

APPENDIX T: WATER QUALITY

The Department of Defense (DoD) is committed to protecting water quality and maintaining high standards to ensure that personnel and neighboring communities are not adversely impacted by DoD activities. To protect DoD's water assets, DoD's Compliance Program includes performance metrics for Clean Water Act (CWA) permits, Safe Drinking Water Act (SDWA) requirements, and each state's water quality and drinking water quality standards approved by the U.S. Environmental Protection Agency (EPA). The CWA and SDWA performance metrics provide the DoD with an indication of its water quality performance and encourages annual compliance improvement.

The CWA requires all facilities that discharge wastewater in the United States to have permits that establish pollution limits and specify monitoring and reporting requirements. The National Pollution Discharge Elimination System (NPDES) permits are issued by EPA, or a state with permitting authority from EPA, and regulate pollutants discharged into surface water by industrial, municipal, and other facilities.

The SDWA establishes a federal program to monitor and ensure the quality of the nation's drinking water supply. The law focuses on all waters actually or potentially designed for drinking use, whether from groundwater or surface water sources. As the federal authority, EPA establishes national primary drinking water standards for all public water systems (PWSs), which include DoD drinking water systems. Most states have been delegated enforcement responsibility for administering the federal water program.

DoD

DoD has delivered on its commitment to steadily improve its compliance with standards of water quality. As shown in Figure T-1, in the first half of Calendar Year (CY) 2006, DoD had 1,688 permits that met the DoD

compliance metric for discharge limits and other permit conditions. DoD had an overall CWA compliance rate of 96 percent in CY2006.

DoD has also demonstrated significant improvement in its compliance with the SDWA. As shown in Figure T-2, in the first half of CY2006, over 97 percent of the population served by PWSs received drinking water that was in compliance with the SDWA. The remaining three percent received at least one public notification of drinking water violation in the first half of CY2006. DoD's SDWA compliance has risen from the reported compliance rate of 94 percent in CY2005, confirming the DoD's dedication to establishing itself as a leader in drinking water quality compliance.

Figure T-1

DoD CWA Permit Compliance

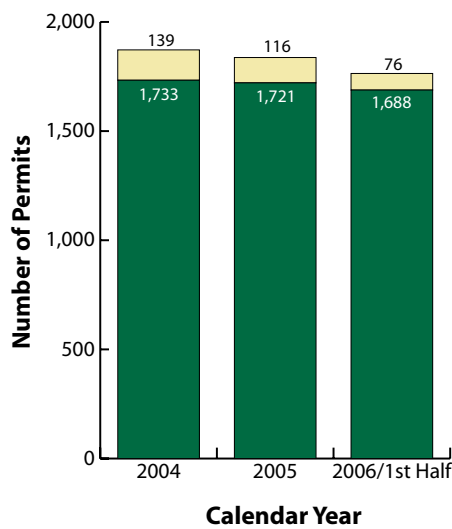
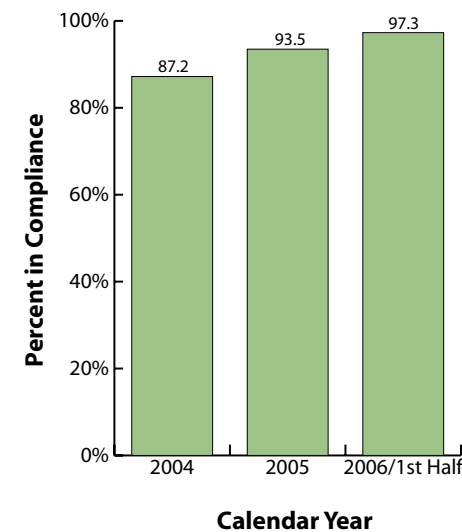


Figure T-2

DoD PWSs Meeting SDWA Standards



■ In Compliance ■ Out of Compliance

Army

The Army has taken the initiative to go beyond compliance by developing the tools, programs, and regulations necessary to uphold high standards of water quality. In Fiscal Year (FY) 2006, EPA and the U.S. Army Corps of Engineers announced proposed revisions to Section 404 of the CWA, which established a permit program to regulate the discharge of dredged or fill materials into the waters of the United States. The proposed revision is designed to improve the effectiveness of compensatory mitigation.

