

APPENDIX B: Component Environmental Programs Progress: Army, Navy, Air Force, DLA, FUDS

COMPONENT PROGRESS

Although the Office of the Secretary of Defense (OSD) provides oversight of and guidance for the Defense Environmental Programs, the Components are responsible for managing, funding, and executing environmental activities to meet the program goals established by OSD. Since the Components and their individual defense missions vary, managing the program at the Component level with Department of Defense (DoD) oversight affords consistency of program guidance and overall goals while providing each Component with the ability to address its environmental requirements according to Component-specific needs.

This appendix presents information on the environmental programs of the Components—Army, Navy, Air Force, and the Defense Logistics Agency (DLA)—as well as the Formerly Used Defense Sites (FUDS) program, and progress made during Fiscal Year (FY) 2005 on the four pillars of DoD environmental programs—conservation, restoration, compliance, and pollution prevention. The Army, Navy, Air Force, and DLA sections of this appendix provide a brief description of environmental program funding, highlight environmental program progress, and discuss future challenges and goals. With the exception of the FUDS program, which only addresses environmental restoration, each Component section discusses FY2005 efforts across the following four environmental pillars:

- Conservation - Component conservation efforts focus on natural and cultural resource planning to support sustained use and resource protection. This section discusses natural and cultural resource planning, cultural assets management, and the Legacy Resource Management Program, where applicable.
- Restoration - The Defense Environmental Restoration Program (DERP) addresses environmental restoration activities using a risk-based management strategy to restore environmentally impacted property. This section discusses DERP site status, funding, and Component

initiatives and program improvements for both the Installation Restoration Program (IRP) and Military Munitions Response Program (MMRP) portions of the DERP at active and Base Realignment and Closure (BRAC) installations.

- Compliance - Compliance efforts reflect DoD's commitment to protecting human health and the environment by achieving full and sustained compliance with all federal, state, and local environmental laws and regulations. This section discusses continued progress towards meeting water quality standards, disclosure of any compliance enforcement actions, and compliance with regulations pertaining to American Indian and Alaskan Natives.
- Pollution Prevention - Pollution prevention goals and objectives help the Components reduce future restoration and compliance costs and requirements. This section discusses investments in pollution prevention technologies and strategies like Green Procurement, integrated solid waste management, hazardous waste reduction and disposal, and ozone-depleting substances.

All Component sections also include a fact sheet, which serves as a quick reference for Component environmental programs information, providing data that highlight the Component's environmental programs status and progress. A DoD fact sheet is also included for reference.

DoD Environmental Programs at a Glance

Environmental Restoration Sites				
	IRP Sites	IRP Sites Complete†	MMRP Sites	MMRP Sites Complete†
Active	19,859*	15,692*	1,333	158
BRAC	4,865	3,948	318	114
FUDS	3,010*	1,887*	1,658	482
TOTAL	27,734*	21,527*	3,309	754

* Includes BD/DR sites

†Completed refers to those sites that have achieved response complete status.

Resources Management Plans		
	Plans Required	# Up-to-Date
INRMP	379	354
ICRMP	353	239
TOTAL	732	593

In FY2005...

- **Conservation**

DoD has 379 installations requiring INRMPs, of which 93 percent are complete and up-to-date and 353 installations requiring ICRMPs, of which 68 percent are complete and up-to-date.

- **Restoration**

DoD has 6,291 DERP sites in investigation phases, 2,471 sites with cleanup planned or underway*, and 945 sites with long-term management underway and that are response complete.

- **Compliance**

DoD obligated a total of \$1.7 billion on compliance activities, of which nine percent were recurring compliance costs, including manpower and other personnel costs.

- **Pollution Prevention**

DoD's solid waste program had an overall diversion rate of 55 percent, producing a cost savings of \$159.9 million.

* Cleanup planned or underway includes sites that have achieved remedy in place status.

Through FY2005...

- **Conservation**

DoD completed 354 INRMPs and 239 ICRMPs

- **Restoration**

The site-level cost for completing the remaining 8,762 DoD sites is estimated at approximately \$39.4 billion.

- **Compliance**

Over the last 10 years, the percentage of investigations at DoD installations resulting in new enforcement actions decreased from 31 to 13 percent.

- **Pollution Prevention**

Since 1992, DoD has reduced hazardous waste generation by 67 percent.



Army Environmental Programs Progress

COMPONENT PROGRESS

Army Environmental Programs at a Glance

Environmental Restoration Sites				
	IRP Sites	IRP Sites Complete†	MMRP Sites	MMRP Sites Complete†
Active	10,512	9,488	821	82
BRAC	1,893	1,744	173	109
TOTAL	12,405	11,232	994	191

†Completed refers to those sites that have achieved response complete (RC) status.

Resources Management Plans		
	Plans Required	# Up-to-Date
INRMP	178	177
ICRMP	140	118
TOTAL	318	295

In FY2005....

- **Conservation**

Army has 178 installations requiring INRMPs, of which 99 percent are complete and up-to-date and 140 installations requiring ICRMPs, of which 84 percent are complete and up-to-date.

- **Restoration**

Army has 1,576 DERP sites in investigation phases, 400 sites with cleanup planned or underway*, and 311 sites with long-term management underway and that are response complete.

- **Compliance**

Army obligated a total of \$602.0 million on compliance activities, of which 57 percent were recurring compliance costs, including manpower and other personnel costs.

- **Pollution Prevention**

The Army's solid waste program had an overall diversion rate of 46 percent, producing a cost savings of \$57.8 million.

* Cleanup planned or underway includes sites that have achieved remedy in place (RIP) status.

Through FY2005....

- **Conservation**

Army completed 177 INRMPs and 118 ICRMPs.

- **Restoration**

The site-level cost for completing the remaining 1,976 Army sites is estimated at approximately \$7.7 billion.

- **Compliance**

Over the last 10 years, the percentage of investigations at Army installations resulting in new enforcement actions decreased from 31 percent to 12 percent.

- **Pollution Prevention**

Since 1992, Army has reduced hazardous waste generation by 24 percent.

The Army Environmental Program supports the Army's military mission and contributes to the well-being of its soldiers, their families, and its communities. To fulfill the public trust, the Army manages its lands by protecting natural and cultural resources, ensuring compliance with applicable federal and state environmental laws, responding to contamination resulting from past Army practices, and preventing future pollution.

The new Army Environmental Strategy, published in Fiscal Year (FY) 2005, is to "Sustain the Mission—Secure the Future." This approach better integrates mission, environment, and community needs, recognizing their interdependence for the sustainability of the mission. The Army's previous approach was to manage environmental activities as independent functions, often apart from other installation activities. The new strategy integrates the Army's environmental efforts as part of all functional areas of the Army from planning to execution, thereby establishing a partnership between the environment and community. The strategy has six goals:

- Foster an ethic within the Army that takes it beyond environmental compliance to sustainability
- Strengthen Army operational capability by reducing its environmental footprint through more sustainable practices
- Meet current and future training, testing, and other mission requirements by sustaining land, air, and water resources
- Minimize impacts and total ownership costs of Army systems, materiel, facilities, and operations by integrating the principles and practices of sustainability
- Enhance the well-being of soldiers, civilians, families, neighbors, and communities through leadership in sustainability practices
- Use innovation and the principles of sustainability to meet user needs and anticipate future Army challenges.

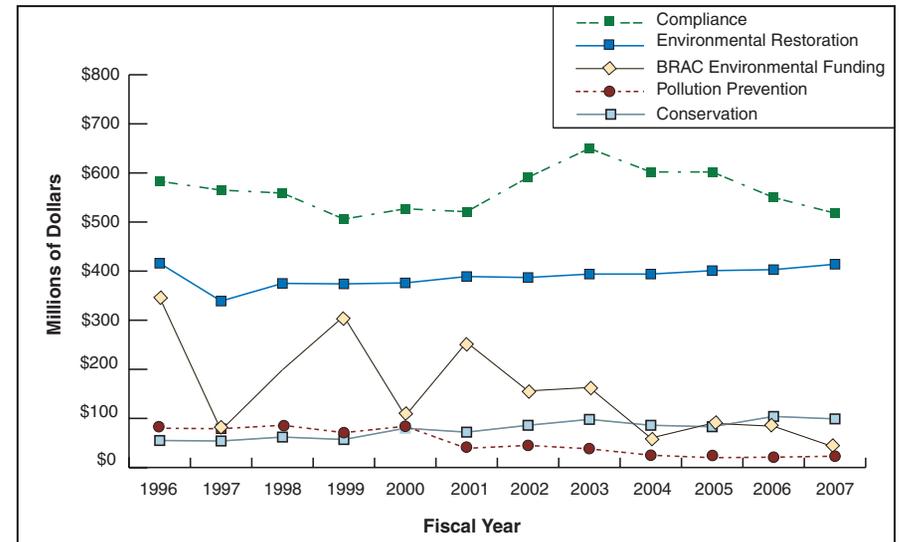
Army Environmental Funding

While many factors influence the environmental budget, the Army is committed to spending funds in a way that provides the most comprehensive protection of human health and the environment.

Army Environmental Funding Trends

The Army is dedicated to the success of its environmental programs. In FY2005, the Army obligated \$1.2 billion to protect human health and the environment. Figure B-1 shows the long-term funding trends for the major environmental categories and programs.

Figure B-1
Army Environmental Funding Trends



Conservation

Funding for conservation efforts comes from a variety of programs, including conservation, facilities management, integrated training area management, forestry, agriculture, and fish and wildlife conservation. In FY2005, the Army obligated \$82.6 million for its conservation programs, which was \$3.6 million less than FY2004. Conservation funding increases that the Army anticipates in FY2006 will help ensure sustainment of Army training lands and installation conservation assets.

Restoration

In FY2005, the budget for environmental restoration at active installations was \$401.3 million. This was a \$7.2 million increase from the restoration funds spent in FY2004. Funding for environmental restoration at Base Realignment and Closure (BRAC) installations totaled \$95.0 million.

Compliance

Compliance with applicable statutes, regulations, and other legal requirements is crucial in order to promote environmental conservation and restoration efforts among the Department of Defense (DoD) Components. The budget for compliance efforts remained constant at \$602.0 million in FY2005. These funds allowed Army installations to continue to comply with federal, state, and local environmental regulations.

Pollution Prevention

Funding for pollution prevention activities reduces health and safety risks at and near Army installations. The Army reduced its pollution prevention budget to \$19.9 million in FY2005, compared to \$25.1 million in the previous year, but expects an increase to \$21.5 million in FY2006.

Conservation

The Army is committed to managing, protecting, and restoring the natural and cultural resources on its installations.

Natural and Cultural Resource Planning

In FY2005, 167 installations completed natural and cultural asset inventories of biological resources, compared to 130 installations in FY2004. Figure B-2 illustrates the Army's progress in completing natural asset inventories over the past nine years. Army installations are developing and implementing Integrated Natural Resource Management Plans (INRMPs) in coordination with other installation management plans and processes. Over 99 percent of installations requiring INRMPs in FY2005 have up-to-date INRMPs completed, as shown in Figure B-3.

The Army Compatible Use Buffer (ACUB) Program is one of the Army's conservation efforts that reaches out beyond installation boundaries to conserve natural resources and sustain the installation's military mission. ACUBs have been highly effective in protecting both species habitat and mission capabilities.

Cultural Asset Management

The Army continues its emphasis on effective management of cultural resources. Accurate and comprehensive accounting of Army heritage

Figure B-2
Army Natural Resource Inventory Completed

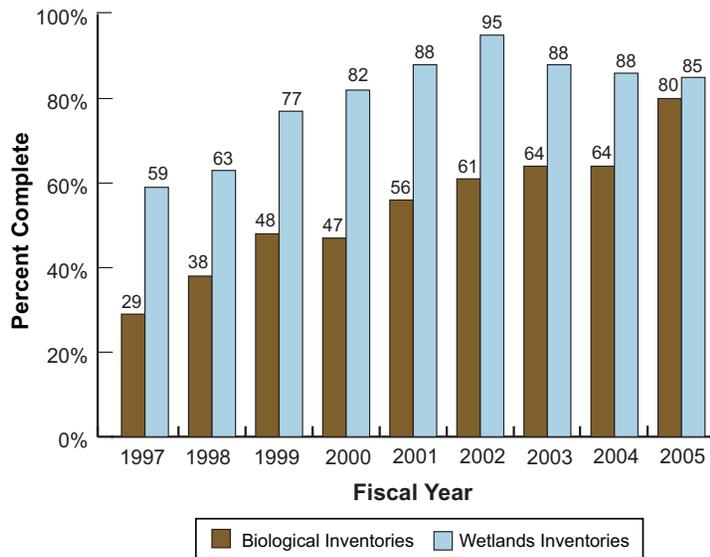
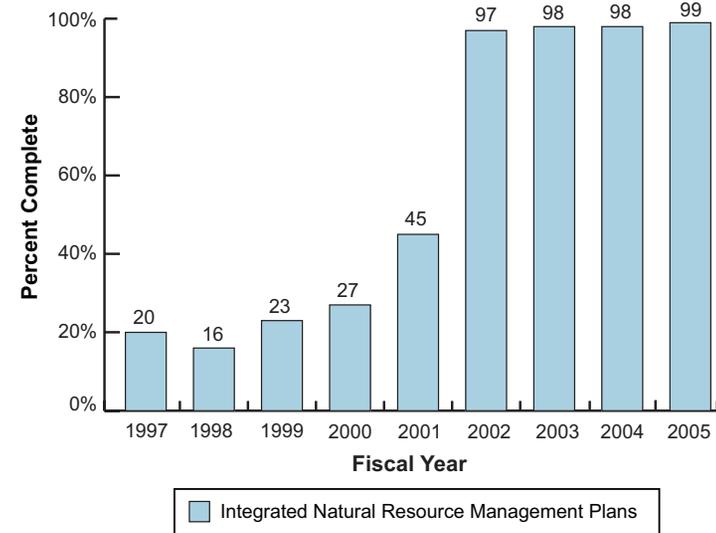


Figure B-3
Army INRMP Progress



assets is being pursued in accordance with the Chief Financial Officers Act of 1990, Executive Order 13327 (Federal Real Property Asset Management), and Executive Order 13287 (Preserve America). As shown in Figure B-4, the percentage of cultural assets inventories completed has fluctuated because the number of inventories required changes annually. However, the completion of Integrated Cultural Resource Management Plans (ICRMPs), depicted in Figure B-5, has progressed each year since FY2000.

Legacy Resource Management Program

Army natural and cultural resource stewardship continued to benefit from the Legacy Resource Management Program (LRMP). The Army received \$1.5 million from the LRMP in FY2005 for projects in support of range sustainment and other critical areas.

Restoration

In FY2005, the Army continued to make progress toward successfully cleaning up sites and ensuring that excess property became ready for reuse. The Army remained focused on its Strategy for the Environment and Army Environmental Cleanup Strategy to guide its cleanup program. Consistent with its Environmental Cleanup Strategy, the Army expanded the use of performance-based contracts (PBCs) to achieve the most cost-effective, technically sound, and results-oriented cleanups.

Site Status and Progress Towards Program Goals

In FY2005, the Army focused on achieving program completion in the Installation Restoration Program (IRP). Both active and BRAC installations continued to progress toward completion of environmental restoration activities in a cost-effective manner. The overall site status at active and BRAC installations is shown in Figures B-6 and B-7.

The Army had 10,512 IRP sites at active installations in FY2005, an increase of 80 sites from FY2004. The Army projects meeting its FY2014 IRP goal for having all sites at active installations achieve remedy in place or response complete (RIP/RC) status. The Army has made significant progress in reducing the number of sites in all relative-risk categories, although it will not meet the interim goal of having all high relative risk sites at RIP/RC status by FY2007 at 16

Figure B-4
Army Cultural Asset Inventories Completed

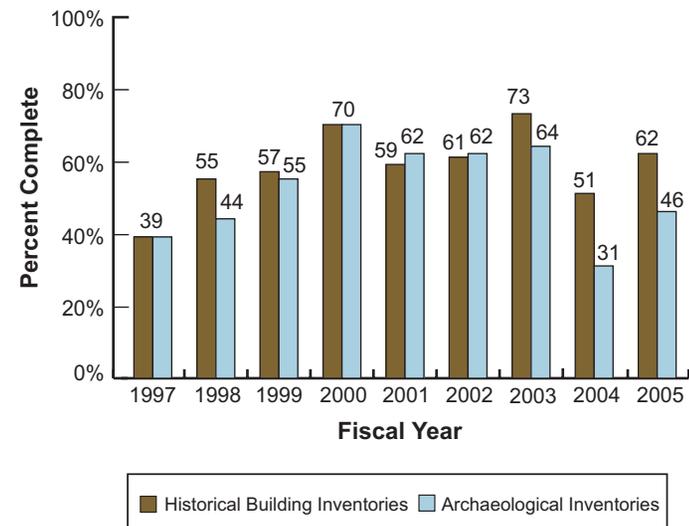


Figure B-5
Army ICRMP Progress

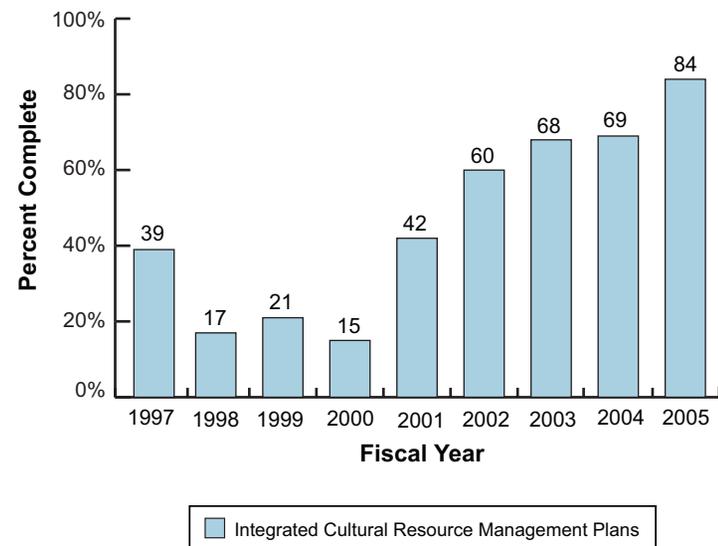
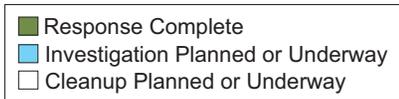
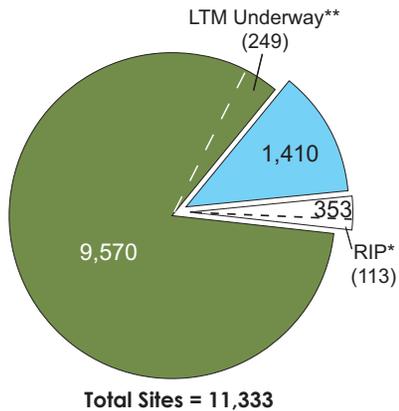


Figure B-6
FY2005 Army Active DERP Site Status†

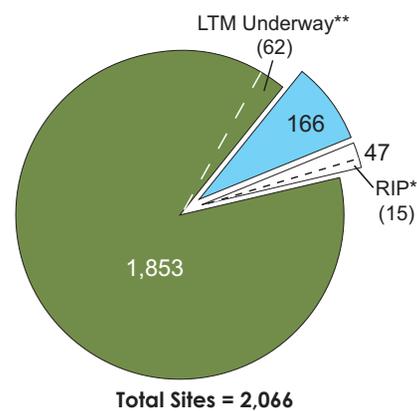


† Includes all site types as of September 30, 2005.

