



## Restoration | Appendix M: MMRP Comprehensive Plan Update

potentially containing UXO, DMM, or MC remain under the Installation Restoration Program (IRP) for planning and budgeting purposes, DoD had identified 3,537 MRSs as part of the MRS Inventory by the end of FY2007.

### Munitions Response Site Prioritization Protocol

DoD employs a risk-based management strategy and cleanup approach with three main elements: (1) implementing a systematic process for prioritizing sites for execution; (2) developing program goals and performance metrics to drive environmental restoration activities, secure funding, and track program progress; and (3) working with regulators and communities to address stakeholder concerns. In addition to requiring DoD to complete an inventory of all munitions contaminated sites throughout the United States, 10 U.S.C. §2710 directed DoD to develop, in consultation with representatives of the States and Indian tribes, a protocol for assigning a relative priority to all MRSs to establish precedence for completing response actions. With over 3,500 sites in the MRS Inventory, DoD does not have the resources to address all of the munitions sites at once. Therefore, DoD developed the Munitions Response Site Prioritization Protocol (MRSP) for assigning a relative priority to each MRS in October 2005.

Components have begun to apply the MRSP at MRSs in the inventory. With FY2007 serving as a transition year, Components had the opportunity to report MRS priorities for sites prioritized under the MRSP or Risk Assessment Code (RAC) scores for those sites awaiting prioritization in accordance with the new requirements. In cases where sites were reported with both scores, the MRS priorities took precedence over the RAC scores for those sites. Beginning in FY2008, the Components will report MRS priorities for all MRSs. As Components continue to complete the application of the MRSP,

The Department of Defense (DoD) implemented the Military Munitions Response Program (MMRP) to manage environmental responses to unexploded ordnance (UXO), discarded military munitions (DMM), and munitions constituents (MC). Developed in September 2001, the MMRP seeks to protect human and environmental health while providing a medium that will help DoD attain a better understanding of the response requirements at defense sites (other than operational ranges) known or suspected to contain UXO, DMM, or MC, also referred to as munitions response sites (MRSs). As a separate program under the Defense Environmental Restoration Program (DERP), the MMRP also increases the transparency of munitions response costs throughout the planning, programming, budgeting, and execution process.

This appendix satisfies the Section 313 requirement of the John Warner National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2007, Public Law 109-364. In the FY2007 NDAA, Congress directed the Secretary of Defense to submit an update on DoD's response plan for remediation of UXO, DMM, and MC at MRSs. This update addresses progress and adjustments to the program's performance goals, response plans, and funding estimates.

### MRS Inventory

To fulfill its requirements and establish a structure for the program, DoD follows the environmental restoration process set forth by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and its implementing regulation, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and in some instances, the Resource Conservation and Recovery Act (RCRA).

To assist DoD in addressing munitions-related issues, Congress enacted Title 10 of the United States Code (U.S.C.) §2710 in the FY2002 NDAA, directing DoD to develop an inventory of all defense sites known or suspected to contain UXO, DMM, or MC throughout the United States, and to create a methodology to rank all MRSs for remediation and funding. DoD published the initial MRS inventory in FY2002 to determine the scope and extent of the effort required for the MMRP. Since its initial publication, DoD has collaborated with regulators, Indian tribes, and federal land managers to update, reconcile, and revise the MRS Inventory, which is updated annually and released in conjunction with the Defense Environmental Programs (DEP) Annual Report to Congress (ARC). Though some sites

more MRSs characterized as Evaluation Pending will be assigned numerical relative priorities. Detailed site-level information for MRSs is available in Appendix O: Installation Restoration Program and Military Munitions Response Program Status Tables.

### Performance Goals

Similar to the Installation Restoration Program (IRP), DoD has established goals for the MMRP to address MRSs with greatest risk first and to facilitate advancement through the CERCLA phases of the program. Risk-based goals are addressed based on the prioritization of sites under the Protocol.

The Department's near-term program progress or performance goals include:

- ▶ Complete preliminary assessments (PAs) for all MRSs at active installations and Formerly Used Defense Sites (FUDS) properties by the end of FY2007
- ▶ Complete site inspections (SIs) for all MRSs at active installations and FUDS properties by the end of FY2010
- ▶ Achieve remedy in place/response complete (RIP/RC) at all MRSs identified in the first four rounds of the Base Realignment and Closure (BRAC) program by the end of FY2009.

