

Appendix T: Water Quality

The Department of Defense (DoD) recognizes the value that clean water provides its operations, personnel, and surrounding communities. More specifically, DoD views water as a natural resource that is essential to the health and well-being of the nation, its people, and its ecosystems because water resources and aquatic ecosystems help to sustain our missions and livelihoods. Therefore, DoD strives to ensure full and sustained compliance with federal, state, and local regulations and Executive Orders designed to protect water quality.

DoD makes efforts to protect water quality through various internal mechanisms. For example, DoD develops internal policies, procedures, program objectives, and best management practices to reduce discharged pollutants and protect water quality. In addition to these administrative procedures, DoD implements pollution prevention activities, where practicable and feasible, to reduce pollutants that adversely impact water resources.

Surface Water Pollution

There are two types of discharge sources to surface water bodies: point source and nonpoint source. Each source type has common contributors of both the discharge and pollutants. Point source discharges and pollutants commonly originate from DoD sewage treatment plants, industrial wastewater discharges, and combined sewer overflows. DoD's nonpoint sources typically originate from stormwater runoff that traverses construction projects, range operations, shipyards, and military base operations.

Point and nonpoint source discharges to surface waters typically require permits by federal, state, and local agencies. The three most common pollution prevention programs applicable to DoD operations include- Clean Water Act (CWA) §402 National Pollutant Discharge Elimination System (NPDES) permitted discharges, CWA §301 (b)(1)(B) Publicly Owned Treatment Works (POTW) permitted sanitary sewage discharges, and CWA §307 permitted pre-treatment discharges to the local POTW.

Additional water pollution controls applicable to DoD operations include CWA §404 permits, administered by the U.S. Army Corps of Engineers, for the disposal of dredged or fill material into navigable waters (inland waters and waters within 3 nautical miles from shore); the Marine Protection, Research, and Sanctuaries Act (MPRSA); stormwater requirements under §438 of the Energy Independence and Security Act; and State source water protection programs.

Furthermore, additional water pollution controls are

derived from internal DoD policies, such as DoD Instruction 4715.6, Environmental Compliance; Objective 2.2 of the 2007 Defense Installation Strategic Plan (DISP); and the October 2004 DoD memorandum: Revised Pollution Prevention and Compliance Metrics.

DoD strives to protect public health, meet clean water standards, maximize operational flexibility, leverage water conservation opportunities when possible, and protect watersheds when necessary.

The data presented in this appendix summarizes DoD's water pollution control permits, with the exception of MPRSA permitted dumping of wastes and Safe Drinking Water Act (SDWA) permitted discharges for underground injection of wastes.

Drinking Water Protection

Certain DoD operations are subject to SDWA requirements that are established to protect surface and underground supplies of drinking water. For example, DoD's public water distribution systems must comply with requirements specified in their distribution permits. These permitted and enforceable limits help to ensure that the distributed water supply meets standards for water quality (i.e., maximum contaminant levels and National Secondary Drinking Water Standards).

In addition, DoD's public water systems must submit annual consumer confidence reports on the quality of their drinking water.

DoD's public water distribution goals are to support readiness by conserving resources through efficient management of drinking water assets, consistently provide safe drinking water to protect the health of the people living and working on DoD installations, and distribute public water in compliance with these standards to all of the DoD population.

The data presented in this appendix summarizes DoD's compliance with the SDWA.

Appendix U: Enforcement Actions provides additional information on DoD's surface water pollution and SDWA violations for FY2008.

Uniform National Discharge Standards (UNDS)

DoD's commitment to protect surface water quality goes above and beyond mere compliance with existing regulations as evidenced by the 10-year investment in the Uniform National Discharge Standards (UNDS) program. DoD and the U.S. Environmental Protection Agency (EPA) have been jointly working to develop and propose national standards that would control discharges from Armed Forces vessels that are not currently subject to regulations. DoD and EPA have been conducting this program under the authority granted by 1996 amendments to CWA §312.

The purpose of the UNDS program is to provide a comprehensive system for regulating discharges incidental to the normal operation of an Armed Forces' vessel. Until the CWA was amended in 1996, there had been no such requirement at the national level.