* Remedy in place (RIP) includes sites where remedial action operations are underway. RIP is a subset of Cleanup Planned or Underway.

** Long-term management (LTM) occurs at a subset of the sites that have achieved response complete.

Figure B-7
FY2005 Army BRAC DERP Site Status†



installations. The Army does anticipate meeting the FY2011 goal of achieving RIP/RC status at medium relative-risk sites. In FY2005, 225 IRP sites at active installations achieved RIP/RC status, compared to the projection of 235 sites. Ten active installations achieved RIP/RC status at all sites during FY2005.

The Army had 1,893 IRP sites at BRAC installations in FY2005, an increase of two sites from FY2004. In FY2005, four BRAC installations achieved RIP/RC status at all sites. The Army did not meet the FY2005 goal of obtaining RIP/RC status at all BRAC restoration sites primarily due to further characterization being required before reaching regulatory consensus on decision documents.

In FY2005, the Army had 821 sites at 166 active installations in the Military Munitions Response Program (MMRP), an increase of 19 sites from FY2004. The Army met the goal of completing all preliminary assessments at active installations in FY2004, three years before the FY2007 goal, and is on schedule to complete all active installation site inspections (SIs) by the end of FY2010. By the end of FY2005, 21 of 166 active installation SIs were completed and another 40 were underway. In FY2005, six SIs were awarded via a PBC mechanism; additional PBC awards are planned in FY2006 and beyond. In addition, the completed SIs resulted in a reduction from 35,921 to 21,435 acres in the program. As of FY2005, Army BRAC installations had 173 MMRP sites; 109 sites had completed remediation efforts and 64 sites had cleanup or investigations underway.

Figure B-8
FY2005 Army ER Funding
by Cleanup Phase*
(in millions of dollars)

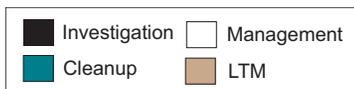
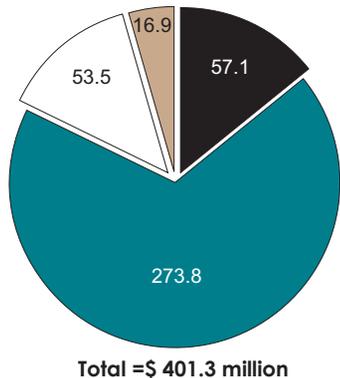
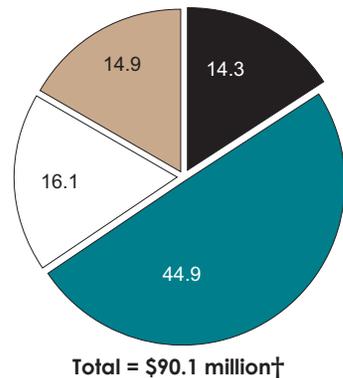


Figure B-9
FY2005 Army BRAC ER Funding
by Cleanup Phase*
(in millions of dollars)



* Due to rounding, category subtotals may not equal fiscal year totals.

† Does not include \$2.0 million of compliance and planning funding or \$3.0 million in Air Force funds for EPA requirements.

Funding

In FY2005, the Army obligated \$391.3 million in Environmental Restoration (ER) funding for IRP sites at active installations. Of this amount, 70 percent of the funds were obligated for cleanup activities and 13 percent went toward investigation activities. The Army used the remaining funds for remedial action operations and long-term management activities, as well as program management. The Army obligated an additional \$9.9 million of Army ER funds for the MMRP at active installations. The Army used most of these funds to continue SIs and provide program management. Army's ER activities are profiled by cleanup phase in Figure B-8.

The Army obligated \$95.0 million in BRAC ER funding during FY2005; 81 percent for IRP sites and 19 percent for MMRP sites. Army's BRAC funding is profiled by cleanup phase in Figure B-9.

The site-level cost-to-complete (CTC) for environmental restoration at Army's active installations, including IRP and MMRP, decreased from \$8.3 billion to \$6.7 billion in FY2005, as illustrated in Figure B-10. The IRP site-level CTC decreased from \$2.8 billion to \$2.4 billion. Similarly, the MMRP site-level CTC decreased from \$5.5 billion to \$4.3 billion. The Army's CTC for BRAC Rounds I-IV, including both IRP and MMRP, increased from \$1.0 billion to \$1.1 billion, with the IRP component having reduced significantly from \$524.8 million to \$453.5 million. However, the MMRP site-level CTC for BRAC Round I-IV installations increased from \$480.1 million to \$634.1 million as a result of more complete site characterizations. The overall BRAC CTC increased from \$1.0 billion to \$1.6 billion when considering the CTC for installations earmarked for closure as a result of the anticipated 2005 BRAC Round. BRAC CTC trends are shown in Figure B-11.

Program Initiatives and Improvements

The Army continues to seek the most efficient and cost-effective strategies for achieving program completion. In FY2005, the Army expanded its use of PBCs at active installations with a goal of placing 50 percent of the program on PBCs. The Army has awarded 40 contracts at 58 active Army installations since FY2001, totaling approximately \$468 million. The Army awarded 19 PBCs at 24 active installations in FY2005, resulting in over 50 percent of the FY2005 program funds going to PBCs. Eight of the 19 contracts were awarded to small businesses. The Army goal is to have 60 percent of program funds going toward PBCs by the end of FY2006.

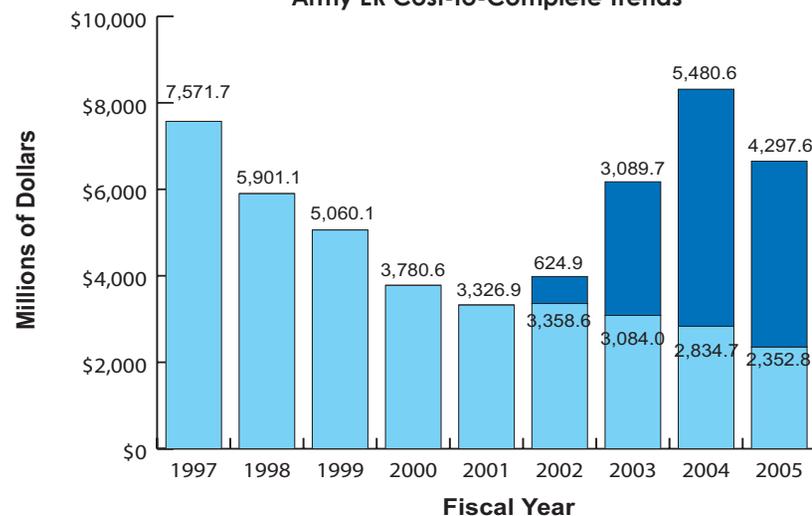
Compliance

In accordance with the new Army Strategy for the Environment, the Army increasingly applies principles of sustainability for the long-term benefit of its mission, the environment, and its communities. In addition, the Army is improving training to instill in all Army personnel, civilian and military, the ethic of protecting the environment. The key compliance metrics presented below all continue to display steady performance improvements.

Water Quality

To go beyond compliance, the Army has taken the initiative in developing a tool to assess the impact of military operations on surrounding watersheds. Using its Watershed Impact Assessment Protocol, the Army can identify Army sources of potential discharges to a watershed and develop the necessary means to reduce or eliminate the possibility of adverse impacts to the water body consistent with the mission and in concert with surrounding landowners.

Figure B-10
Army ER Cost-to-Complete Trends



Note: Funding represents site-level data and does not include management and support or other miscellaneous costs not directly attributable to specific sites.

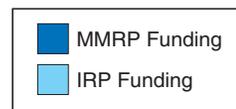
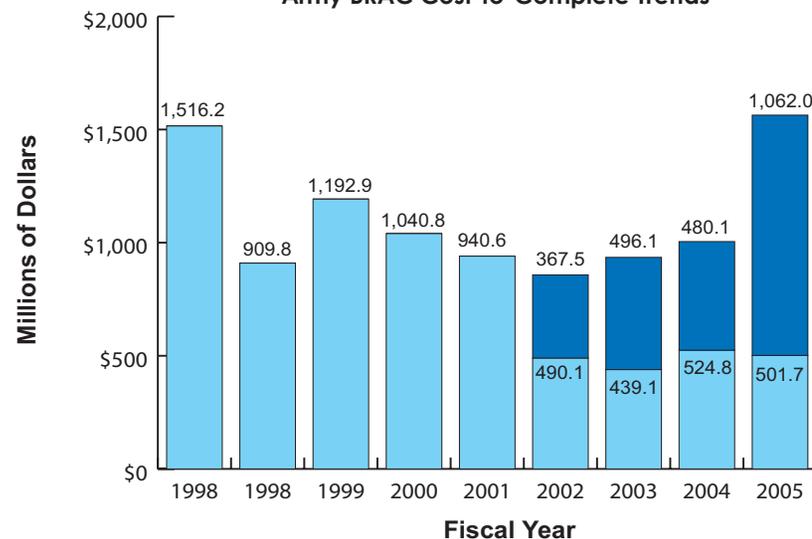


Figure B-11
Army BRAC Cost-to-Complete Trends



Note: Funding represents site-level data and does not include management and support or other miscellaneous costs not directly attributable to specific sites.

This assessment tool is a clear example of a proactive first step that will lead to more sustainable practices to protect watersheds in the future and assist in local watershed planning consistent with mission needs.

The Army has maintained a consistently high compliance rate for discharge permits under the National Pollution Discharge Elimination System (NPDES) as required by the Clean Water Act (CWA). As shown in Figure B-12, for the first half of calendar year (CY) 2005, 96 percent of all NPDES permitted operations were in full compliance with discharge limits and other permit conditions, up slightly from a compliance rate of 94 percent in CY2004.

Army compliance with the Safe Drinking Water Act (SDWA) has improved significantly. As shown in Figure B-13, in the first half of CY2005, 97 percent of the population served by Public Water Systems received water that was in full compliance with SDWA, up dramatically from 78 percent in CY2004. The Army is on track to complete all required vulnerability assessments on time, a process that helped focus attention on plant facilities and compliance.

Improved data collection software and quality assurance efforts greatly reduced administrative errors in data reporting processes.

Compliance Enforcement Actions

Army compliance enforcement actions remained low and stable in FY2005, and represented a nearly 60 percent reduction over the past decade. Seventy-two percent of Army installations received zero enforcement actions in FY2005. As a result, the corresponding fines and penalties show a continued reduction. The steady decline in compliance enforcement actions is shown in Figure B-14. In FY2006, Army will implement the Compliance Deficiency Resolution Process to fix deficiencies in the same year they are identified.

Compliance Fines and Penalties Assessed and Paid

Enforcement assessments and payments for FY2005 fell to less than half of the previous year to some of the lowest levels in the past decade, as indicated in Figure B-15.

Figure B-12
Army CWA Permit Compliance

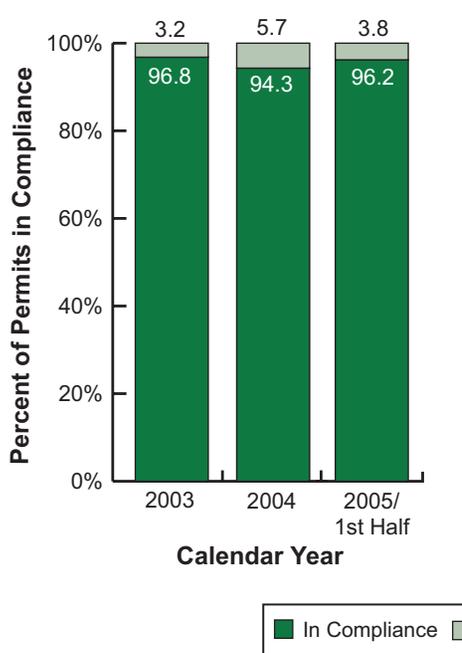


Figure B-13
Army SDWA Compliance Rate

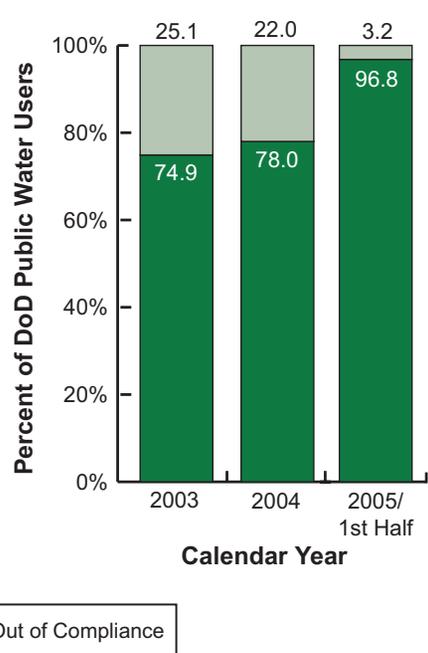


Figure B-14
Army Compliance Enforcement Actions

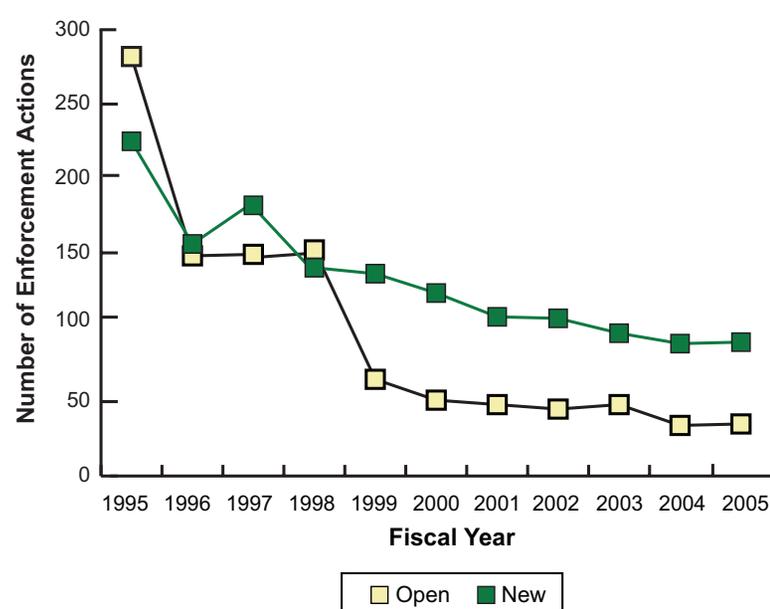
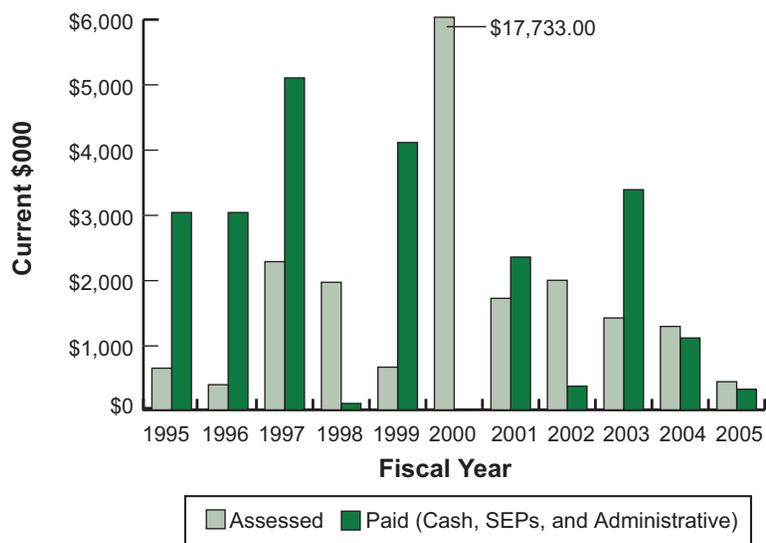


Figure B-15
Army Compliance Fines and Penalties Assessed and Paid



American Indian and Alaska Natives

The Army continued support of the DoD American Indian and Alaska Native Policy Implementation Demonstration project at Fort Wingate, New Mexico. In FY2005, the Army Environmental Center concluded consultations with the Pueblo of Zuni and the Navajo Nation to plan for identification and disposition of Native American cultural resources within the Open Burn and Detonation area of Fort Wingate. The Army continues to support the Native American Lands Environment Mitigation Program by providing guidance for government-to-government consultation with tribes.

Pollution Prevention

Pollution prevention helps Army installations reduce their future environmental compliance costs. The Army pollution prevention program focuses on implementing changes in chemicals, equipment, and processes in order to achieve a meaningful cost-effective reduction in the generation of pollution without adversely impacting mission readiness.

Green Procurement

The Army continues to be a leader in the purchase of environmentally preferable products, as well as expanding the use of biobased and

alternative fuels. The Army developed a Green Procurement Guide to assist installations and commands in the execution of the program. This guidance will be issued with a new program policy letter in early 2006, which will serve to emphasize the program's potential and to clarify the roles and functions of procurement and development personnel. Four Army installations are currently using biodiesel and more will initiate its use in FY2006. Improved waste stream management practices of the Federal Electronics Challenge are now piloted at two Army installations.

Integrated Solid Waste Management

Army continues to make significant strides in solid waste diversion and recycling. In FY2005, diversion and recycling accounted for 45 percent of all solid waste disposal, surpassing a 40 percent management goal. Performance was particularly good for construction and demolition processes, where Army diverted 67 percent of this debris from landfills and into productive reuse. The qualified recycling program posted gross revenues of \$16.3 million, a 63 percent increase from last year. Most of these proceeds went back into operation and toward improvement of the program.

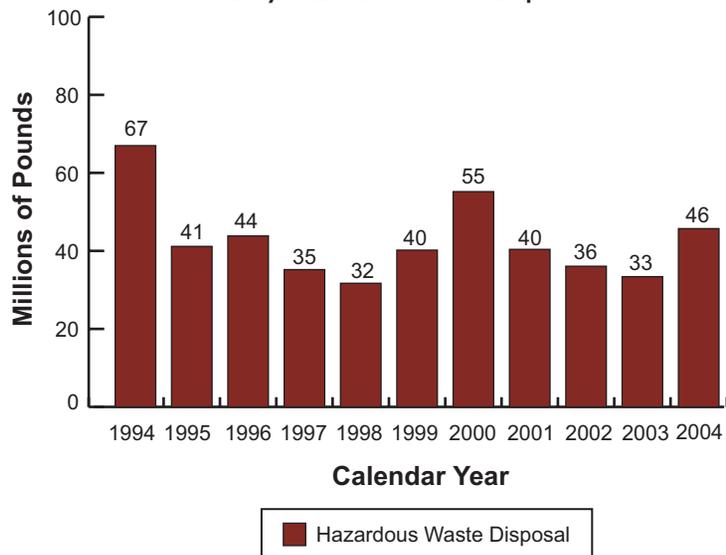
Hazardous Waste Reduction and Disposal

The Army's hazardous waste disposal increased in CY2004, as shown in Figure B-16. This rise is primarily attributable to increases in the off-site demilitarization of conventional munitions and the increased operational tempo and deployment of both active and reserve component forces in support of ongoing operations. Another significant one-time increase resulted from the decision by the State of California to classify wood from the demolition of World War II era buildings as hazardous waste for buildings that contained lead-based paint.

Ozone-Depleting Substances

The Army remains committed to the elimination of Class I Ozone-Depleting Substances (ODSs). Since 1992, Army has eliminated 99 percent of its use of Class I ODS solvents, 98 percent of Class I ODS refrigerant (chlorofluorocarbon [CFC]) use, and 90 percent of Class I ODS fire suppressant (halon) use. Army installations have now eliminated their dependency on the commercial availability of Class I ODSs. They are prohibited from purchasing new halon or reusing halon recovered from retrofit or retired building fire suppression systems. All recovered halon is sent to the Army ODS Reserve storage.

