



2016 Secretary of Defense Environmental Awards Environmental Restoration, Individual/Team Award

Each year since 1962, the Department of Defense (DoD) has honored individuals, teams, and installations for their outstanding achievements and innovative work protecting the environment while sustaining mission readiness. The 2016 Secretary of Defense Environmental Awards recognize accomplishments from October 1, 2013 to September 30, 2015. A diverse panel of 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 that cover six subject areas: natural resources conservation; environmental quality; sustainability; environmental restoration; cultural resources management; and environmental excellence in weapon system acquisition.

About the Environmental Restoration, Individual/Team Award

The Environmental Restoration, Individual/Team award recognizes individuals and teams who have made a significant contribution to environmental restoration. This award acknowledges efforts to protect human health and the environment by cleaning up identified DoD sites in a timely, cost-efficient, and responsive manner. Restoring these sites impacted by historic defense practices protects military personnel and the public from potential environmental health and safety hazards. The 2016 winner of the Environmental Restoration, Individual/Team award is *Vieques Environmental Restoration Program Team, Puerto Rico*.

About Vieques Environmental Restoration Program Team

The former Vieques Naval Installation is a 23,000-acre facility located on Vieques Island, Puerto Rico. From the mid-1940s until 2003, DoD fired more than 300,000 munitions items at this site during military training. In 2005, the Environmental Protection Agency (EPA) listed Vieques and the surrounding waters on the National Priorities List. The Commonwealth of Puerto Rico considers Vieques to be the highest cleanup priority. The Vieques Environmental Restoration Program Team faces unique challenges, such as unexploded ordnance across thousands of acres of land and sea floor; abundant ecologically and culturally sensitive resources; and the often disparate objectives of numerous stakeholders, including the local community, education and scientific organizations, and advocacy groups. Representatives from Naval Facilities Engineering Command Atlantic, EPA, Commonwealth of Puerto Rico Environmental Quality Board, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Department of Interior, and U.S. Fish and Wildlife Service (FWS) work collaboratively as the Vieques Environmental Restoration Program Team that implements environmental restoration activities on the former DoD site.



The restoration team saved over \$1 million in remedial action costs when a 2014 evaluation concluded that the vibrant lagoon ecology that had developed on a former waste disposal site required no further action.

Major Accomplishments in FY 2014-2015

- Implemented an innovative, non-time-critical removal action (NTCRA) to clean up munitions on a 535-acre munitions site surrounding a 19th century Spanish lighthouse. This approach restored public access to this historic resource seven years ahead of schedule.
- Used an un-manned, remotely-operated, long-reach excavator to demonstrate the ability to safely remove highly dangerous munitions within heavily vegetated areas and from roads and beaches at costs savings up to 60 percent below manual methods. This effort achieved over \$1 million in savings in FY 2015; a full-scale operation is scheduled for 2016 and anticipated to save over \$10 million.
- Implemented several groundbreaking technologies that reduced cleanup costs and significantly reduced explosive risk. The team used a Time-domain Electromagnetic Multi-sensor Towed Array Detection System to demonstrate the ability to distinguish subsurface munitions items from debris. This system reduces the number of anomalies requiring excavation and associated costs by as much as 50 percent. The team also used an underwater remotely operated vehicle for such tasks as munitions tracking and endangered species surveys, replacing diver use and cost by over 50 percent. Similarly, an unmanned aerial vehicle was shown to effectively ensure workers and the public are at safe distances prior to controlled detonations.
- Provided site visits and regular updates to the Vieques Sustainability Task Force, which improved understanding and support for the cleanup efforts on Vieques.
- Implemented an NTCRA at a former open burn/open detonation (OB/OD) area and completed the interim actions necessary to allow public access years ahead of schedule. Concurrently, munitions response divers recovered munitions across 200 acres of seafloor adjacent to the site, while divers ensured threatened and endangered corals and other sensitive species' habitats were protected.



Magnetic attachment on excavator removing bombs from the roadbed. In areas where it is too dangerous or costly to remove munitions by traditional methods, remotely operated equipment has significantly reduced explosive hazards to workers and cut costs by more than half.



Munitions response divers search the ocean floor for munitions to accelerate opening a public recreational area at the adjacent former OB/OD site at the request of FWS.