



## 2014 Secretary of Defense Environmental Awards Environmental Restoration, Installation Award Marine Corps Installation East-Marine Corps Base Camp Lejeune, NC

Each year since 1962, the Department of Defense has honored individuals, teams, and installations for their outstanding achievements and innovative environmental practices and partnerships that promote the quality of life and increase efficiencies without compromising mission success. A panel of judges with relevant expertise, education, or experience from Federal and state agencies, academia, and the public evaluated each of the nominees to select winners of the nine categories that cover six subject areas: natural resources conservation; environmental quality; sustainability; environmental restoration; cultural resources management; and environmental excellence in weapon system acquisition. As structured since Fiscal Year 2009, some of the awards within these categories are on a two-year cycle with large/small and non-industrial/industrial installations competing in alternate years.

### **About the Environmental Restoration Category**

In 2014, the Environmental Restoration category highlighted both installations and individuals/teams. This installation award recognizes efforts to protect human health and the environment by cleaning up contamination from past activities at Department of Defense sites in a timely, cost-efficient, and responsive manner. The 2014 winner of the Environmental Restoration, Installation award is *Marine Corps Installation East-Marine Corps Base Camp Lejeune*.

### **About Marine Corps Installation East-Marine Corps Base Camp Lejeune, North Carolina**

The Marine Corps Installations East-Marine Corps Base Camp Lejeune Environmental Management Division and Naval Facilities Engineering Command (NAVFAC) lead the environmental restoration program and maintain collaborative relationships with regulatory agencies and the local community. During this achievement period, Camp Lejeune made significant contributions to environmental restoration including implementing forward-thinking management programs, using sustainable technologies to enhance investigation and cleanup, and maximizing cost avoidance of potentially over \$7 million. The Camp Lejeune environmental restoration program applied several new management initiatives to facilitate better land use planning and coordinate among base personnel to ensure protection of workers, residents, and the local community. These initiatives included a due-diligence process for identifying and addressing potential risks within construction footprints, environmental awareness presentations, creation of new geographic information system (GIS) layers, and evaluation of vapor intrusion pathways at petroleum-impacted sites. By instituting strategic initiatives and sustainable solutions, the installation aims to protect human health and the environment in support of the warfighter. Some of Camp Lejeune's accomplishments include:

- Closed out environmental restoration activities on at an unexploded ordinance site (Site UXO-26) by completing surface clearance to eliminate potential safety concerns from encountering live munitions after discovery of evidence of a 2.36-inch rocket range during investigation activities. Worked with range operations to reuse this area combined with other nearby closed-out sites making 38 acres available as a forward operating training area.

- Accelerated cleanup through removal actions at unexploded ordinance sites (Sites UXO-01, 14, and 23) to treat over 16 acres of contaminated soil with a stabilization reagent. Rendered over 55,400 tons of soil as non-hazardous for disposal, resulting in potential cost avoidance of \$5.5M. The unexploded ordinance site (Site UXO-23) action supported property reuse for the 100-acre Wallace Creek complex, consisting of barracks, buildings, and parking areas that are under construction.
- Partnered with Defense Logistics Agency to fund surface clearance and soil sifting to minimize explosive risks from unintentional detonations. This resulted in \$500,000 cost avoidance to the Navy environmental restoration program and recycling of 58,000 pounds of metal.
- Used innovative and green remediation approaches to reduce the environmental footprint over life of cleanup projects such as passive, sustainable, and in situ remedies at Site 89 that included air sparging wells and mulch walls to both treat the dense non-aqueous phase liquid (DNAPL) and chlorinated solvent in groundwater and protect Edwards Creek. These remedies were selected over other potentially expensive alternatives based on proven effectiveness from previous pilot studies conducted on-site.
- Removed over 70 Underground Storage Tanks (USTs) and 14,000 tons of petroleum-impacted soil through the UST program. Additionally, updated the basewide vapor intrusion evaluation approach to incorporate research and new regulations regarding vapor intrusion at petroleum-impacted sites versus chlorinated solvent sites. This resulted in the evaluation of 35 sites to ensure protection of base workers under the new regulations with re-evaluation planned for an additional 56 no further action UST sites.

Marine Corps Installation East-Marine Corps Base Camp Lejeune demonstrated cost-effective sustainable efforts to protect human health and the environment in cleaning up contamination from past activities.



*A remediation technology study is being conducted (pictured here) to evaluate potential groundwater treatment alternatives for selection of a final remedy. The study resulted in a reduction of concentrations to below detection limits within one month of start-up.*



*Air sparging, a passive, sustainable, and on-site remedy was selected to treat a dense liquid source area. This permanent solution can be reactivated as needed, at significantly less cost, to ensure future protectiveness.*

**Past Secretary of Defense Environmental Awards  
Environmental Restoration Category Winners**

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| <b>2013</b> - U.S. Army Garrison Aberdeen Proving Ground, Directorate of Public Works, Maryland | <b>2006</b> - Pyramid Lake Torpedo and Bombing Range Remediation Project U.S. Army Corps of Engineers, Sacramento District |
| <b>2012</b> - Former Mare Island Naval Shipyard, California                                     | <b>2005</b> - Naval Facilities Engineering Command Pacific, Hawaii, and Keesler Air Force Base, Mississippi (tie)          |
| <b>2012</b> - 75 <sup>th</sup> CEG, Hill Air Force Base, Utah                                   | <b>2004</b> - Tinker Air Force Base,   |
| <b>2011</b> - Cape Canaveral Air Force Station, Florida   | <b>2003</b> - Hill Air Force Base, Utah  |
| <b>2010</b> - Hill Air Force Base, Utah   | <b>2002</b> - F.E. Warren Air Force Base, Wyoming  |
| <b>2010</b> - Ms. Regina Dixon Butler, Patrick Air Force Base, Florida                          | <b>2001</b> - Offutt Air Force Base, Nebraska  |
| <b>2009</b> - Defense Depot, Memphis Tennessee  | <b>2000</b> - Elmendorf Air Force Base, Alaska   |
| <b>2008</b> - Seymour Johnson Air Force Base, North Carolina                                    | <b>1999</b> - Naval Air Engineering Station Lakehurst, New Jersey  |
| <b>2008</b> - Marine Corps Air Station Cherry Point Partnering Team, North Carolina             | <b>1998</b> - Riverbank Army Ammunition Plant, California  |
| <b>2007</b> - Dover Air Force Base, Delaware  | <b>1997</b> - Naval Air Station North Island, San Diego, California  |
| <b>2006</b> - Fort Lewis, Washington  | <b>1996</b> - Naval Air Station Cecil Field, Florida   |
|   | <b>1995</b> - Naval Air Station Whidbey Island, Washington   |