**Figure B-16
Army Hazardous Waste Disposal**



requirements, cleanup of contaminated sites, and important technology and pollution prevention initiatives. The Army plan is strategically balanced to support both the readiness of the force, its soldiers, its natural resources, and its communities. Army's long-term strategy can only be accomplished through sustained, balanced funding, and improvements in management and technology.

In FY2005, the Army Acquisition Executive implemented an ODS elimination policy to emphasize removal of ODSs from legacy weapon systems engine compartments and air conditioning. For fire protection systems on new Army aircraft and life extensions beyond 2030, work continues to qualify hydrofluorocarbon HFC-125 as an alternative to halon.

Toxic Release Inventory

In CY2004, Army's Toxic Release Inventory showed a 13 percent decrease in non-range releases from the previous year. About 50 percent of the decrease was due to delisting of methyl ethyl ketone. Additionally, there was a 21 percent reduction in water-dissociable nitrate compounds from the 2001 reported baseline. Water-dissociable nitrate compounds are released from propellant manufacturing and sewage treatment. Radford Army Ammunition Plant, DoD's only nitrocellulose manufacturer, released approximately 2.8 million pounds in CY2004, 85 percent of the Army total. The Army does not anticipate reduction or major process modification in nitrocellulose production.

Looking Forward

The Army's \$1.2 billion FY2006 request will provide for the Army: protection of training and testing lands, compliance with federal and state environmental



Navy Environmental Programs Progress

COMPONENT PROGRESS

Navy Environmental Programs at a Glance

Environmental Restoration Sites				
	IRP Sites	IRP Sites Complete†	MMRP Sites	MMRP Sites Complete†
Active	3,714	2,574	213	16
BRAC	1,094	920	19	5
TOTAL	4,808	3,494	232	21

†Completed refers to those sites that have achieved response complete (RC) status.

Resources Management Plans				
	Plans Required		# Up-to-Date	
	Navy	Marine Corps	Navy	Marine Corps
INRMP	78	17	77	15
ICRMP	70	17	27	12
TOTAL	148	34	104	27

In FY2005....

- **Conservation**

Department of the Navy has 95 installations requiring INRMPs, of which 97 percent are complete and up-to-date, and 87 installations requiring ICRMPs, of which 45 percent are complete and up-to-date.

- **Restoration**

Department of the Navy has 1,039 DERP sites in investigation phases, 486 sites with cleanup planned or underway*, and 185 sites with long-term management underway and that are response complete.

- **Compliance**

Department of the Navy obligated a total of \$553.7 million on compliance activities, of which 60.7 percent were recurring compliance costs, including manpower and other personnel costs.

- **Pollution Prevention**

Department of the Navy solid waste program had an overall solid waste diversion rate of 49 percent, producing a cost savings of \$33.5 million.

* Cleanup planned or underway includes sites that have achieved remedy in place (RIP) status.

Through FY2005....

- **Conservation**

Department of the Navy completed 92 INRMPs and 39 ICRMPs.

- **Restoration**

The site level cost for completing the remaining 1,525 Department of the Navy sites is estimated at approximately \$3.4 billion.

- **Compliance**

Over the last 10 years, the percentage of inspections at Department of the Navy installations resulting in new enforcement actions decreased from 76 to 14 percent.

- **Pollution Prevention**

Since 1992, Department of the Navy has reduced hazardous waste generation by 73 percent.

The Department of the Navy (DON), which includes the Navy and Marine Corps' environmental programs, focuses on conservation, restoration, compliance, and pollution prevention to protect its resources. Such programs are vital to conserving and restoring the natural and cultural resources that are present at DON installations.

Navy Environmental Funding

In order to provide adequate protection to human health and the environment, DON's budget for environmental programs includes funding for conservation, restoration, compliance, and pollution prevention.

Navy Environmental Funding Trends

In FY2005, DON provided funding to meet a broad spectrum of environmental requirements including conservation, restoration, compliance, and pollution prevention initiatives at active and Base Realignment and Closure (BRAC) installations. Figure B-17 details DON environmental funding trends.

Conservation

DON conservation funds are invested in natural, historical, and cultural resource conservation. In FY2005, DON invested approximately \$29.5 million in conservation projects. Approximately \$15.0 million of the conservation budget

was invested in support of recurring costs. These activities include preparing and updating integrated natural and cultural resource management plans, coordinating with other conservation regulatory agencies, and on-going threatened and endangered species recovery efforts and habitat support. Nonrecurring allocations from the Conservation program budget included \$15.0 million to innovative natural, historical, and cultural conservation projects. The total investment level is expected to increase overall to \$32.0 million by FY2011, with a 7 percent decrease in the amount allocated to nonrecurring projects and a 100 percent increase in the amount allocated to recurring projects.

Restoration

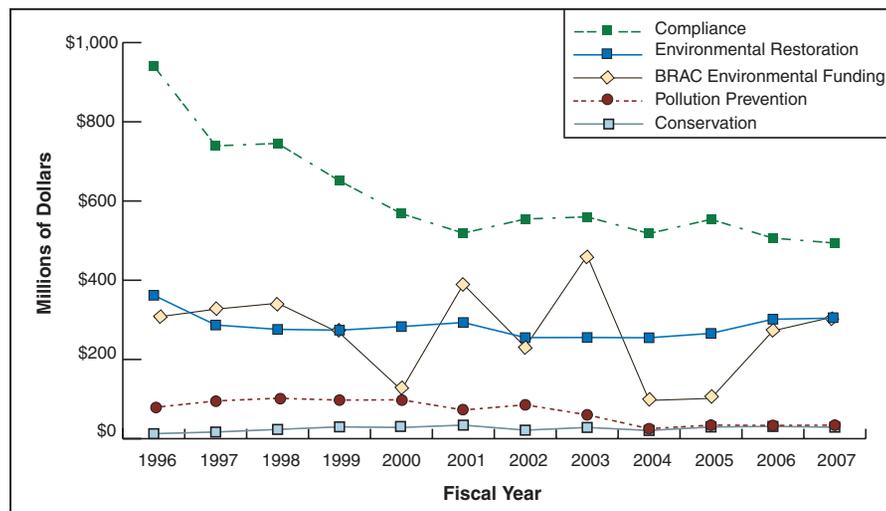
DON's restoration program funding, which includes Environmental Restoration (ER) and BRAC funds, totaled approximately \$368.4 million in FY2005. Approximately 68 percent of active Installation Restoration Program (IRP) site level costs in FY2005 were allocated to design work, interim or final cleanup actions, and operations and maintenance and 32 percent of funding was spent on investigation activity and cleanup work. The FY2006 funding level is projected to be \$301.5 million, and the FY2007 funding level is projected to be \$304.4 million, including \$43.0 million in FY2006 and \$49.3 million in FY2007 for Military Munitions Response Program (MMRP) activities. While IRP costs are typically constant, MMRP costs show slight increases as site investigations allow for more accurate site characterization.

DON's obligations for restoration work at BRAC installations totaled \$102.5 million in FY2005. Navy FY2005 BRAC funding was offset due to revenue generated from the previous year sale of BRAC property. While restoration costs at BRAC installations are estimated to be \$273.1 million in FY2006 and \$308.2 million in FY2007, DON anticipates Congressional appropriations and land sale revenues from the sale of MCAS El Toro and other properties will fund \$321.0 million in FY2006 BRAC IRP and MMRP requirements.

Compliance

DON's compliance budget includes funds for maintaining clean air and water, managing solid and hazardous wastes, conducting required compliance training, and salaries for environmental staff. During FY2005, DON invested approximately \$553.7 million in compliance activities. Approximately \$181.3 million of the compliance budget was invested in recurring compliance costs, excluding manpower and other personnel costs. Such activities include

Figure B-17
Navy Environmental Funding Trends



routine sampling and analysis of hazardous waste disposal and discharges to air and water. Other recurring costs include purchasing supplies, managing National Pollutant Discharge Elimination System permits and Clean Air Act (CAA) inventories, and conducting self-assessments. DON allocated \$217.4 million to nonrecurring projects such as upgrading wastewater treatment facilities, installing air pollution controls to meet current standards, and installing shipboard technology such as oil water separators.

Pollution Prevention

The pollution prevention budget includes funds to reduce or eliminate pollution at the source. During FY2005, DON invested \$34.2 million in pollution prevention activities. Approximately \$9.6 million of the pollution prevention budget was invested in recurring costs, such as oil spill prevention. The remaining \$24.6 million was invested in pollution prevention equipment, such as purchasing parts washers or blasting booths. The total investment level is expected to decrease overall to \$32.0 million by FY2011, with a 31 percent reduction in the amount allocated to nonrecurring projects and a 110 percent increase in the amount allocated to recurring projects.

Conservation

DON installations are often rich in natural and cultural assets, including threatened and endangered species, archaeological and historical sites, wetlands and rare ecosystems, and Native American sites. The Conservation program provides a framework for managing these natural and cultural assets and achieves an overall balance between military readiness and environmental preservation.

Natural and Cultural Resource Planning

Conservation of natural and cultural resources is critical for preservation of military and American heritage. DON conducts inventory assessments of natural and cultural resources to identify the full suite of resources at an installation and to properly manage natural and cultural assets. In FY2005, DON had 100 percent of biological assessments and wetlands inventories up-to-date. Such inventory assessments enable development of plans that adequately protect the natural assets at DON installations in accordance with DoD guidelines and additional conservation regulations. The Sikes Act requires DON installations to develop an Integrated Natural Resource Management Plan (INRMP) to document the natural assets

unique to each installation and balance them with mission requirements and recreational and other land use activities. All installation INRMPs are developed and kept current by a group of stakeholders, including training and operations personnel at the installation, and subject to an annual review. In FY2005, 92 of the 95 installations requiring INRMPs had up-to-date and approved plans. Nineteen installations were excluded from critical habitat designation through successful INRMP implementation.

The Endangered Species Act requires the DON to protect species classified as threatened or endangered. In FY2005, the Navy spent \$6.0 million on approximately 122 threatened and endangered species found on Navy installations, and the United States Marine Corps spent \$3.6 million on 46 threatened and endangered species.

Cultural Asset Management

Historical and cultural sites and artifacts at all installations must be effectively managed. Each DON installation with cultural resources is required to have an Integrated Cultural Resource Management Plans (ICRMP) in order to manage and protect historic buildings, sites, collections, and archaeological artifacts. As shown in Figure B-18, installations were required to have up-to-date and approved ICRMPs in FY2005, of which 45 percent are up-to-date. Additionally in FY2005, DON installations completed approximately 59 percent of archaeological inventories and 82 percent of the historic building inventories.

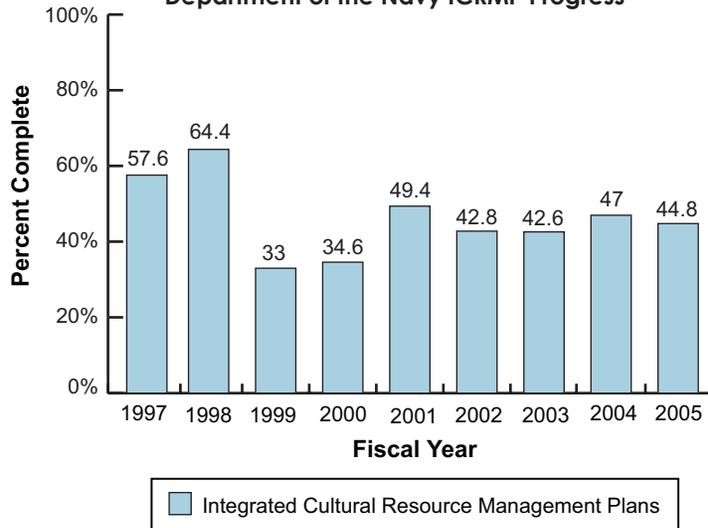
Legacy Resource Management

The Navy-led projects under the FY2005 Legacy Resource Management Program received \$651,131 for natural resources projects and \$425,369 for cultural resources projects.

Restoration

As part of base stewardship, the DON Environmental Restoration Program (ERP) is integral to protecting human health and the environment. DON's organizational structure supports central management and regional execution, resulting in consistency and efficiency that makes the DON program a leader in the field.

Figure B-18
Department of the Navy ICRMP Progress

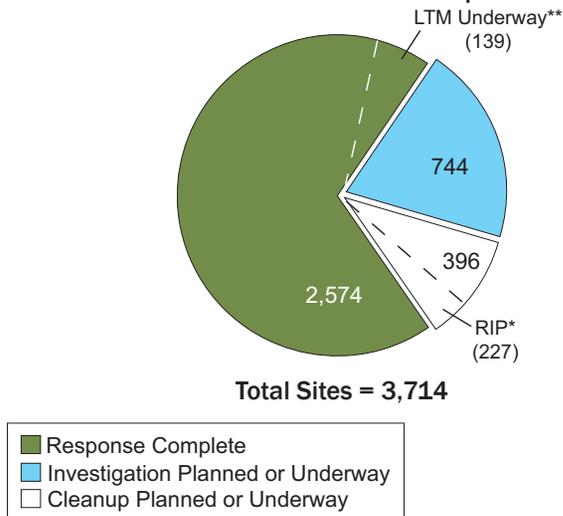


Site Status and Progress Toward Program Goals

In FY2005, DON has continued to make excellent progress toward reaching DoD's management goals for completing environmental restoration actions at sites on active and BRAC installations. DON is focused on moving sites through the appropriate environmental restoration phases to complete all cleanup requirements. Many of DON's IRP sites have progressed to the final cleanup stages of the program, while the MMRP sites are completing the initial investigation process.

In FY2005, DON closed out the restoration program at 17 installations. DON currently maintains 3,714 active IRP sites at 203 installations, of which 2,801 have achieved remedy in place or response complete (RIP/RC) status. DON discovered 15 new active IRP sites in FY2005. Through FY2005, DON has completed 673 remedial actions (RAs) with another 88 currently underway. In addition, in FY2005, DON completed 33 RAs, which have continuing operations underway to meet remedial objectives. RA operation (RA-O) is currently underway at 227 sites on active IRP installations. DON completed 996 interim RAs on 127 installations, with another 63 having interim actions underway. Figure B-19 shows FY2005 active installation site status, including 139 sites where sites are response complete and long-term management is ongoing, and 227 sites with a cleanup RIP.

Figure B-19
Active IRP Site Status†



DON is responsible for 1,094 BRAC IRP sites at 57 installations requiring environmental restoration. The number of sites increased by 31 in FY2005, and 29 of these sites are located at Naval Activity, Puerto Rico. DON has achieved RIP/RC at 960 sites and has completed all required actions and reached RC at 920 of the total sites. Of the remaining 134 sites, DON has cleanup actions underway at 41 sites and investigations underway at 93 sites. Cleanup investigations and actions at the 31 new sites are planned for FY2007 or are under further review to determine what actions are necessary. By the end of FY2005, DON met the Comprehensive Environmental Response, Compensation, and Liability Act requirements for transfer at 141,550 of the 163,493 acres of BRAC IRP property being disposed. DON continues to use the early transfer authority process to expedite the transfer of property.

† Includes incidental munitions work (i.e. non-MMRP) and BD/DR as of September 30, 2005.

* Remedy in place (RIP) includes sites where remedial action operations are underway. RIP is a subset of Cleanup Planned or Underway.

** Long-term management (LTM) occurs at a subset of the sites that have achieved response complete.

DON has identified a total of 232 sites potentially requiring a military munitions response, with 213 of these sites located on 56 active installations and another 19 sites located on 6 BRAC installations. DON has completed preliminary assessments (PAs) for 173 sites on active Installations, or 81 percent of active MMRP sites. PAs are underway at 34 sites at active installations. DON has identified 1,306 acres as MMRP sites and suspects 66,477 additional acres at both active and BRAC installations may have military munitions contamination. DON expects to meet the DoD's near-term MMRP goal of completing PAs for all known MMRP sites by the end of FY2007.

Funding

Over the past ten years, DON has continued to receive stable funding for both active and BRAC environmental restoration.

In FY2005, DON obligated \$265.9 million for environmental restoration work at active installations, including \$16.4 million for MMRP activities. Funding levels are projected at \$301.5 million for FY2006, and \$304.4 million for FY2007, and include \$43.0 million in FY2006 and \$49.3 million in FY2007 for MMRP activities. DON obligated approximately 69 percent of ER funds in FY2005 on design work, interim or final cleanup actions, and operations and maintenance, spending only 31 percent of funding on investigation activity. DON expects these proportions to remain the same in FY2006. Over 90 percent of the project funds were spent on high relative-risk projects, including RA-O and long-term management actions.

DON's environmental restoration work at BRAC installations totaled \$102.5 million in FY2005 and was funded from land sale revenue generated in prior years. BRAC IRP cost-to-complete (CTC) estimates have increased by \$125.0 million. Site-specific cost increases occurred at the following four BRAC installations:

- NAS Alameda- \$17 million for more extensive required sampling, groundwater monitoring, and lead based paint, PAH and TCE cleanup
- MCAS El Toro- \$7.0 million for more extensive explosive ordinance disposal cleanup, increased costs at the original Landfills and the Volatile Organic Carbon Source Area (Desalter), and for RA-O at groundwater treatment sites

- NSY Hunters Point Annex- \$35 million for increased CTC the historic radiological assessment and low-level radiological contamination cleanup, and more extensive cleanup required at former landfills
- NSC Richmond- \$8.0 million for more extensive petroleum cleanup at the former oil treatment ponds than previously anticipated.

In addition, \$20.0 million was added to the program for transfer of the former Naval Station Roosevelt Roads, Puerto Rico, into BRAC. The salary and support costs needed to complete under the BRAC cleanup program also increased by \$38.0 million due to former BRAC budgets not including sufficient salary and support costs in previous years. The total CTC for the IRP at both active and BRAC installations for the DON is now estimated at \$2.87 billion, not including program management costs of \$417.8 million. MMRP completion costs at both active and BRAC installations for the DON are estimated at \$563.6 million, not including program management costs of \$50.7 million.

Program Initiatives and Improvements

DON's ERP has continued to develop a balanced and diversified acquisition strategy to meet program requirements. DON intends to increase acquisition options and flexibility, minimize risk exposure, and meet policy and legislative contracting mandates. In addition to defining goals for greater small business participation and increased use of fixed-price contracts, the strategy increases the emphasis on the implementation of performance-based contract techniques to reduce overall risks and encourage innovation.

Compliance

DON realizes that complying effectively and efficiently with all federal, state, and local environmental laws and regulations is pertinent to maintaining a high level of mission readiness while protecting human health and the environment. DON's Compliance program strives to build sustainable operations through compliance with the Clean Water Act (CWA), Safe Drinking Water Act (SDWA), Resource Conservation and Recovery Act, and the CAA.

Water Quality

Water quality plays an integral role in the success of DoD's mission and the quality of life for DoD personnel, their families, and nearby communities. Navy

strives to comply with all water quality regulations, including stringent drinking water standards.

The CWA is the cornerstone of surface water quality protection in the U.S. and it employs a variety of regulatory and nonregulatory tools. As shown in Figure B-20, in the first half of Calendar Year (CY) 2005 DON had a total of 410 water pollution control permits in the U.S. and its territories, of which 92 percent were in compliance.

The CWA also regulates non-sewage liquid discharges from Armed Forces vessels through the Unified National Discharge Standards (UNDS) law. One of the purposes of UNDS is to "enhance the operational flexibility of vessels of the Armed Forces" by establishing a complex rulemaking process that addresses 25 discharges for more than 7,000 Armed Forces vessels across seven factors. This law eliminates the need for ship commanding officers to interpret different rules for each port and reduces potential liability due to differences in state regulations.

