

## 2013 Secretary of Defense Environmental Awards Sustainability Awards

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: sustainability; environmental quality; environmental excellence in weapon system acquisition; natural resources conservation; environmental restoration; and cultural resources management. 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 Sustainability Category

In 2013, the Sustainability category covered awards for non-industrial installations and individuals/teams. These awards recognize efforts 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 2013 winner of the Sustainability, Non-industrial Installation award is the *673d Air Base Wing, Joint Base Elmendorf-Richardson, Alaska* and the winner of the Sustainability, Individual/Team award is *Ms. Dorenda Coleman, Arizona Army National Guard*.

### About the 673<sup>rd</sup> Air Base Wing, Joint Base Elmendorf-Richardson, Alaska

Joint Base Elmendorf-Richardson (JBER) is home to about 16,000 Service members, 21,000 family members and 3,000 civilian employees, and encompasses 74,600 acres to support Air Force flying missions for F-22 Raptor and C-17 Globemaster and training for United States Army Alaska. At JBER, sustainability is a primary mission support platform taking advantage of the environmental programs that have been in place for many years. JBER's rugged terrain, harsh climate conditions, and remote location present significant challenges to sustainability and energy efficiency. Environmental Management System and Asset Optimization form the backbone for management of all base resources with focused goals to minimize the generation of hazardous waste, reduce the use of hazardous materials, develop recycling programs, and implement energy conservation initiatives. Some specific accomplishments include:

- Conducted projects that eliminate inefficient lighting systems, resulting in over \$500,000 in annual cost savings. These projects include incorporating programmable lighting systems, replacing incandescent and fluorescent bulbs with high-efficiency light-emitting diodes, and initiating renovation projects that take advantage of natural light.



*673d Air Base Wing Vice Commander, Colonel Mark Prior, reads an Arbor Day proclamation to JBER students. In 2012, JBER won its 15<sup>th</sup> consecutive designation as a Tree City USA Community*

- Constructed the JBER Landfill Gas Waste-to-Energy Plant, which is projected to generate more than 56,000 megawatt hours, or 26.2 percent of the base's electrical load. The plant is also projected to reduce greenhouse gas emissions by 13,944 tons of methane and save \$73.6 million over the 46-year project lifecycle.
- Initiated sustainable master planning projects using the Integrated Design Process to produce green buildings that meet Leadership in Energy and Environmental Design (LEED) program goals. Almost \$1 billion in new building construction meets the LEED Silver rating with reduced energy consumption.
- Partnered with the National Marine Fisheries Service to conduct acoustic and visual behavior studies of the endangered Cook Inlet beluga whale. These efforts were critical to maintaining Air Force and Army missions at JBER and to the recovery of this species.



*The JBER Landfill Gas Waste-to-Energy Plant was constructed with 4 generator units designed to run on methane gas produced by the breakdown of wastes buried in the landfill.*

JBER's initiatives allow for a sustainable base where less funding is spent on waste and energy, and more on training our Soldiers and Airmen to carry out their missions.



*The Troop Medical Clinic on JBER is an example of sustainable master planning that incorporated LEED principles into a visually appealing design.*



*Military training and a sustainable environment are not mutually exclusive. A beluga whale calf and mother were observed in Eagle Bay, just outside the coastal boundary of Eagle River Flats, an Army impact area.*

### **About Ms. Dorenda Coleman, Arizona Army National Guard**

Ms. Dorenda Coleman, the Sustainability Manager for the Arizona Army National Guard (AZARNG), is at the core of all sustainability undertakings across the AZARNG's training sites, readiness centers, and mission facilities. Ms. Coleman's leadership and management of the many facets of sustainability, including encroachment protection, green construction, recycling, and energy and resource conservation, have been key to integrating sustainable practices and awareness into the AZARNG culture. Her efforts have brought together not only the AZARNG, but also the Arizona Air National Guard and Emergency Management Departments into cooperation on sustainability initiatives to meet and exceed the guiding principles of the

AZARNG sustainability policy. Over the past two years, she has achieved several important new milestones, including playing a key role in the certification of AZARNG's first two Leadership in Energy and Environmental Design (LEED) buildings. Some specific accomplishments include:

- Established four interdepartmental sustainability teams to better comprehensively manage and pursue sustainability initiatives throughout the state. One of the major outcomes of this effort has been an agreement with the Tonto National Forest in making over three million acres of land available for military training and protecting Camp Navajo from encroachment.
- Initiated a new pilot project with Northern Arizona University to produce liquid methanol as an alternative fuel for military vehicles.
- Established a solar-power parking lot pilot test, which utilizes the base's most abundant natural energy source—sunlight—to create over 1 million kilowatts of energy each year, contributing to the base's progress toward achieving Net Zero status for energy, water, and other resource use and offsetting the cost to light the lot.
- Worked with Arizona State University to develop and launch the Sustainability Leadership Graduate Certificate program to better educate existing Army and Army Guard soldiers and personnel and prepare the next generation of sustainability professionals. This custom-developed program features examples of sustainability challenges and opportunities relevant Army, Army National Guard, and Army reserve missions and operations.



*Over the past two years, the AZARNG expanded the use of its most abundant natural energy source: sunlight. The AZARNG's solar projects create over 1 million kilowatts of energy each year.*

Under Ms. Coleman's leadership, the AZARNG's Sustainability Program has contributed to the overall success of both the state's and nation's military missions through advancements in resources use and waste reduction, diverse community partnerships, and sustainable land-use.



*Local schoolchildren at the Papago Park Military Reservation Earth Day celebration. Under Ms. Coleman's leadership, this event skyrocketed in popularity: about 1,000 community members have participated in the days' festivities each year over the last two years.*



*Soldiers and Sustainability specialists work with the community to set up a local garden. Community outreach is a core component of Ms. Coleman's sustainability efforts.*

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

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| <b>2012</b> - Scranton Army Ammunition Plant, Pennsylvania   | <b>2003</b> - Naval Air Station, Whidbey Island, Washington                      |
| <b>2011</b> - Joint Base Lewis-McChord, Washington   | <b>2002</b> - Warner Robins Air Logistics Center, Robins Air Force Base, Georgia |
| <b>2011</b> - The Exchange Corporate Sustainability Program, Army and Air Force Exchange Service, Texas    | <b>2001</b> - U.S. Army Transportation Center and Fort Eustis, Virginia          |
| <b>2010</b> - Fleet Readiness Center Southwest, California   | <b>2000</b> - Radford Army Ammunition Plant, Virginia                            |
| <b>2009</b> - Naval Air Station Whidbey Island, Washington   | <b>2000</b> - HQ III Corps and Fort Hood, Texas                                  |
| <b>2009</b> - 14th Civil Engineer Squadron Pollution Prevention Team, Columbus Air Force Base, Mississippi | <b>1999</b> - Robins Air Force Base, Georgia                                     |
| <b>2008</b> - Robins Air Force Base, Georgia   | <b>1999</b> - Marine Corps Base Hawaii   |
| <b>2007</b> - Marine Corps Base, Hawaii  | <b>1998</b> - Robins Air Force Base, Georgia                                     |
| <b>2007</b> - Pollution Prevention Afloat Team Naval Sea Systems Command, Washington, DC                   | <b>1998</b> - Fort Carson and Pinon Canyon Maneuver Site, Colorado               |
| <b>2006</b> - Tinker Air Force Base, Oklahoma  | <b>1997</b> - Corpus Christi Army Depot, Texas                                   |
| <b>2005</b> - Commander, Navy Region Mid-Atlantic, Norfolk, Virginia                                       | <b>1997</b> - Fort Lewis, Washington   |
| <b>2004</b> - Robins Air Force Base, Georgia   | <b>1996</b> - Robins Air Force Base, Georgia                                     |
|  | <b>1996</b> - Dyess Air Force Base, Texas  |
|  | <b>1995</b> - Kelly Air Force Base, Texas  |
|  | <b>1995</b> - Naval Construction Battalion Center, Port Hueneme, California      |
|  | <b>1994</b> - Tinker Air Force Base, Oklahoma                                    |
|  | <b>1993</b> - Navy Aviation Depot, Florida                                       |