UNDS is intended to provide several benefits that help to protect surface water quality. For example, the standards developed from this program, once final, will enhance environmental protection of coastal waters, encourage environmentally sound management practices, help standardize training for crews to perform missions, and influence future vessel construction. The UNDS program also is expected to stimulate the development of innovative and advanced vessel pollution control technologies for liquid discharges.

Final standards, promulgated by the UNDS program, will regulate discharges incidental to normal operations from Armed Forces vessels (i.e., Army, Navy, Marine Corps, Air Force, Military Sealift Command (MSC), and Coast Guard). Geographically, these standards will apply to discharges into U.S. waters (i.e., inland navigable waters and ocean waters out to 12 nautical miles).

DoD and EPA published the UNDS Phase I proposed rule (63 *FR* 45297) on August 25, 1998. The proposed rule

described 39 discharges incidental to the normal operation of Armed Forces vessels and proposed requiring controls for 25 of these discharges. It also proposed a mechanism by which states could petition EPA and DoD to review a discharge for control or a marine pollution control device (MPCD) performance standard, and proposed processes to be followed by EPA and states when establishing no-discharge zones.

DoD and EPA published the Phase I final rule on May 10, 1999 (64 *FR* 25125). The final rule required control of 25 discharges from Armed Forces vessels, while exempting 14 discharges from control. It also finalized procedures for states to petition EPA and DoD to review controlled and exempted discharges, and establish no-discharge zones. Subsequent to publication of the Phase I final rule, DoD and EPA have continued with technical analyses and drafting proposed standards. To date, final standards have not been submitted for final rulemaking.

DoD

Figure T-1 illustrates short- and long-term trends for DoD's surface water quality permits compliant with CWA. Since CY2007, the total number of permits decreased by five percent. The percentage of permits in compliance remained the same at 95 percent. Over the long term, between CY2004 and the first half of CY2008, the total number of permits decreased by 14 percent, however the percentage of permits in compliance increased by two percent.

Figure T-2 illustrates short- and long-term trends for the DoD population served in accordance with SDWA and appropriate Final Governing Standards (FGSs). Since CY2007, the total population served by DoD water systems decreased by three percent. The total population receiving drinking water in compliance remained stable at 94 percent. Over the long term, between CY2004 and the first half of CY 2008, the total population served by DoD water systems increased by seven percent, and the percentage of the total population receiving drinking water in compliance also increased by seven percent.

