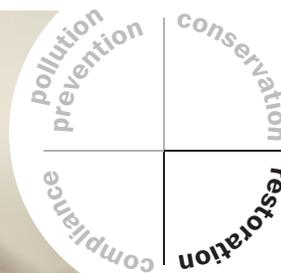


# APPENDIX E

## RESTORATION BUDGET SUMMARY



Over the past 10 years, the Department of Defense (DoD) has invested approximately \$20 billion in environmental restoration through the Defense Environmental Restoration Program (DERP). This funding comes from the Environmental Restoration (ER) account, which funds environmental cleanup at active installations and formerly used defense sites (FUDS), and the Base Realignment and Closure (BRAC) account, which funds environmental restoration at BRAC installations. For fiscal year (FY) 2004 alone, Congress appropriated approximately \$1.3 billion in ER funding for environmental restoration activities at active installations and FUDS properties. Congress appropriated an additional \$361.3 million for environmental activities at BRAC installations, including compliance and planning, as well as cleanup.

This appendix provides detailed information on how ER and BRAC environmental funding at the DERP and Component levels meet environmental restoration requirements, how funding relates to progress through the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) cleanup process, and describes future funding needs.

### Component Funding Status

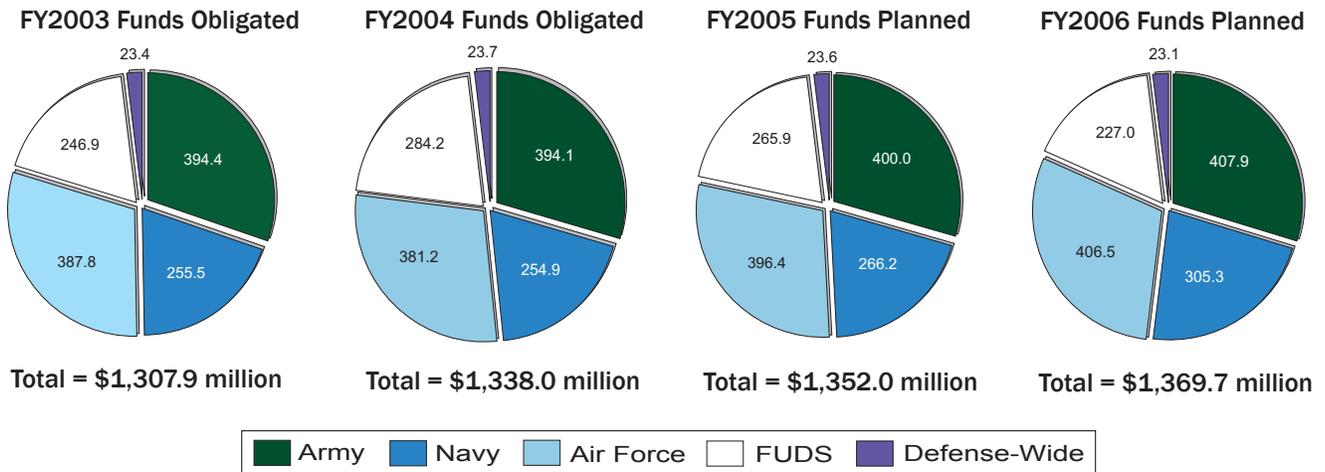
Once Congress approves the budget, ER funding for active installations and FUDS properties is appropriated into five Component-specific ER accounts. The Army, Navy, and Air Force manage individual ER accounts for environmental response activities at their active installations. The U.S. Army Corps of Engineers executes a fourth account that funds the FUDS program. The fifth account, the Defense-wide account, supports the Office of the Secretary of Defense's oversight of the DERP and cleanup initiatives for the Defense Logistics Agency (DLA) and the Defense Threat Reduction Agency. Figure E-1 shows obligated and planned FY2003–FY2006 ER funding by Component for environmental restoration activities at active installations and FUDS properties. In FY2004, Congress appropriated \$394.1 million for Army, \$254.9 million for Navy, \$381.2 million for Air Force, \$284.2 million for FUDS, and \$23.7 million for Defense-wide restoration activities at active installations. ER funding remained stable both for the DERP as a whole and also for the five individual accounts, as the figure illustrates.

Figure E-2 shows that obligated and planned funding for environmental activities, including compliance and planning, at BRAC installations, has declined from FY2003 to FY2006. This trend demonstrates that DoD is completing environmental restoration requirements at these installations, which will decrease BRAC environmental funding needs in future years. FY2004 BRAC environmental funding included \$61.9 million for Army, \$96.5 million for Navy, \$193.1 million for Air Force, and \$9.8 million for DLA. FY2005 and FY2006 funding requirements will continue this downward trend in funding requirements as additional cleanup actions are completed and BRAC installations reach the remedy in place/response complete milestone.

## Progress Through Cleanup Phases

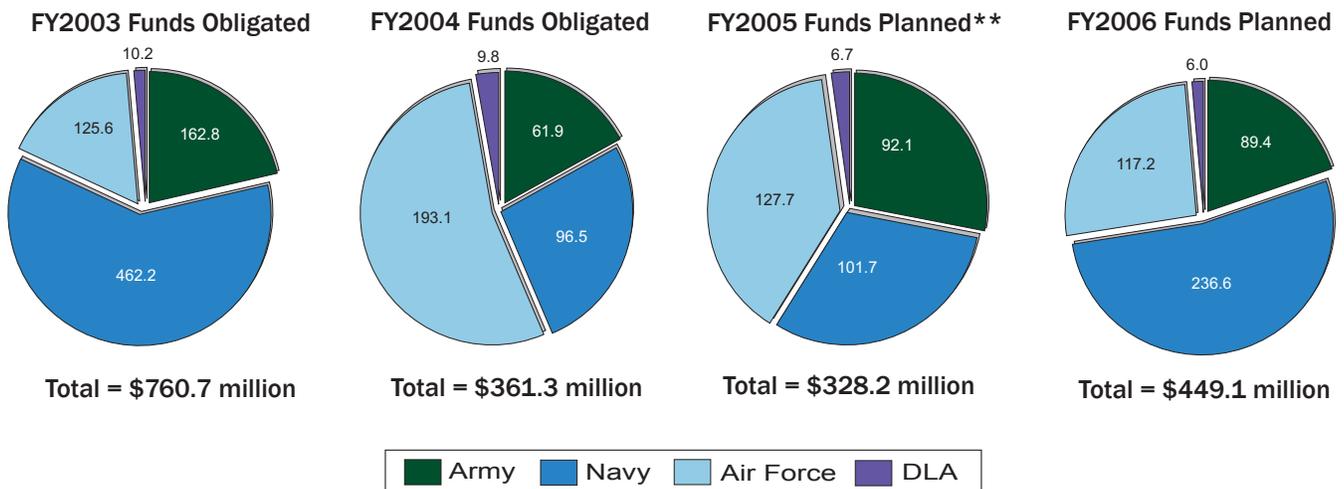
As sites progress through the cleanup process, more sites complete investigations and advance to cleanup activities. As a result, DoD spends increasingly more funding on cleanup activities and less on investigation. Appropriately, ER funding trends mirror this site progress trend, as illustrated in Figure E-3, where the proportion of funding spent on DERP cleanup activity increases as the proportion of funding

**Figure E-1**  
**Environmental Restoration Funding Profile for Active Installations and FUDS Properties\***  
 (in millions)



\* Funding shown includes all IRP, MMRP, BD/DR, and management and support costs. Due to rounding, Component subtotals may not equal fiscal year totals.

