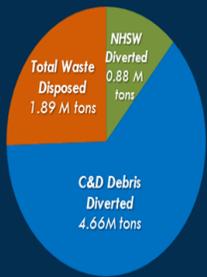




# DoD Solid Waste Diversion

## Diversion at a Glance

In FY14, DoD generated nearly 7.59 million tons of solid waste, including 0.88 million tons of non-hazardous solid waste and 4.66 million tons of C&D debris. As a result of ISWM efforts, DoD avoided nearly \$461 million in disposal costs.



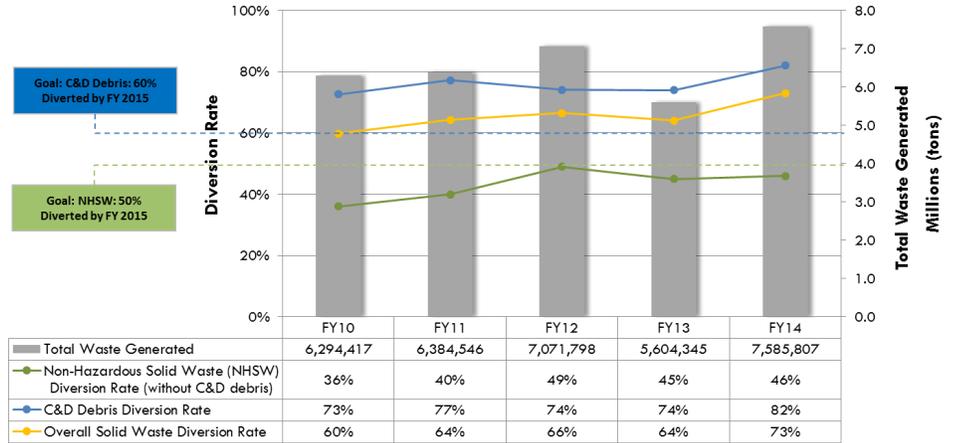
**Total Waste Managed:**  
7.59M tons

In FY14, DoD diverted:

- 46% non-hazardous solid waste
- 82% of C&D debris, 22 percentage points above goal
- 73% of combined non-hazardous solid waste and C&D debris

EPA releases a detailed biennial report on generation and disposal of municipal waste in the U.S. The national diversion rate (recycling and composting) in 2013 was 34.3%.

**DoD Solid Waste Diversion Progress**  
(Non-Hazardous Municipal Waste and C&D Debris), FY10-FY14



Source: DoD Environmental Management Reporting, FY15

## DoD Solid Waste Diversion

DoD generates waste from a variety of industrial, recreational, and commercial operations every year. Executive Order (EO) 13514 "Federal Leadership in Environmental, Energy, and Economic Performance" (replaced in 2015 by EO 13693, "Planning for Federal Sustainability in the Next Decade") and the DoD Strategic Sustainability Performance Plan (SSPP) establish performance goals on maximizing diversion of non-hazardous municipal waste and construction & demolition (C&D) debris from disposal facilities. To effectively manage waste generation and disposal costs, and adhere to compliance with Federal and DoD requirements, DoD uses a hierarchical integrated solid waste management (ISWM) approach.

To minimize waste, DoD focuses on source reduction, reuse, donation, recycling, composting, and volume reduction/energy recovery. Solid waste managers must evaluate waste streams and analyze economic factors to develop an effective waste management strategy. DoD Installations also set up their own qualified recycling programs (QRPs) to recover revenue from direct sales of recyclable materials. An integrated waste management approach provides an economical, sustainable framework that supports environmentally responsible DoD activities.

## GOALS

DoD has set a diversion rate goal of 50% for NHSW and 60% for C&D debris by FY15, and thereafter through FY20.