Figure T-1 DoD Progress on CWA

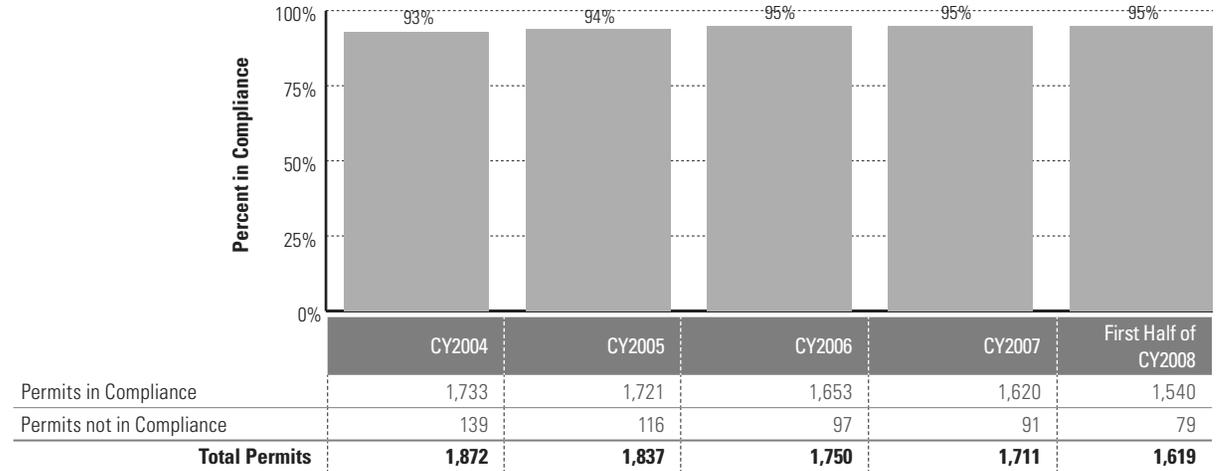
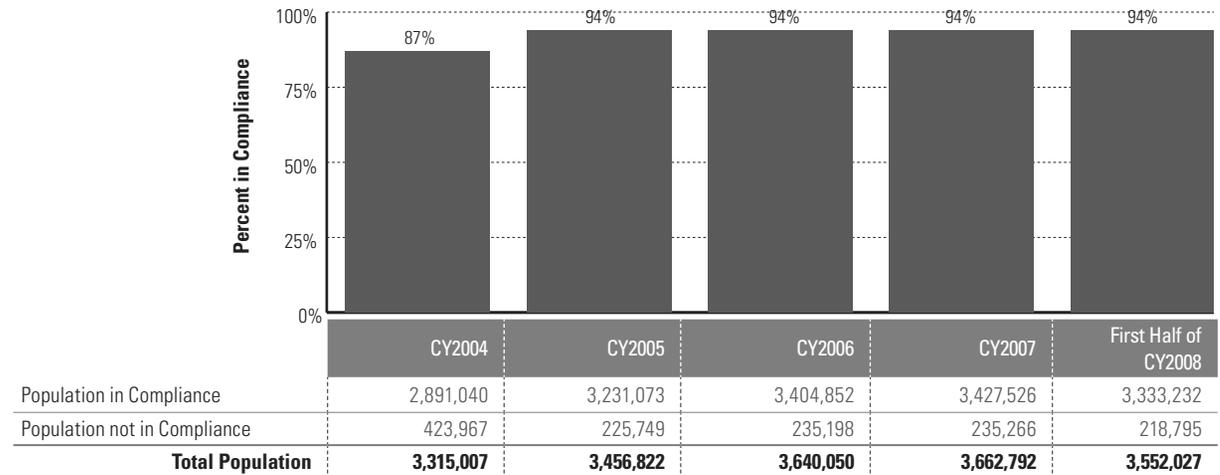


Figure T-2 DoD Progress on SDWA or FGSs



Army

Figure T-3 illustrates short- and long-term trends for Army's surface water quality permits compliant with CWA. Since CY2007, the total number of permits decreased by 5 percent, and the percentage of permits in compliance remained consistent at 97 percent. Over the long term, the total number of permits decreased by 11 percent between CY2004 and the first half of CY2008; however, the percentage of permits in compliance increased by 3 percent.

Figure T-4 illustrates short- and long-term trends for the Army population served in accordance with SDWA and appropriate FGSs. Since CY2007, the total population served by DoD water systems decreased by 2 percent, and the percentage of the total population receiving drinking water in compliance increased by 1 percent. Over the long term, between CY2004 and the first half of CY2008, the total population served by DoD water systems increased by 30 percent, and the total population receiving drinking water in compliance increased by 11 percent.

