



2018 Secretary of Defense Environmental Awards Sustainability, Industrial Installation Award

Each year since 1962, the Secretary of Defense has honored installations, teams, and individuals for outstanding conservation achievements, innovative environmental practices, and partnerships that improve quality of life and promote efficiencies without compromising the Department of Defense's (DoD) mission success. The 2018 Secretary of Defense Environmental Awards cycle encompasses an achievement period from October 1, 2015 through September 30, 2017 (Fiscal Year (FY) 2016-2017). A diverse panel of 63 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 Sustainability, Industrial Installation Award

The Sustainability, Industrial Installation award recognizes efforts by industrial installations to prevent or eliminate pollution at the source, including practices that increase efficiency and sustainability in the use of raw materials, energy, water, or other resources. The sustainability award also recognizes energy efficiency and renewable energy practices, greenhouse gas reduction efforts, procurement of sustainable goods and services, waste diversion, and efforts to plan for adaptation and resilience. Sustainable practices ensure that DoD protects valuable resources that are critical to mission success. The 2018 winner of the Sustainability, Industrial Installation award is *Marine Corps Logistics Base Barstow, California*.

About Marine Corps Logistics Base Barstow, California

Marine Corps Logistics Base (MCLB) Barstow is located in the high desert of western San Bernardino County, California. The base includes a diverse collection of large training areas and range areas encompassing 5,567 acres within the DoD Southwest Range Complex. Barstow supports approximately 95 military personnel and their families, as well as 1,840 civilian employees. MCLB Barstow is separated into three functional areas. Nebo Main is a large training area, also known as a cantonment area, which houses the MCLB Barstow headquarters and tenant logistical capabilities. Yermo Annex is an industrial repair and storage complex that is home to DoD's largest rail facility. The Annex primarily hosts tenant activities and supports Marine Corps and Army rotations to the National Training Center at Ft. Irwin and the Marine Corps Air Ground Combat Center at Twentynine Palms. There is also a range on the southern edge of Nebo Main that includes a live-fire known distance range complex and open training area. Key functions of the base are to receive, store, and distribute supplies and equipment, and to repair and rebuild DoD equipment in direct support of the U.S. military mission worldwide. MCLB Barstow supports the Marine Corps mission with comprehensive compliance, pollution prevention, conservation, planning, training, and management activities.



The MCLB wind turbine generator has been running at 1.0 MW for many years. By installing a conditioning monitoring system, the base will be able to run an additional 325 kW. The monitoring system will also aid in preventing very costly equipment failures.

Major Accomplishments in FY 2016-2017

- MCLB Barstow implemented a new irrigation plan to reduce water consumption through xeriscaping and/or natural landscaping while maintaining essential vegetation. This reduced water consumption by 50% from the 2007 baseline exceeding reduction goals. Barstow achieved a 5.8% reduction in water consumption during the award period from FY 2016 to FY 2017, and a 20% reduction in water consumption between FY 2015 and FY 2016. The base also achieved a 7% reduction in electricity consumption.



To mitigate dust, personnel use watering trucks to spread water over base roadways. A project is now in place to use recycled asphalt that generates less dust so less water is required therefore increasing resiliency.

- The base reduced its potable water usage from 138 million gallons in FY 2015 to 102 million gallons in FY 2017, resulting in a 26% potable water usage reduction.
- MCLB Barstow established an agreement to partner with the City of Barstow on routine water sampling analyses. This is the first Marine Corps partnering agreement of this nature with an outside government agency. With this new agreement, the base will save \$30,000 in laboratory fees annually.
- Barstow developed a project to install recycled asphalt pavement (RAP) to by-pass the water used for dust mitigation. This initiative will reduce water consumption by an additional 2,254 gallons per year.

- The base engaged the Installation Commands and Tenants organizations into a new reporting mechanism to support environmental compliance, conformance, and initiatives. This new reporting mechanism gives environmental ownership to both Installation Commands (including tenant organizations) and their Environmental Compliance Coordinators.

- MCLB Barstow created a site-specific data system that will help organizations track their environmental training requirements. As a result, improvements to meet environmental training requirements have increased by 50% in some areas.



The Bachelor Enlisted Quarters has 75 kW of solar photovoltaic panels installed on the roof of the building and the nearby carport. This increased renewable energy production and reduced energy costs at Barstow.

- The base made energy improvements for Building Automation Systems/Energy Management Control Systems; added heating, ventilation, and air conditioning controls for seven buildings; installed 2,221 light emitting diode fixtures; enhanced compressed air systems; and installed a 1.5 megawatt ground mounted photovoltaic array, which is projected to save the installation \$880,000 in energy costs annually.