2022 Secretary of Defense Environmental Awards
Environmental Restoration, Installation Award

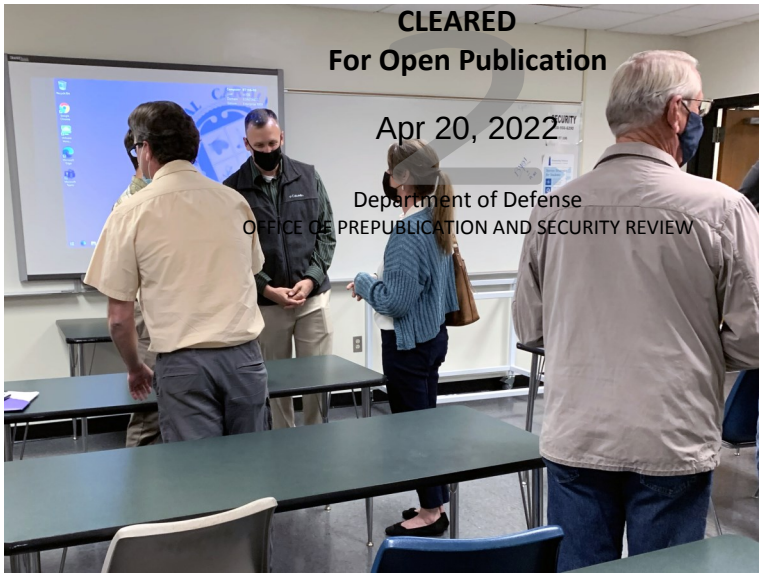
Each year since 1962, the Secretary of Defense has honored installations, teams, and individuals for outstanding achievements in Department of Defense (DoD) environmental programs. These accomplishments include outstanding conservation activities, innovative environmental practices, and partnerships that improve quality of life and promote efficiencies without compromising DoD's mission success. The 2022 Secretary of Defense Environmental Awards cycle encompasses an achievement period from October 1, 2019, through September 30, 2021 (Fiscal Years [FY] 2020-2021). A diverse panel of 53 judges with relevant expertise representing Federal and state agencies, academia, and the private sector evaluated all nominees to select one winner for each of the nine categories. These nine categories cover six subject areas including natural resources conservation, environmental quality, sustainability, environmental restoration, cultural resources management, and environmental excellence in weapon systems acquisition.

About the Environmental Restoration, Installation Award

The Environmental Restoration, Installation award recognizes efforts to protect human health and the environment by cleaning up hazardous substances, pollutants or contaminants, and munitions in a timely, cost-efficient, and responsive manner. Restoring these sites impacted by past DoD activities protects military personnel, their families, and the public from potential human health, environmental, and safety hazards. The 2022 winner of the Environmental Restoration, Installation award is *Marine Corps Base Camp Lejeune, North Carolina.*

About Marine Corps Base Camp Lejeune, North Carolina

Located in Onslow County, North Carolina, Marine Corps Base Camp Lejeune is a training base that covers more than 156,00 acres. The base consists of diverse environmental settings, including 72,000 acres of upland forests, 49,000 acres of wetlands, 26,000 acres of water, and 7,500 acres of developed land. Historical operations, storage, and disposal practices at Camp Lejeune resulted in environmental impacts to soil and groundwater. The base has actively engaged in environmental investigations and remediation programs since 1981, cleaning up over 500 sites to date. Camp Lejeune's Environmental Management Division leads the environmental compliance and restoration programs to manage 75 active sites. The base is supported by technical, acquisition, and legal professionals across the Naval Facilities Engineering Systems Command organization, and maintains collaborative relationships with a supportive local community and regulatory agencies including the North Carolina Department of Environmental Quality and the U.S. Environmental Protection Agency (EPA).



In-person Restoration Advisory Board (RAB) meetings resumed in August 2021. Pictured from left to right: Mr. Daniel Brown, Project Manager with Jacobs; Captain Andrew Litteral, Assistant Chief of Staff GF, Marine Corps Installation East; Ms. Jennifer Tufts, Remedial Project Manager for EPA; and Mr. Brian Wheat, RAB member.

Major Accomplishments in FY 2020-2021

- During the achievement period, Marine Corps Base Camp Lejeune was recognized by EPA through publication of a Contaminated Site Clean-Up Information Green Remediation Focus Profile for implementing best management practices during cleanup activities. Best management practices included installing a new treatment system powered entirely by solar power; reusing 70 cubic yards of soil; recycling 7,530 pounds of metal; using passive sampling techniques to reduce remediation-derived waste; and using digital data capture devices in the field to reduce paper waste and increase efficiency. These best management practices saved over 52 metric tons of carbon dioxide emissions, which is equivalent to the carbon dioxide emissions from powering six homes for one year.
- In FY21, Marine Corps Base Camp Lejeune updated its Base-wide Vapor Intrusion Evaluation, which identifies buildings where vapor intrusion may be occurring and evaluates potential risks to building occupants. During a field screening, the base identified volatile organic compounds from open-top tanks used during treatment plant operation. The base modified a treatment plant process to bypass open-top tanks, sending influent directly to a closed tank and mitigating potential volatile organic compound hazards in the air.
- In FY20-21, Marine Corps Base Camp Lejeune evaluated the effectiveness of alternative treatment technologies at multiple sites to address contaminated groundwater and expedite site closure. The base used subgrade biogeochemical reactors to treat over 6 million gallons of groundwater, injected over 3,000 gallons of emulsified vegetable oil substrate as part of a bio barrier replenishment and recirculation system, and operated over 9,000 hours of air sparing. The team saved more than $40,000 by reusing remediation equipment from a closed site.
- Marine Corps Base Camp Lejeune shared lessons learned at a Clemson University symposium and a Design and Construction of Hazardous Waste Sites seminar. The presentations, respectively, were “Subgrade Biogeochemical Reactors to Treat Source Areas with Dense Non-Aqueous Phase Liquid” and “Ten Years of Optimization of the Environmental Restoration Program.”
- The base supports Taskforce Florence for recovery efforts following Hurricane Florence including sampling, risk screenings, munitions clearance, and vapor intrusion evaluations and mitigation to ensure protection of human health and the environment. In addition, the base reviews and supports planning for capital improvement projects to ensure they meet environmental site requirements and Navy and Marine Corps per- and polyfluoroalkyl substances guidance prior to and during military construction.

Field team member Mr. Matt McClanahan records sampling locations and surface water quality parameters digitally.

This subgrade biogeochemical reactor treated approximately 93,000 gallons of groundwater at Installation Restoration Program Site 93.