**Figure E-2**  
**BRAC Environmental Funding Profile\***  
 (in millions)

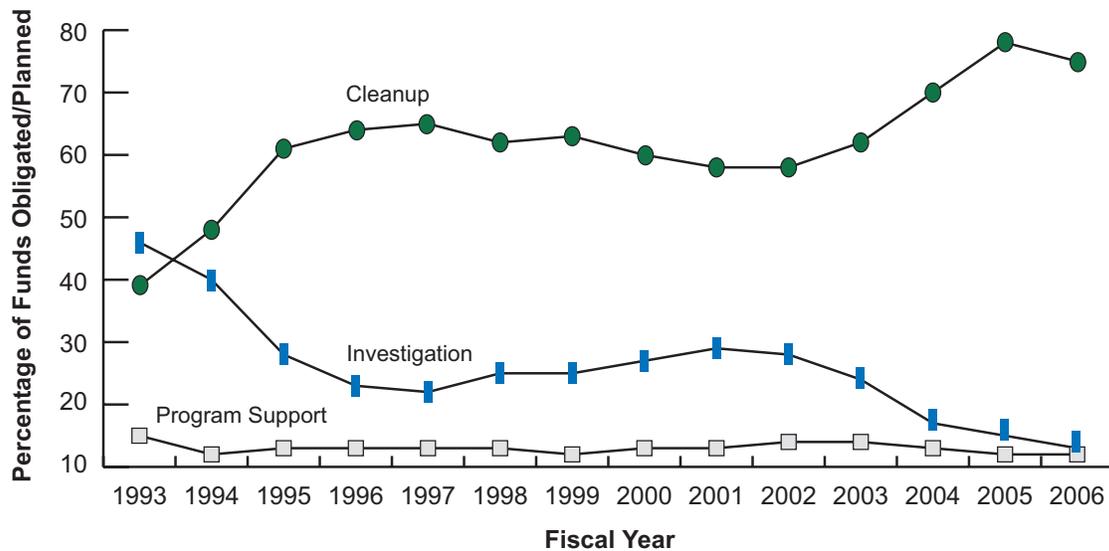


\* Funding shown includes all IRP, MMRP, compliance, planning, and management and support costs. Due to rounding, Component subtotals may not equal fiscal year totals.

\*\* Includes DLA prior year unobligated balance available for execution in FY2005.

spent on investigation decreases. During FY2004, DoD spent approximately 66 percent of funding on cleanup and used 21 percent to complete investigation phases. Figure E-3 also demonstrates that the DERP maintains a consistently low level of program management and support costs.

**Figure E-3**  
**Environmental Restoration Obligations and Planning Estimates for Cleanup, Investigation, and Program Support at Active Installations and FUDS**



Upon formal creation of the Military Munitions Response Program (MMRP) in FY2001, the Department conducted an inventory to identify MMRP sites. As a result, many new sites that require funding were introduced into the DERP, most of which are in the investigation stages. This will increase the proportion of DERP funding spent on investigation over the next several years.

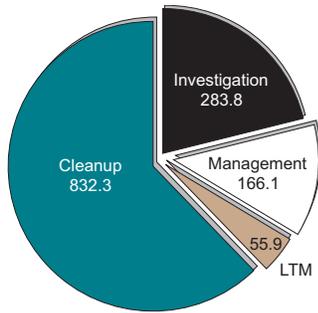
Figure E-4 illustrates the distribution of total DERP ER funds, which include funding for active installations and FUDS in both the Installation Restoration Program (IRP) and the MMRP, across each stage of the environmental restoration process—investigation, cleanup, and long-term maintenance (LTM)—as well as program management. Figures E-5 and E-6 show breakouts of ER funding by environmental restoration program category, IRP and MMRP, respectively. Correspondingly, Figure E-7 illustrates overall BRAC environmental restoration funding, while Figures E-8 and E-9 show BRAC environmental restoration funding broken out by IRP and MMRP, respectively.

## Relative Risk Reduction

DoD gauges DERP progress through the program initiative to address the “worst first” in site cleanup. In accordance with this approach, funding is used to address sites according to the relative risk posed by the site. Funding limitations require that DoD prioritize sites based on the risk the site poses to human health and the environment relative to other sites in the program. As such, the Department spent the greatest portion of FY2004 ER funding in the IRP on the remaining high relative-risk IRP sites, continuing its commitment to address all of these sites at active installations and FUDS by FY2007. As illustrated in Figure E-10, DoD spent \$489.7 million, or 47 percent of the site-level FY2004 ER IRP budget on high

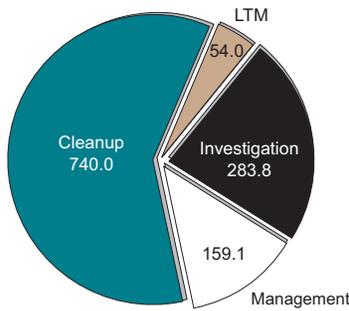
**DERP ER Funding by Cleanup Phase\***  
(in millions)

**Figure E-4**  
**Total FY2004 DERP ER Funding**



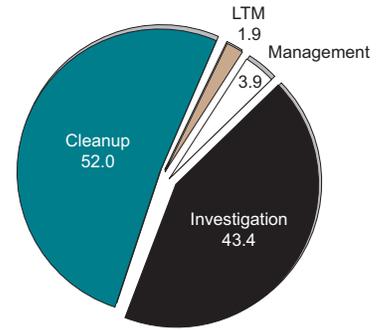
**Total = \$1,338.0 million**

**Figure E-5**  
**FY2004 IRP ER Funding**



**Total = \$1,236.8 million**

**Figure E-6**  
**FY2004 MMRP ER Funding**

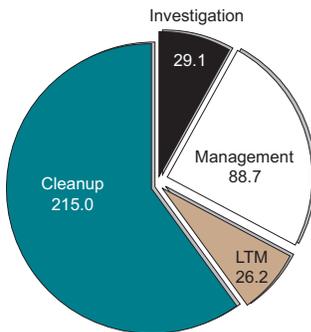


**Total = \$101.2 million**

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

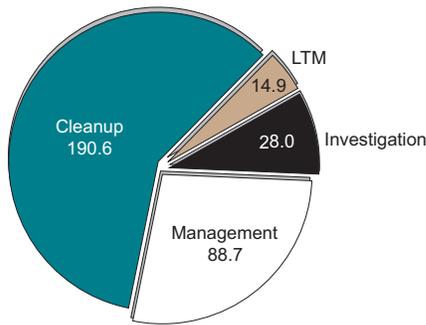
**BRAC Funding by Cleanup Phase\***  
(in millions)

**Figure E-7**  
**Total FY2004 BRAC Environmental Restoration Funding\*\***



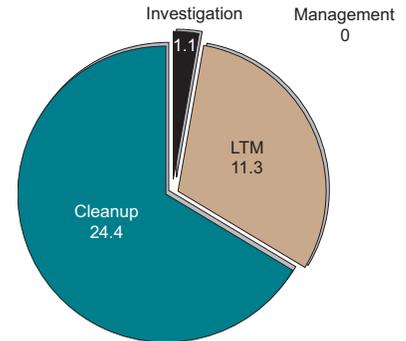
**Total = \$358.9 million**

**Figure E-8**  
**FY2004 IRP BRAC Environmental Restoration Funding\*\***



**Total = \$322.1 million**

**Figure E-9**  
**FY2004 MMRP BRAC Environmental Restoration Funding\*\***

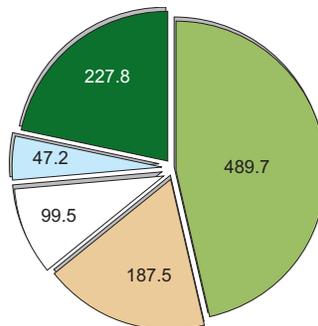


**Total = \$36.8 million**

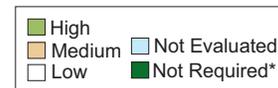
\* Due to rounding, subtotals may not equal fiscal year totals.

\*\* These figures do not include BRAC environmental compliance and planning funding.

**Figure E-10**  
**FY2004 ER IRP Funding by Relative Risk Category\***  
(in millions)



**Total = \$1,051.7 million**



\* Does not include program management, other miscellaneous costs, or MMRP funding.

relative-risk sites. In addition to high, medium, and low relative-risk sites, DoD also apportioned funds for sites that have not yet been evaluated for relative risk, most of which are still in investigation stages. DoD also apportioned funding for sites that no longer require relative risk classifications because, while DoD already addressed cleanup at these sites, some Not Required sites need funding to continue operations, maintenance, and/or monitoring of remedies already in place.

## Cost-to-Complete Estimates

The Department also measures DERP progress using program cost-to-complete (CTC) estimates, which are an estimation of anticipated costs necessary to complete environmental restoration requirements. CTC estimates, derived from the budgeting process, are based on site-level data and provide the most accurate picture of anticipated cost trends for addressing environmental restoration requirements. As such, the Department values CTC estimates as an important oversight and program management tool used to assess future funding needs and to determine if the Department is using funding effectively.

As DoD works to move sites through the CERCLA cleanup process and complete environmental restoration requirements, the total CTC for the DERP declines. Figure E-11 illustrates breakouts of IRP and MMRP CTC estimates for ER and BRAC funding. CTC estimates for funding in the MMRP show anticipated cost trends for addressing munitions response requirements. As the MMRP matures and sites are further characterized, DoD's CTC estimates will continue to improve and provide a more refined picture of munitions response requirements.