Figure T-3 Army Progress on CWA

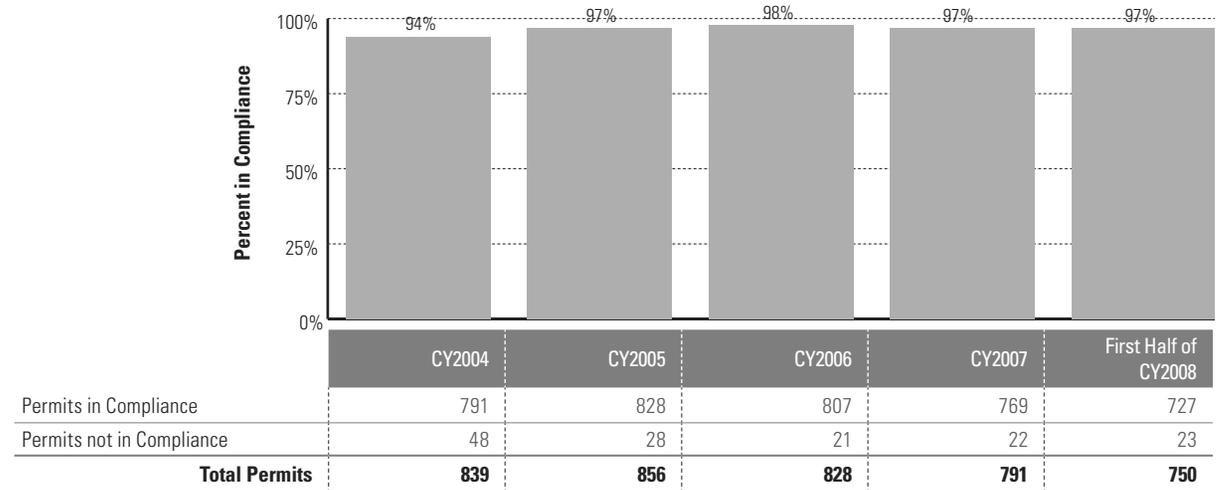
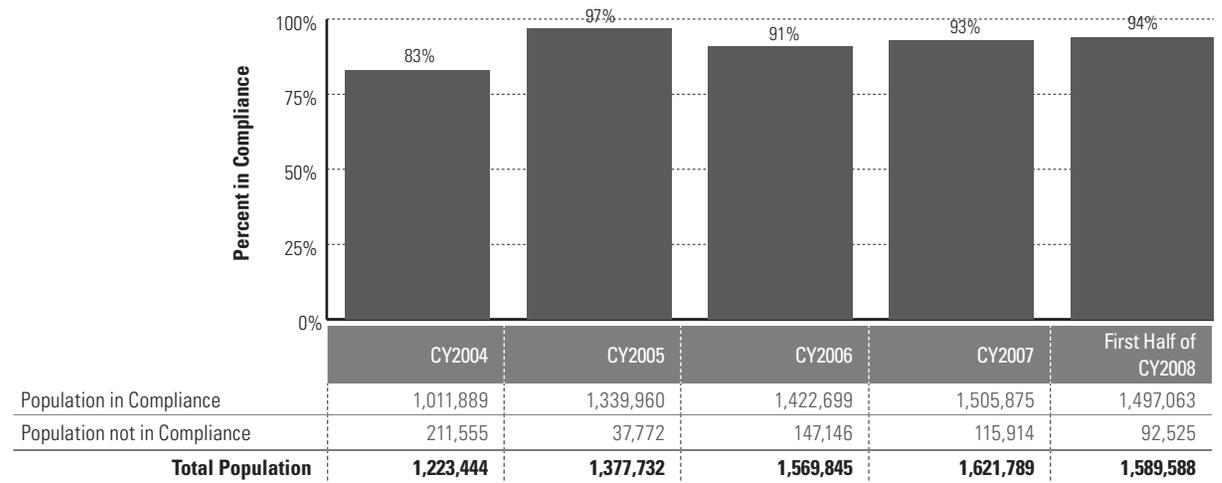


Figure T-4 Army Progress on SDWA or FGSs



Navy

Figure T-5 illustrates short- and long-term trends for Navy's surface water quality permits compliant with CWA. Since CY2007, the total number of permits decreased by 10 percent. The percentage of permits in compliance increased by 3 percent. Over the long term, the total number of permits decreased by 28 percent between CY2004 and the first half of CY2008; however, the percentage of permits in compliance increased by 4 percent.

Figure T-6 illustrates short- and long-term trends for the Navy population served in accordance with SDWA and appropriate FGSs. Since CY2007, the total population served by DoD water systems decreased by 8 percent, and the total population receiving drinking water in compliance decreased by 3 percent. Over the long term, between CY2004 and the first half of CY2008, the total population served by DoD water systems decreased by 4 percent; however the total population receiving drinking water in compliance increased by 5 percent.