The Army also developed a tool to assess the impact of military operations on surrounding watersheds. Using its Watershed Impact Assessment Protocol, the Army is able to identify sources of potential discharges to a watershed and develop solutions to reduce or eliminate the possibility of adverse impacts to water bodies. These proactive steps will lead to more sustainable practices in the advancement of water protection in the future.

The Army has improved their compliance rate for discharge permits under NPDES as required by the CWA. As seen in Figure T-3, in the first half of CY2006, the Army had 838 water pollution control permits in compliance, or

a compliance rate of 98 percent in CY2006, up from a compliance rate of 97 percent in CY2005.

Army compliance with drinking water standards has also progressed. As seen in Figure T-4, approximately 97 percent of the population served by PWSs received drinking water that was in compliance with drinking water standards in the first half of CY2006, maintaining its impressive CY2005 compliance figures.

Navy

Water quality plays an integral role in the success of the Navy's mission and the quality of life for Navy personnel, their families, and nearby communities. As shown in Figure T-5, in the first half of CY2006, the Navy had 345 water pollution control permits in compliance, or a compliance rate of 91 percent, up from a compliance rate of 87 percent in CY2005. In first half of CY2006, the Navy also delivered on its commitment to improve drinking water. As seen in Figure T-6, in the first half of CY2006, 97 percent of the population served by PWSs received drinking water that was in compliance with the SDWA, up from 84 percent in CY2005.

Figure T-3

Army CWA Permit Compliance

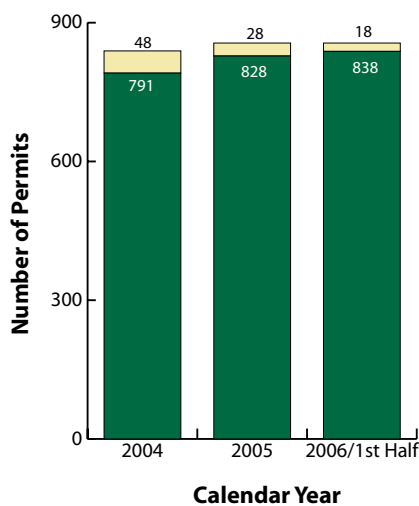


Figure T-4

Army PWSs Meeting SDWA Standards

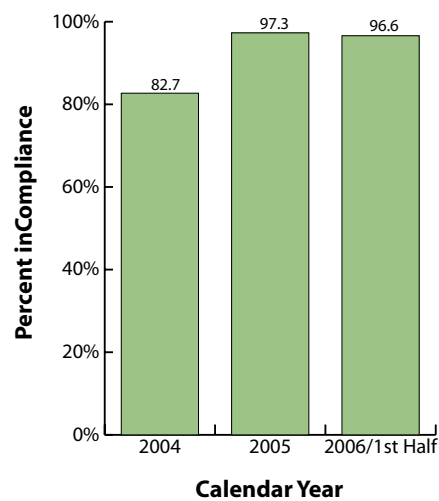


Figure T-5

Navy CWA Permit Compliance

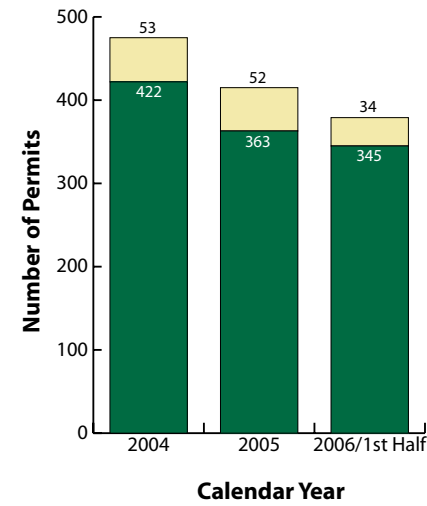
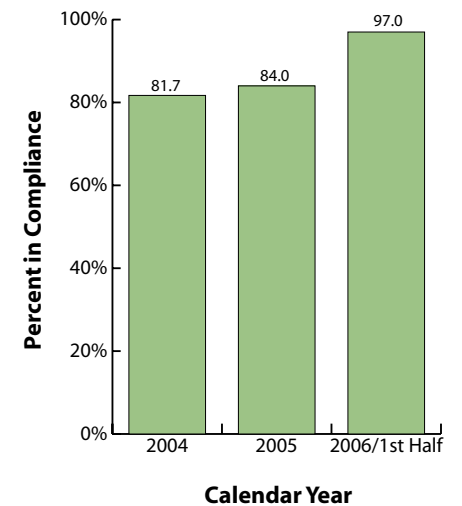


