

Appendix I: Base Realignment and Closure Environmental Restoration Progress

Through Base Realignment and Closure (BRAC), the Department of Defense (DoD) reorganizes its U.S. installation infrastructure to more efficiently and effectively support its forces, increase operational readiness, and facilitate new ways of doing business. Since 1988, Congress has authorized five rounds of BRAC. BRAC I occurred in 1988, BRAC II in 1991, BRAC III in 1993, BRAC IV in 1995, and BRAC V in 2005. Under the Defense Environmental Restoration Program (DERP), DoD has conducted environmental restoration activities at 5,445 sites on BRAC installations across all DoD Components through Fiscal Year (FY) 2008. DoD has achieved remedy in place (RIP) or response complete (RC) at 4,595 sites or approximately 84 percent of all sites on BRAC installations.

The first four BRAC rounds are typically referred to as the Legacy BRAC rounds. Over 497 installations implemented BRAC actions during these four rounds. Of these, 208 installations, or 42 percent, required environmental restoration activities through the DERP. Much of the acreage at these installations has been transferred and put into productive reuse.

In 2005, Congress authorized the most recent BRAC round. The BRAC Commission received the list of recommended realignments and closures from DoD in May 2005, conducted an independent analysis of the list, and submitted its findings to the President in September 2005. The Commission's recommendations became official after Congress passed them into law in November 2005. BRAC V is the first BRAC round with a legally binding date by which all BRAC actions must be completed—September 2011.

DoD designed BRAC V to build upon the processes used in previous BRAC efforts by combining the successful tools and techniques from Legacy BRAC with new methods for the BRAC 2005 Round. Additionally, while many BRAC V installations continue to require environmental restoration as part of the DERP, BRAC V differs from the other BRAC rounds in that many of the installations selected for closure have established environmental programs and have previously undergone environmental restoration work. This head start in the cleanup process, coupled with new tools and techniques to aid property transfer and redevelopment, will help DoD to expedite its environmental restoration process for BRAC V.

Applicable Requirements

DoD's BRAC process is outlined in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), which was amended by the National Defense Authorization Act (NDAA) for FY2002 to authorize the most recent BRAC round in 2005. While DoD's BRAC environmental restoration program is subject to a number of environmental laws and regulations, it follows the

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as Superfund. CERCLA provides authority for the President to investigate and respond to a release of a hazardous substance, pollutant, or contaminant; establishes categories of responsible parties with liability for a release; and, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, provides for response actions on Federal facilities and environmental remediation responsibility for transferring real property from Federal ownership.

The BRAC environmental restoration program is also governed by numerous internal requirements. The 2001 Management Guidance for the DERP provides guidance on how DoD should implement the DERP. This guidance is also a companion document to DoD Directive 4715.1, Environmental Security, February 24, 1996, and DoD Instruction 4715.7, Environmental Restoration Program, April 22, 1996. Additionally, the Defense Installations Strategic Plan Objectives 1.1 and 3.3 establish BRAC related environmental restoration objectives, means and strategies, outcomes, and measures related to each objective.

The BRAC environmental restoration program is also subject to numerous reporting requirements. The primary requirement, 10 United States Code (U.S.C.) §2706(a)(2), outlines the requirements for the Defense Environmental Programs Annual Report to Congress. Section 2907 of the BRAC Act, as amended by §2831 of the NDAA for FY2006, requires the Secretary of Defense to report on the status of BRAC 2005 closure and realignment actions, including the status of local redevelopment authorities (LRAs), property screening status, the approval and description of redevelopment plans, and property disposal status. Additionally, any known environmental remediation issues and the estimated completion date for all closure and realignment actions must be included. In FY2008, Congress narrowed the scope of the Section 2907 reporting requirements of future reports to include only closure actions. DoD's 2907 report is available at <http://www.defenselink.mil/brac/>.

Current Management Practices

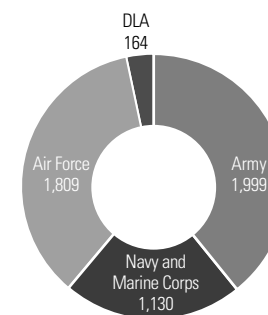
Through the DERP, DoD addresses cleanup of environmental contamination resulting from past activities and practices at BRAC sites. The DERP is divided into three distinct programs to address environmental contamination. This environmental framework helps to ensure that contaminated BRAC property is restored to a condition that is not only protective of human health and the environment, but also environmentally suitable for transfer and reuse.

Established in 1985, the Installation Restoration Program (IRP), manages the release of hazardous substances, pollutants, and contaminants resulting from past practices that pose environmental health and safety risks. The Military Munitions Response Program (MMRP), established in 2001, addresses safety, environmental, and health hazards from unexploded ordnance, discarded military munitions, and munitions constituents. The Building Demolition and Debris Removal (BD/DR) Program provides for the demolition and removal of unsafe buildings or structures at facilities or sites that meet specified criteria. Because of the small size of the BD/DR program, these sites are grouped with IRP sites. Figures I-1 and I-2 illustrate the distribution of IRP sites and munitions response sites (MRSs) by Component, respectively.

DoD finances environmental restoration at closing installations through the BRAC Account, and through the Defense Environmental Restoration Account (DERA) at realigning installations. Unlike DERA, BRAC environmental restoration funds do not expire and may remain in the BRAC Account until expended. Once appropriated by Congress according to BRAC round, the Components obligate funds to IRP and MMRP activities as required. Appendix G: Restoration Budget Overview provides additional information about the obligation of BRAC funds.

