



# Protecting America's Environment TODAY

Over the past 10 years, the Department of Defense (DoD) has invested approximately \$41 billion to ensure the success of its environmental programs. In FY 2015, DoD obligated approximately \$3.8 billion for its environmental programs — \$1.8 billion for environmental restoration activities; \$1.8 billion for compliance and natural and cultural resources activities; and \$185 million for environmental technology. These investments protect and sustain the environment while strengthening our operational capacity, reducing our operational costs, and enhancing the well-being of our military members, civilians, and their families and communities.

## Compliance

Clean water and clean air are essential to the health and well-being of our communities and ecosystems. DoD management practices reduce discharged pollutants, provide safe drinking water, and protect watersheds. DoD uses commercially-proven solutions to achieve compliance, minimize waste disposal, and promote developing and using innovative solutions.

- ✓ Invested \$1.31 billion
- ✓ Provided safe drinking water to nearly 3.5 million people served by DoD public water systems
- ✓ Maintained a safe drinking water compliance rate of 92% which exceeds the national average
- ✓ Achieved 92% compliance for waste / stormwater control permits
- ✓ Diverted 3.6 million tons or 69% of solid waste and construction and demolition debris from landfills

## Stakeholder Involvement

DoD's environmental programs lead implementation of the President's principles of open government through transparency, participation, and collaboration. DoD reports its activities online on <http://www.denix.osd.mil>; invites members of the public to share ideas and expertise; and partners with state, tribal, local, and federal stakeholders. DoD has 10 Regional Environmental Coordinators who work with stakeholders across the U.S.

- ✓ Invested \$2.8 million for 229 Restoration Advisory Boards on 250 DoD installations and properties
- ✓ Invested \$12 million to mitigate environmental impacts on tribal lands
- ✓ Entered into 16 cooperative agreements with American Indian and Alaska Native governments for cleanup on tribal lands

## DoD Accomplishments in FY 2015

## Natural and Cultural Resources

DoD manages approximately 25 million acres of land across the U.S. These lands harbor significant resources, including more than 85 species at-risk found only on DoD lands, and the nation's largest inventory of federally-owned or managed historic properties. DoD provides realistic habitat conditions and uses its historic properties to support the mission, while ensuring the sustainability and stewardship of its natural and cultural heritage.

- ✓ Invested \$377.2 million
- ✓ Directly enabled mission activities by avoiding and minimizing "take" under the Endangered Species Act and Migratory Bird Treaty Act
- ✓ Managed 400 threatened and endangered species and more than 550 species at risk of being listed
- ✓ Managed more than 60,000 historic properties (historic buildings, structures, and districts)
- ✓ Managed more than 125,000 known archaeological sites

- ✓ Invested \$1.8 billion
- ✓ Active Installations: Completed cleanup at 82% of 25,504 hazardous waste and munitions sites
- ✓ BRAC locations: Completed cleanup at 90% of 8,794 hazardous waste and munitions sites
- ✓ FUDS Properties: Completed cleanup at 79% of 3,064 hazardous waste sites

## Restoration

The Restoration Program addresses hazardous substances, pollutants or contaminants, and military munitions remaining from military operations at active installations, Base Realignment and Closure (BRAC) locations, and Formerly Used Defense Sites (FUDS). We have invested approximately \$52 billion

over the life of the program and have initiated or completed cleanup at nearly 39,000 sites. DoD has a goal to complete cleanup at 95% of hazardous waste and munitions sites at active installations and BRAC locations, and hazardous waste sites at FUDS properties, by FY 2021.