Figure E-12 shows total CTC estimates for each Component. The FUDS program has the highest CTC estimates for MMRP activities due to the large number of MMRP sites present at FUDS properties. All Components with MMRP sites, however, will spend increasing amounts of funding on MMRP activities in future years as DoD continues to increase its focus on addressing the risks associated with these sites. DoD's estimated CTC for munitions responses at BRAC installations is composed primarily of funding for addressing MMRP requirements at Army BRAC installations.

**Figure E-11**  
**Cost-to-Complete Estimates for FY2005-Complete<sup>†</sup> (in \$000)**

	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010-Complete
<b>Environmental Restoration</b>	\$1,121,363	\$1,169,504	\$1,195,222	\$1,230,457	\$1,272,471	\$26,122,431
IRP*	\$1,034,381	\$1,041,236	\$1,054,260	\$1,060,296	\$1,040,844	\$7,428,596
MMRP*	\$86,982	\$128,268	\$140,962	\$170,161	\$231,627	\$18,693,835
<b>BRAC</b>	\$259,068	\$363,784	\$395,185	\$216,842	\$185,129	\$1,823,041
IRP*	\$247,933	\$329,947	\$368,034	\$199,094	\$143,477	\$1,412,157
MMRP*	\$11,135	\$33,837	\$27,151	\$17,748	\$41,652	\$410,884
<b>Total</b>	\$1,380,431	\$1,533,288	\$1,590,407	\$1,447,299	\$1,457,600	\$27,945,472

† Does not include program management or other miscellaneous costs.  
\* IRP and MMRP funding are subsets of ER and BRAC funding totals.

**Figure E-12**  
**Cost-to-Complete Estimates for FY2005-Complete<sup>†</sup> (in \$000)**

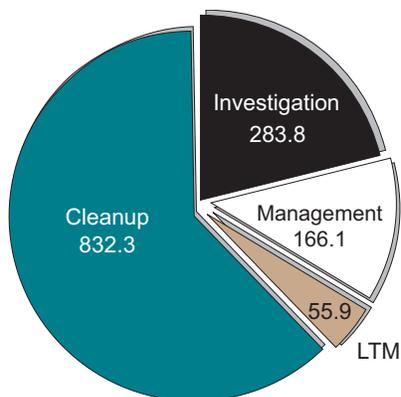
	Army	Navy	Air Force	DLA	FUDS	Total
Environmental Restoration	\$8,315,264	\$2,691,861	\$5,086,605	\$204,866	\$15,812,852	\$32,111,448
IRP*	\$2,834,701	\$2,232,575	\$3,755,303	\$204,866	\$3,632,168	\$12,659,613
MMRP*	\$5,480,563	\$459,286	\$1,331,302	\$0	\$12,180,684	\$19,451,835
BRAC	\$1,004,923	\$825,486	\$1,392,043	\$20,597	\$0	\$3,243,049
IRP*	\$524,801	\$763,201	\$1,392,043	\$20,597	\$0	\$2,700,642
MMRP*	\$480,122	\$62,285	\$0	\$0	\$0	\$542,407
<b>Total</b>	<b>\$9,320,187</b>	<b>\$3,517,347</b>	<b>\$6,478,648</b>	<b>\$225,463</b>	<b>\$15,812,852</b>	<b>\$35,354,497</b>
<sup>†</sup> Does not include program management or other miscellaneous costs. * IRP and MMRP funding are subsets of ER and BRAC funding totals.						

\*\*\*\*\*

The following sections contain charts that provide data on Component funding and cost-to-complete trends in the DERP and illustrate DERP funding breakouts for FY2004.

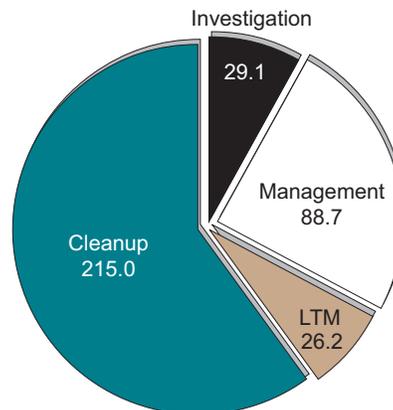
## DoD Funding Summary

**DoD FY2004 ER Funding by Cleanup Phase\***  
(in millions of dollars)



**Total = \$1,338.0 million**

**DoD FY2004 BRAC Environmental Restoration<sup>†</sup> Funding by Cleanup Phase\***  
(in millions of dollars)

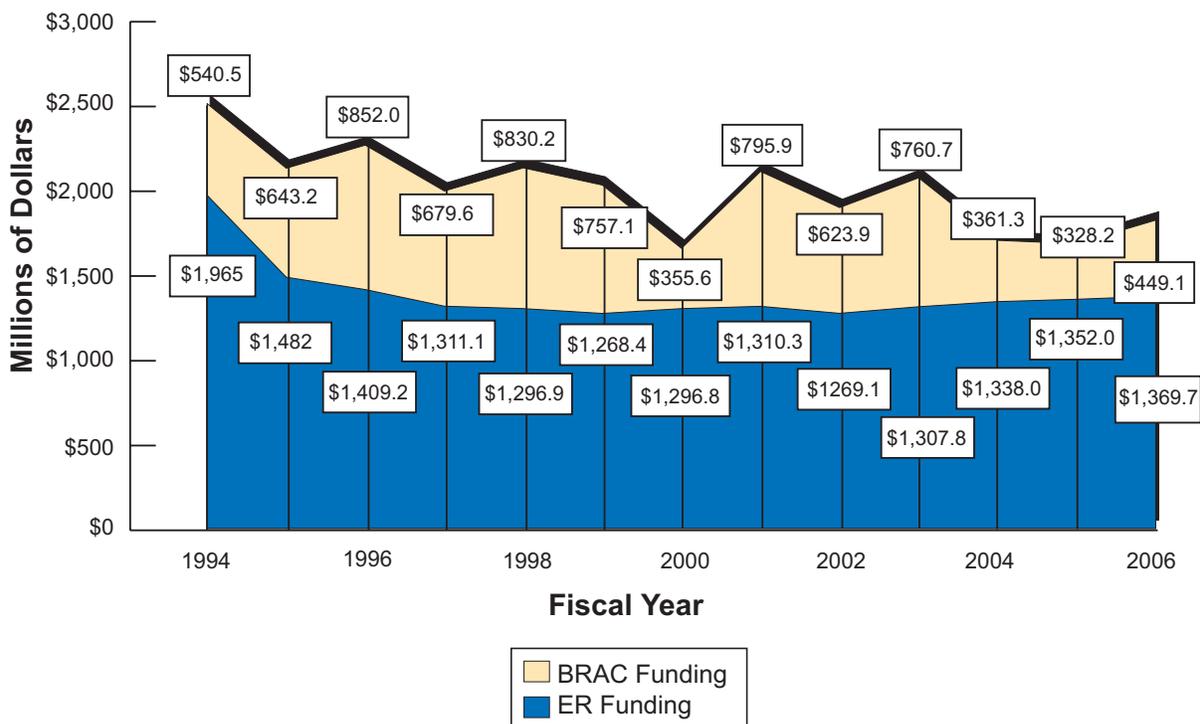


**Total = \$358.9 million**

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

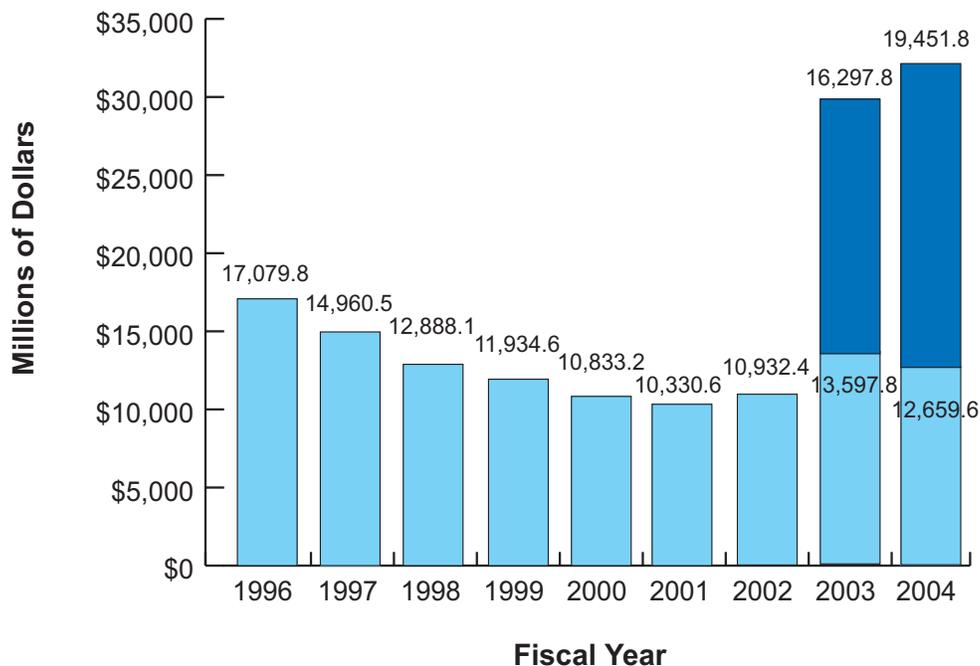
<sup>†</sup> Does not include BRAC environmental compliance and planning funding.