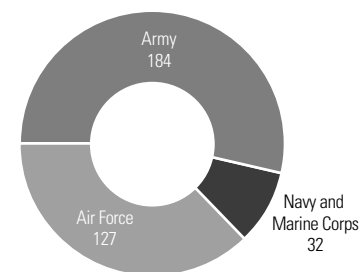
Impacts to site prioritization at BRAC properties include reuse needs and priorities; property transfer and redevelopment plans; Relative Risk and Munitions Response Program site prioritization; and economic, programmatic, and stakeholder concerns.

Figure I-1 Number of IRP Sites at BRAC Installations by Component



Total Sites: 5,102

Figure I-2 Number of MRSs at BRAC Installations by Component



Total Sites: 343

Early Transfer Authority

To streamline environmental restoration and reuse of BRAC sites, DoD exercises Early Transfer Authority (ETA), which was introduced as part of an amendment to CERCLA in 1996. ETA enables state governors or the U.S. Environmental Protection Agency (EPA) Administrator to approve property transfer before completion of environmental remediation. ETA streamlines processes and saves money by taking advantage of the inherent efficiencies and cost savings of addressing remediation requirements in conjunction with redevelopment, planning, and construction. Regulatory safeguards are in place to ensure that this process can move forward while maintaining protection of human health and the environment.

After an ETA property transfer has been negotiated with the involved stakeholders, DoD implements a conveyance authority to guide the transfer and reuse of the installation property. The two primary types of conveyance authorities used by DoD are public benefit conveyance (PBC) and economic development conveyance (EDC). PBCs are used to transfer property at a substantial discount, primarily to LRAs or state and local governments, for certain purposes if a recognized public benefit would result from the transfer (e.g., historic monuments, education, public health, parks and recreation, non-federal correctional facilities, ports). EDCs are used to transfer property to LRAs to support the creation of jobs lost through base closure. Figure I-3 displays BRAC acreage disposed of through ETA in FY2008, including the conveyance mechanisms used.

Two additional tools are available to help expedite the environmental cleanup, transfer, and reuse of BRAC property, while ensuring the protection of human health and the environment. These are transfer authority in connection with payment of environmental remediation costs and exchanges for military construction. The former authorizes the services to convey property to an entity that will undertake the responsibility for all environmental

action on the property. The latter allows any real property at a closing or realigning installation to be exchanged for military construction at that or another location.

Performance Evaluation Criteria

DoD has developed comprehensive program goals and performance metrics to measure BRAC site progress and success within the DERP. The Components use these goals to guide investment decisions and set restoration targets each year. DoD examines progress to date and projections of future progress when evaluating performance metrics, including funding to date and costs-to-complete (CTC) estimates, to evaluate the Components' restoration programs. DoD set the following IRP and MMRP goals for Legacy BRAC and BRAC Round 2005 installations.

Legacy BRAC:

- ▶ Achieve RIP/RC at all IRP sites by the end of FY2015
- ▶ Achieve RIP/RC at all MRSs by the end of FY2009.

BRAC Round 2005:

- ▶ Achieve RIP/RC at all IRP sites by the end of FY2014
- ▶ Achieve RIP/RC at all MRSs by the end of FY2017.

Figure I-3 BRAC ETA Acreage

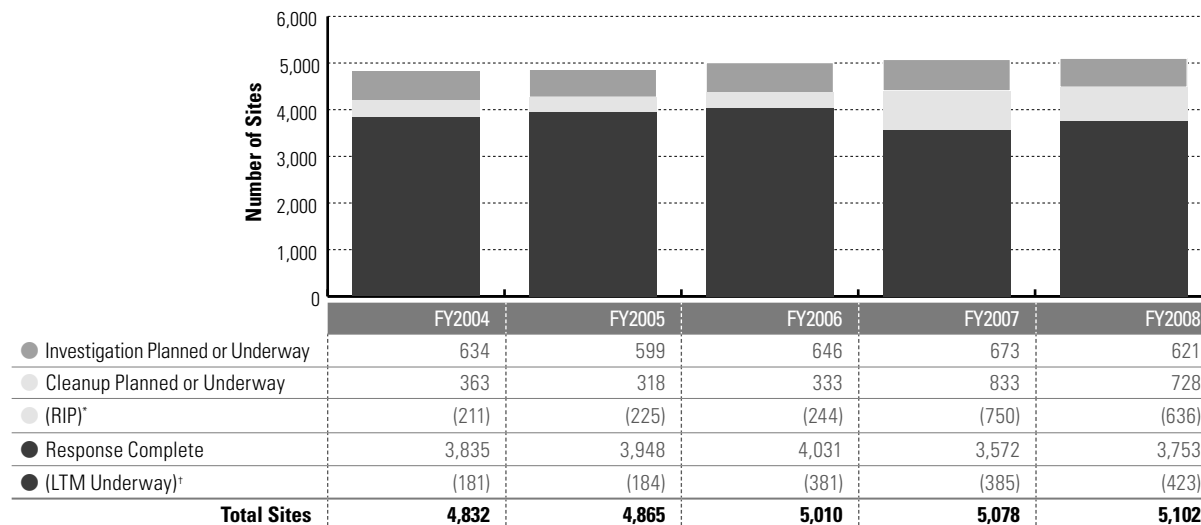
Component	Installation Name	Date Transferred	Conveyance	Acres Transferred
Navy	Naval Activity Puerto Rico	February 2008	PBC	1,646.0
Navy	Naval Training Center Orlando	January 2008	Public Sale	177.0
Air Force	Mather Air Force Base (#1)	October 2007	Negotiated Sale	1.4
Air Force	Mather Air Force Base (#2)	October 2007	Public Sale	2.9

DoD

DoD reported 5,102 IRP sites at BRAC installations in FY2008. In the reporting year, DoD had reached the RC milestone at 3,753 of its IRP sites, increasing by 181 sites since the previous year. The number of IRP sites with cleanup planned or underway decreased by 105 sites since the previous year, but has increased by 365 sites since FY2004. Figure I-4 illustrates DoD's IRP site status at BRAC installations by cleanup phase from FY2004 through FY2008.