Figure T-5 Navy Progress on CWA

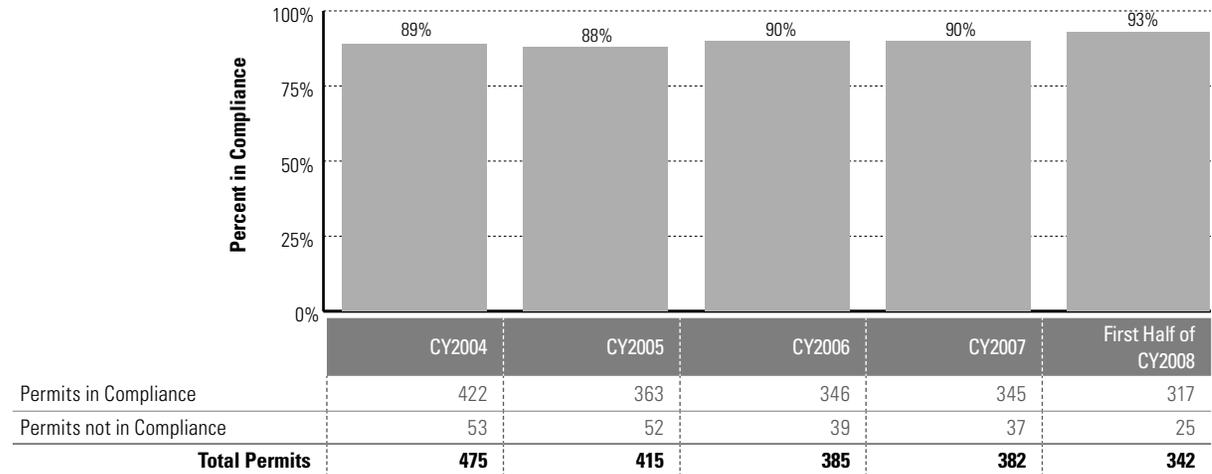
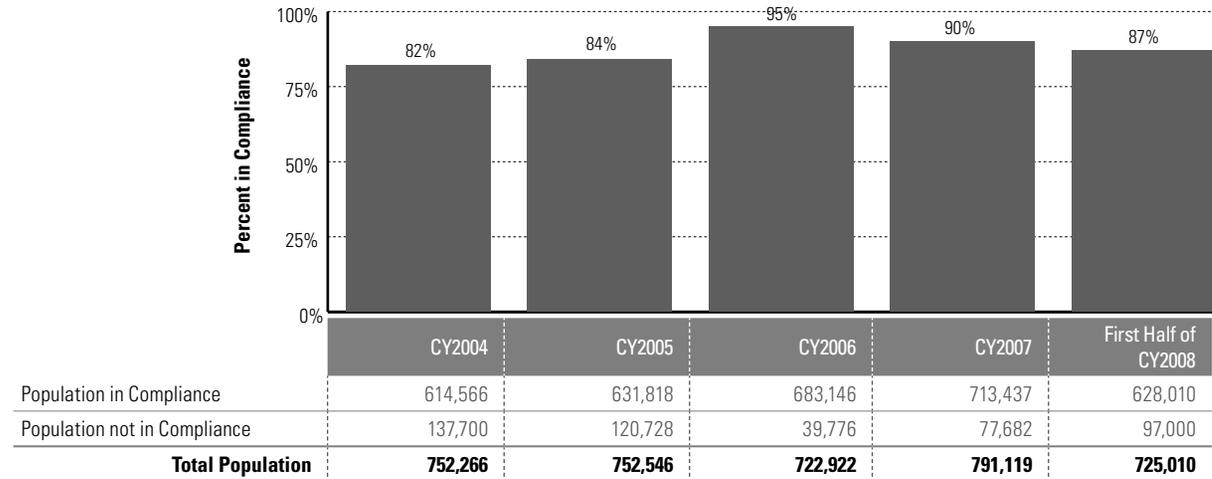


Figure T-6 Navy Progress on SWDA or FGSs



Marine Corps

Figure T-7 illustrates short- and long-term trends for Marine Corps surface water quality permits compliant with CWA. Since CY2007, the total number of permits decreased by 5 percent; however, the percentage of permits in compliance increased by 2 percent. Over the long term, between CY2004 and the first half of CY2008, the total number of permits decreased by 16 percent, and the percentage of permits in compliance decreased by 4 percent.