**DoD ER and BRAC Environmental Funding Trends\***



\* Includes BRAC environmental compliance and planning funding.

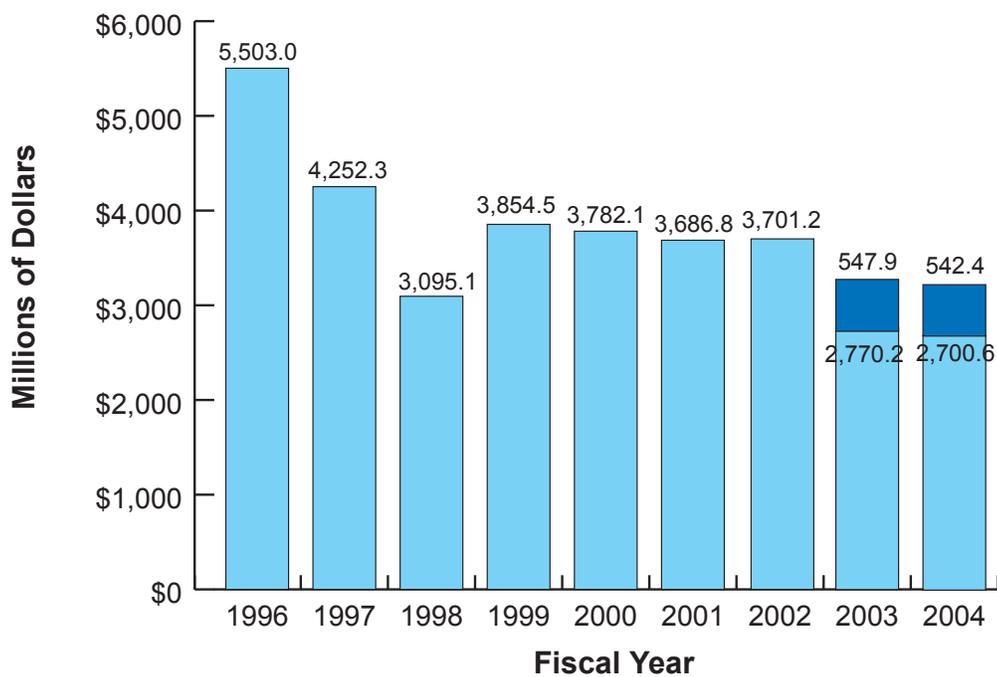
### ER Cost-to-Complete Trends



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



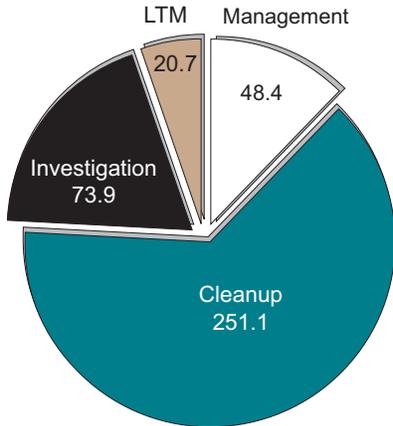
### BRAC Cost-to-Complete Trends



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

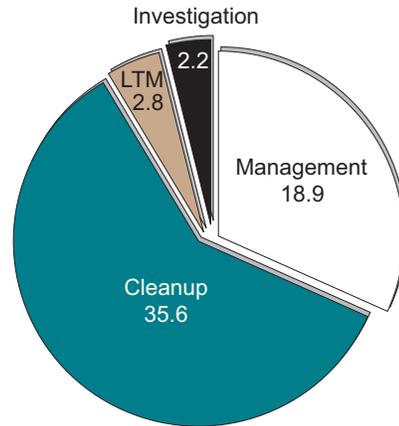
# Army Funding Summary

**Army FY2004 ER Funding by Cleanup Phase\***  
(in millions of dollars)



**Total = \$394.1 million**

**Army FY2004 BRAC Environmental Restoration† Funding by Cleanup Phase\***  
(in millions of dollars)

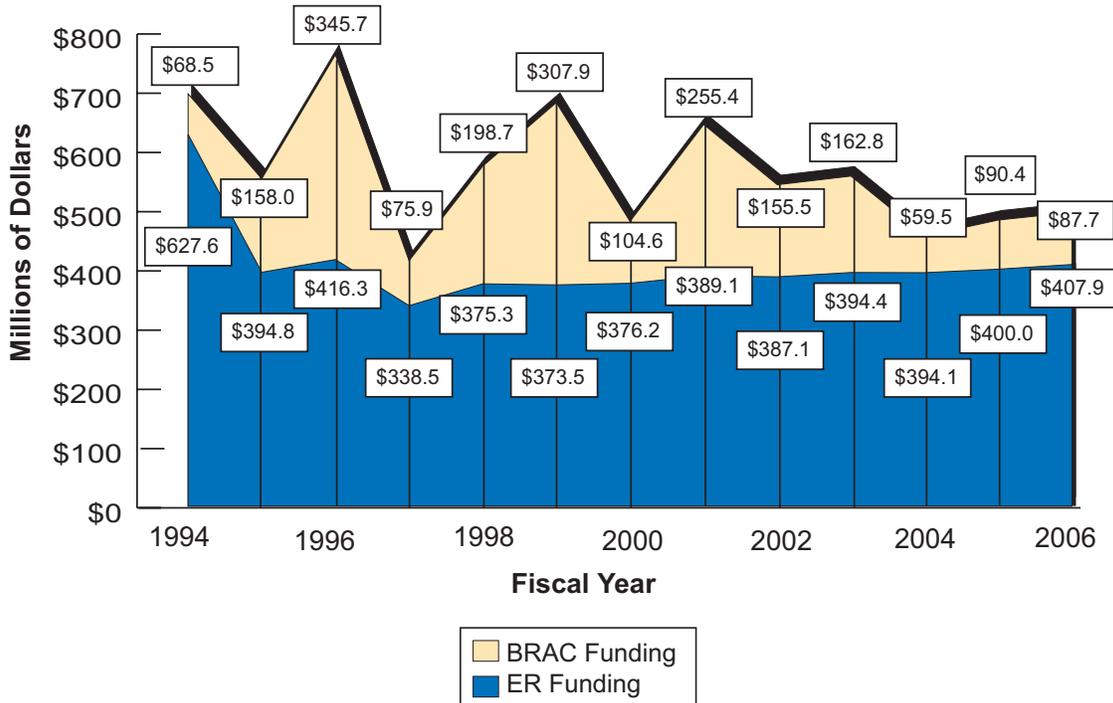


**Total = \$59.5 million**

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

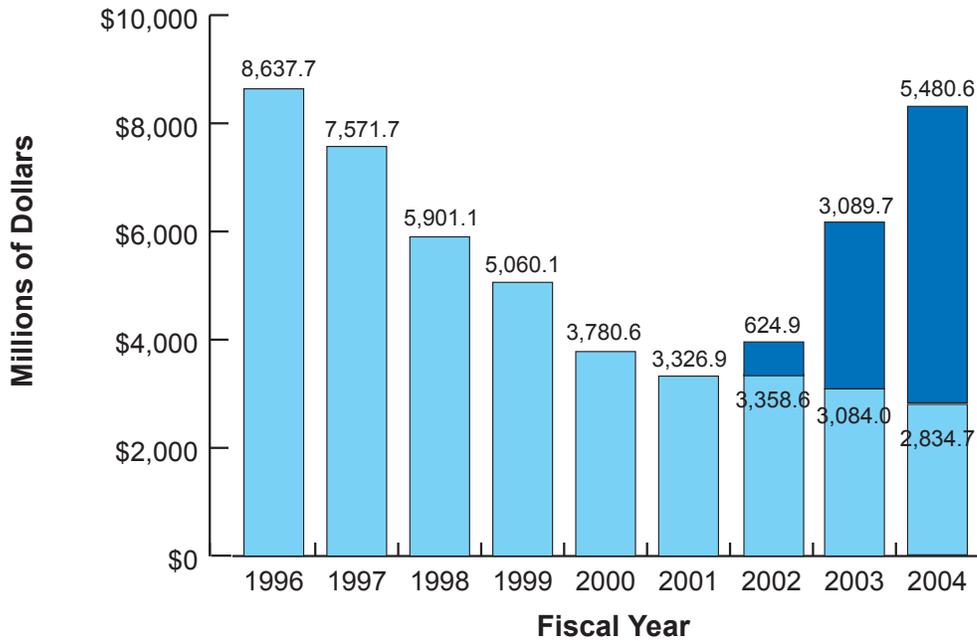
† Does not include BRAC environmental compliance and planning funding.