Figure T-6

Navy PWSs Meeting SDWA Standards



■ In Compliance ■ Out of Compliance

■ In Compliance ■ Out of Compliance

Figure T-7

Marine Corps CWA Permit Compliance

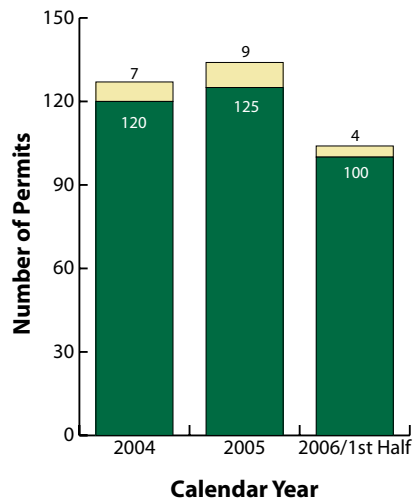
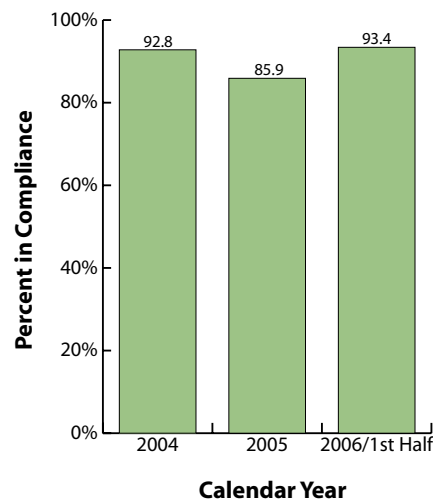


Figure T-8

Marine Corps PWSs Meeting SDWA Standards



Marine Corps

The Marine Corps has made significant strides toward high water quality standards and regulatory compliance. As shown in Figure T-7, in the first half of CY2006, 96 percent of the total 104 NPDES-permitted operations were in compliance with discharge limits and other permit conditions. The compliance figures for CY2006 illustrate a steady improvement from the CY2005 CWA compliance rate of 93 percent.

Efforts made by the Marine Corps also resulted in an improvement in the Marine Corps' SDWA compliance rate. As seen in Figure T-8, in the first half of CY2006, over 93 percent of the population served by PWSs received drinking water that was in compliance with the SDWA. This is a substantial increase from the compliance rate of 86 percent reported in CY2005. Maintaining and improving upon high water quality compliance rates will continue to be the standard for the future.

Air Force

The Air Force effectively manages its water resources, provides safe drinking water to its personnel and their families, and returns clean water to the environment. The Air Force as a whole uses 38 billion gallons of potable water per year for mission-critical operations, force protection, sanitation, industrial processes, and human consumption. The program provides safe water to over one million people annually, including military family housing residents.

As a result of the Air Force's efforts to effectively manage its water resources, the Air Force has maintained a consistently high level of compliance with water regulations. As seen in Figure T-9, in the first half of CY2006, 95 percent of the total 396 NPDES-permitted operations were in compliance with discharge limits and other permit conditions, revealing an upward trend from the 93 percent compliance rate reported in CY2005.

As shown in Figure T-10, over 99 percent of the population served by PWSs received drinking water that was in compliance with the SDWA in the first half of CY2006. This was an improvement upon a compliance rate of 97

The CWA also regulates non-sewage liquid discharges from Navy vessels through the Unified National Discharge Standards (UNDS) Program. The UNDS Program strives to "enhance the operational flexibility of vessels of the Armed Forces" by establishing a rulemaking process between the Navy and EPA that addresses 25 discharges for more than 7,000 vessels. Successful implementation of programs such as UNDS will enable the Navy to comply with state water quality regulations.

