

# CHAPTER 4

## Funding and Program Status

### Overall Program Status

This chapter presents a summary of the DON's environmental restoration efforts. These statistics chart the DON's continuing progress toward its goals of completing remediation of Installation Restoration Program sites by FY 2014 and developing the Munitions Response Program. Funding information depicting expenditures to date and future costs are presented. Most of the information provided in this chapter applies to the Installation Restoration Program, which has been in place since 1986, and available information is included for the newly established Munitions Response Program. The data are broken out by two funding types, Environmental Restoration, Navy (ER,N) funds and Base Realignment and Closure (BRAC) funds.

### Installation Restoration Program

As of September 30, 2003, there were 4,715 sites in the Installation Restoration Program (3,688 ER,N-funded sites and 1,027 BRAC-funded sites). As illustrated in Figure 4.1, at the end of FY 2003 there were 1,137 active sites and 121 BRAC sites with cleanup actions yet to be completed. Over the next five years (FY 2004-2008), the goal is to complete cleanup actions and have Remedy In Place (RIP) or Response Complete (RC) at 4,138 sites. This would leave only 577 sites (559 ER,N and 18 BRAC) requiring further action after FY 2008. The long-term goal of the Installation Restoration Program is to have all sites with RIP or RC by the end of FY 2014.

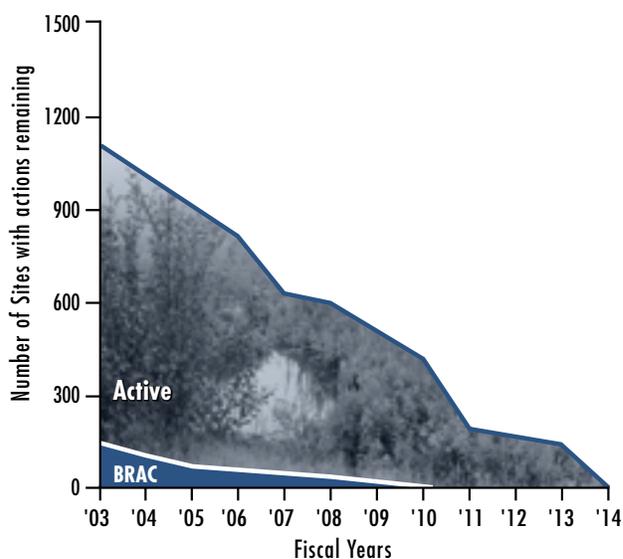


Figure 4.1. Status of Active and BRAC sites FY 2003 to FY 2014.

## Munitions Response Program

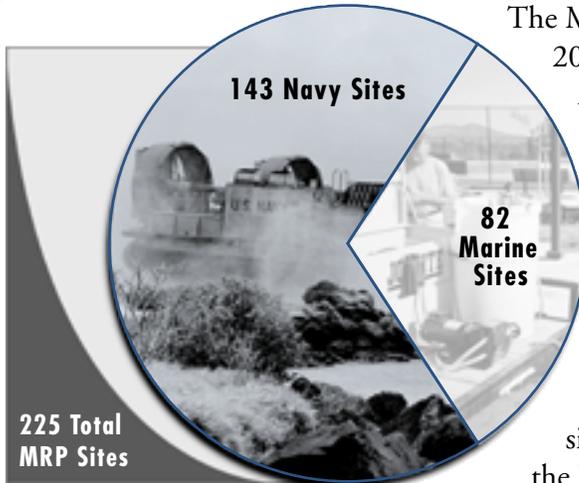


Figure 4.2.  
Number of  
MRP sites.

The Munitions Response Program, initiated in FY 2001, continues to grow as sites are identified. As of September 30, 2003, 225 sites were in the DON Munitions Response Program. Of these, 143 are Navy sites and 82 are Marine Corps sites, as shown in Figure 4.2. Of the 143 Navy Munitions Response Program (MRP) sites, 124 will be funded under ER,N and 19 will be funded under BRAC. All 82 of the Marine Corps MRP sites will be funded under ER,N. Many of the MRP sites and installations were previously part of the Installation Restoration Program.