The U.S. Environmental Protection Agency (EPA) sets national drinking water standards for all public water systems. The SDWA requires that any operator of a community water system, including DON installations publish a report detailing the drinking water quality from the previous calendar year as it relates to the national drinking water standards set by the EPA. In the first half of CY2005, DON provided drinking water to 675,150 people in the U.S. and its territories, of which 596,593, or 89 percent, received drinking water that met drinking water requirements, as shown in Figure B-21.

Compliance Enforcement Actions

DON makes every effort to eliminate the root causes of enforcement actions to correct non-compliance and avoid receiving enforcement actions in the future. DON reduced its open enforcement actions from 107 in FY2004, to 88 in FY2005, and reduced new enforcement actions from 120 to 72. Additionally, 91 enforcement actions were closed in FY2005. These numbers are represented in Figure B-22, which demonstrates trends of open and closed enforcement actions over time. In FY2005, DON was assessed fines and penalties of \$67,155 and paid \$244,035 in fines and supplemental environmental projects.

Figure B-20
Navy CWA Permit Compliance

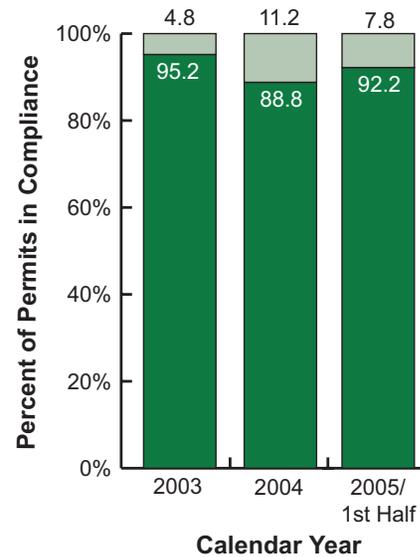
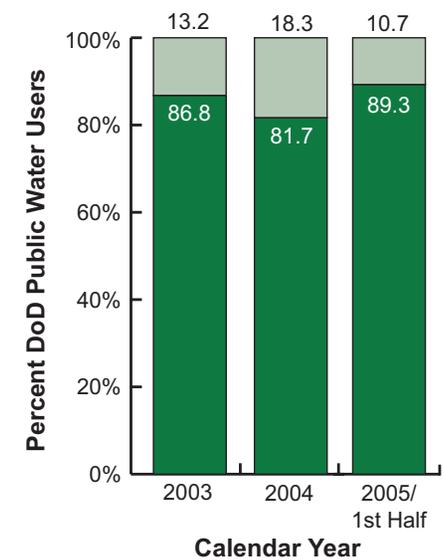
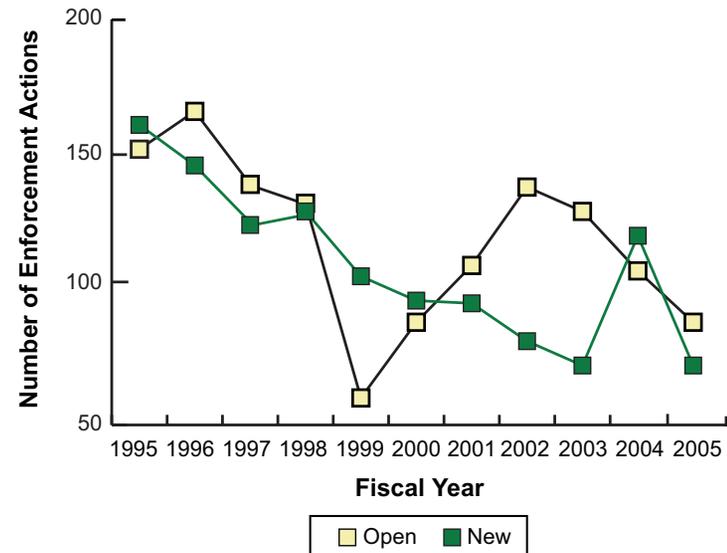


Figure B-21
Navy SDWA Compliance Rate



■ In Compliance ■ Out of Compliance

Figure B-22
Navy Compliance Enforcement Actions



Pollution Prevention

DON takes a proactive approach to pollution prevention, including recycling, reducing the use of hazardous materials and developing safer alternatives, reducing sources of pollution, eliminating the use of Ozone-Depleting Substances, and purchasing environmentally preferable products.

Green Procurement

In FY2003, DoD began coordination of the Green Procurement Program (GPP) to include policy, metrics, and a strategy for Department-wide implementation. The purpose of the GPP is to enhance and sustain mission readiness by purchasing environmentally friendly products and services that reduce resource consumption and solid and hazardous waste generation. In accordance with the program, DON issued a memo on November 22, 2004, implementing DoD GPP at all acquisition commands and promoting environmentally friendly products and services. As part of the effort, Navy and Marine Corps activities were directed to use only biodiesel in all non-deployable, non-emergency diesel vehicles beginning June 1, 2005. Using an alternative fuel such as biodiesel reduces hydrocarbon, carbon monoxide, sulfur, and particulate matter emissions, in addition to the fuel itself being biodegradable.

Integrated Solid Waste Management

By employing integrated solid waste management practices, the Navy achieved a non-hazardous solid waste diversion rate of 49 percent in FY2005, and the U.S. Marine Corps diverted solid waste at a rate of 25 percent.

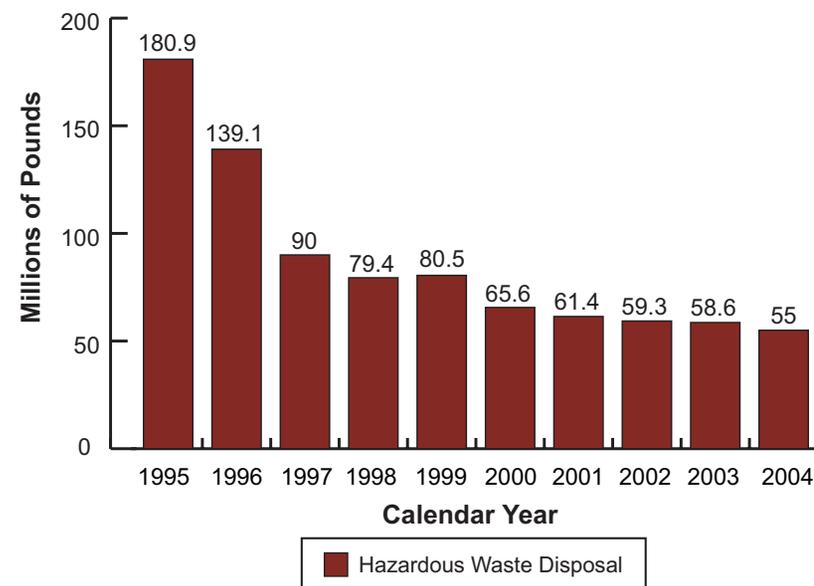
Hazardous Waste Reduction and Disposal

Hazardous waste disposal has been reduced by 73 percent since CY1992, hitting an all-time low of 55,021 pounds in CY2004 (the last year for which data is available), as shown in Figure B-23.

Ozone-Depleting Substances

Navy policy required shore facilities to retrofit or replace air conditioning and refrigeration equipment that contained chlorofluorocarbon (CFC) refrigerants no later than December 2000, unless a waiver was in place. To date, the Navy retrofitted or replaced nearly all of the 3,000 CFC-containing air conditioning and refrigeration systems at shore facilities. Navy policy also prohibits the

Figure B-23
Navy Hazardous Waste Disposal



refill of existing shore facility halon fire suppression systems in the event of discharge, thus meeting the Executive Order 13148 phase out goal in this area.

Toxic Release Inventory

The Toxic Release Inventory (TRI) report provides information about toxic chemicals released into the environment or transferred off-site from a facility. The primary purpose is to establish an inventory of toxic chemical releases and inform the public about both routine and accidental releases of toxic chemicals into the environment. The Global War on Terrorism and operations in Afghanistan and Iraq have resulted in a significant increase in training operations, resulting in increased equipment maintenance and number of releases. DON TRI was 2.25 million pounds in CY2004, which is only 230 thousand pounds less than the CY2003 report.

Looking Forward

Despite complex challenges associated with DON's mission and related operational factors, substantial progress is being made towards meeting DoD's environmental restoration goal of completing its restoration program by FY2014. The Assistant Secretary of the Navy (Installations and Environment) has tasked the Deputy Assistant Secretary of the Navy (Environment) to develop a proactive Navy environmental outreach program to enhance operational assurance by building public trust. Similarly, DON will increase outreach to non-governmental organizations, whose actions greatly affect access to land, air, and sea space, in order to foster understanding of military environmental policies and initiatives and explore issues of mutual interest that can be resolved through collaborative agreements.



Air Force Environmental Programs Progress

COMPONENT PROGRESS

Air Force Environmental Programs at a Glance

Environmental Restoration Sites					Resources Management Plans		
	IRP Sites	IRP Sites Complete†	MMRP Sites	MMRP Sites Complete†		Plans Required	# Up-to-Date
Active	5,289*	3,311	299	60	INRMP	104	83
BRAC	1,714	1,127	126	0	ICRMP	123	80
TOTAL	7,003*	4,438	425	60	TOTAL	227	163

* Includes BD/DR sites.

† Completed refers to those sites that have achieved response complete (RC) status.

In FY2005....

- **Conservation**

Air Force has 104 installations requiring INRMPs, of which 80 percent are complete and up to date, and 123 installations requiring ICRMPs, of which 65 percent are complete and up to date.

- **Restoration**

Air Force has 1,844 DERP sites in investigation phases, 1,085 sites with cleanup planned or underway*, and 367 sites with long-term management underway and that are response complete.

- **Compliance**

Air Force obligated a total of \$359.3 million on compliance activities, of which 67 percent were recurring compliance costs, including manpower and other personnel costs.

- **Pollution Prevention**

Air Force's solid waste program had an overall diversion rate of 76 percent, producing a cost savings of \$60.2 million.

* Cleanup planned or underway includes sites that have achieved remedy in place (RIP) status.

Through FY2005....

- **Conservation**

Air Force completed 83 INRMPs and 80 ICRMPs.

- **Restoration**

The site-level cost for completing the remaining 2,929 Air Force sites is estimated at approximately \$7.0 billion.

- **Compliance**

Over the last 10 years, the percentage of investigations at Air Force installations resulting in new enforcement actions decreased from 22 to 16 percent.

- **Pollution Prevention**

Since 1992, Air Force has reduced hazardous waste generation by 57 percent.

The Air Force provides sound environmental management for over 800,000 Air Force active duty, reserve, guard, and civilian personnel at over 180 installations worldwide and serves as the trustee of over eight million acres of federal property, including forests, prairies, deserts, rivers, streams, wetlands, and coastal habitats. As part of its efforts to sustain and enhance natural infrastructure, the Air Force has combined mission requirements with prudent investment and the effective management of a \$1.0 billion environmental budget. Further, implementation of a new natural infrastructure management strategy allows the Air Force to establish a systems-based approach to reduce environmental compliance risks while maximizing the operational value of its natural infrastructure assets.

Air Force Environmental Funding

The Air Force Environmental Programs budget provides funding for conservation, restoration, compliance, and pollution prevention (see Figure B-24).

Environmental Funding Trends

The Air Force continues to plan and execute its program to support its natural infrastructure. In FY2005, the Air Force obligated \$1.0 billion across its

environmental programs, with \$54.1 million towards conservation activities, \$545.3 million towards restoration activities, \$359.3 million towards compliance activities, and \$55.6 million towards pollution prevention activities. The Air Force has budgeted \$1.0 billion in FY2006 and \$987.1 million in FY2007 to continue its investment to sustain, restore, and modernize its natural infrastructure to support mission requirements.

Conservation

Air Force conservation funds are invested in natural, historical, and cultural resource conservation. In FY2005, the Air Force invested approximately \$54.1 million in Conservation funds. Approximately \$28.7 million of the Conservation budget was invested in support of recurring costs. The remaining \$25.4 million of the Conservation budget was allocated to nonrecurring, innovative natural, historical, and cultural conservation projects.

Restoration

The Air Force obligated \$545.3 million for installation environmental restoration activities in FY2005. Active obligated funds totaled \$396.5 million, while base realignment and closure (BRAC) obligated funds totaled \$148.8 million. While restoration funding remains relatively constant, as the Environmental Restoration Program matures a larger percentage of funds are spent on cleanup activities rather than on investigation.

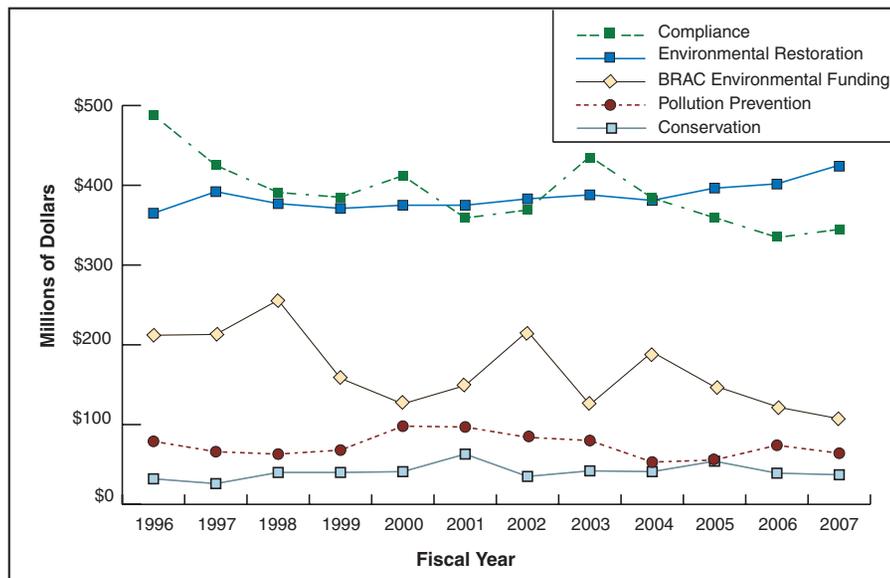
Compliance

During FY2005, the Air Force invested approximately \$359.3 million in compliance activities. Approximately 67 percent was invested in recurring compliance costs, like routine sampling and analysis of discharges to air and water, hazardous waste disposal, and managing National Pollutant Discharge Elimination System (NPDES) permits and Clean Air Act (CAA) inventories. The remaining 33 percent was allocated to nonrecurring projects.

Pollution Prevention

The Air Force's Pollution Prevention budget includes funds to reduce or eliminate pollution at the source. During FY2005, the Air Force invested \$55.6 million in pollution prevention activities, with \$18.7 million being invested in recurring projects and the remaining \$36.9 million being invested in nonrecurring projects.

Figure B-24
Air Force Environmental Funding Trends



Conservation

The Air Force protects the natural, historical, and cultural assets located on and near its installations through its conservation program.

Natural and Cultural Resource Planning

Implementation of the Air Force's natural infrastructure management strategy has yielded conservation benefits for the Air Force, as well as neighboring communities and the environment. For example, the Air Force decreased land use restrictions on its installations by successfully implementing Integrated Natural and Cultural Resource Management Plans (INRMPs/ ICRMPs). In FY2005, 80 percent of 107 installations requiring INRMPs had up to date and approved plans (see Figure B-25), and an additional 12 percent of installations have up to date INRMPs awaiting approval. Additionally, as shown in Figure B-26, the Air Force had 80 percent of biological assessments and 79 percent of wetlands inventories up-to-date in FY2005.

Proactive natural infrastructure management provides benefits, such as the conservation of habitat for over 70 threatened and endangered species on Air Force lands and the minimization of public encroachment. Using a

natural infrastructure management strategy, the Air Force has continued to increase the opportunities to use its training lands when and as needed, while simultaneously preserving natural resources.

Cultural Asset Management

Promoting cultural heritage has tangible mission and moral benefits. Cultural resources found on military installations represent the people, land, and heritage that the military defends. The buildings, structures, sites, districts, and objects that define cultural resources provide substantial connections to the legacy and contributions of "those who have gone before." The Air Force has completed 49 percent of its required cultural asset inventories, both historical and archaeological (see Figure B-27) and all Air Force installations with significant cultural resources (historic buildings/ structures or archeological assets) are required to have up to date ICRMPs. By successfully implementing ICRMPs, the Air Force has reduced restrictions on land use by incorporating these assets into the overall installation plans, and allowed continued execution of mission requirements. To date, 65 percent of the Air Force's ICRMPs are current and up-to-date (see Figure B-28).

Figure B-25
Air Force INRMP Progress

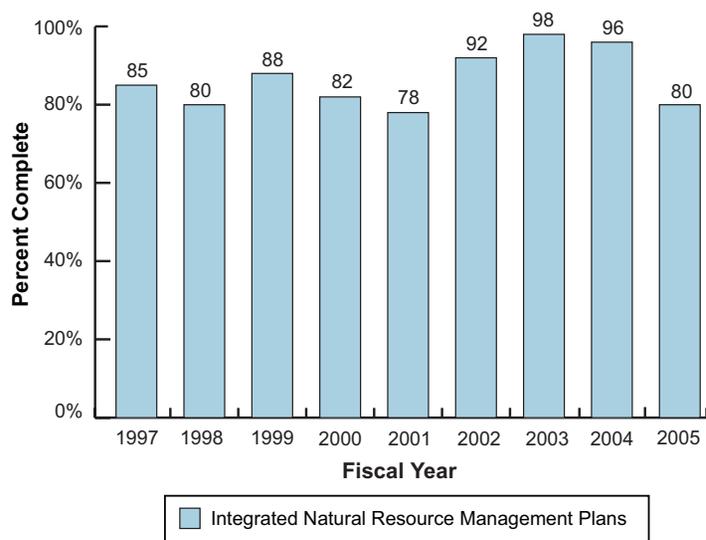


Figure B-26
Air Force Natural Resource Inventory Completed

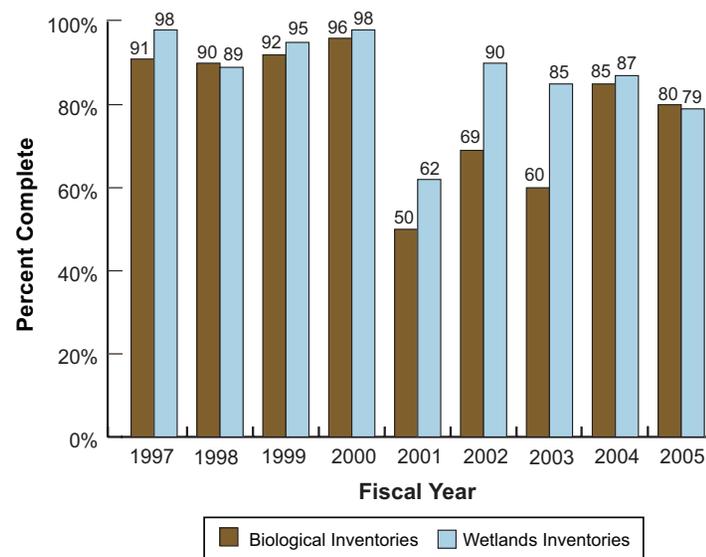


Figure B-27
Air Force Cultural Asset Inventories Completed

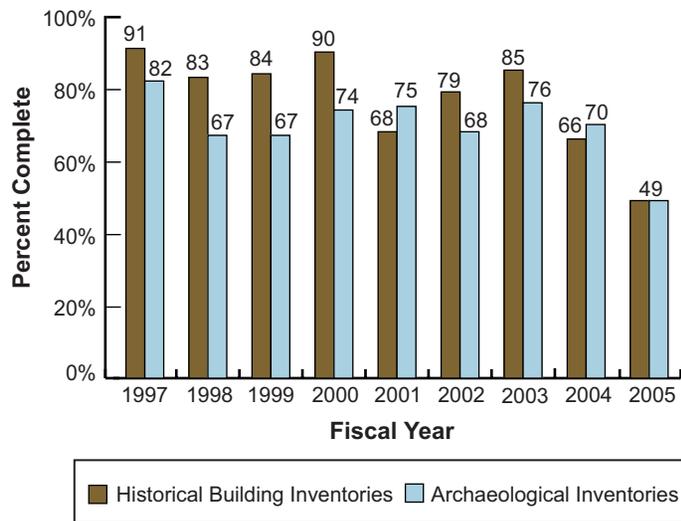
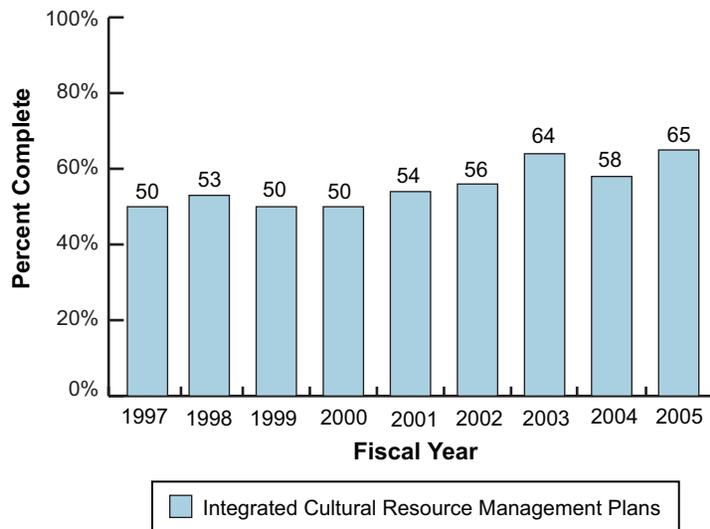


Figure B-28
Air Force ICRMP Progress



Legacy Resource Management Program

The Air Force has used the Legacy Resource Management Program (LRMP) to assist in protecting and enhancing resources while supporting military readiness. This program has provided and continues to provide a means for the Air Force to fund mission-oriented and cooperative conservation projects otherwise not possible. The Air Force received \$1.2 million in LRMP funds in FY2005, with \$302 thousand in LRMP funds for four cultural resource projects, and \$915 thousand in LRMP funds for seven natural resource projects. The Air Force will continue to examine requirements and opportunities for appropriate LRMP funds in the future.