**Figure M-1** DoD Progress Toward MMRP Performance Goals

	FY2006	FY2007
<b>Active Installations</b>		
Complete PAs at all MRSs by the end of FY2007	81%	96%
Complete SIs at all MRSs by the end of FY2010	13%	29%
<b>FUDS Properties</b>		
Complete PAs at all MRSs by the end of FY2007	99%	99%
Complete SIs at all MRSs by the end of FY2010	33%	37%
<b>BRAC Rounds I-IV Installations</b>		
Achieve RIP/RC at all MRSs by the end of FY2009	38%	63%

Figure M-1 displays the Department's progress toward reaching its short-term program goals and performance metrics under the MMRP as of FY2006 and FY2007.

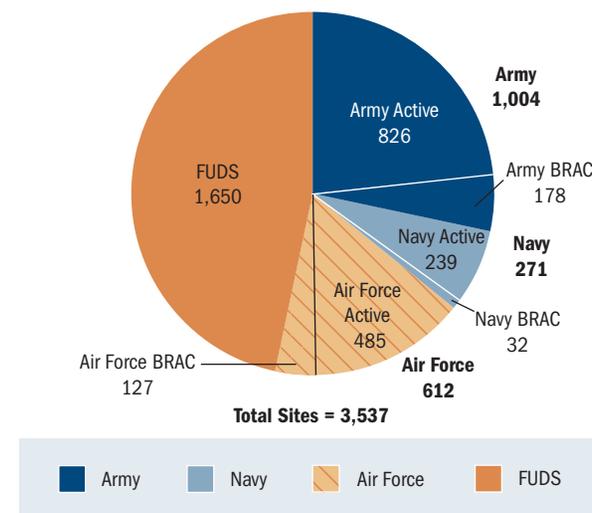
DoD continues to develop long-term program goals and performance metrics as MRSs are prioritized and munitions response actions are sequenced. DoD established a workgroup to develop RIP/RC goals for all MRSs identified at active installations, FUDS properties, and installations closed or realigned by the 2005 BRAC round. Currently, the draft goal to achieve the RIP/RC milestone at active installations by September 30, 2018, has been proposed.

### Program Status

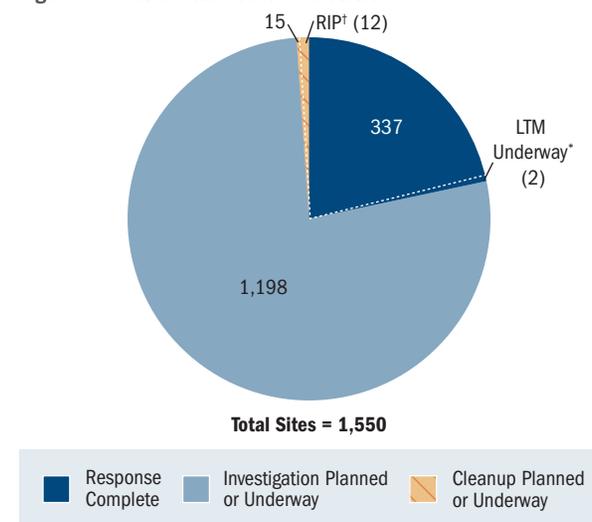
By the end of FY2007, DoD had identified 3,537 MRSs, which represents an increase of 221 MRSs from the previous fiscal year. Figure M-2 illustrates the total number of MRSs by Component. The Defense Logistics Agency (DLA) does not have any sites in the MRS Inventory.

MRSs are categorized according to phase status in the response process. Since the MMRP is in the early stages of implementation, the majority of sites are still in the investigation stage. Figures M-3, M-4, and M-5 display the status of MRSs at active and BRAC

**Figure M-2** Number of MRSs by Component



**Figure M-3** Active Installations MRS Status



\* LTM is a subset of Response Complete.  
 † RIP is a subset of Cleanup Planned or Underway.

installations, as well as FUDS. Munitions response actions have been a part of the DERP for many years prior to the MMRP, primarily at BRAC installations and FUDS properties, providing DoD with solid experience in addressing the environmental and explosive hazards associated with the past use of military munitions. As of FY2007, DoD has achieved RIP/RC at 403 MRSs at FUDS properties and 188 MRSs at BRAC installations. Overall, DoD has achieved RIP/RC at:

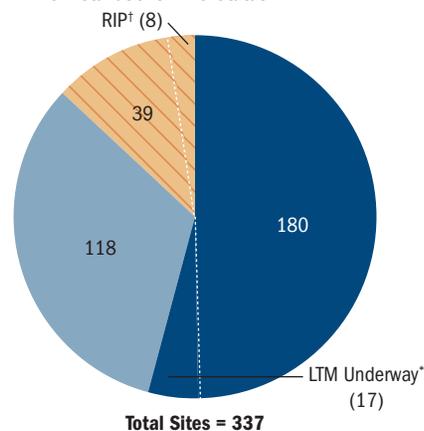
- ▶ 23 percent of MRSs at active installations
- ▶ 56 percent of MRSs at BRAC installations
- ▶ 24 percent of MRSs at FUDS properties.

## Funding

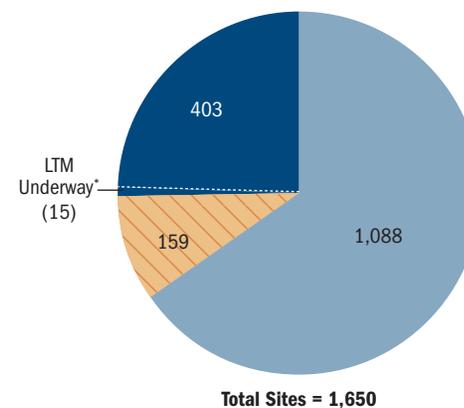
The DERP is comprised of three program categories that are based on the statutory authority provided to DoD in 10 U.S.C. §2701. These three program categories include the IRP, MMRP, and Building Demolition/Debris Removal (BD/DR) Program. Within the MMRP, activities are funded by either the Environmental Restoration (ER) account or the BRAC account. There are five specific ER accounts, one each for Army, Navy, Air Force, and FUDS, and the Defense-Wide, which includes funding for DLA, Defense Threat Reduction Agency, and Office of the Secretary of Defense (OSD) Cleanup Office. The ER account funds restoration activities at active installations and FUDS properties, while the BRAC account funds cleanup activities at BRAC installations as well as closure-related environmental compliance and environmental planning activities.

DoD engages in a budgeting process that is closely tied to program planning and execution to ensure proper funding levels are attained. The creation of the MMRP category has helped DoD manage MMRP funding and has allowed Congress to make more informed budgetary decisions in support of the program. DoD's cost-to complete (CTC) estimates provide an approximation of the

**Figure M-4** BRAC Installations MRS Status



**Figure M-5** FUDS Properties MRS Status



■ Response Complete    ■ Investigation Planned or Underway    ■ Cleanup Planned or Underway

\* LTM is a subset of Response Complete.  
 † RIP is a subset of Cleanup Planned or Underway.

**Figure M-6** MMRP Funding Obligations by Component (millions)<sup>†</sup>

Program	Army	Navy	Air Force	FUDS	Total
ER	\$29.9	\$48.8	\$18.6	\$118.5	\$215.8
BRAC*	\$54.0	\$7.6	\$0.2	--	\$61.8
<b>Total</b>	<b>\$83.9</b>	<b>\$56.4</b>	<b>\$18.8</b>	<b>\$118.5</b>	<b>\$277.5</b>

\* Does not include planning or compliance costs.  
 † Due to rounding, subtotals may not equal fiscal year totals.

**Figure M-7** Active Installations and FUDS Properties MMRP Cost Estimates by Component, FY2008-Complete (millions)<sup>††</sup>

Component	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014-Completion	Total
Army	\$37.4	\$91.5	\$178.8	\$300.2	\$338.3	\$355.5	\$1,641.6	\$2,943.2
Navy	\$44.2	\$42.7	\$39.0	\$53.6	\$54.0	\$54.6	\$425.1	\$713.3
Air Force	\$55.3	\$60.4	\$114.3	\$117.9	\$238.4	\$276.3	\$736.0	\$1,598.6
FUDS	\$87.0	\$75.1	\$78.5	\$72.0	\$57.9	\$97.9	\$12,554.7	\$13,023.0
<b>Total</b>	<b>\$223.8</b>	<b>\$269.6</b>	<b>\$410.6</b>	<b>\$543.8</b>	<b>\$688.5</b>	<b>\$784.3</b>	<b>\$15,357.3</b>	<b>\$18,278.0</b>

\* Totals reflect installation project funding allocated to individual sites and do not include program management and support costs.  
 † Due to rounding, subtotals may not equal fiscal year totals.

anticipated funding required to sufficiently address the congressional requirements set forth in Section 313 of the 2007 NDAA.