Figure T-8 illustrates short- and long-term trends for the Marine Corps population served in accordance with SDWA and appropriate FGSs. Since CY2007, the total population served by DoD water systems decreased by 1 percent, and the percentage of the total population receiving drinking water in compliance decreased by 8 percent. Over the long term, between CY2004 and the first half of CY2008, the total population served by DoD water systems increased by 3 percent, and the percentage of the total population receiving drinking water in compliance decreased by 2 percent.

Figure T-7 Marine Corps Progress on CWA

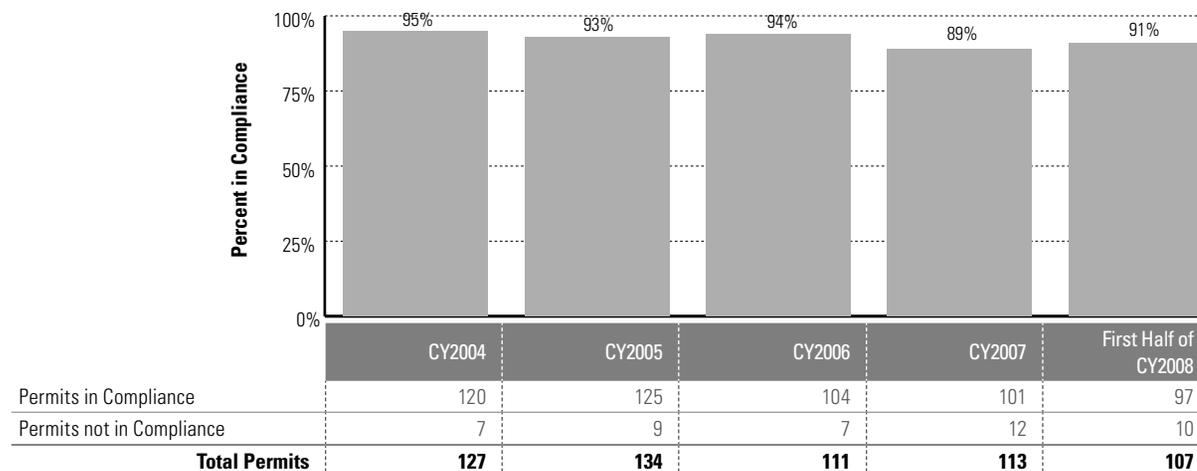
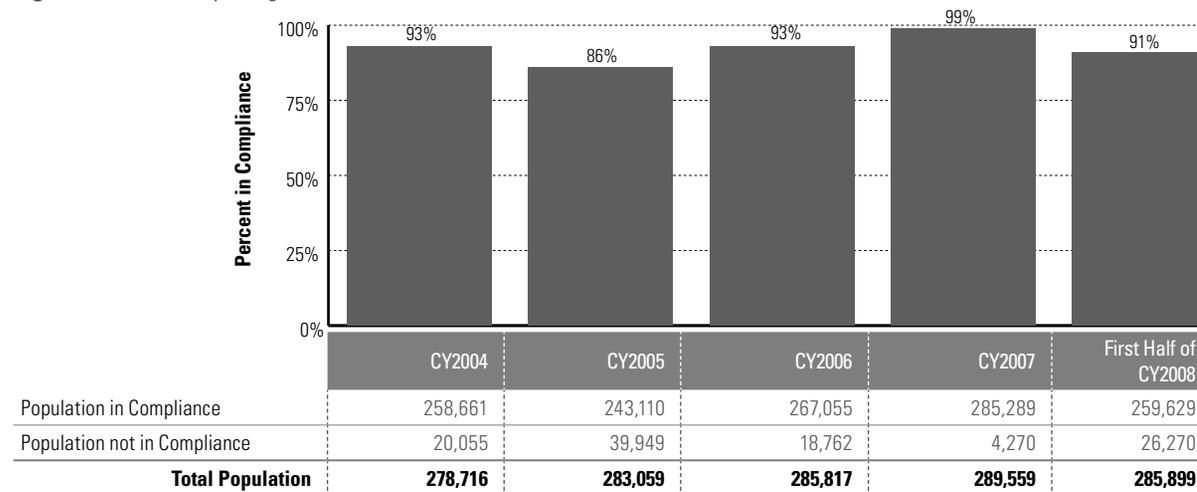