Restoration

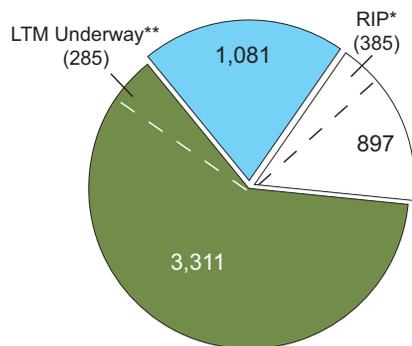
The Air Force continued to make progress toward accomplishing program goals in the Installation Restoration Program (IRP) and Military Munitions Response Program (MMRP) for both active and BRAC installations.

Site Status and Progress Towards Program Goals

The Air Force manages cleanup activities for 5,289 IRP sites at 274 active installations. The Air Force has achieved response complete (RC) status at 3,311 of these sites, or 63 percent. A total of 2,183 sites at active installations achieved RC directly from site investigation processes; the remaining sites achieved RC or no further action status because of completing restoration activities. As of the end of FY2005, response actions continued at 1,977 IRP sites. See Figure B-29 for the active IRP site status, illustrating 1,081 sites under investigation and 896 undergoing remedial action.

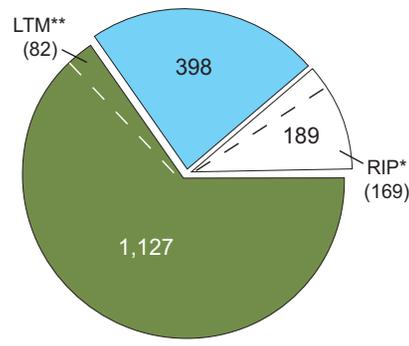
The Air Force is also focused on its property transfer mission and addressing environmental issues that affect transfer at its BRAC installations. Currently the Air Force manages the cleanup activities for 1,714 IRP sites at 30 BRAC installations. Figure B-30 illustrates the BRAC IRP site status. The Air Force has achieved remedy in place/ response complete (RIP/ RC) status at 1,296 of these sites, or 76 percent, and 50 percent of all BRAC installations (15 out of 30 installations) have achieved RIP/ RC at all IRP sites. By the end of FY2005, 64,241 acres, or 76 percent, of the property in the BRAC inventory had been transferred. Of the remaining 418 sites that have yet to achieve RIP, 289 are associated with the former McClellan Air Force Base, which is currently scheduled to reach its last RIP milestone in FY2015.

**Figure B-29
FY2005 Air Force Active
IRP Site Status**



Total Sites = 5,289

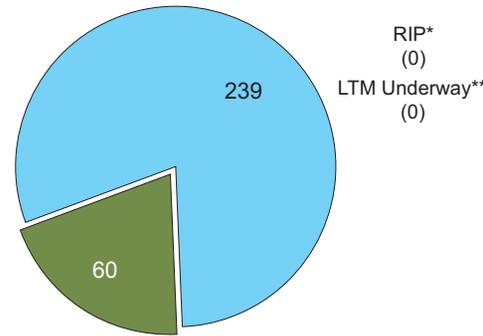
**Figure B-30
FY2005 Air Force BRAC
IRP Site Status**



Total Sites = 1,714

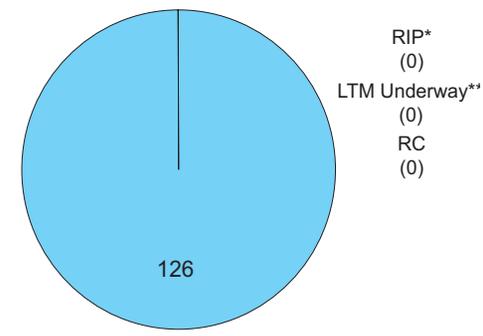


**Figure B-31
FY2005 Air Force Active
MMRP Site Status**



Total Sites = 299

**Figure B-32
FY2005 Air Force
BRAC MMRP Site Status**



Total Sites = 126

* Remedy in place (RIP) includes sites where remedial action operations are underway. RIP is a subset of Cleanup Planned or Underway.
 ** Long-term management (LTM) occurs at a subset of the sites that have achieved response complete.

The Air Force is managing the MMRP program to support mission needs while protecting human health and the environment. Using the lessons learned from 20+ years of cleanup experience, the Air Force began Comprehensive Site Evaluations (CSEs) for all identified MMRP sites in FY2005. The CSE goal is to gather all information, to include standard preliminary assessment/ site investigation (PA/ SI) data, required to determine the appropriate response actions necessary to support safe reuse of the encumbered asset. Under the current funding structure, the Air Force projects to complete the CSE at all sites in the current inventory by FY2009, and will meet DoD's goal for completing PA/ SIs for sites at active installations by FY2010.

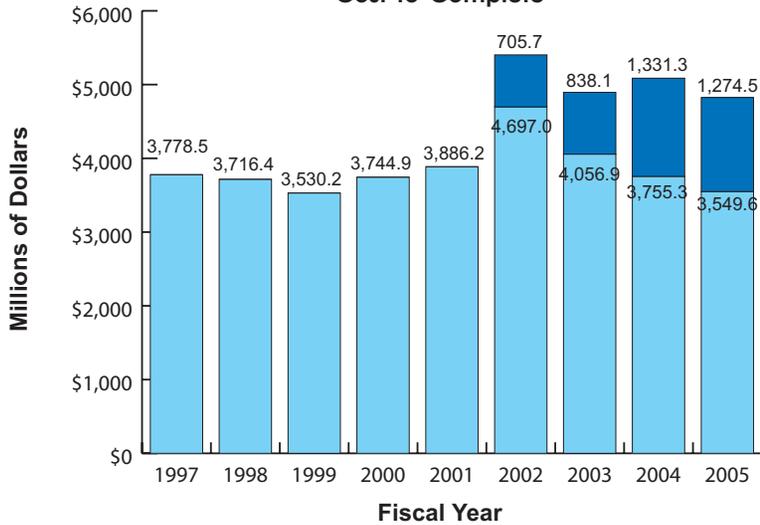
As of the end of FY2005, the Air Force had identified 299 MMRP sites at 75 active installations (see Figure B-31). The Air Force also identified 126 MMRP sites at its BRAC installations (see Figure B-32) and began evaluating requirements at these sites. This evaluation will continue in FY2006 as the Air Force works with regulators to develop and adopt remedies to expedite decision processes and response actions at MMRP sites. In FY2006, the Air Force also expects to develop a presumptive remedy guide for addressing small arms ranges in coordination with the regulatory community and other DoD components; institutionalize performance-based management (PBM)

and the Munitions Response Committee-developed policies in Air Force guidance; and begin collecting data to support application of DoD's Munitions Response Site Prioritization Protocol.

Funding

As of the end of FY2005, the active Air Force's site-level cost-to-complete (CTC) was approximately \$7.0 billion, with \$5.5 billion for IRP and \$1.5 billion for MMRP. This \$500 million increase from FY2004 was due to further characterization of MMRP sites. In addition, the Air Force reduced the BRAC site-level CTC to \$1.4 billion in FY2005. The BRAC CTC reductions are attributable both to cleanup progress made in FY2005, resulting in a decrease in the number of open sites, and significant progress made in reducing costs. This trend will encounter new challenges with emerging contaminants of concern and tighter regulatory standards anticipated in the future. The funding trends for active and BRAC sites are shown in Figures B-33 and B-34.

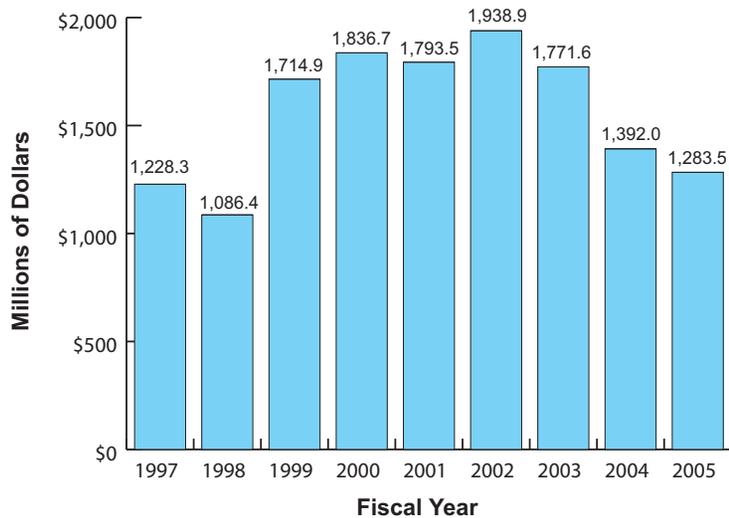
Figure B-33
FY2005 Air Force Environmental Restoration
Cost-to-Complete



Note: Funding represents site level data and does not include management and support or other miscellaneous costs not directly attributable to specific sites.



Figure B-34
FY2005 Air Force BRAC Cost-to-Complete*



Note: Funding represents site level data and does not include management and support or other miscellaneous costs not directly attributable to specific sites.
 * Excludes transferred funds earmarked for BRAC 2005.

Program Initiatives and Improvements

In planning and conducting cleanup activities, the Air Force relies on receiving predictable funding from year to year. This is necessary to effectively plan and conduct cleanup activities. Thus, the Air Force is implementing performance-based contracting (PBC) and PBM initiatives as central tenets of its strategy to balance the cleanup mission with finite resources.

PBM initiatives have been incorporated into risk-based cleanup strategies to ensure that the Air Force not only meets, but also exceeds the Defense Environmental Program's (DEP) cleanup goals. Further, the Air Force's IRP is transforming from a process-based effort to a goal-driven performance-based effort. The Air Force is achieving a solid balance between results-driven restoration activities and the resources allocated to these activities, while ensuring compliance with all federal, state, and local regulatory requirements. By incorporating these initiatives into current and future mission requirements, the Air Force has committed to achieving its goals economically and effectively. This approach is fundamental to ensuring that natural infrastructure sustains base development and mission support at active installations, and that natural infrastructure is rendered suitable for appropriate reuse at BRAC installations.

Compliance

Traditionally, Air Force environmental programs have centered on achieving and maintaining compliance with statutory and regulatory requirements or other binding agreements. Commitment to and application of sound management principles for protecting human health and the environment have served the Air Force well as a military department, as a federal agency, as a federal land-manager, and as a neighbor to the communities and land-holders adjacent to Air Force installations and ranges. The Air Force is proud of its record as being environmentally conscious, considerate, and compliant, and is fully committed to sustaining and improving environmental compliance performance through transformation.

The Air Force's commitment to compliance assurance means it will continue to work to meet all legal and regulatory requirements while managing operational risk. The Air Force's commitment to transformation means it may seek to eliminate activities or processes that generate unacceptable compliance burdens and unnecessary risks. The results can be both improved environmental management and improved operational risk management.

Water Quality

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 Water Resources Management Program produces 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 shown in Figures B-35 and B-36, in the first half of calendar year (CY) 2005 the Air Force had a Safe Drinking Water Act compliance rate of 99 percents and total of 397 water pollution control permits in the U.S. and its territories, of which 94 percent were in compliance. Overseas the Air Force had 51 on-base facilities discharging regulated wastewater or storm water in the first half of CY2005, of which 92 percent were in compliance.

Compliance Enforcement Actions

Compliance assurance is currently measured by the number of enforcement actions received in a year. See Figure B-37 for trends in compliance

enforcement actions. As operational infrastructure ages, the Air Force is emphasizing the need to prevent non-compliance events and take immediate corrective action where non-compliance events occur. The Air Force is developing alternate metrics that will indicate the health of its environmental programs and direct where it needs to take preventative action, for reporting to Air Force commanders as well as the senior management of the Air Force. Since the Air Force is moving to redesign environmental programs to a systems-based approach, it must fully understand its mission interactions and its effects on the environment. Once this transition is accomplished, knowledge-based measures will be put in place to manage environmental programs more holistically with overall installation management and mission support. For example, managing and reporting operational air capacity (including air space and industrial capabilities) instead of tracking Clean Air Act permit violations allows the Air Force to focus on performance management instead of consequence management, to prevent non-compliance situations from arising instead of reacting to them.

Figure B-35
Air Force SDWA Compliance Rate

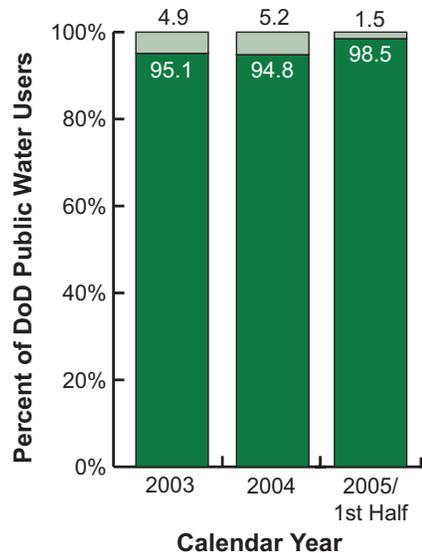
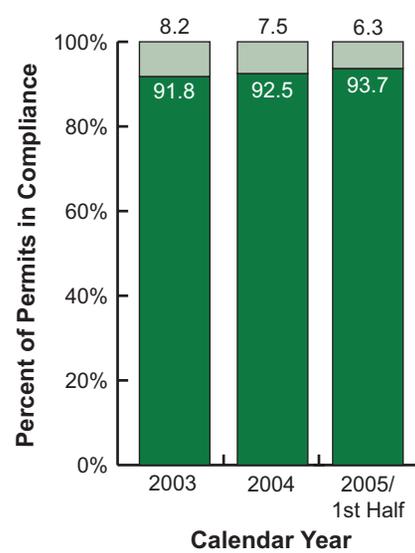
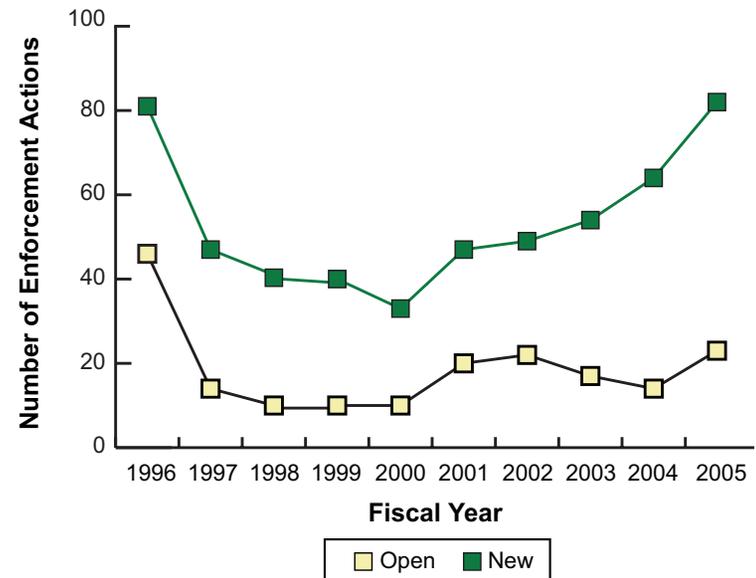


Figure B-36
Air Force CWA Permit Compliance



■ In Compliance ■ Out of Compliance

Figure B-37
Air Force Compliance Enforcement Actions



American Indian and Alaska Natives

It is Air Force policy to meet its trust responsibilities to tribes as derived from Federal trust doctrine, treaties, Executive Orders, agreements, statutes and other obligations between the United States government and federally recognized tribal governments and still meet mission requirements. Likewise the Air Force takes into consideration the fact that tribes ascribe unique significance to certain natural resources, traditional cultural property, and sacred sites at many of our installations. The Air Force has no requirement to track the number of contacts or consultations for federal actions/ undertakings that may impact tribal interests. However, these concerns are taken with the utmost seriousness and managed at appropriate installations using the management guidelines set forth in their respective Integrated Cultural and Natural Resource Management Plans. Specifics on Tribal notifications, Native American Graves Protection and Repatriation Act inventories/ summaries are covered in the Annual Archeological Activity Report to Congress submitted through the Department of Interior.

Pollution Prevention

Pollution prevention continues to be a priority for the Air Force, and is the Air Force's preferred solution to addressing compliance concerns. Through pollution prevention, the Air Force is able to leverage economic resources and directly reduce environmental burdens and risks. From proactive pollution prevention in the weapons system acquisition process to the purchase of biobased products and the diversion of solid waste from landfills, pollution prevention impacts the Air Force's entire natural infrastructure management construct.

Green Procurement

In accordance with DoD Green Procurement Program (GPP) requirements, the Air Force developed a new GPP policy mandating compliance with all Federal GPP guidelines in all Air Force acquisition transactions. The new policy as well as training and guidelines for implementation will be issued in 2006. In 2005, the Air Force expanded usage of biobased fuels in its military and government fleet vehicles, continued to identify opportunities to buy green power, and developed and tested environmentally preferable alternatives to existing products and practices used for aircraft deicing and anti-icing.

