defense Sites (FUDS) can range from privately-owned farms to National Parks. They also include residential, industrial, and educational properties. We are committed to protecting people and the environment and improving public safety by cleaning up these properties. The Defense Environmental Restoration Program for Formerly Used Defense Sites was established to evaluate and, if necessary, to remediate Formerly Used Defense Sites. The U.S. Army Corps of Engineers (Corps) manages the program on behalf of the Department of Defense.

Congress passed the Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund, in 1980 and the Superfund Amendments and Reauthorization Act in 1986. These laws give the Corps the authority for certain cleanup activities and dictates the process we must follow. We conduct investigations to determine the potential risk to people and the environment from the military's use of the property. Public involvement and community participation are important components of the process. The Corps partners with stakeholders throughout the process, including congressional representatives, state and local governments, regulatory and environmental agencies, and affected property owners.

### SITE HISTORY

The Charlotte Army Missile Plant is an 80 acre site located in Charlotte, NC in Mecklenburg County that was previously used by the government for a variety of purposes. A former Ford Model T factory, the Army acquired the property for the Charlotte Quartermaster Depot in 1941. The Army built warehouses and other support buildings as the Depot managed supplies for posts, camps, and stations in surrounding states. After WWII, the American Graves Registration Service used one of the warehouses to receive and transport deceased WWII service members to their families. In 1954, the Army redesignated the post as the Charlotte Army Missile plant and rehabilitated the property with the equipment and facilities necessary to manufacture Nike missiles. Between 1956 and 1965, the plant manufactured Nike Ajax and Nike Hercules missiles, as well as Honest John Rockets. Through the mid 1960s, manufacturing was slowly phased out; the property was sold in 1967 to a private developer.

### ENVIRONMENTAL INVESTIGATIONS

Since 1991, the Corps and private parties have conducted numerous investigations to characterize the potential hazards at the Charlotte Army Missile Plant, and develop effective remediation strategies for areas of concern. Numerous storage tanks—both above and underground—have been removed from the site since the 1990s. Groundwater monitoring wells have been installed in order to sample for contaminants and track the size, shape, and intensity of groundwater chemical plumes. A pilot program was carried out in 2005 where an oxidizing chemical ( $\text{NaMnO}_4$ ) was flushed through a monitoring well; it was successful in reducing concentrations of TCE at and near the selected monitoring well. A Feasibility Study was prepared in 2008 to develop,



## FORMERLY USED DEFENSE SITES | Charlotte Army Missile Plant

screen, and evaluate potential remedial alternatives for the contaminated groundwater. However, the Corps was unable to secure funds for a costly remediation effort because of concerns with the previous sampling efforts. As such, the Corps went back to the site and conducted more sampling and performed groundwater modeling; this information was then presented in the 2014 Revised Feasibility Study. In January 2018, the Corps conducted an inventory of all available monitoring wells, noting which ones needed to be replaced, and where more were needed. In April 2018, 53 groundwater monitoring wells were gauged and sampled for chemicals. The Corps was able to learn more about the site's groundwater contamination plume and where data gaps exist. Most recently, the Corps published a Preliminary Assessment in 2019 to compile all previous reports and investigations and learn more about potentially unknown hazardous substances. Through this report and an accompanying site visit, the Corps learned that contaminated groundwater infiltrates the existing storm sewer and that total chromium and hexavalent chromium are confirmed to exist inside of a manhole access in one building at concentrations above regulatory limits for industrial soil.

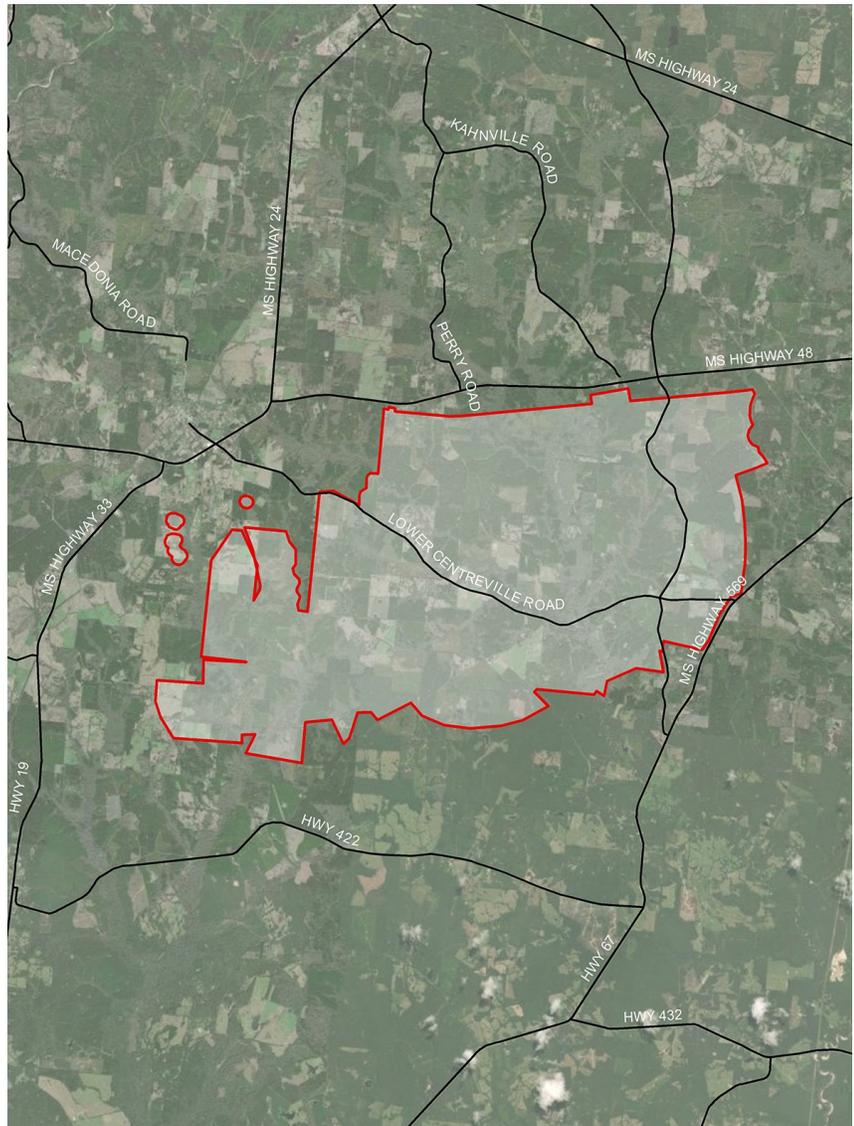
### **FUTURE REMEDIATION EFFORTS**

The Corps is working to develop a pre-optimization plan for the remediation effort that will take many years. Over the next five years, a Remedial

Investigation will be conducted to determine the extent of the recently identified contamination. The results of this work will be appraised through a Feasibility Study—a way to screen and evaluate the different options for remediation. After the preferred options have been properly vetted by the Corps, state, and public, remediation efforts will be solidified through a Decision Document. From there, the remedial action can be funded and implemented. Overall, the Remedy-in-Place/Response Complete is projected for 2033.

### **DOCUMENTS**

All project documents can be viewed at the Charlotte Mecklenburg Library in the Robinson-Spangler Carolina Room on the third floor of the Main Library. Its address is 310 North Tryon Street, Charlotte, NC 28202.



### **For More Information**

Documents are available at the  
**Charlotte Mecklenburg Library**  
310 N. Tryon St., Charlotte, NC 28202  
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