Figure T-8 Marine Corps Progress on SDWA or FGSs



Air Force

Figure T-9 illustrates short- and long-term trends for Air Force's surface water quality permits compliant with CWA. Since CY2007, the total number of permits decreased by one percent, and the percentage of permits in compliance remained the same at

95 percent. Over the long term, the percentage of the total number of permits decreased by three percent between CY2004 and the first half of CY2008; however, the percentage of permits in compliance increased by 2 percent.

Figure T-10 illustrates short- and long-term trends for the Air Force population served in accordance with SDWA and appropriate FGSs. Since CY2007, the total population served by DoD water systems decreased by 1 percent; however, the percentage of the total population receiving drinking water in compliance increased by 4 percent. Over the long term, between CY2004 and the first half of CY2008, the total population served by DoD water systems decreased by 11 percent; however, the percentage of the total population receiving drinking water in compliance increased by 5 percent.

Figure T-9 Air Force Progress on CWA

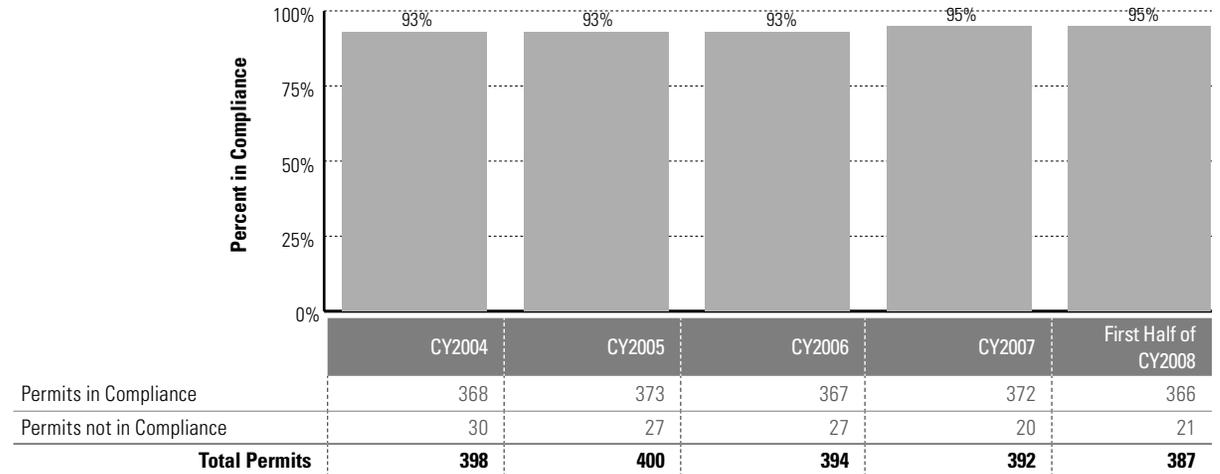
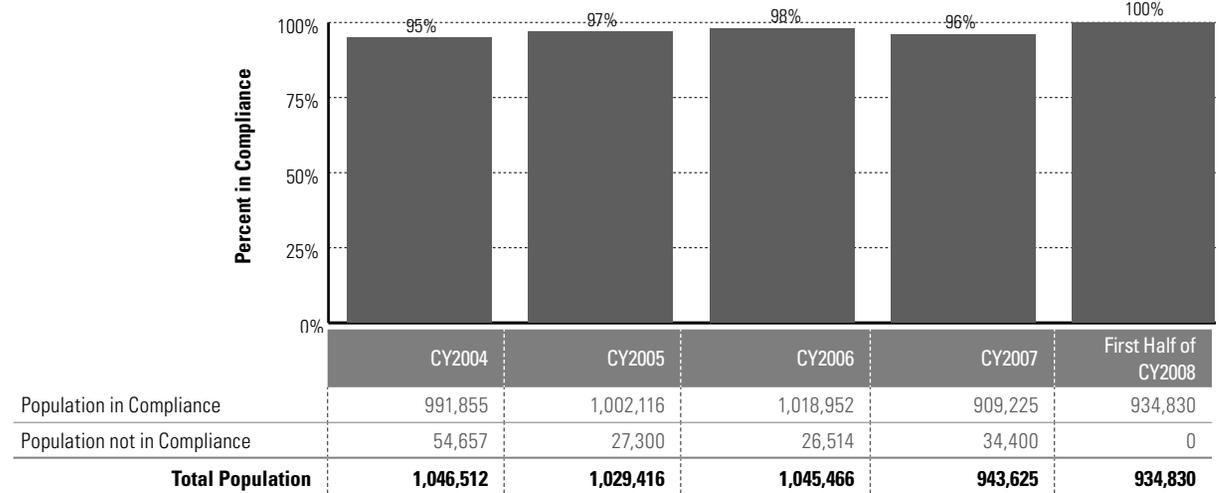