In FY2008, DoD also reported 343 MRSs in its BRAC inventory. The number of MRSs achieving RC increased by 20 sites since the previous year and by 77 sites since 2004. The number of MRSs with cleanup planned or underway decreased by 14 sites since the previous year, but has increased by three sites since FY2004. Figure I-5 illustrates DoD's MRS status at BRAC installations by cleanup phase from FY2004 through FY2008.

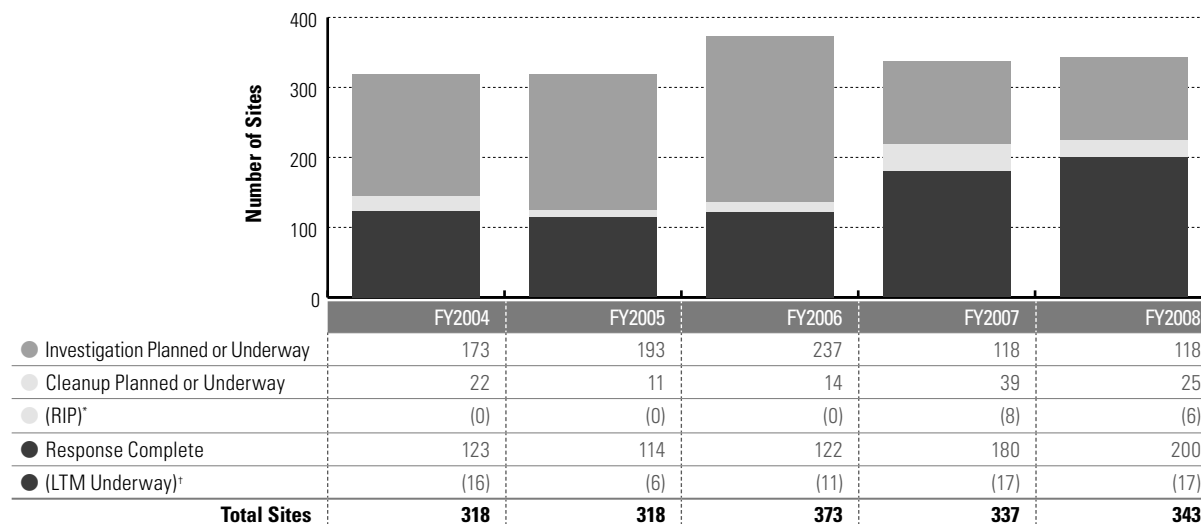
Figure I-4 DoD IRP Site Status at BRAC Installations by Cleanup Phase



* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

Figure I-5 DoD MRS Status at BRAC Installations by Cleanup Phase

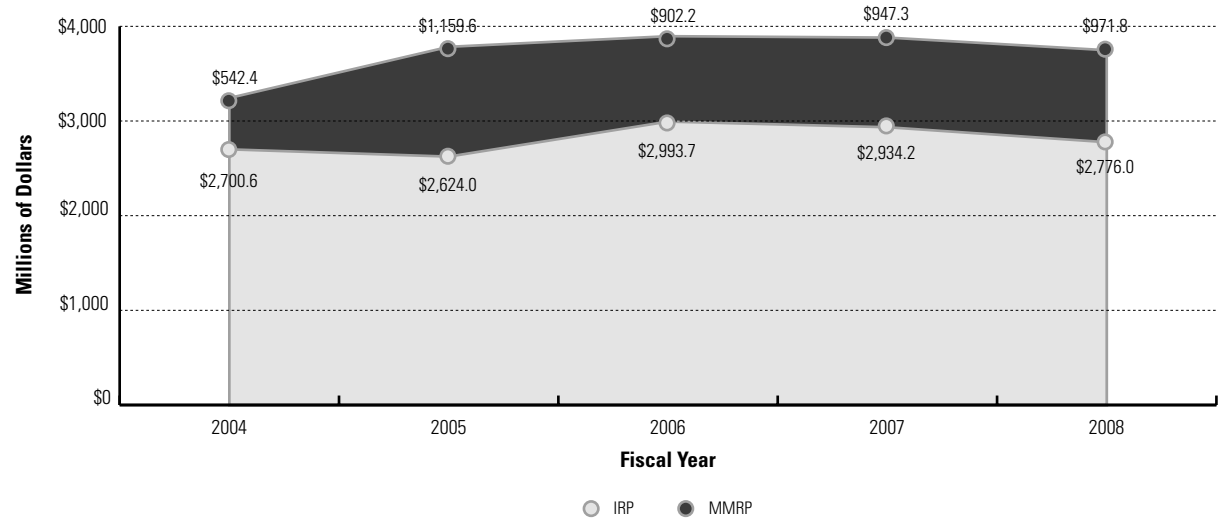


* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

The total DoD BRAC CTC was \$3.7 billion in FY2008, with \$2.8 billion for IRP and \$971.8 million for MMRP. This represents an overall decrease of \$133.7 million from FY2007. Figure I-6 illustrates DoD CTC estimates for IRP sites and MRSs at BRAC installations from FY2004 through FY2008.