Photo: U.S. Fleet Activities, Yokosuka, Japan



Photo: Marine Corps Air Station Miramar

For more information, visit the DoD Solid Waste & Recycling site at [https://www.denix.osd.mil/denix\\_secure/csswrl/index.cfm](https://www.denix.osd.mil/denix_secure/csswrl/index.cfm)



# DoD Solid Waste Diversion Success Stories

## 2015 SECDEF Environmental Awards Winner – Twentynine Palms

Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms is the USMC's largest installation and leader in recycling and waste minimization. In FY 2014, MCAGCC diverted 40% of its solid waste from the landfill, recycled over 3.4 million pounds of recyclable materials and 5.5 million pounds of range debris, and generated over \$1.7 million in total revenue. The installation also has lead acid battery and antifreeze recycling programs. At Twentynine Palms, range residue (e.g., spent casings and training-related metal debris) is collected, demilitarized, and recycled at the processing facility, which



MCAGCC is a leader in recycling and waste minimization.

## Defense Logistics Agency's Paper Reduction Efforts

In FY 2014, the Defense Logistics Agency's (DLA's) Document Services provided electronic distribution and printing of digital documents to many DoD customers. The largest of these programs is for the Technical Orders of the Air Force Materiel Command. DLA Document Services developed and continues to maintain and operate the Technical Order Distribute and Print Gateway system, which through FY 2014 has reduced printed documents by 72% since the system's introduction in FY 2010. This is an average of more than 26% each year.

## 2015 SECDEF Environmental Awards Honorable Mention – Naval Air Facility (NAF) Atsugi

NAF Atsugi, Japan increased diversion of waste from landfills through the innovative use of contracts and a neighboring installation's Qualified Recycling Program (QRP). A solid waste contract was set in place to provide cost incentives to the waste services contractor to segregate and recycle rather than dispose of waste. The cooperative region QRP leveraged regional contracts for pickups of mixed metals, used petroleum oil and lubricant (POL), wooden crates, and cardboard. Improvements in data management along with these changes in solid waste diversion and recycling allowed NAF Atsugi to achieve a C&D diversion rate of 97% and a combined solid waste and C&D diversion rate of 58%.

## Fort Carson – Solid Waste Diversion Efforts

Fort Carson reached a solid waste diversion rate of more than 49% in FY 2014 by expanding its single stream recycling operations to motor pools. The base replaced its old segregated-stream bins with single-stream recycling totes in each motor pool to collect aluminum and steel cans, glass, plastic, cardboard, and all types of paper. Fort Carson also held an inaugural Paper Shredding event in FY 2014 generating 13,500 pounds of shredded paper for recycling. Fort Carson also serves as a collection point for household waste.

## 2015 SECDEF Environmental Awards Winner – Minnesota Army National Guard

The Minnesota Army National Guard Sustainability Team is pursuing several initiatives to maintain and enhance the installation to the highest possible environmental standard. They conducted a pilot project at Camp Ripley using a "liquid food digester" for organic waste in a dining facility and installing water bottle fill stations throughout the state with awareness materials that discourage use of single-use plastic bottles. The installation also recycles 55% of its waste stream and diverts electronic waste by identifying organizations that can reuse working computer equipment.



Sorting solid waste is part of a comprehensive solid waste stream analysis.

## 104<sup>th</sup> Fighter Wing of the Massachusetts Air National Guard, Westfield, MA – Federal Green Challenge Award Winner

The 104<sup>th</sup> Fighter Wing received the New England Federal Green Challenge Award from EPA in 2014, for excellence in managing electronics. The base increased the amount of electronics recycled by 98%, recycling a total of 1.17 tons of electronics. The success of the e-waste recycling program was based on a three-pronged approach: (1) increasing awareness across the facility through base-wide emails, posters, and articles in the monthly newsletter; (2) expanding the types of items accepted, from computers and keyboards to copiers, printers, and fax machines; and (3) establishing a central recycling location that stays open five days a week.



## National Security Agency (NSA) – Recycling Efforts

For many years NSA has been recycling official paper waste through a pulping operation to render the waste unclassified. Nearly 1,750 tons of paper is pulped each year, with the resulting pulp used to make a wide variety of paper products such as cardboard boxes and egg cartons.

For more information, visit the DoD Solid Waste & Recycling site at <https://denix.osd.mil/swr/>