Figure T-10 Air Force Progress on SDWA or FGSs



DLA

Figure T-11 illustrates short- and long-term trends for DLA's surface water quality permits compliant with CWA. Since CY2007, the total number of permits remained stable at 32. Permits in compliance also remained at 100 percent. Over the long term, between CY2004 and the first half of CY2008, the total number of permits decreased by 3 percent; however the percentage of permits in compliance increased by 3 percent.

Figure T-12 illustrates short- and long-term trends for the DLA population served in accordance with SDWA and appropriate FGSs. Since CY2007, the total population served by DoD water systems remained the same, and the percentage of the total population receiving drinking water in compliance remained the same at 82 percent. Over the long term, between CY2004 and the first half of CY2008, the total population served by DoD water systems increased by 19 percent, and the percentage of the total population receiving drinking water in compliance decreased by 18 percent.

Figure T-11 DLA Progress on CWA

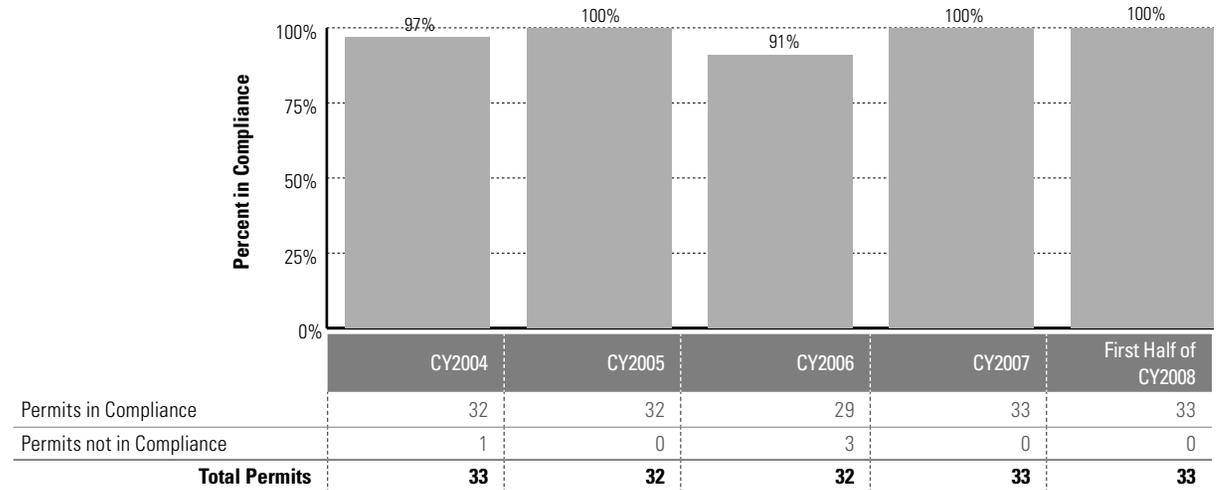


Figure T-12 DLA Progress on SDWA or FGSs