Figure I-6 DoD IRP and MMRP CTC Estimates at BRAC Installations**



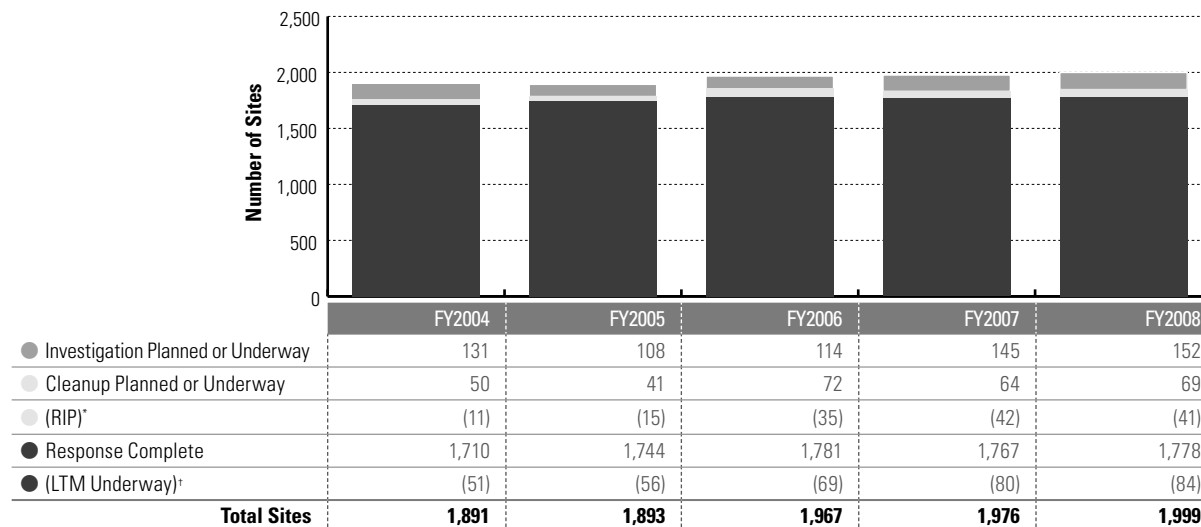
* Funding represents site-level data and does not include management and support costs not directly attributable to specific sites.
 † Includes BRAC 2005 costs beginning in FY2005.

Army

The Army reported 1,999 IRP sites at BRAC installations in FY2008. In the reporting year, approximately 89 percent of sites had achieved RC. The number of sites achieving RC has increased from 1,710 sites in FY2004 to 1,778 sites in FY2008. Figure I-7 illustrates Army's IRP site status at BRAC installations by cleanup phase from FY2004 through FY2008.

In FY2008, the Army also reported 184 MRSs in its BRAC inventory. Through FY2008, 93 sites had achieved RC, representing an increase of six sites since the previous year. The number of sites with investigation or cleanup activities planned or underway remained steady, as shown in Figure I-8.

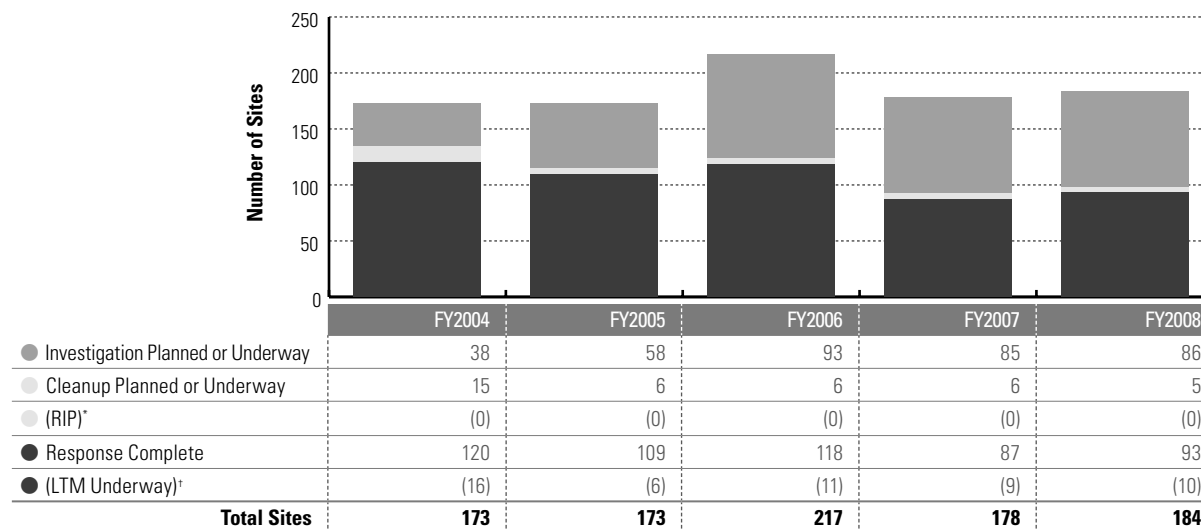
Figure I-7 Army IRP Site Status at BRAC Installations by Cleanup Phase



* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

Figure I-8 Army MRS Status at BRAC Installations by Cleanup Phase

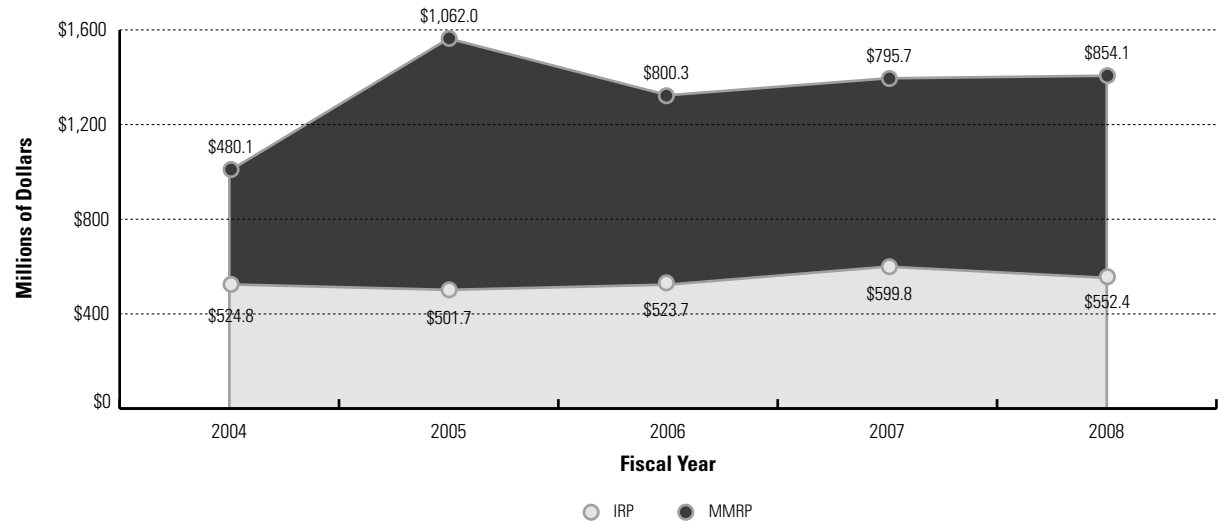


* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

The total Army BRAC CTC was \$1.4 billion in FY2008, with \$552.4 million for IRP sites and \$854.1 million for MRSs. This represents an overall increase of \$11.0 million from FY2007. Figure I-9 illustrates Army's CTC estimates for IRP sites and MRSs at BRAC installations from FY2004 through FY2008.

Figure I-9 Army IRP and MMRP CTC Estimates at BRAC Installations[†]



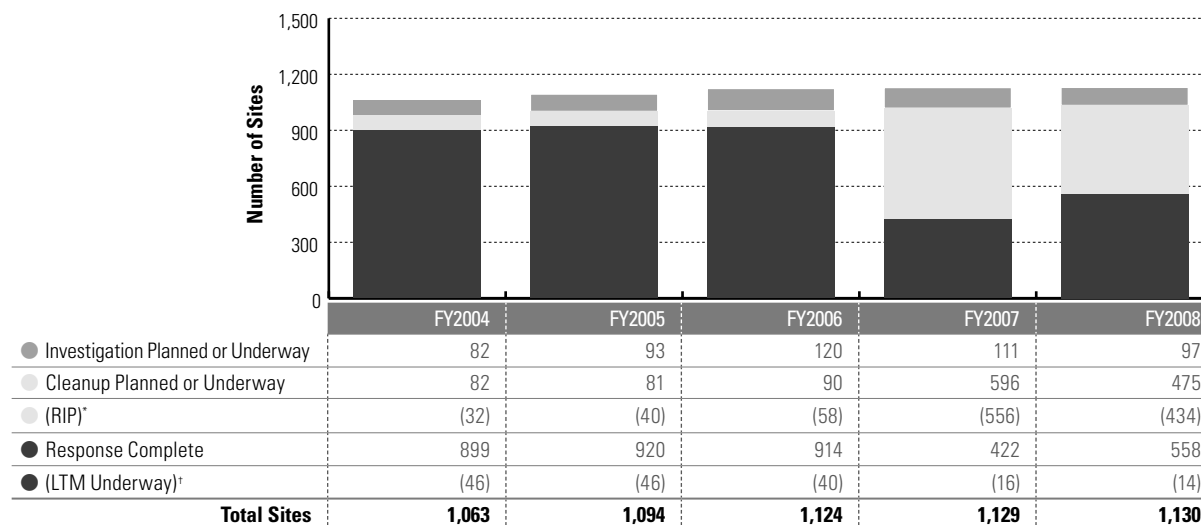
* Funding represents site-level data and does not include management and support costs not directly attributable to specific sites.
 † Includes BRAC 2005 costs beginning in FY2005.

Navy and Marine Corps

The Navy reported 1,130 IRP sites at BRAC installations in FY2008, which includes sites on Marine Corps installations. From FY2004 to FY2006, the number of sites achieving RC remained stable. However, the Navy reclassified approximately 500 of these sites as RIP in FY2007 due to a requirement to provide documentation to regulators in order to classify sites as RC. Through FY2008, approximately 49 percent (558 sites) had achieved RC, an increase of approximately 12 percent (136 sites) from FY2007. Figure I-10 illustrates Navy's IRP site status at BRAC installations by cleanup phase from FY2004 through FY2008.

In FY2008, the Navy also reported 32 MRSs. In FY2006, the number of sites increased by 11 sites as a result of BRAC 2005. In FY2008, approximately 16 percent (five sites) had achieved RC, an increase of four sites since FY2007. Figure I-11 illustrates Navy's MRS status at BRAC installations by cleanup phase from FY2004 through FY2008.