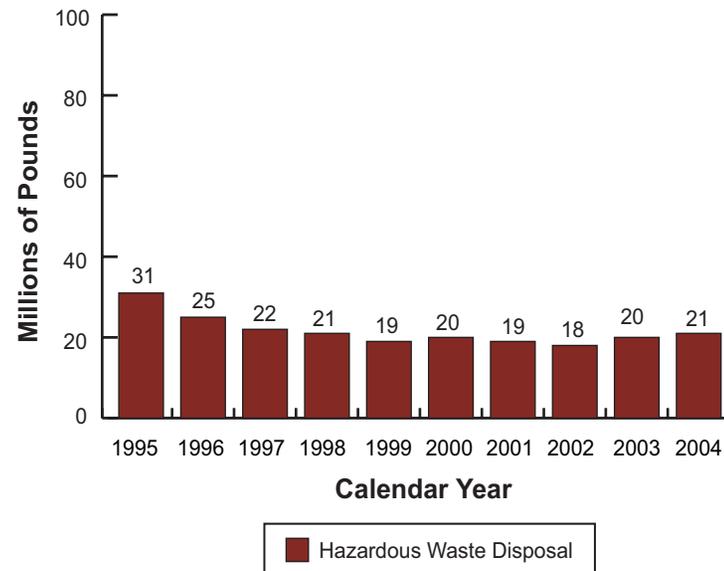
Integrated Solid Waste Management

The Air Force diverts large amounts of non-hazardous waste from landfills, and has broad acquisition and supply programs to procure more environmentally friendly products. The Air Force has avoided over \$60 million in solid waste disposal costs by effectively diverting waste from landfills and incinerators. In FY2005, 87 percent of construction and demolition debris and 46 percent of non-hazardous solid waste was diverted from landfills and incinerators. This diversion allows the Air Force to not only meet, but also exceed internal and external agency standards of land resource management by reducing the flow of waste to landfills, thus extending the life of the landfills.

Hazardous Waste Reduction and Disposal

Since 1992, the Air Force has reduced hazardous waste disposal by more than 57 percent, a result of tremendous efforts by weapons system engineers and maintainers and the Air Force logistics community at Air Force installations and depots. Shelf-life management and "leaning" of processes have eliminated costs as well as wastes, to the betterment of operations and occupational risk as well as the environment. Figure B-38 illustrates progress with regard to hazardous solid waste diversion and cost avoidance.

Figure B-38
Air Force Hazardous Waste Disposal



Ozone-Depleting Substances

In 1993, the Air Force adopted a centralized Ozone-Depleting Substance (ODS) management program to eliminate ODS usage requirements as technically and economically feasible alternatives became available. Since 1993, the Air Force has invested approximately \$500 million to reduce its annual consumption of Class I ODSs by more than 96 percent. In FY2005, the Air Force initiated a joint program with the Navy to select a commercially available alternative to the Halon 1211 used in 150-pound flightline fire extinguishers. In August 2005, the Air Force and Navy submitted a detailed proposal for the Environmental Security Technology Certification Program to fund this two-year alternative qualification effort.

Toxic Release Inventory

The Air Force sustains a significant industrial complex but initial estimates of the Air Force Toxic Release Inventory (TRI) emissions represented only 0.02 percent of the total TRI releases in the United States. Through targeted pollution prevention, weapon system recapitalization, and technology investment, the Air Force achieved almost a 54 percent reduction in TRI chemical releases from 1994 through 2001. Since 2001, the Air Force has further reduced TRI emissions by 29 percent. As of 2004, almost 73 percent of the Air Force releases are in two categories, fuels (61 percent) and metals/ metal compounds (12 percent), the latter being primarily from range and munitions release activities. The remaining releases are from industrial operations like painting and maintenance operations. In maximizing military value and optimizing the economical, ecological, and community value of its assets, the Air Force will continue to invest in areas that will reduce TRI releases while ensuring combat capability.

Looking Forward

The Air Force believes that environmental stewardship is both a readiness and quality of life issue. Being good stewards of the environment is another way the Air Force develops and cares for Airmen. Because the Air Force's most valuable asset is its people, the Air Force is diligently implementing an Air Force-wide comprehensive environment, safety, and occupational health management system. By benchmarking industry "best in class" programs to leverage the Air Force's own experience, the Air Force is reducing the risk of injuries and keeping the environment free of contaminants.

Further, the Air Force is undertaking transformational efforts across all operations and programs, including its environmental programs. As such, Air Force efforts continue in the development of an effective, holistic asset management strategy for the restoration and modernization of operational infrastructure—facilities, utilities and natural resource assets—throughout their useful life cycles. Operational infrastructure is critical to the development and testing of new weapon systems, the training and development of our Airmen, and the conduct of joint military exercises.

DLA Environmental Programs Progress



COMPONENT PROGRESS

DLA Environmental Programs at a Glance

Environmental Restoration Sites				
	IRP Sites	IRP Sites Complete†	MMRP Sites	MMRP Sites Complete†
Active	344	318	0	0
BRAC	164	157	0	0
TOTAL	508	475	0	0

Resources Management Plans		
	Plans Required	# Up-to-Date
INRMP	2	2
ICRMP	3	2
TOTAL	5	4

†Completed refers to those sites that have achieved response complete (RC) status.

In FY2005....

- **Conservation**

DLA has 2 installations requiring INRMPs, of which 100 percent are complete and up-to-date, and 3 installations requiring ICRMPs, of which 67 percent are complete and up-to-date.

- **Restoration**

DLA has 2 sites in investigation phases, 31 sites with cleanup planned or underway*, and 1 site with long-term management underway and that is response complete.

- **Compliance**

DLA obligated a total of \$116.0 million on compliance activities, of which 36 percent were recurring compliance costs, including manpower and other personnel costs.

- **Pollution Prevention**

DLA's solid waste program had an overall diversion rate of 47 percent, producing a cost savings of \$849,000.

* Cleanup planned or underway includes sites that have achieved remedy in place (RIP) status.

Through FY2005....

- **Conservation**

DLA completed 2 INRMPs and 2 ICRMPs.

- **Restoration**

The site level cost for completing the remaining 33 DLA sites is estimated at approximately \$249.6 million.

- **Compliance**

In the last 10 years, the percent of investigations at DLA installations resulting in new enforcement actions decreased from 11 to 7 percent.

- **Pollution Prevention**

Since 1992, DLA has reduced hazardous waste generation by 95 percent.

The Defense Logistics Agency (DLA) is the Department of Defense's (DoD's) largest combat support agency, providing worldwide logistics support in both peacetime and wartime to the Military services, as well as several civilian agencies and foreign countries. DLA headquarters is located at Fort Belvoir in Northern Virginia. DLA has more than 200 DLA personnel deployed in support of Operation Enduring Freedom and Operation Iraqi Freedom as individuals or as members of teams assigned with the staffs at the combatant commands and at the Joint Staff. As stewards of the environment, DLA also has a staff of approximately 300 environmental specialists located throughout the world, ensuring that the agency's activities are conducted in full compliance with applicable environmental laws. Approximately two-thirds of the DLA environmental staff serve with the Defense Reutilization and Marketing Service (DRMS) to provide safe disposal of excess hazardous material and hazardous waste for the Military services. DRMS disposes of over 80 percent of DoD's hazardous wastes.

The scope and complexity of the DLA mission has increased as the Military services continue to transform. Currently DLA manages 5.2 million items, supplying almost every consumable item America's Military services need to operate, from groceries to jet fuel. This amounts to processing over 54,000 requisitions and 8,200 contract actions per day. DLA continues to supply 100 percent of food, fuel, and medical, as well as most of the clothing, construction materials, and spare parts for weapons systems for the forces who remain in Iraq. DLA has supported every major war and contingency operation of the past four decades, from the Vietnam War to Operation Iraqi Freedom. As demand for supplies and services have increased, so has the level of the DLA support effort. Sales and service have increased from \$21.5 billion in Fiscal Year (FY) 2002 to \$31.8 billion in FY2005. In addition DLA supports 124 nations with foreign sales that total more than \$1.1 billion. Environmental support for redeployments includes conducting battlefield cleanup, such as removing equipment and debris and even hazardous materials.

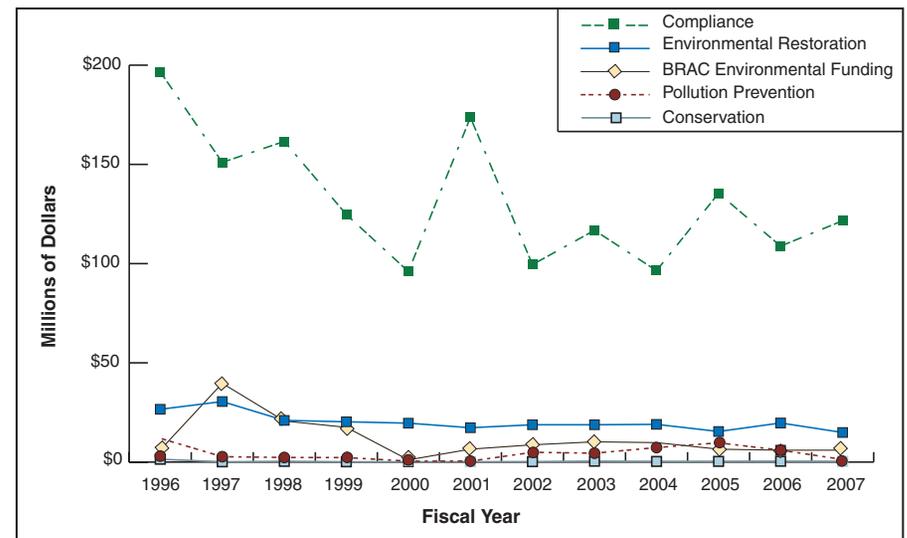
DLA Environmental Funding

In order to meet requirements to protect human health and the environment, the budgeting process for DLA includes program funding for environmental conservation, restoration, compliance, and pollution prevention.

DLA Environmental Funding Trends

Funding for DLA's cleanup program is focused on expediting the remediation of sites at which hazardous material was managed, in order to achieve the greatest level of compliance. DLA's conservation, restoration, and pollution prevention programs all received stable and adequate funding in FY2005 as shown in Figure B-39. This figure also illustrates that funding for compliance efforts has increased significantly, which ensures that legal and regulatory environmental requirements are met.

Figure B-39
DLA Defense Environmental Funding Trends



Conservation

In order to continue to promote DoD's conservation goals to protect, maintain, and enhance the natural and cultural resources located on and near its installations, DLA obligated \$351,000 in FY2005 towards conservation efforts. This amount represents an increase of \$33,000 over FY2004 funding. As part of its conservation efforts, DLA funded preparation and maintenance of natural and cultural resource management plans, coordination with regulatory agencies, and other management and consultation activities.

Restoration

During FY2005, DLA obligated \$22.0 million for environmental restoration activities. This amount included \$15.4 million for active installation restoration and just over \$6.5 million for Base Realignment and Closure (BRAC) restoration. An allocation of \$9.4 million in FY2005 for cleanup activities at active installations, excluding management and investigation, compared to \$15.6 million in FY2004, demonstrates that DLA has been making progress towards environmental restoration goals and reducing the amount of cleanup necessary.

Compliance

DLA obligated \$116.0 million in FY2005 in order to ensure proper funding of all DoD compliance programs. These programs and activities include compliance with the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA), hazardous waste management, underground storage tank testing and remediation, and wastewater treatment system monitoring.

Pollution Prevention

DLA emphasized reducing and preventing pollution through conservation of resources, replacement of more hazardous materials with less hazardous materials, waste reduction, and recycling. In FY2005, DLA obligated \$9.7 million to reduce or eliminate the use of hazardous materials and reduce health risks to personnel from hazardous materials and associated cleanup costs.

Conservation

DLA is committed to protecting the natural, historical, and cultural assets located on and near its installations, which include historic buildings, relics of prior civilizations, recovered artifacts, and national historic treasures, as well as plant and animal life, rivers, and wetlands. Policy and funding is provided through DLA's conservation program in order to ensure proper preservation of military and American heritage.

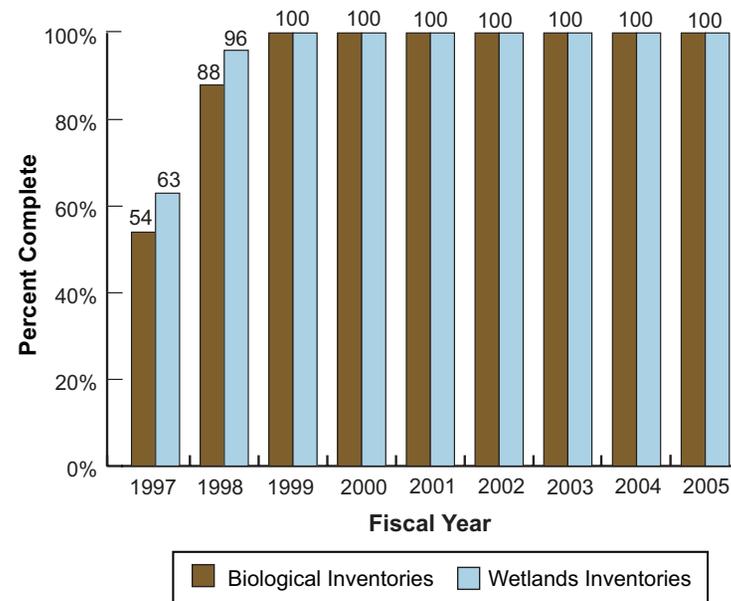
Natural and Cultural Resource Planning

DLA has made a strong effort to maintain and preserve all of its natural assets, including threatened and endangered species, wetlands, and rare ecosystems. In order to conserve these assets, DLA completed 100 percent

natural asset inventories for biological and wetland sites, as shown in Figure B-40. Under the Sikes Act, DLA is required to prepare and implement an Integrated Natural Resource Management Plan (INRMP) to manage and maintain natural resources, fish and wildlife conservation, forestry, land management, outdoor recreation, and mission needs. As of September 30, 2005, INRMPs were completed at the Defense Fuel Support Point in San Pedro, California, and the Defense Distribution Depot in Susquehanna, Pennsylvania, as shown in Figure B-41.

DLA partners with the U.S. Fish and Wildlife Service, the University of California, the Palos Verdes Peninsula Land Conservancy, Urban Wild Lands Group, and other local groups to restore the habitat of the Palos Verdes Blue Butterfly. The Palos Verdes Blue Butterfly is the single endangered species found on a DLA activity, and the San Pedro depot is the only place in the world where the species is known to exist. DLA provided \$160,000 to fund this program in FY2005, which was featured at the White House Cooperative Conservation Convention in September 2005.

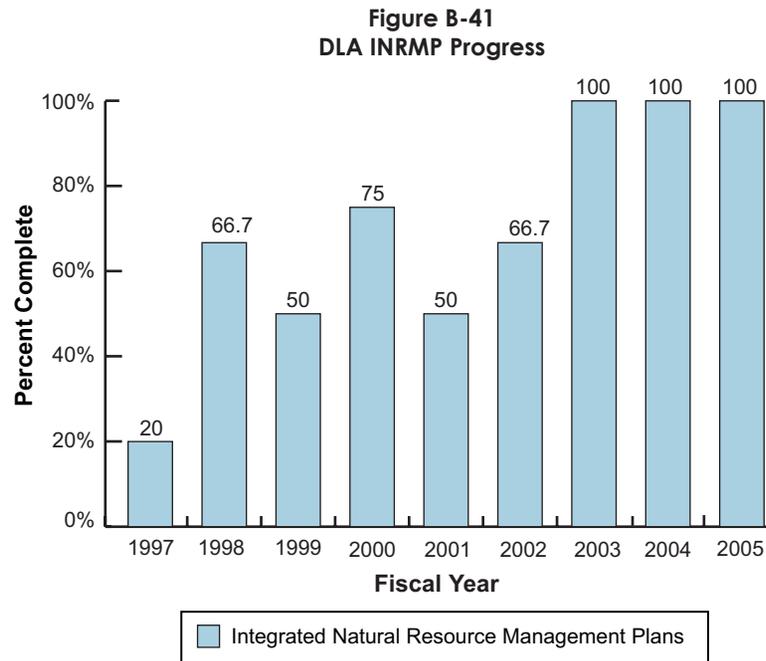
Figure B-40
DLA Natural Resources Inventory Completed



Cultural Asset Management

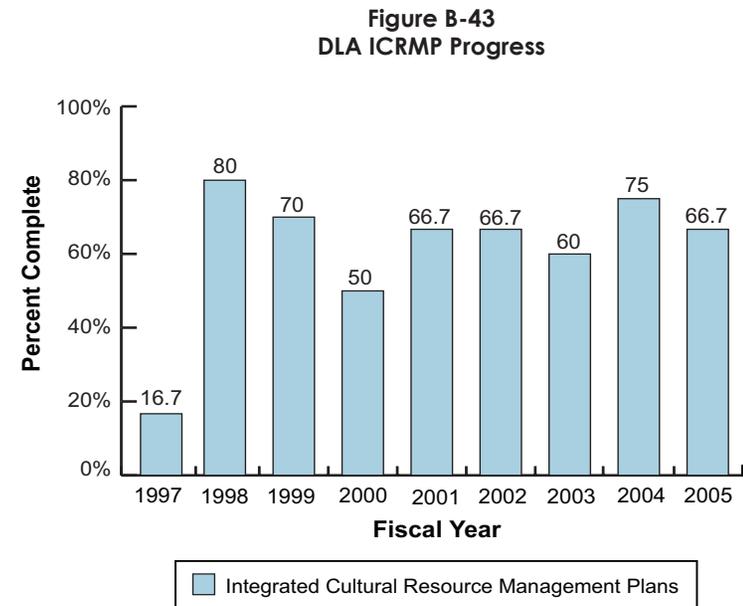
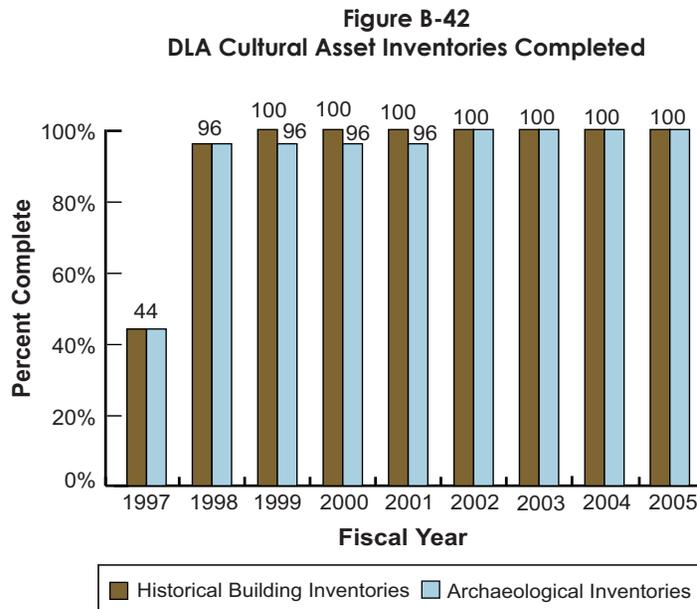
Through the conservation program, cultural resources such as archaeological and historic sites and historic buildings are maintained and preserved to help meet current and future military operations. In FY2005, DLA helped sustain these valuable cultural assets through 100 percent completion of inventories for archaeological and historic sites, as shown in Figure B-42.