### Financial Status and Progress

In FY2007, DoD obligated \$277.5 million on MRSs. Figure M-6 shows the amount spent by each Component, distinguishing between ER and BRAC accounts. Funding amounts for FY2007 include program management costs. These totals also reflect the transfer of funds from the ER account to provide funding for MRSs at installations closed in the BRAC 2005 round.

MMRP funding allocated by each Component is directly related to the number of MRSs. As the majority of MRSs are found on the FUDS properties, FUDS received much of the funding.

### Cost-to-Complete Estimates

The CTC estimates derived as a result of the budgeting process are based on DoD's available site-level data and provide the most accurate picture of anticipated cost trends for addressing MMRP requirements. Therefore, CTC estimates do not include program management costs. Figures M-7 and M-8 display DoD's estimated funding requirements for munitions responses by budget year and Component for active and BRAC installations, respectively.

The FUDS program has the highest CTC estimate for MMRP activities due to the large number of MRSs present at FUDS properties. Spending levels for the MMRP are anticipated to increase across all Components in future years as each continues to assess their MRSs and 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. DoD demonstrates its commitment to addressing MMRP concerns by continuing to increase the resources available for reducing risks at

**Figure M-8** BRAC Installations MMRP Cost Estimates by Component, FY2008-Complete (millions)\*\*†

Component	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014-Completion	Total
Army	\$46.0	\$24.7	\$53.5	\$27.6	\$64.9	\$81.6	\$497.3	<b>\$795.7</b>
Navy	\$40.0	\$17.5	\$0.1	\$2.4	\$0.1	\$0.0	\$86.4	<b>\$146.5</b>
Air Force	\$1.9	\$0.7	\$0.0	\$0.9	\$0.5	\$0.5	\$0.6	<b>\$5.1</b>
<b>Total</b>	<b>\$87.8</b>	<b>\$43.0</b>	<b>\$53.6</b>	<b>\$30.9</b>	<b>\$65.6</b>	<b>\$82.1</b>	<b>\$584.3</b>	<b>\$947.3</b>

\* Totals reflect installation project funding allocated to individual sites and do not include program management and support costs.

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

**Figure M-9** Active Installations and FUDS Properties MMRP CTC Estimates by Phase Category and Component, FY2008-Complete (millions)\*\*†

Phase	Army	Navy	Air Force	FUDS	Total
Investigation	\$816.0	\$163.7	\$380.3	\$1,570.8	<b>\$2,930.7</b>
Cleanup	\$1,988.0	\$505.3	\$1,161.7	\$10,980.1	<b>\$14,647.2</b>
Long-Term Management	\$139.2	\$44.4	\$56.6	\$472.1	<b>\$700.1</b>
<b>Total</b>	<b>\$2,943.2</b>	<b>\$713.3</b>	<b>\$1,598.6</b>	<b>\$13,023.0</b>	<b>\$18,278.0</b>

\* Totals reflect installation project funding allocated to individual sites and do not include program management and support costs.

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

**Figure M-10** BRAC Installations MMRP Site-Level CTC Estimates by Phase Category and Component, FY2008-Complete (millions)\*\*†

Phase	Army	Navy	Air Force	Total
Investigation	\$100.2	\$7.3	\$3.4	<b>\$110.9</b>
Cleanup	\$650.2	\$137.1	\$1.0	<b>\$788.3</b>
Long-Term Management	\$45.3	\$2.1	\$0.8	<b>\$48.1</b>
<b>Total</b>	<b>\$795.7</b>	<b>\$146.5</b>	<b>\$5.1</b>	<b>\$947.3</b>

\* Totals reflect installation project funding allocated to individual sites and do not include program management and support costs.

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

these sites. As DoD prioritizes sites and continues to establish program goals and performance metrics, the Components will invest their MMRP funding accordingly to appropriately address the risks at these sites. More detailed site characterization and the addition of new sites to the program will provide a more accurate estimate of program CTC and future program requirements. As time progresses, the funding level for investigative activities should decrease as funding for cleanup increases. Figures M-9

and M-10 show DoD's estimated CTC for munitions responses by phase and Component.

The length of time required for cleanup is largely dependent on available funding. DoD expects that as installations complete responses at IRP sites, more funding will shift towards completing response actions at MRSs. Once all IRP sites are complete, Components will divert most of the restoration funding to the MMRP.