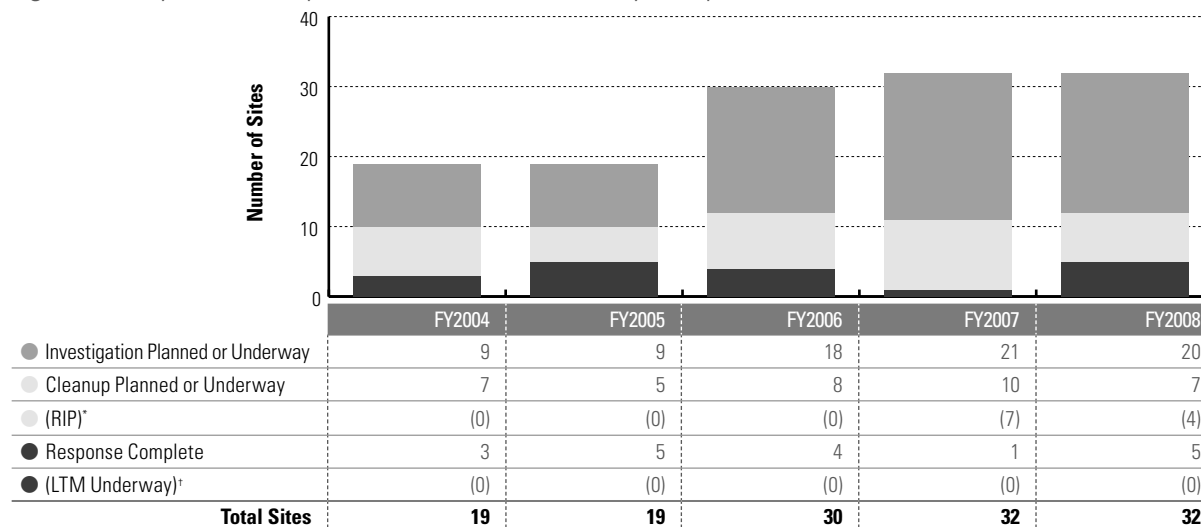
Figure I-10 Navy and Marine Corps IRP Site Status at BRAC Installations by Cleanup Phase



* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

Figure I-11 Navy and Marine Corps MRS Status at BRAC Installations by Cleanup Phase

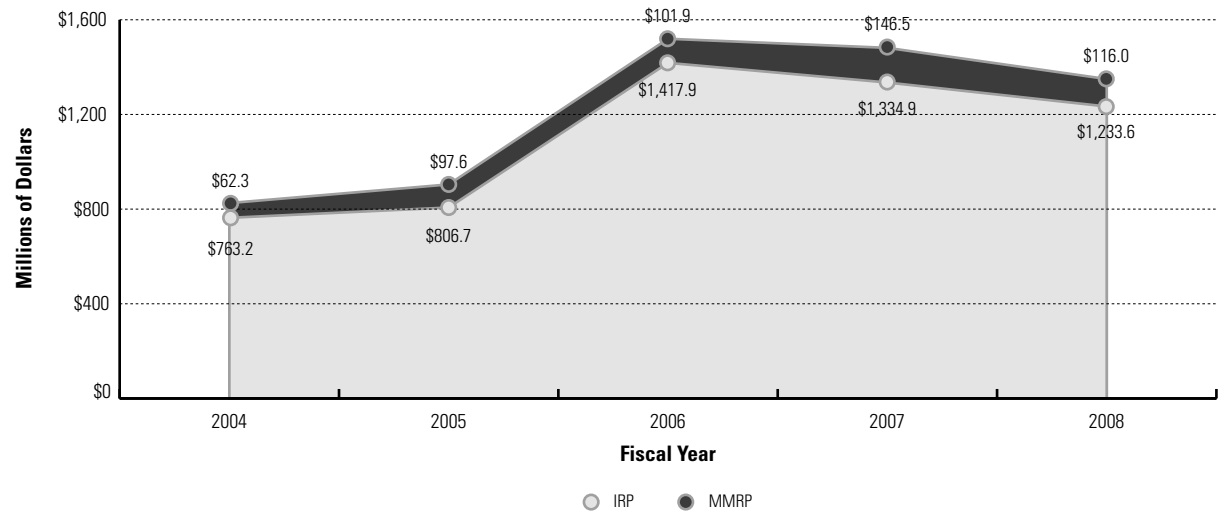


* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

The total Navy BRAC CTC was \$1.3 billion in FY2008, with \$1.2 billion for IRP sites and \$116.0 million for MRSs. This represents an overall decrease of \$131.8 million from FY2007. Figure I-12 illustrates Navy CTC estimates for IRP sites and MRSs at BRAC installations from FY2004 through FY2008.

Figure I-12 Navy and Marine Corps IRP and MMRP CTC Estimates at BRAC Installations**



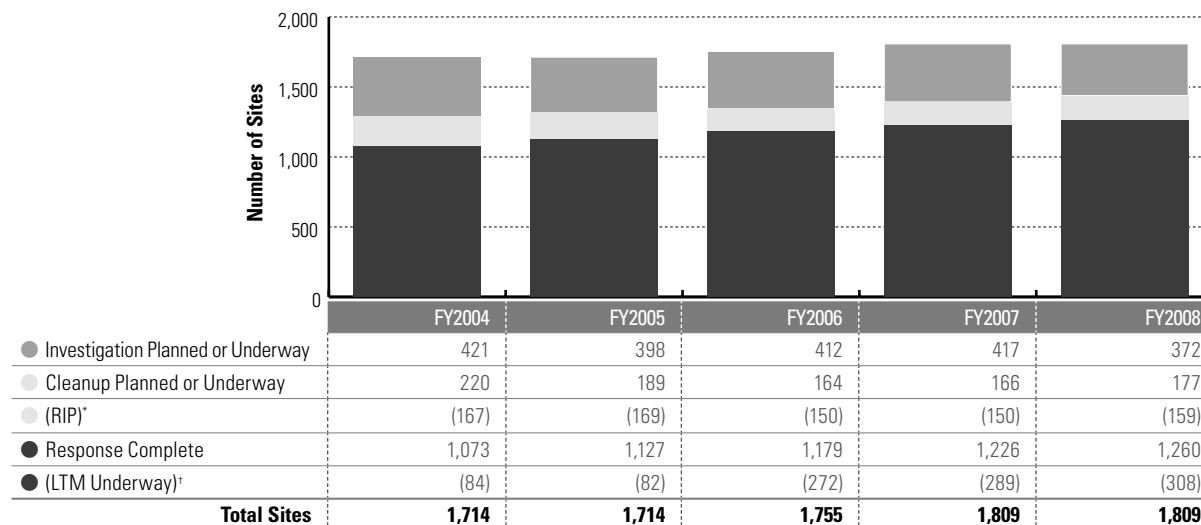
* Funding represents site-level data and does not include management and support costs not directly attributable to specific sites.
 † Includes BRAC 2005 costs beginning in FY2005.