In order to manage and further preserve cultural resources, Integrated Cultural Resource Management Plans (ICRMPs) were deemed necessary for Defense Fuel Support Point San Pedro, California, Defense Distribution Depot Susquehanna, Pennsylvania, and Defense Supply Center Richmond, Virginia in FY2005. Figure B-43 shows that DLA completed ICRMPs for two out of three installations mentioned, and plans are underway for the one remaining.



Restoration

In FY2005, DLA continued to make progress towards achieving environmental restoration goals; thereby decreasing the overall risk to human health and the environment. Through stable funding and efficient and effective management, DLA consistently demonstrates restoration program progress.



Site Status and Progress Toward Program Goals

In FY2005, DLA continued to make excellent progress toward reaching DoD's management goals for completing environmental restoration actions at sites on active and BRAC installations. DLA has 508 Installation Restoration Program (IRP) sites as part of the DERP; 344 active sites at 5 installations, and 164 sites at DLA's 2 BRAC installations, as shown in Figures B-44 and B-45. Investigations have been completed at 506 sites, and cleanup is currently underway at 31 of the 33 remaining sites. The number of active IRP sites has been reduced by 33 sites since 14 Defense Stockpile Center site locations are no longer eligible for Defense Environmental Restoration Account (DERA) funding. To date, DLA has identified no Military Munitions Response Program sites.

Funding

Over the past ten years, DLA has continued to receive stable funding for both active and BRAC environmental restoration, as illustrated by Figure B-46. Cost-to-complete (CTC) estimates, as displayed in Figure B-47 and Figure B-48,

indicate that additional funding maybe needed for both programs beginning in FY2008. In order to minimize funding requirements, DLA is actively pursuing performance-based Records of Decisions (RODs) and using science to drive cost-effective remediation decisions that protect human health and the environment. Ultimately, DLA expects any short-term costs to be more than offset by long-term savings. CTC estimates and site progress are based on the reasonable expectation that adequate funding will be provided. Without such assurances, current and planned schedules cannot be realized, resulting in extended cleanup schedules, stretching over additional years at additional costs. At BRAC installations, a lack of funding would extend cleanup time requirements and inhibit property transfer for reuse, slowing job creation and economic recovery in the areas most affected by base closings.

During FY2005, DLA obligated a total of \$15.4 million for active installation restoration. The \$15.4 million obligated in FY2005 as shown in Figure B-49 included \$9.3 for cleanup activities and \$2.5 million for site investigations. The remaining funding was obligated for remedial design and program management.

Figure B-44
FY2005 DLA Active DERP Site Status†

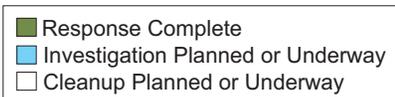
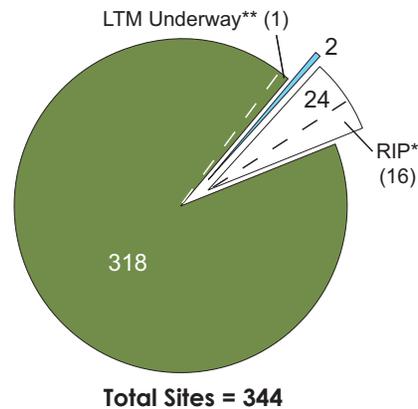


Figure B-45
FY2005 DLA BRAC DERP Site Status†

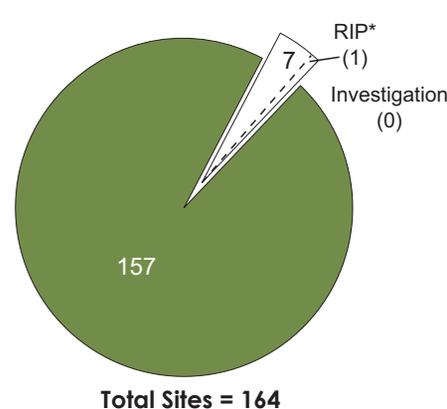
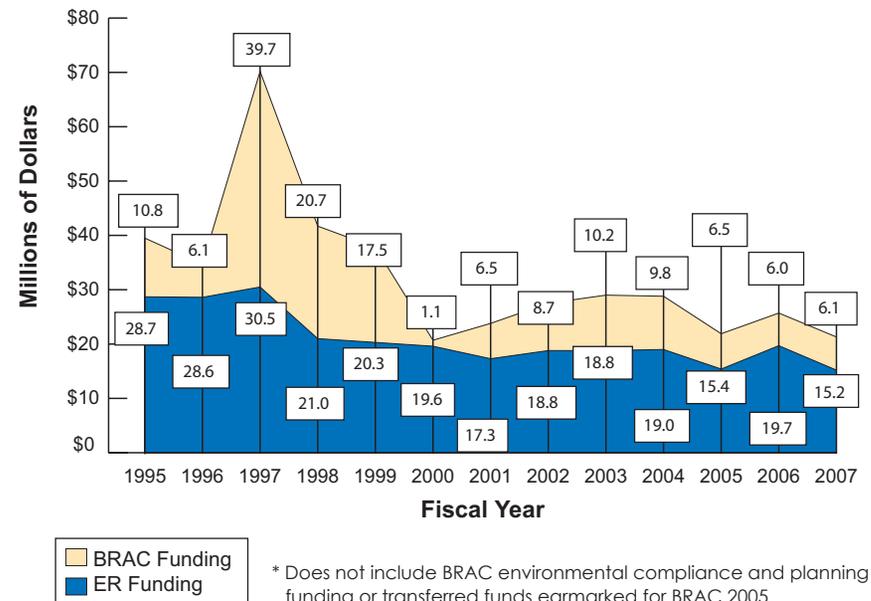


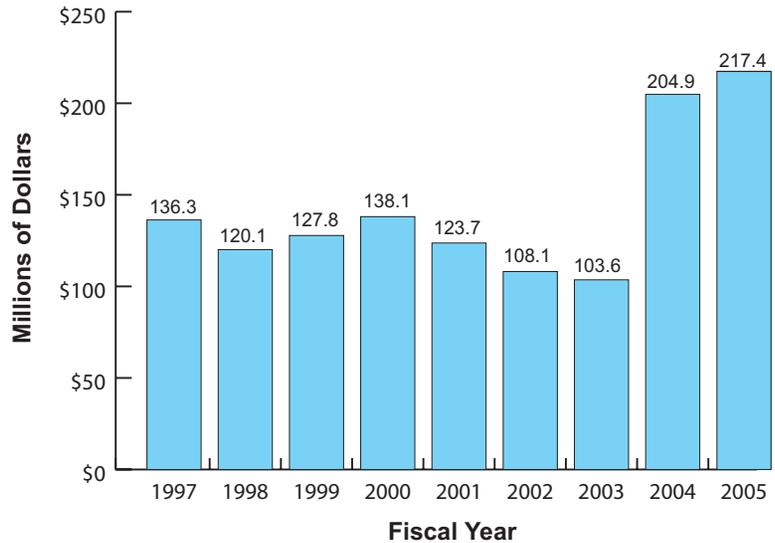
Figure B-46
DLA Environmental Restoration and BRAC Funding Trends*



† Includes incidental munitions work (i.e. non-MMRP) and BD/DR as of September 30, 2004.
 * Remedy in place (RIP) includes sites where remedial action operations are underway. RIP is a subset of Cleanup Planned or Underway.
 ** Long-term management (LTM) occurs at a subset of the sites that have achieved response complete.

* Does not include BRAC environmental compliance and planning funding or transferred funds earmarked for BRAC 2005.

Figure B-47
DLA ER Cost-to-Complete Trends



Note: Funding represents site level data and does not include management and support or other miscellaneous costs not directly attributable to specific sites.



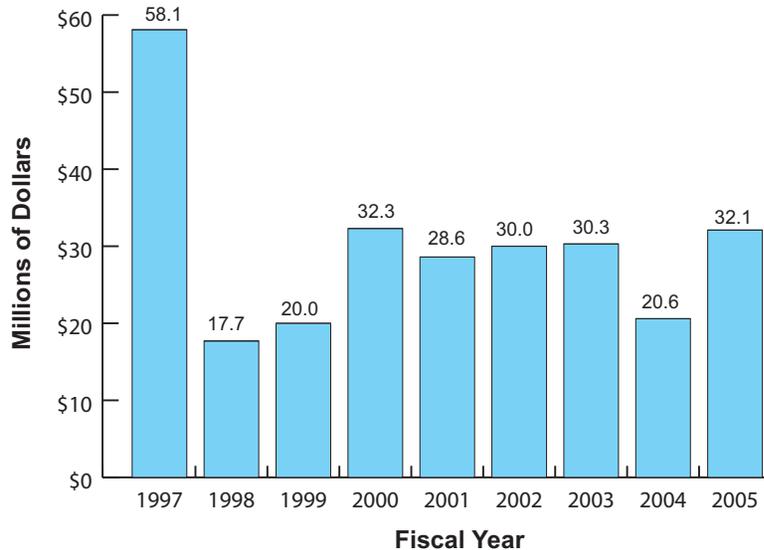
For the BRAC program, DLA obligated \$6.5 million during FY2005, of which \$5.2 million was obligated for cleanup, and \$1.2 million was obligated for program management, as shown in Figure B-50.

As sites progress through the cleanup process, more sites complete investigations and advance to cleanup activities. DLA's obligated and planned Environmental Restoration funding profiles mirror this site progress trend, as illustrated in Figure B-51, showing an overall decrease in investigation costs from FY2004 to FY2007.

Program Initiatives and Improvements

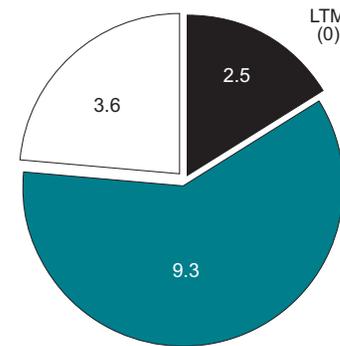
With over 94 percent of all DLA sites at remedy in place/response complete (RIP/RC), the DLA cleanup program is mature and on track. The keystone to this success is ensuring that DLA RODs contain contingencies that allow for process corrections during cleanup. DLA has also made significant progress towards attaining an unqualified audit of the environmental liabilities financial statement line item. DLA standardized and improved the CTC estimation process and implemented internal controls that reduced DERA unliquidated obligations by over \$5.9 million.

Figure B-48
DLA BRAC Cost-to-Complete Trends*



Note: Funding represents site-level data and does not include management and support or other miscellaneous costs not directly attributable to specific sites.
* Excludes transferred funds earmarked for BRAC 2005.

Figure B-49
FY2005 DLA ER Funding by Cleanup Phase*
(in millions)



Total = \$15.4 million

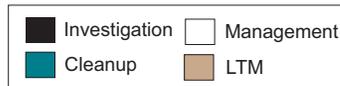
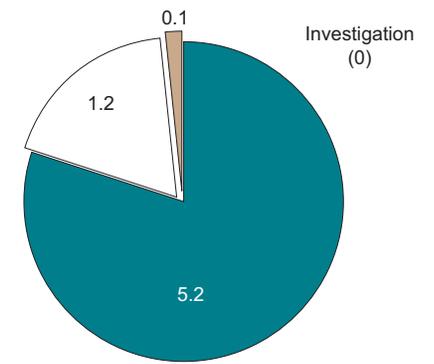


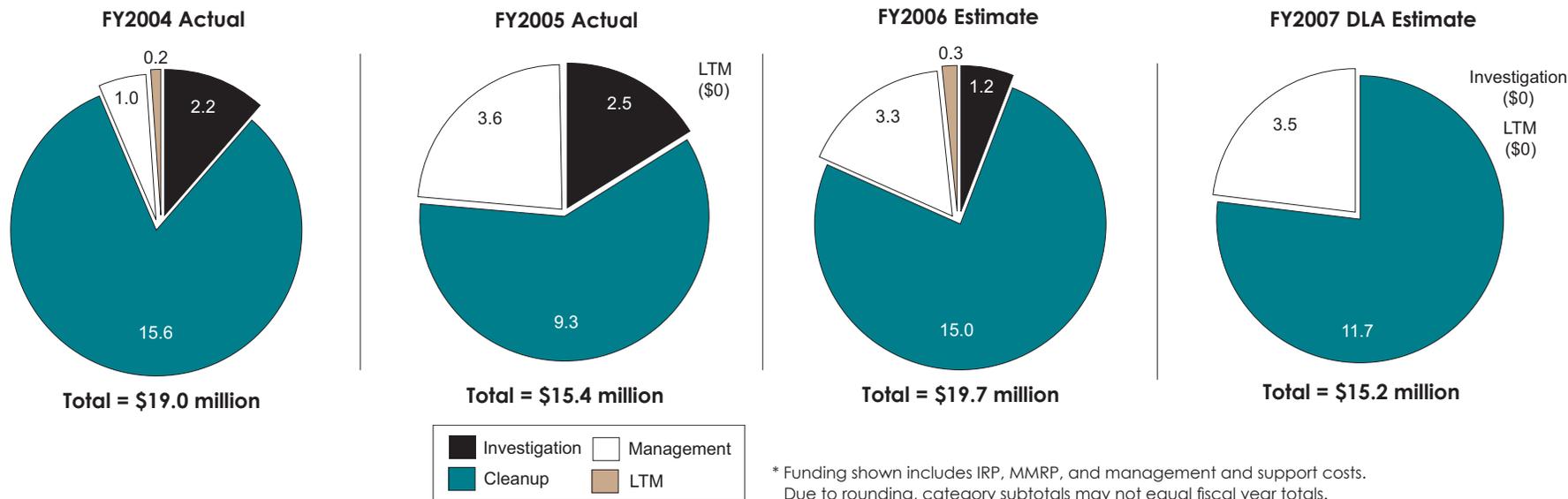
Figure B-50
FY2005 DLA BRAC† Funding by Cleanup Phase*
(in millions)



Total = \$6.5 million

* Due to rounding, category subtotals may not equal fiscal year totals.
† Does not include BRAC environment compliance and planning funding.

Figure B-51
DLA Environmental Restoration Funding Profile*
 (in millions)



Compliance

DLA is committed to protecting human health and the environment by achieving full and sustained compliance with all federal, state, and local environmental laws and regulations. The compliance program encompasses performance metrics including requirements of the CWA, SDWA, and all other environmental regulations. Compliance activities also include monitoring enforcement actions, fines, and penalties as a measure of performance. An indicator of DLA's commitment to environmental compliance is progress made towards reducing regulatory violations. During FY2005, 15 environmental regulatory inspections at DLA installations resulted in one administrative violation.

Water Quality

Water quality plays an integral role in the success of DoD's mission and the quality of life for DoD personnel, their families, and nearby communities. DLA strives to comply with all water quality regulations, including stringent drinking water standards. For the first half of FY2005, DLA achieved 100 percent compliance with both CWA and SDWA permits, as shown in Figures B-52 and Figure B-53.

Compliance Enforcement Actions

Compliance with federal, state, and local laws and regulations are important in order to achieve success in all environmental programs. In FY2005, DLA had two open enforcement actions and only one new enforcement action as shown in Figure B-54. DLA did not incur any costs greater than \$1.5 million for compliance enforcement actions in FY2005.

Pollution Prevention

Through pollution prevention activities such as purchasing green products, attention to waste reduction goals and public outreach programs, as well as the use of innovative technologies, DLA is able to reduce health and safety risks to personnel and nearby communities and decrease environmental compliance, restoration, and conservation costs.

Green Procurement

While DLA is not engaged in many of the industrial activities that are typically the focus of pollution prevention activities, green procurement is a key area for DLA because of its buying activity. In a June 2004 policy, the DLA Director

Figure B-52
DLA CWA Permit Compliance

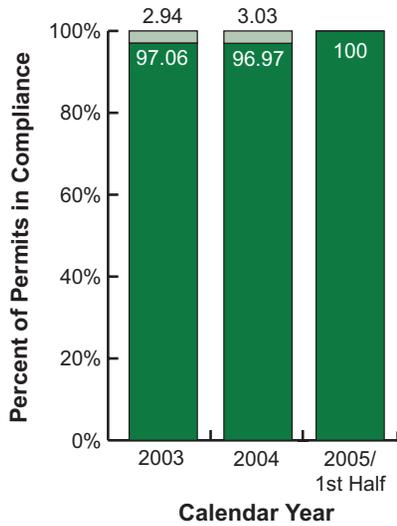


Figure B-53
DLA SDWA Compliance Rate

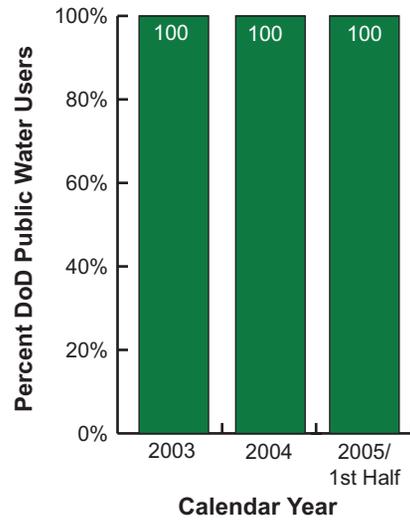
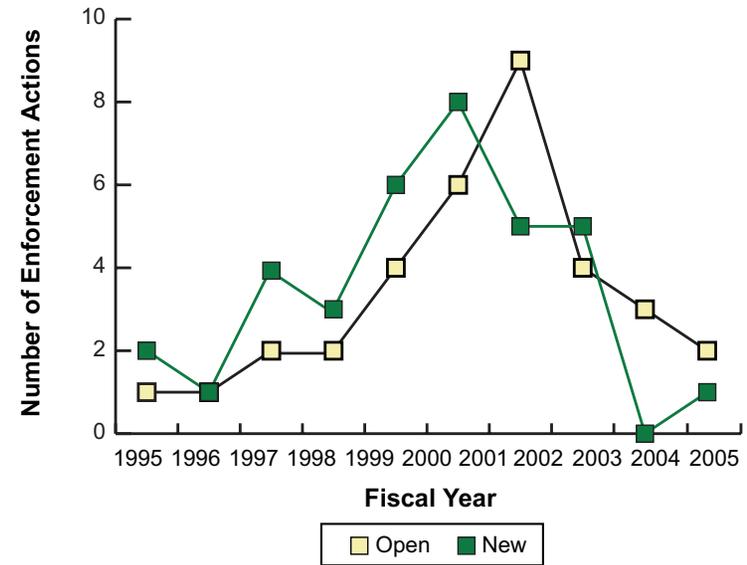


Figure B-54
DLA Compliance Enforcement Actions



stated "I believe we are in a unique position to identify environmental products which will assist military customers to meet their supply needs as well as their environmental obligations." In June 2004, DLA established a Green Product Team, which includes representatives from all field activities and HQ elements, to help develop strategy and objectives at the action officer level. This emphasis continued with top management support in March 2005 as DLA convened a senior-level Green Products Council to oversee initiatives, training, progress, and funding of green procurement implementation. This group was instrumental in revising the DLA Strategic Plan to add two objectives related to green products and services that DLA makes available for customers. The plan calls for 25 percent increases in offerings and revenues from green products and services by 2011.

In 2005, DLA awarded the first Green Products and Services Award. This new award recognizes achievements in providing customers with products or services that further national goals of environmental stewardship. The 2005 winner was the DLA Training Center for creating courses, such as one entitled

"Buying Green," which assists customers in affirmative procurement. DLA also manages alternative fuels, including sales of biodiesel and ethanol to military customers, totaling \$15.5 million and \$555,000 respectively, in FY2005.