# Protecting America's Environment TOMORROW

*"Improved environmental performance will help us protect our planet for future generations and save taxpayer dollars through avoided energy costs and increased efficiency, while also making Federal facilities more resilient."*

—President Barack Obama, Executive Order 13693

## Adaptation and Resilience to a Changing Climate

*"The Department has long made it a priority to protect the environment on our installations... To achieve this objective, the Department has made a commitment to continuous improvement, pursuit of greater efficiency, and adoption of new technology."*

—Mr. Pete Potochney, Principal Deputy Assistant Secretary of Defense (Energy, Installations, and Environment)

The Department's responsibility is the security of our country. This responsibility requires thinking ahead, planning for a wide variety of threats in many different scenarios, and managing the associated risk. In October 2014, DoD issued a Climate Change Adaptation Roadmap to demonstrate DoD's commitment to pursuing climate change resilience for our lands and mission needs. In January 2016, the Deputy Secretary of Defense signed DoD Directive 4715.21, "Climate Change Adaptation and Resilience." This landmark policy recognizes the Department's need to address the effects of a changing climate and integrates consideration of these effects across the entire DoD enterprise. Key to successful integration is the requirement to incorporate climate considerations into planning processes Department-wide, including installation master planning, acquisition requirements planning, and range management planning. The Department's goal is to sustain a ready and resilient force that can train and deploy successfully, even as the climate changes.

## Greenhouse Gas Reductions and Energy Efficiency

*"Federal leadership in energy, environmental water, fleet, buildings, and acquisition management will continue to drive national greenhouse gas reductions and support preparations for the impacts of climate change."*

—President Barack Obama, Executive Order 13693

Under Executive Order 13693 the combined DoD greenhouse gas (GHG) reduction target for scope 1 and 2 GHG emissions is 42% by the end of FY 2025 relative to its FY 2008 baseline; the target for scope 3 GHG emissions is 25%. By FY 2015, the Department reduced scope 1 and 2 GHG emissions by 11.9% and scope 3 by 17.8%. To attain these goals, the Department is improving energy efficiencies at its facilities, reducing non-tactical vehicle fossil fuel use, and increasing its use of renewable energy. The Department also is implementing sustainable management practices in its procurement processes, environmental management systems, and building maintenance and construction. As a result of these actions, the Department has cut its overall GHG emissions from 34.5 million metric tons of carbon dioxide equivalent (MMTCO<sub>2e</sub>) overall emissions in FY 2008 to 29.9 MMTCO<sub>2e</sub> in FY 2015.

## Improving Cleanup at Munitions Response Sites

*"A key part of DoD's approach to meeting its environmental obligations and improving its performance is its pursuit of advances in science and technology."*

—Mr. Pete Potochney, Principal Deputy Assistant Secretary of Defense (Energy, Installations, and Environment)

DoD is cleaning up sites that may contain unexploded ordnance, discarded military munitions, or munitions constituents. The current practice is to locate and dig up all identified buried objects at a site, which is time consuming and expensive. To improve the cleanup process, DoD developed the Munitions Response Advanced Geophysical Classification Process ("advanced classification"). Advanced classification identifies buried metal objects and determines whether they are a military munition or harmless debris. DoD has worked closely with regulators and stakeholders to build confidence and acceptance to use advanced classification in the field. DoD also developed tools to ensure data quality and the successful use of advanced classification. With more widespread use of the technology, DoD will experience cost savings and more efficient cleanup of munitions. Visit <http://www.denix.osd.mil/mmrp> for information about the DoD tools and collaboration forums on this cleanup process improvement.

## Armed Forces Pest Management Board

*"We are protecting the warfighter now and in the future by conducting cutting-edge research today on safer, more effective pesticides, repellents, and equipment."*

—Ms. Maureen Sullivan, Deputy Assistant Secretary of Defense (Environment, Safety and Occupational Health)

The Armed Forces Pest Management Board (AFPMB) directly supports our warfighters against insect-borne diseases and threats from venomous animals at home and abroad. The AFPMB is a world leader in medical entomology; pest management; and preventing adverse effects on personnel, weapons systems, supplies and equipment, and installations. AFPMB collaborates with the U.S. Department of Agriculture, U.S. Environmental Protection Agency, Centers for Disease Control and Prevention, and the World Health Organization to support DoD personnel. The AFPMB Website averages over 10,000 inquiries per month from over 140 countries. The AFPMB administers the Deployed Warfighter Protection research program, an annual \$5 million effort to find better ways to control disease-carrying insects and protect deployed personnel. Visit <http://www.acq.osd.mil/eie/afpmb/> for more information.