Air Force

The Air Force reported 1,809 IRP sites at BRAC installations in FY2008. At that time, approximately 70 percent of sites had achieved RC. The number of sites achieving RC has steadily increased from 1,073 in FY2004 to 1,260 sites in FY2008. Figure I-13 illustrates Air Force's IRP site status at BRAC installations by cleanup phase from FY2004 through FY2008.

In FY2008, the Air Force also reported 127 MRSs in its BRAC inventory. From FY2004 to FY2006, all sites remained in the investigation phase. In FY2008, approximately 80 percent (102 sites) had achieved RC, an increase of 10 sites since FY2007. Figure I-14 illustrates Air Force's MRS status at BRAC installations by cleanup phase from FY2004 through FY2008.

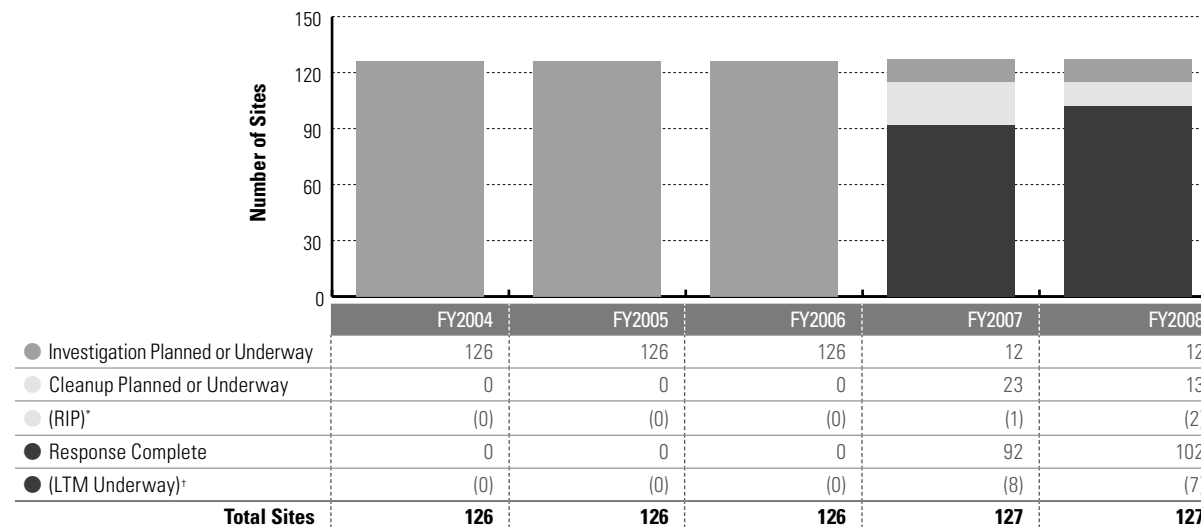
Figure I-13 Air Force IRP Site Status at BRAC Installations by Cleanup Phase



* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

Figure I-14 Air Force MRS Status at BRAC Installations by Cleanup Phase

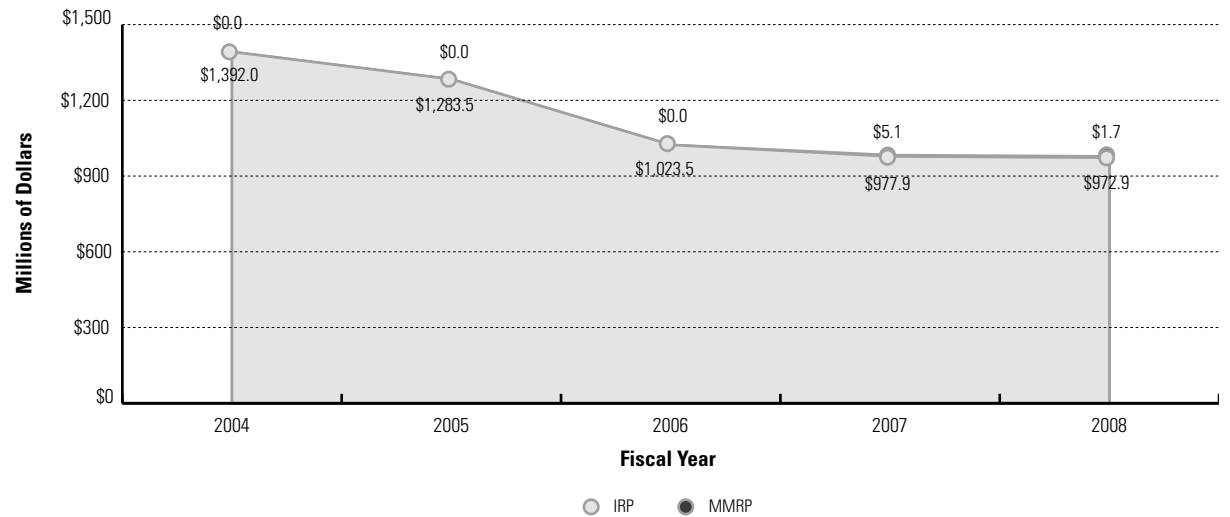


* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

The total Air Force BRAC CTC was \$974.6 million in FY2008, with \$972.9 million for IRP sites and \$1.7 million for MRSs. This represents an overall decrease of \$8.4 million from FY2007. Figure I-15 illustrates Air Force CTC estimates for IRP sites and MRSs at BRAC installations from FY2004 through FY2008.