**Army ER and BRAC Environmental Restoration Funding Trends\***



\* Does not include BRAC environmental compliance and planning funding.

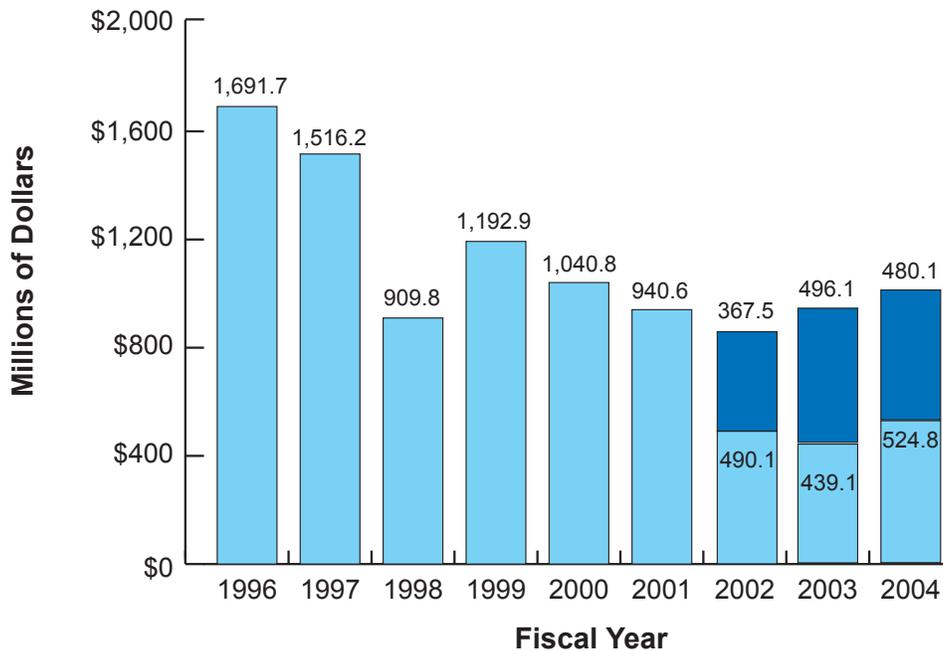
### Army ER Cost-to-Complete Trends



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



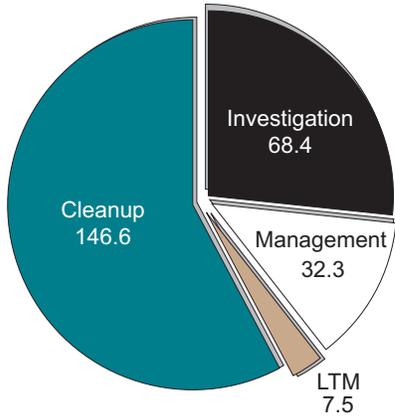
### Army BRAC Cost-to-Complete Trends



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

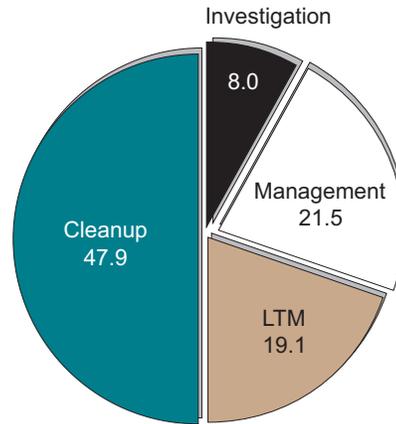
# Navy Funding Summary

**Navy FY2004 ER Funding by Cleanup Phase\***  
(in millions of dollars)



**Total = \$254.9 million**

**Navy FY2004 BRAC Environmental Restoration†**  
**Funding by Cleanup Phase\***  
(in millions of dollars)

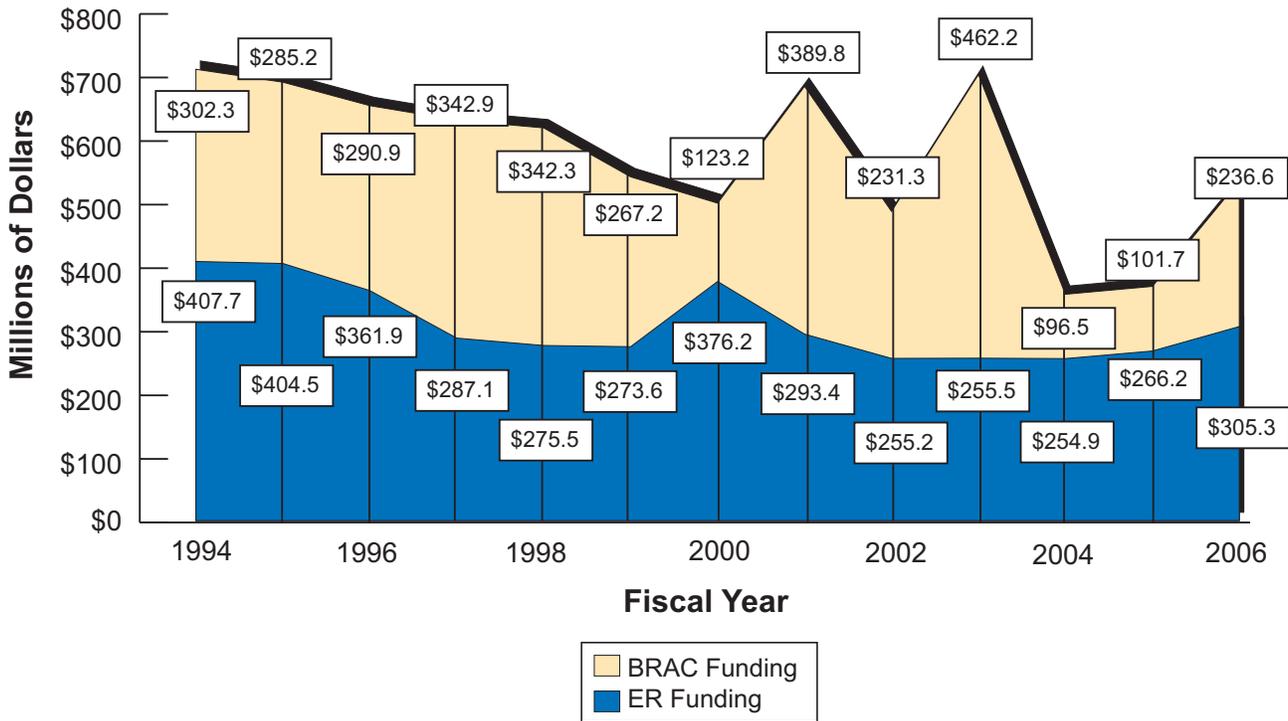


**Total = \$96.5 million**

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

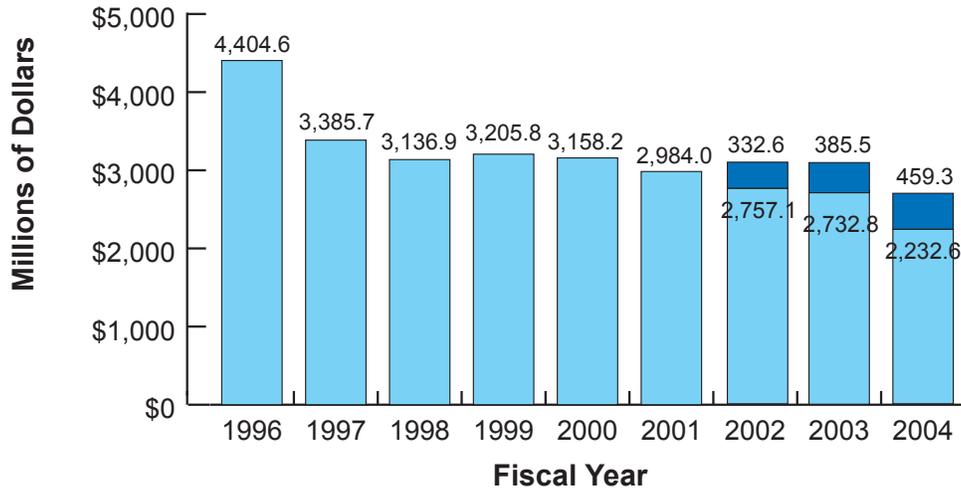
† Does not include BRAC environmental compliance and planning funding.