To handle the complexity of the rulemaking process, the Navy and EPA are using a three-phase approach to implementing the UNDS requirements. During Phase I, the Navy and EPA determined those discharges of sufficient environmental consequence to warrant the use of a marine pollution control device (MPCD). In Phase II, which is currently underway, federal MPCD performance standards are being developed for each discharge requiring control from Phase I. Phase III will involve creating rules governing the design, construction, installation, and the use of MPCDs established in Phase II.

percent in CY2005. The Air Force's steady compliance progress over the last few years is a reflection of their determination to lead the way with high standards for water quality.

DLA

The Defense Logistics Agency (DLA) strives to maintain compliance with all water quality regulations and drinking water standards for DoD personnel, their families, and nearby communities. As seen in Figure T-11, in the first half of CY2006, 100 percent of the 29 NPDES-permitted operations were in compliance with discharge limits and other permit conditions. DLA's compliance in CY2006 repeats the 100 percent compliance achieved in CY2005.

As shown in Figure T-12, 100 percent of the population served by PWSs received drinking water that was in compliance with the SDWA in the first half of CY2006. This impressive compliance rate is a repeat of the successful 100 percent CWA and SDWA compliance achieved in CY2005.

Figure T-9
Air Force CWA Permit Compliance

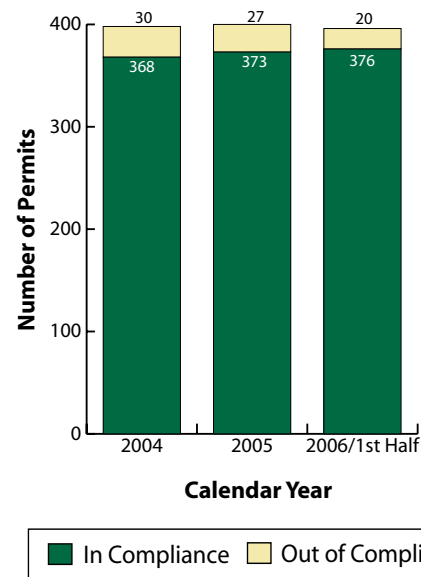


Figure T-10
Air Force PWSs Meeting SDWA Standards

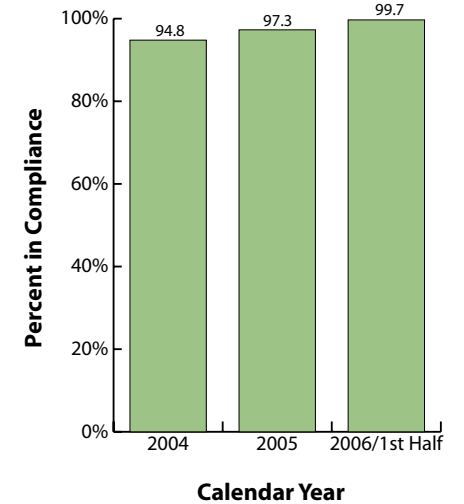


Figure T-11
DLA CWA Permit Compliance

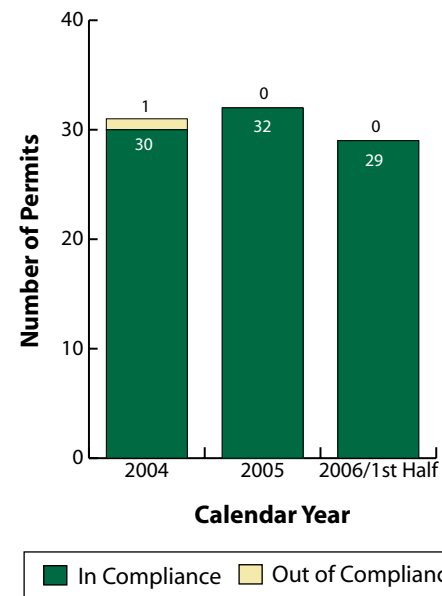


Figure T-12
DLA PWSs Meeting SDWA Standards

