



## 2020 Secretary of Defense Environmental Awards Environmental Restoration, Installation Award

Each year since 1962, the Secretary of Defense (SecDef) 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 2020 Secretary of Defense Environmental Awards cycle encompasses an achievement period from October 1, 2017, through September 30, 2019 (Fiscal Year (FY) 2018-2019). A diverse panel of 54 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 system 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 2020 winner of the Environmental Restoration, Installation award is *Camp Edwards, Joint Base Cape Cod, Massachusetts Army National Guard*.

### About Camp Edwards, Joint Base Cape Cod, Massachusetts Army National Guard

Camp Edwards, located in Mashpee, Massachusetts, on the peninsula of Cape Cod, encompasses 15,000 acres of the 22,000-acre Joint Base Cape Cod. Camp Edwards contains the largest training area in the northeastern United States, hosting the Massachusetts Army National Guard (MAARNG), the 26th Maneuver Enhancement Brigade, and the 126th Aviation Regiment 3rd Battalion. The training area consists of undeveloped land in the northern portion of the base and is home to maneuvering and patrol training areas; small arms ranges; helicopter landing zones; nuclear, biological, and chemical training bunkers; and an extensive road network used for convoy and driver training. Camp Edwards sits on top of the sole source aquifer for Cape Cod. The MAARNG is improving and increasing military training and readiness through the successful restoration efforts of the Impact Area Groundwater Study Program (IAGWSP). The Program's largest and final removal and restoration action is to remove 90% of the unexploded ordnance (UXO) and reduce unnecessary digs by 70% from the most heavily-used (per square foot) impact area within the U.S. Army.



*Soldiers from the 1058th Transportation Company, Massachusetts National Guard, conduct a night base defense live-fire exercise under the illumination of a green flare during the Combined Arms Exercise: Patriot Crucible, Joint Base Cape Cod, August 1, 2019.*

## Major Accomplishments in FY 2018-2019

- The installation adopted cutting edge electromagnetic induction sensor technology, known as the “metal mapper,” to reduce the cost of source cleanup, enhance accuracy, and minimize the number of items requiring excavation. Camp Edwards decreased UXO costs by up to 70%, and the installation is the only location worldwide to put the metal mapper technology into operation on an industrial scale.
- The installation continues to treat groundwater contamination with 17 systems on site, processing over four million gallons of groundwater every day. Staff are nearly finished removing the contamination source, and are now focusing on preventative measures by targeting UXO and munitions before the components of those items deteriorate and leach into groundwater or create a new source of contamination. To date, the installation has treated over 12 billion gallons of groundwater.
- In FY 2019, Camp Edwards began using light detection and ranging (LiDAR) scans of the restoration parcel during the UXO remediation process, which allows the project team to see depressions, divots, and holes in the ground that may indicate munitions impact. The geometry of the depressions can predict the type and density of the munitions that created the surface anomalies.
- Camp Edwards has removed all lead-contaminated soil on its small arms ranges to a level allowing for unrestricted use. Staff have finished removing spent rounds from the surface and excavating berms on all ranges. The installation constructed new berms to reopen those ranges for use in FY 2019. The training site was the first in the National Guard to introduce enhanced-performance rounds made of pure copper, which provides a more desirable metal for recycling and a markedly improved return-on-investment over lead.
- The installation recycles all scrap metal debris recovered during UXO removal actions. This has resulted in Camp Edwards recycling more than 500 tons of scrap in FY 2018 and FY 2019. Recycling proceeds offset costs associated with the project, and recycling eliminates an additional project waste stream.
- The installation’s Environmental and Readiness Center is a dedicated community outreach resource that also provides the expertise and materials necessary to comply with all Environmental Performance Standards. This ensures compatible, realistic training while protecting the installation’s natural and cultural resources. There are multiple levels of training site engagement with the community and municipalities, and program staff meet with these stakeholders regularly.



*A very large anomaly, a T60 Tank, buried in one of the testing ranges in Camp Edwards’ Central Impact Area. Soldiers recovered the tank using a M88 Recovery Vehicle.*



*The IAGWSP staging area before staff perform the second and final safety certification that is required for each piece of munitions scrap so it can be recycled.*