**Navy ER and BRAC Environmental Restoration Funding Trends\***



\* Does not include environmental compliance and planning funding.

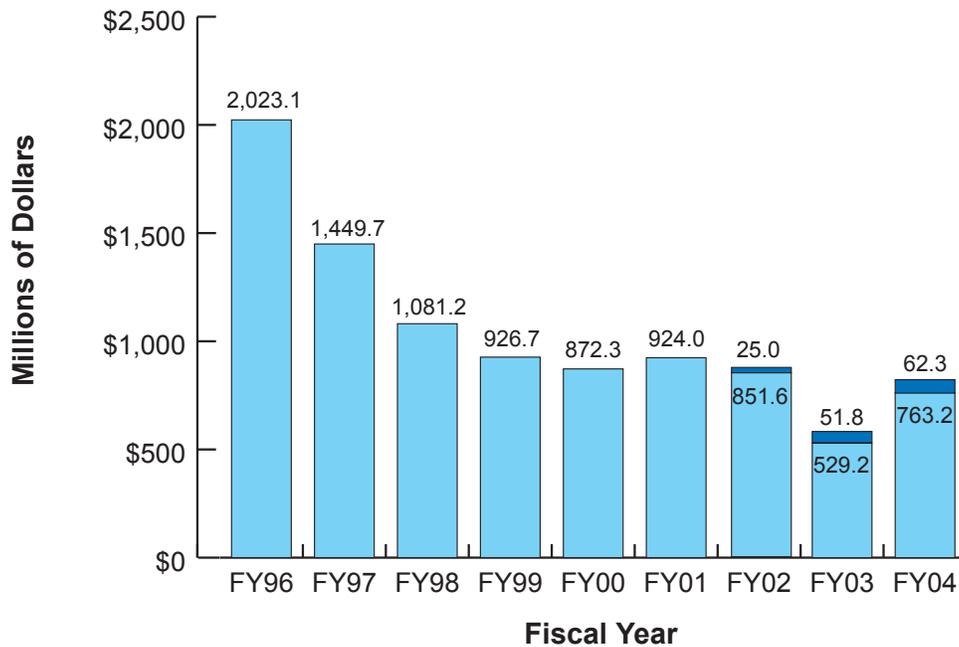
### Navy ER Cost-to-Complete Trends



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



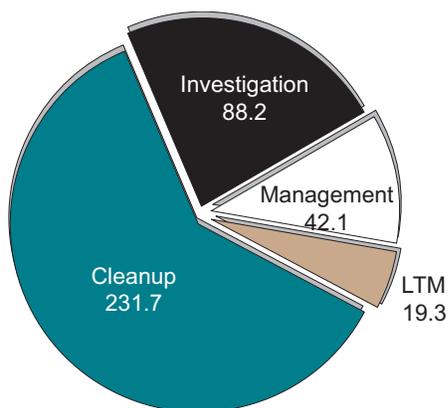
### Navy BRAC Cost-to-Complete Trends



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

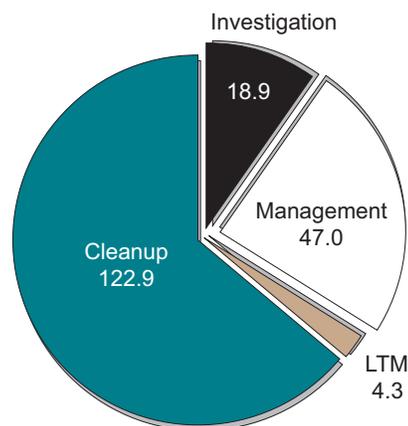
## Air Force Funding Summary

**Air Force FY2004 ER Funding by Cleanup Phase\***  
(in millions of dollars)



**Total = \$381.2 million**

**Air Force FY2004 BRAC Environmental Restoration†**  
**Funding by Cleanup Phase\***  
(in millions of dollars)



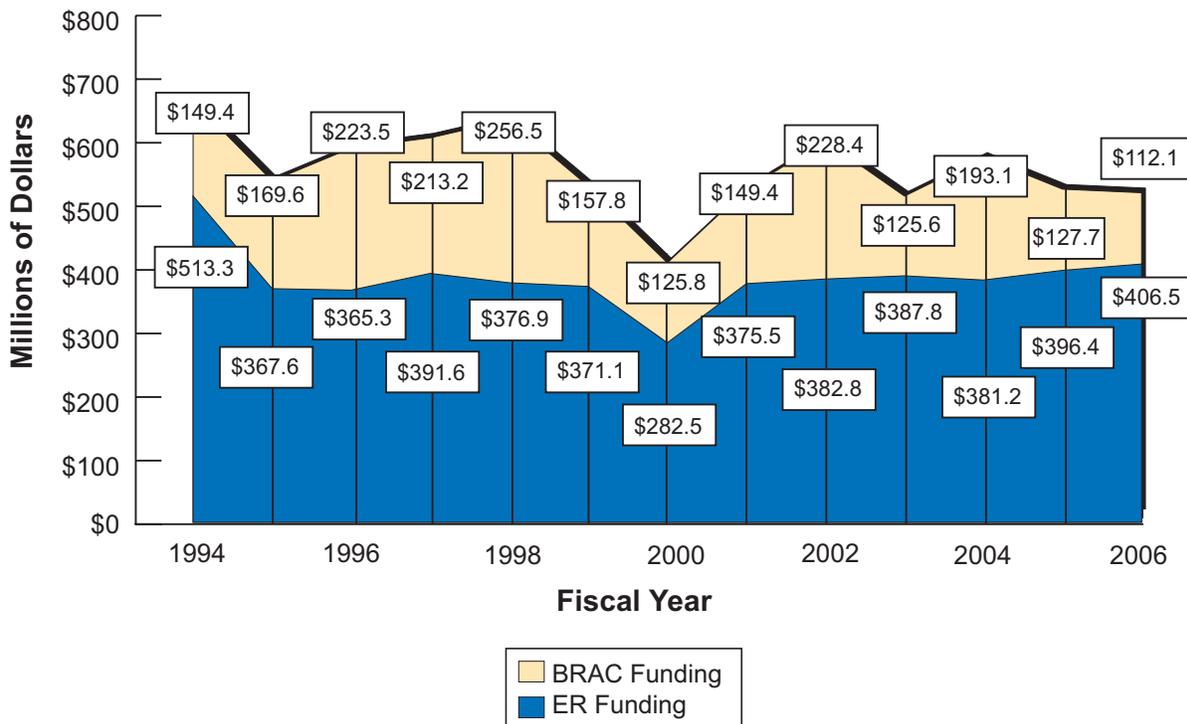
**Total = \$193.1 million**

\* Funding shown includes IRP and MMRP. Due to rounding, category subtotals may not equal fiscal year totals.

† Does not include BRAC Environmental compliance and planning funding.

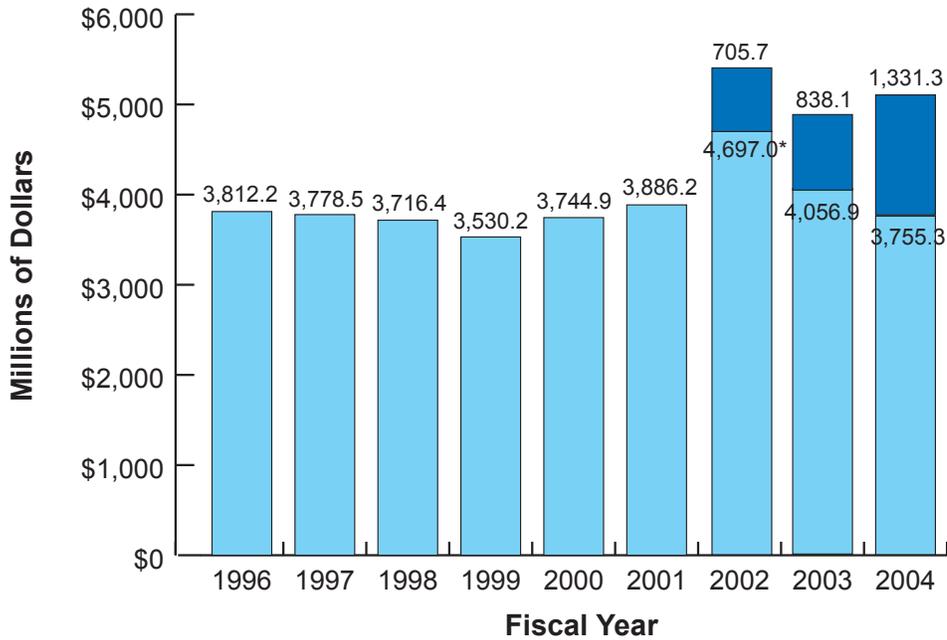
\* Funding shown includes IRP, MMRP and BD/DR funding. Due to rounding, category subtotals may not equal fiscal year totals.