Figure I-15 Air Force IRP and MMRP CTC Estimates at BRAC Installations[†]



* Funding represents site-level data and does not include management and support costs not directly attributable to specific sites.

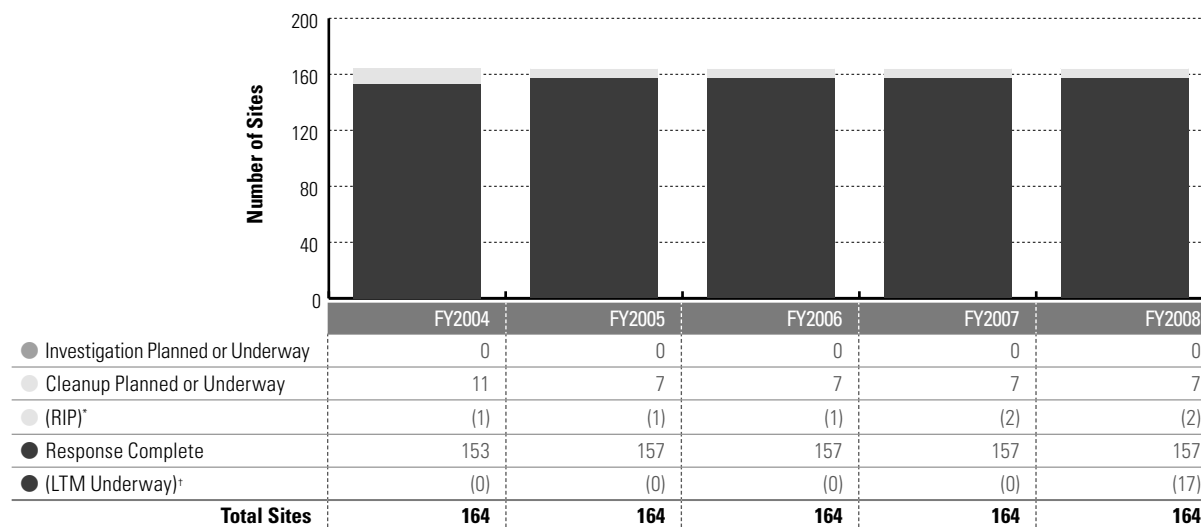
† Includes BRAC 2005 costs beginning in FY2005.

DLA

DLA reported 164 IRP sites at BRAC installations in FY2008. Through FY2008, approximately 96 percent (157 sites) had achieved RC. While all investigation activities are complete, cleanup actions continued at Defense Supply Center Philadelphia and Defense Depot Memphis Tennessee. Figure I-16 illustrates DLA's IRP site status at BRAC installations by cleanup phase from FY2004 through FY2008. DLA has identified no MRSs on its BRAC installations.

The total DLA BRAC CTC was \$17.1 million in FY2008, all of which is for IRP sites. This represents an overall decrease of \$4.5 million from FY2007. Figure I-17 illustrates DLA CTC estimates for IRP sites at BRAC installations from FY2004 through FY2008.

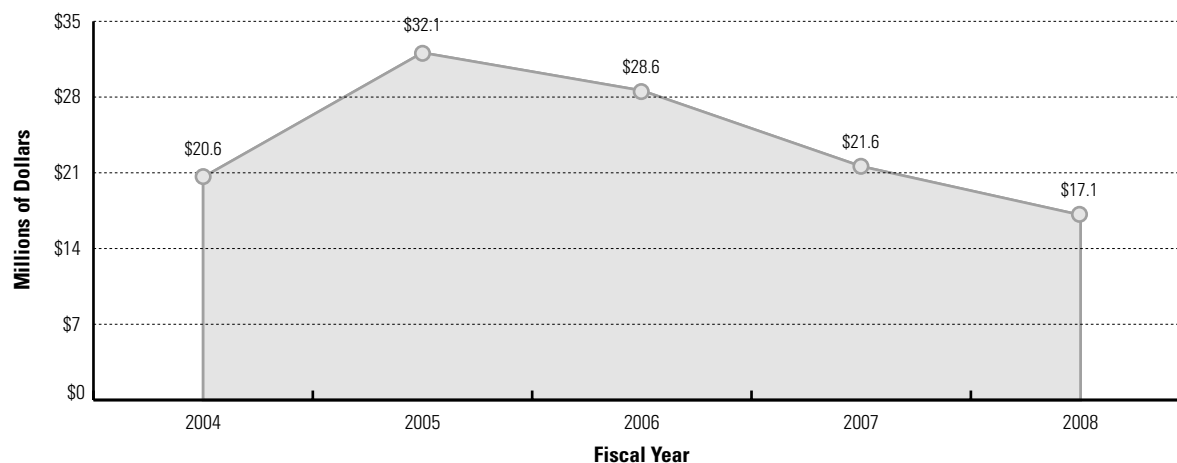
Figure I-16 DLA IRP Site Status at BRAC Installations by Cleanup Phase



* RIP is a subset of Cleanup Planned or Underway.

† LTM is a subset of Response Complete.

Figure I-17 DLA IRP CTC Estimates at BRAC Installations*



* Funding represents site-level data and does not include management and support costs not directly attributable to specific sites.