Integrated Solid Waste Management

In FY2005, DLA exceeded DoD's 40 percent solid waste reduction goal by diverting 47 percent of its non hazardous solid waste from entering disposal facilities. This recycling effort resulted in an economic benefit of \$849,000.

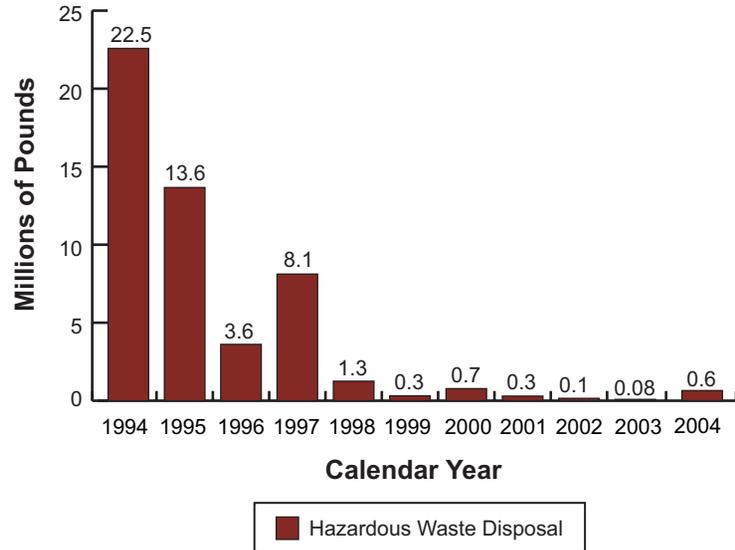
Hazardous Waste Reduction and Disposal

Figure B-55 shows a 95 percent reduction in hazardous waste disposal since Calendar Year (CY) 1994.

Ozone-Depleting Substances

DLA manages the DoD's Ozone-Depleting Substances (ODSs) Reserve in order to provide Components with mission-critical ODSs. DoD established the

**Figure B-55
DLA Hazardous Waste Disposal**



reserve as an essential part of DoD's plan to phase out the use of ODSs. DLA provides central management of ODSs and provides DoD with the capability to receive, reclaim, and issue Class I chlorofluorocarbons and halons. Storing and handling the ODSs properly protects the environment and makes it possible for DoD to reduce the overall quantities of ODSs required.

The primary reclamation location for ODSs is in Richmond, Virginia, with secondary reclamation locations in the Netherlands and at Warner-Robins AFB. ODSs are also collected and consolidated at sites located in Germany, Hawaii, and Japan. There are secure long-term storage locations on the East and West Coasts in the U.S., as well as in Australia. In CY2005, 20,000 pounds of non-reclaimable ODS solvents and 5,000 pounds of refrigerants were safely destroyed in Australia and the Netherlands, respectively. Cooperative efforts with the Departments of Treasury/Customs, Environmental Protection Agency, United States Postal Service, Central Intelligence Agency, Department of Energy, and National Aeronautics and Space Administration for the recovery and reclamation of excess ODS stocks has resulted in transfers of ODSs from federal agencies, saving millions of dollars, and preventing poor handling and storage practices.

Toxic Release Inventory

The primary purpose of Toxic Release Inventory (TRI) reporting is to establish an inventory of toxic chemical releases and inform the public about both routine and accidental releases into the environment.

Looking Forward

DLA should easily meet the 2014 RIP/RC goal. DLA's restoration program is at 93 percent RIP/RC.

The Agency is committed to reducing cleanup costs, working with regulators, and using cost-effective treatment technologies. Working in this manner will ensure efficient and effective decision making so that any short term costs will be more than off-set by long-term savings.

DLA's restoration program is also continuing to progress though its current plan of milestones and objectives. During 2006, DLA plans to implement new non-DERP environmental liabilities guidance and to reconcile environmental liabilities with real property records. The year 2008 is projected for environmental liabilities assertion.

FUDS Environmental Programs Progress



Component Progress

FUDS Environmental Restoration Programs at a Glance

Total DERP Sites			
IRP Sites	MMRP Sites	BD/DR Sites	Totals [†]
2,588	1,658	422	4,668

[†]Totals do not equal all categories because some Potentially Responsible Party (PRP) sites exist in the FUDS inventory and are not shown above.

Total Completed Sites			
IRP Sites	MMRP Sites	BD/DR Sites	Totals*
1,559	482	328	2,369

*Completed refers to those sites that have achieved response complete (RC) status.

In FY2005....

- FUDS addressed a total of 4,668 sites at 2,943 properties.*
- FUDS had 1,830 sites in investigation phases, 469 sites with cleanup underway,** and 81 sites with long-term management underway and that are response complete.
- FUDS spent a total of \$265.7 million on DERP environmental restoration activity.

Through FY2005....

- FUDS spent a total of \$3.0 billion on DERP environmental restoration activity.
- The total cost for completing the remaining 2,299 sites was estimated at approximately \$18.7 billion, including management and support costs.

* There are 9,841 total properties in the FUDS inventory.

** Cleanup underway includes sites that have achieved remedy in place (RIP).

The goal of the Formerly Used Defense Sites (FUDS) program is to reduce risk to human health and the environment resulting from past Department of Defense (DoD) activities at properties that were formerly owned, leased, or otherwise under the jurisdiction of DoD or its Components.

The Army acts as the executive agent for the FUDS program, and the U.S. Army Corps of Engineers (USACE) executes the program through its divisions and districts. USACE must evaluate information about the origin and extent of contamination, land transfer issues, past and present property ownership, and program policies before it considers a property eligible for the FUDS program. At FUDS-eligible properties, USACE conducts environmental restoration activities under the Comprehensive Environmental Response, Compensation, and Liability Act. USACE sets priorities for the FUDS program based on an evaluation of relative risk and other factors, such as legal agreements, stakeholder concerns, and economic considerations. USACE headquarters is responsible for FUDS program management and execution. The FUDS mission within USACE is executed by the field organizations, which consist of seven geographic military divisions; 22 military districts, with necessary support from civil works districts; one hazardous, toxic, and radioactive waste center of expertise; and one military munitions center of expertise. A USACE district commander serves as each property's installation commander, executing environmental restoration projects and fulfilling associated responsibilities, since DoD no longer owns or uses the FUDS properties.

Site Status and Progress Towards Program Goals

The scope and magnitude of the FUDS program are significant, with 9,841 properties identified for potential inclusion in the program, as shown in Figure B-54. Figure B-55 illustrates that as of the end of FY2005, USACE has evaluated 9,294 properties and determined that no response is required at 6,329 of those properties. A response action is required at the remaining 2,965 (32 percent) properties. There was an overall decrease in the number of projects listed for FUDS as of the end of FY2005 compared to FY2004 due to a change in cost-to-complete (CTC) estimation procedures. Previously, USACE included projects with pending approval in the total project count. There were a total of 236 such projects pending approval as of the end of FY2005. They will be added to the database as they are approved for restoration.

Figure B-56
FY2005 Program Eligibility Status of Potential FUDS Programs*

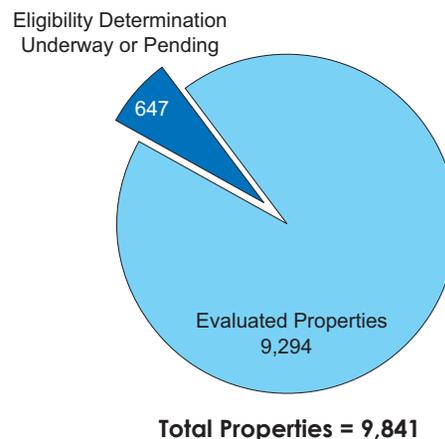
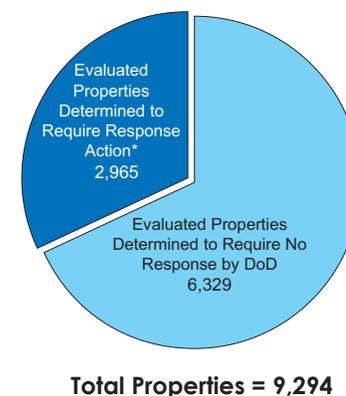


Figure B-57
FY2005 Response Action Status at Evaluated FUDS Properties*



*Status as of September 30, 2005.

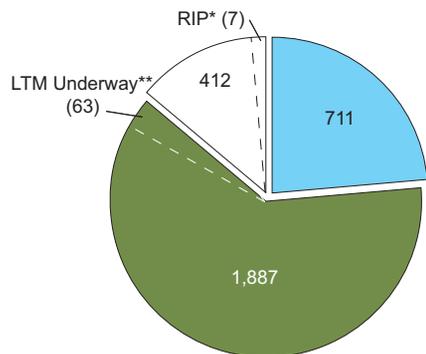
USACE continues to emphasize project execution, FUDS property restoration, and active stakeholder involvement in the environmental restoration process. New properties and sites are continually being identified by property owners or discovered by USACE and added to the FUDS program. USACE continues evaluating potentially FUDS-eligible sites as well as completing investigation and cleanup requirements to meet DoD management goals.

Installation Restoration Program

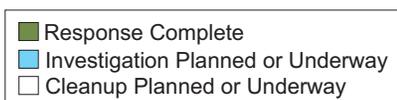
USACE strives to evaluate as many Installation Restoration Program (IRP) category sites as possible to assess relative risk to human health and the environment. Besides relative risk, other management factors considered include: stakeholder concerns, aid in sequencing work during FUDS planning, programming, budgeting, and project execution.

USACE currently has 2,588 IRP and 422 building demolition/ debris removal (BD/DR) category sites in the FUDS program. Of the 3,010 FUDS IRP and BD/DR sites, 68 percent, or 2,061 sites, do not require a relative-risk ranking because work is ongoing or completed. Project execution figures for FY2005 demonstrate that the FUDS program continues to make significant progress. As of the end of FY2005, 1,887 FUDS IRP and BD/DR sites reached the RC milestone, as shown in Figure B-58.

**Figure B-58
FY2005 FUDS IRP Site Status**



Total Sites = 3,010†

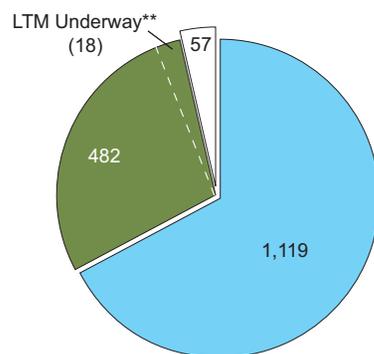


* Remedy in place (RIP) includes sites where remedial action operations are underway. RIP is a subset of Cleanup Planned or Underway.

** Long-term management (LTM) occurs at a subset of the sites that have achieved response complete.

† Includes 422 BD/DR Sites.

**Figure B-59
FY2005 FUDS MMRP Site Status**



Total Sites = 1,658

Military Munitions Response Program

USACE also evaluates Military Munitions Response Program (MMRP) category sites for risks to human safety. MMRP assessments consist of a hazard severity assessment and a hazard probability assessment. Both are based on the best available information from archive search reports, explosive ordnance disposal incidence reports, field observations, interviews, and physical site measurements. Of the 1,658 eligible MMRP sites in the FUDS program, 482 have already achieved RC status, as shown in Figure B-57. The total number of sites and those with RC status decreased from FY2004 (1,658 and 804, respectively) because projects previously reported are still in "project approval pending" status. Under current USACE internal procedures, projects are not officially being reported unless they are approved. Although this change in administrative procedures is technically altering RC count for now, these projects are still indeed RC and no longer require any response action (other than project close out). Next year, these projects will be approved and included in the total and RC counts, after administrative action is taken and

the count will reflect an updated number of total and RC projects. The MMRP, as defined in FY2004, now encompasses hazards associated with munitions constituents (MC) not just explosive hazards. Approximately 200 projects had previously been closed out because they do not pose a threat. However, to comply with new legislation and program definitions, these projects were re-opened during FY2005 to address the potential MC threat posed by expended small arms ammunition (i.e., lead). To date, USACE has completed preliminary assessments (PAs) for nearly all MMRP eligible sites, in an effort to meet the FY2007 goal for completing PAs and FY2010 goal for the completion of the site inspections (SIs) for sites identified in the FY2004 MMRP Inventory. In anticipation of completion of the Munitions Response Site Prioritization Protocol (Protocol), USACE began using the Protocol for prioritization of MMRP sites.

Financial Management

In FY2005, USACE obligated \$265.7 million for environmental restoration activities at FUDS properties. Figure B-58 illustrates the FUDS Environmental Restoration funding levels for FY2004 through FY2007. USACE is planning to fund \$253.8 million for environmental restoration activities in FY2006, with 83 percent designated for investigations and cleanup actions. USACE used the remaining funds for long-term management activities and program management. The FUDS environmental restoration funding trends are illustrated in Figure B-59.

Program Initiatives and Improvements

During FY2005, USACE implemented many initiatives to meet DoD Management Goals. In an effort to further refine the FUDS CTC estimating processes, procedures, and systems, new guidelines were published in the FUDS CTC Estimate Handbook in January 2005. USACE also included progress toward achieving RIP/RC goals as part of its Command Management Reviews. The FUDS Program management plans were developed based on the DoD Management Goals, the Army Environmental Cleanup Strategy, and the Army Cleanup Strategic Plan. USACE continues an initiative proposed by the FUDS Forum, a group consisting of representatives from DoD, the Environmental Protection Agency, and state and Tribal governments, to develop statewide Management Action Plans (MAPs). Statewide MAPs bring together the FUDS project managers with state and federal regulators, Tribal

Figure B-60
FUDS Environmental Restoration Funding Profile*
 (in millions)

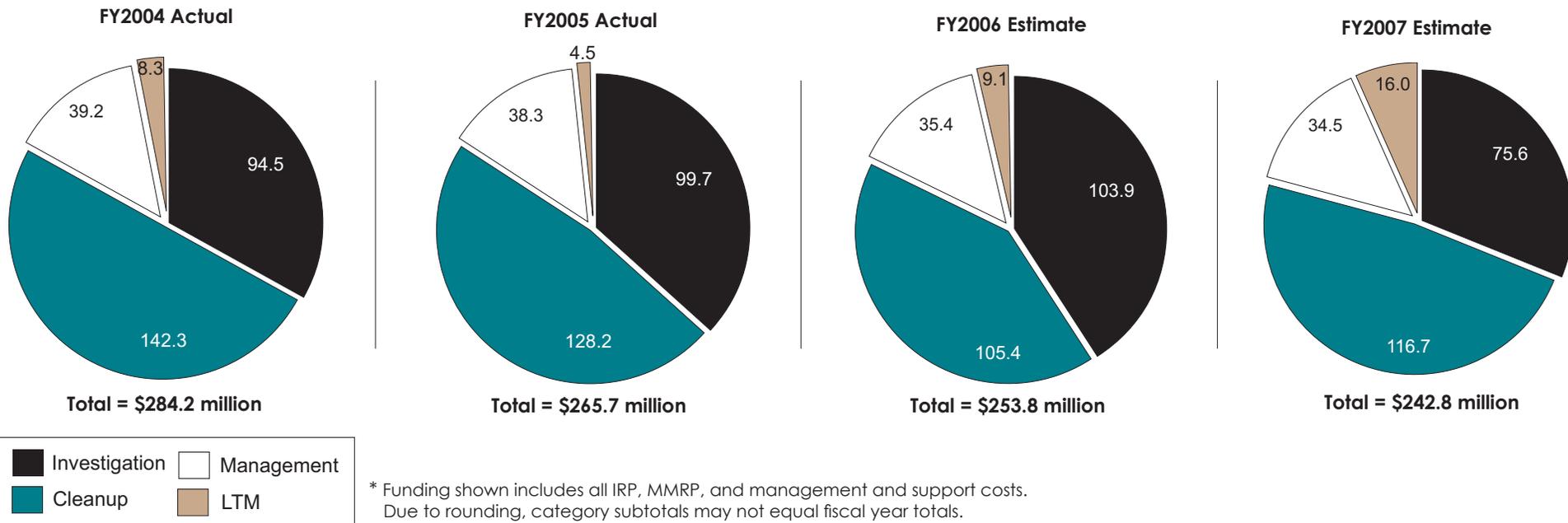
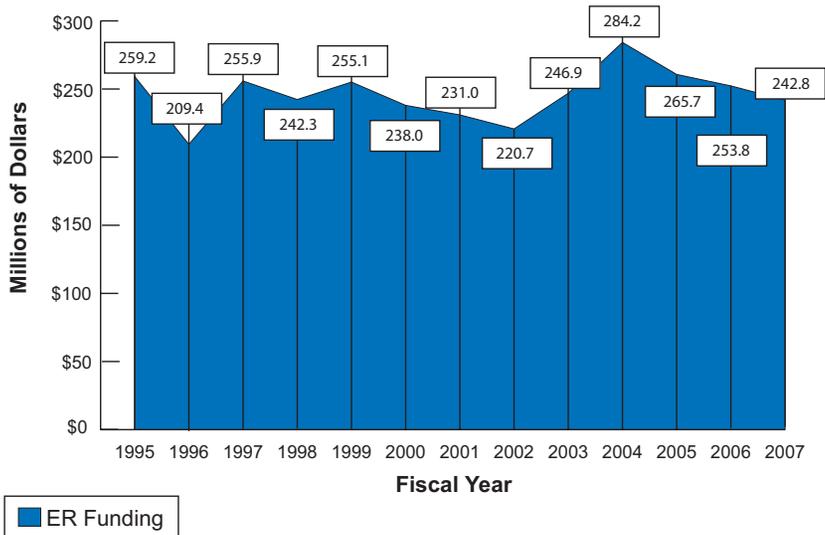


Figure B-61
FUDS Environmental Restoration Funding Trends



governments, other interested property owners, and community members to collaboratively develop long-term plans for cleanup at FUDS properties. These statewide MAPs include detailed information for each active FUDS property in that state, as well as current status, future activities, prioritization, and budget work plans. Providing this information helps ensure that regulatory agencies and interested parties are included in the project prioritization process. As of the end of FY2005, USACE completed 18 statewide MAPs, and 23 more are underway or proposed for development.

In FY2005, USACE completed the Chemical Warfare Materiel (CWM) Scoping and Security Study. This was the first nationwide effort to evaluate site safety and security where historical documentation indicated that DoD used, produced, stored, or tested CWM. Fieldwork to further delineate CWM sites allowed more definitive assumptions and reduced the CTC by approximately \$1.0 billion.

In an effort to address internal and external audit documentation deficiencies, USACE initiated the FUDS Information Improvement Plan (FIIP). The goal of the

FIP is to ensure historical property and project documentation before 2004 is retrofitted to the current standards outlined in USACE Engineering Regulation 200-3-1, FUDS Program Policy. Specific objectives include ensuring adequate documentation to support decisions, ensuring nationwide consistency in project file content and organization, capturing and archiving documentation electronically, corroborating FUDS Management Information System data by property and project files, and ensuring division certification of the completeness of the property and project files.

Looking Forward

USACE is committed to achieving program progress and meeting challenges the FUDS program will face in FY2006. During FY2006, \$25 million is planned for SI efforts at MMRP sites. The objective of the MMRP SI effort is to collect sufficient information to determine whether or not a remedial investigation and feasibility study are required at a site, whether the site needs an immediate response, or whether the site qualifies for no further action. The property-wide SI will address munitions and explosives of concern hazards, including unexploded ordnance and discarded military munitions, as well as munitions constituent issues for eligible MMRP sites. The secondary goal of this effort is to collect information to complete the Protocol and develop better CTC estimates for eligible MMRP sites. The Army is developing an optimum MMRP SI funding profile to balance funding allocated between the goals for the IRP and the MMRP.