**Air Force ER and BRAC Environmental Restoration Funding Trends\***



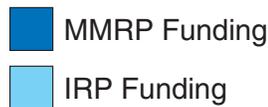
\* Does not include BRAC environmental compliance and planning funding.

### Air Force ER Cost-to-Complete Trends

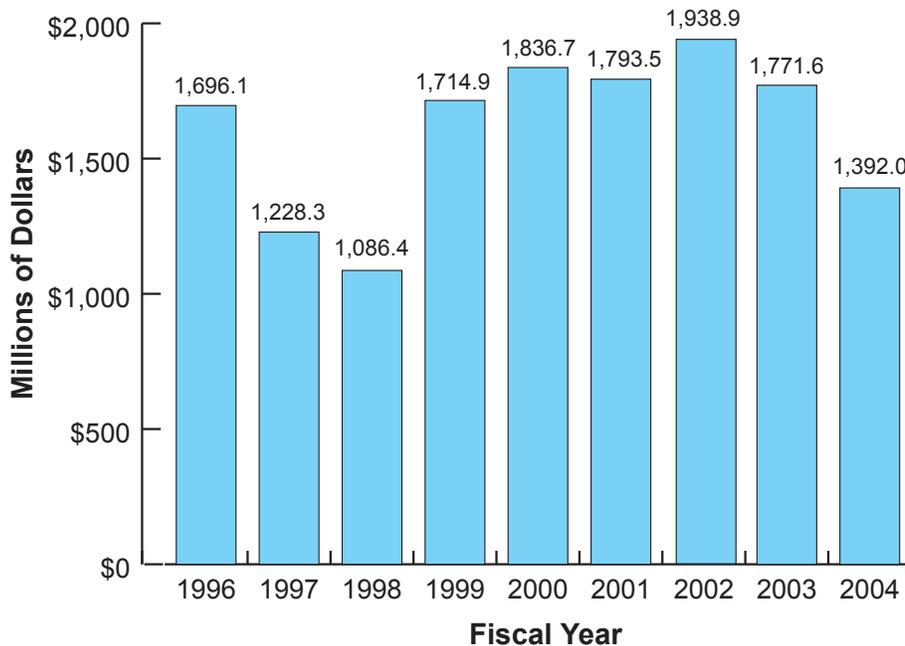


\* 127 new sites were added to the program in FY2002. RACER estimating and revised LTM projections increased cost-to-complete.

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



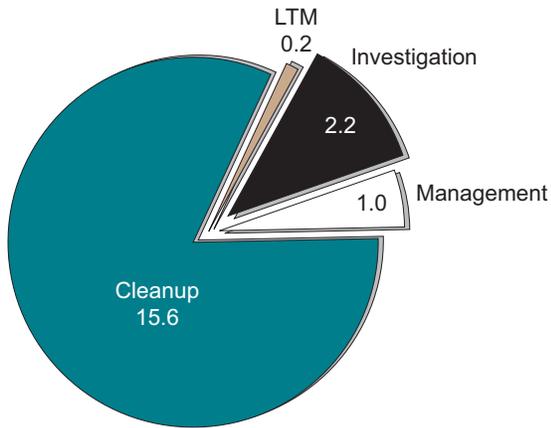
### Air Force BRAC Cost-to-Complete Trends



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

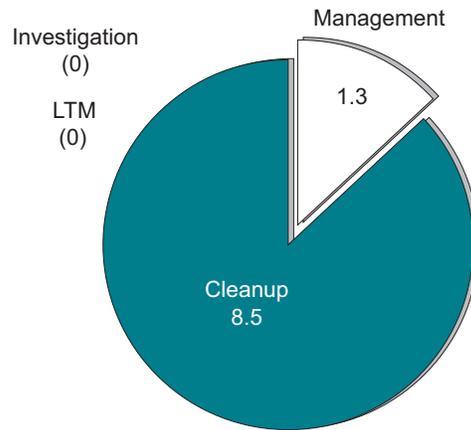
## DLA Funding Summary

**DLA FY2004 ER Funding by Cleanup Phase\***  
(in millions of dollars)



**Total = \$19.0 million**

**DLA FY2004 BRAC Environmental Restoration† Funding by Cleanup Phase\***  
(in millions of dollars)

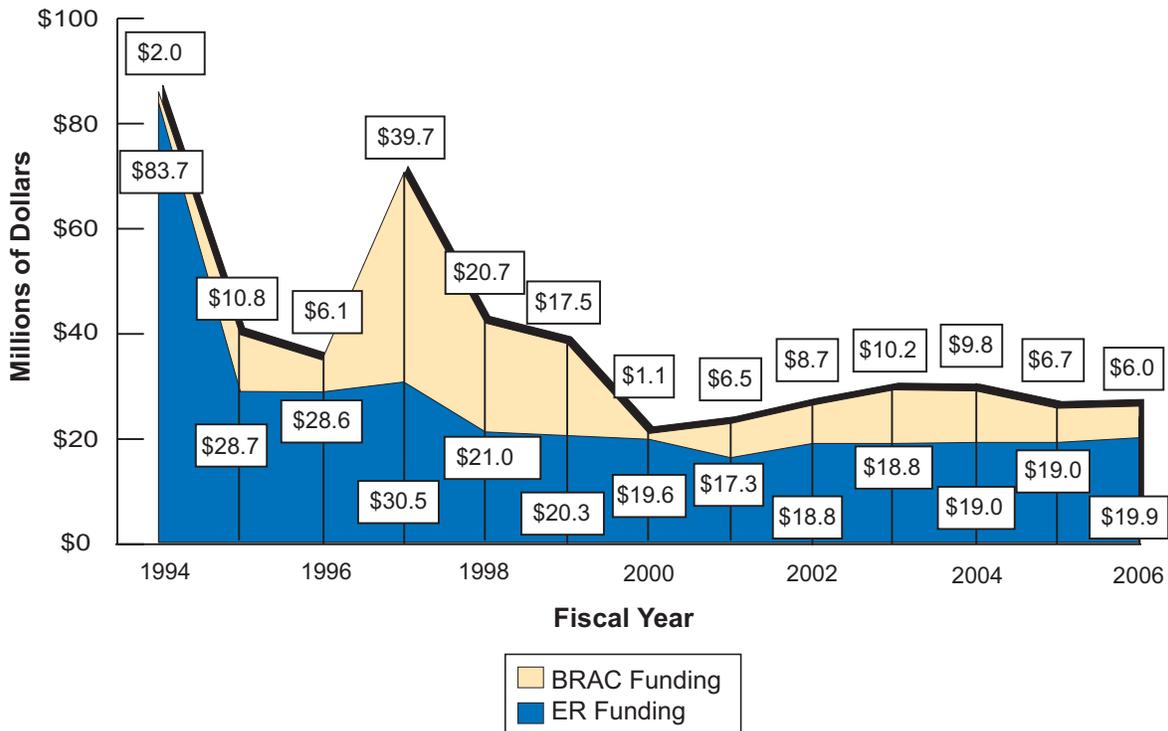


**Total = \$9.8 million**

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

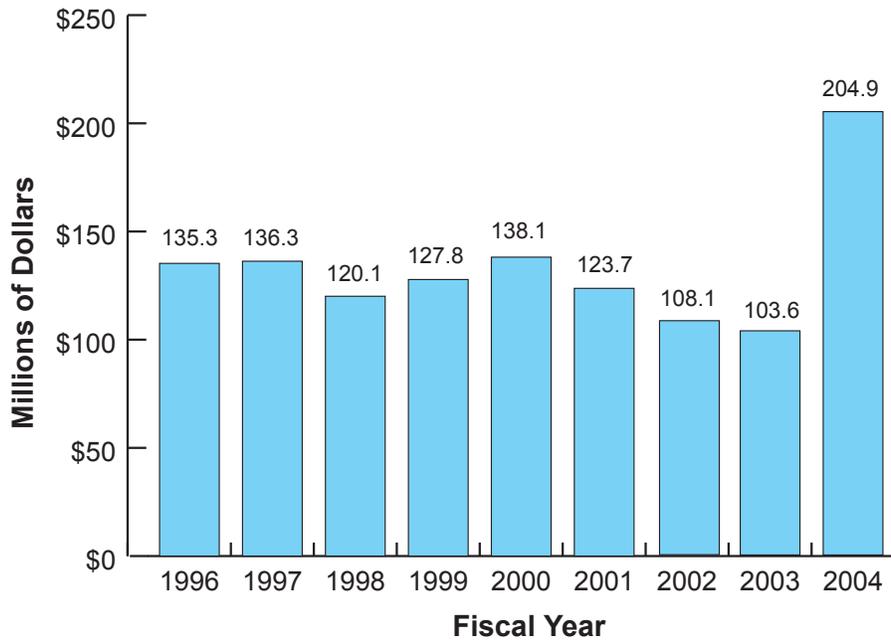
† Does not include BRAC environmental compliance and planning funding.

### DLA ER and BRAC Environmental Restoration Funding Trends\*



\* Does not include BRAC environmental compliance and planning funding.

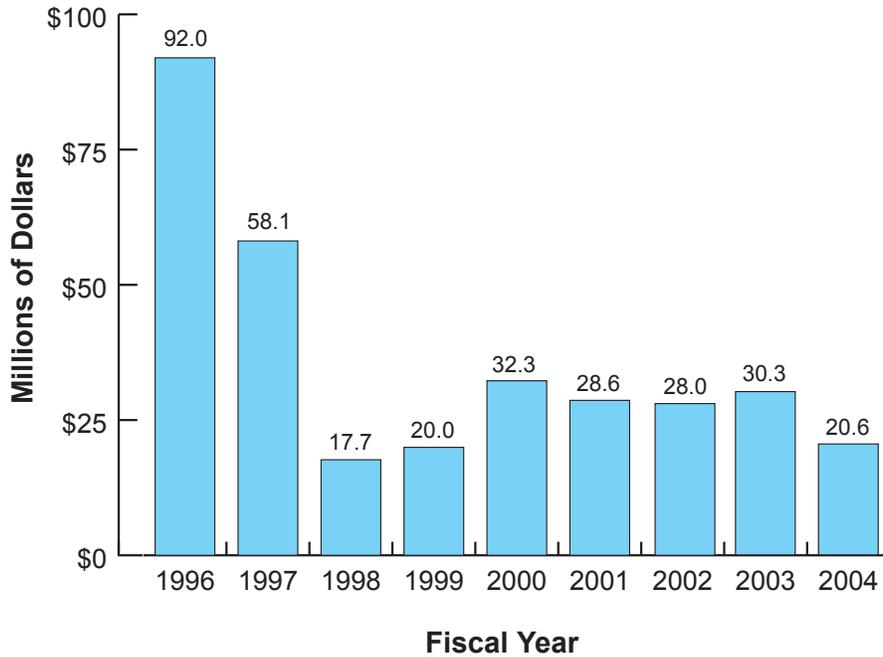
### DLA ER Cost-to-Complete Trends



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

IRP Funding

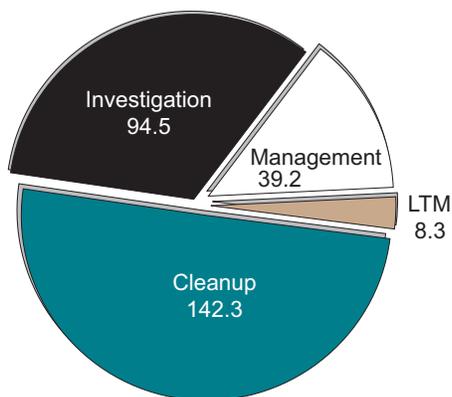
### DLA BRAC Cost-to-Complete Trends



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

# FUDS Funding Summary

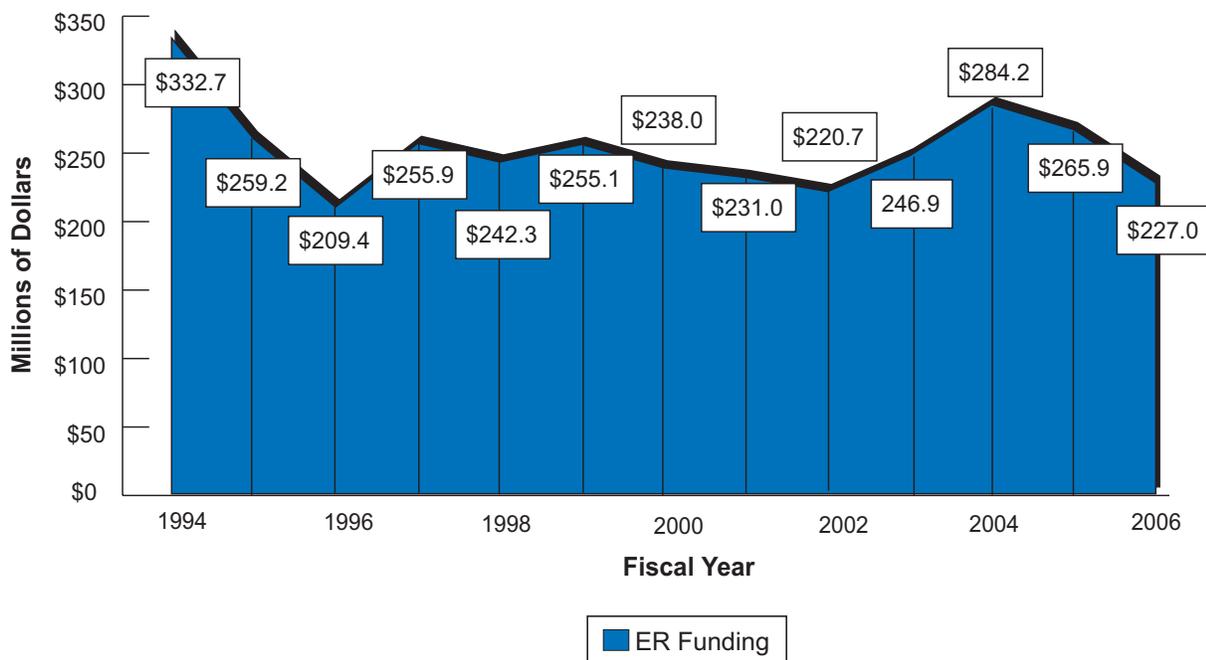
FUDS FY2004 Environmental Restoration Funding by Cleanup Phase\*  
(in millions of dollars)



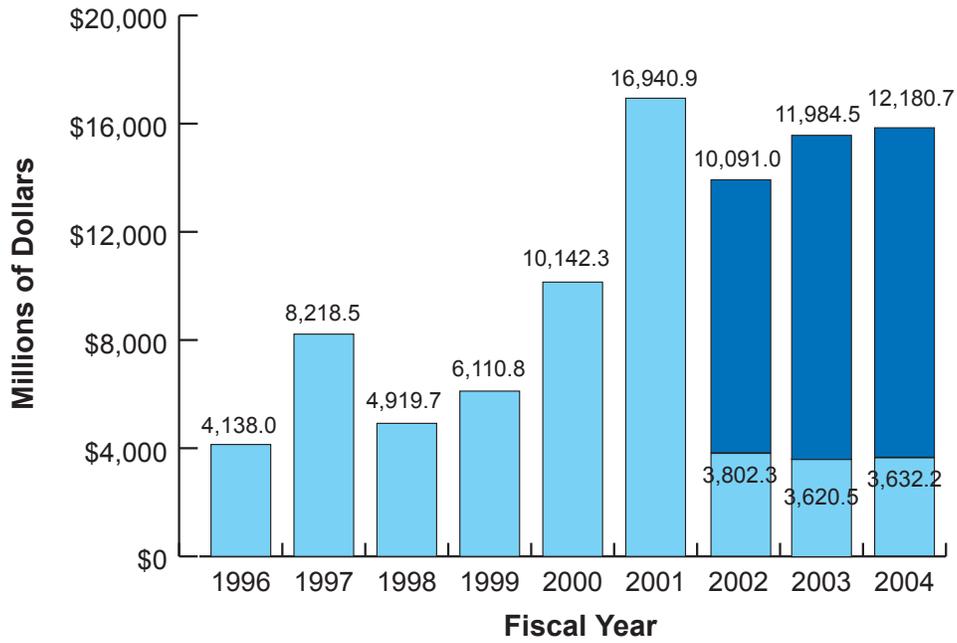
Total = \$284.2 million

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

FUDS Environmental Restoration Funding Trends



### FUDS Environmental 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.