## Funding History and Projections

As noted above, the DON works with two funding sources: Environmental Restoration, Navy (ER,N) and Base Realignment and Closure (BRAC) funds. The ER,N account funds restoration efforts at operating (active) installations and addresses both traditional Installation Restoration Program cleanup as well as Munitions Response Program investigations. The BRAC funds are used for restoration efforts at bases that are slated for closure and reuse. ER,N funding for DON projects at active bases dropped from a high of \$407 million in FY 1994 to a current budget of \$248 million for FY 2004 as shown in Figure 4.3. Key factors in reducing funding requirements have been the Navy's extensive efforts to form partnerships with stakeholders, find innovative ways to optimize treatment systems, institute stable funding, and incorporate risk management into remediation decisions.

The Munitions Response Program began receiving funding for site remediation in FY 2000. Currently, funding is projected at \$8 million dollars through FY 2009.

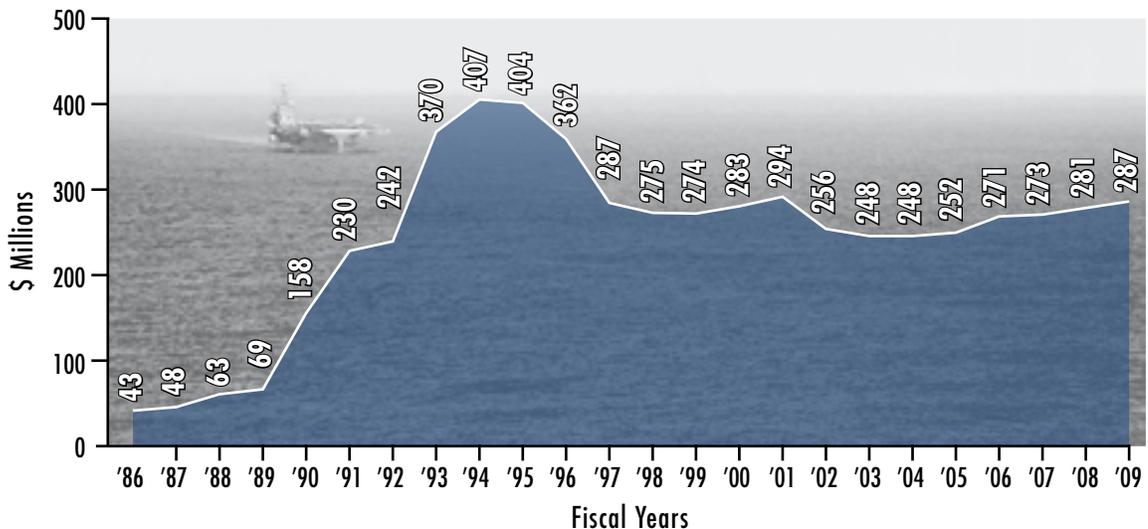


Figure 4.3. ER,N Funding for Installation Restoration Program through FY 2009 in millions of dollars.

## How ER,N Funds Were Spent

ER,N funding is split into three main categories: studies, cleanup, and program management costs. During the Installation Restoration Program's early years, DON spent most of its budget on studies because it was necessary to locate potential sites and determine the levels of contamination. DON has developed new sampling techniques and strategies for these studies that focus efforts on the areas of greatest concern. Although site characterization and pilot studies continue today, DON has placed an increasing emphasis on performing actual cleanups to reduce the risk of exposure to hazardous contaminants.

Ten years ago in FY 1993, only 18% of funds were devoted to cleanup; however, by FY 2003, 64% of the ER,N funding was dedicated to cleanup as shown in Figure 4.4. Unless unforeseen circumstances demand otherwise, the DON plans to maintain the goal of spending at least 60% of its expenditures on actual cleanups.

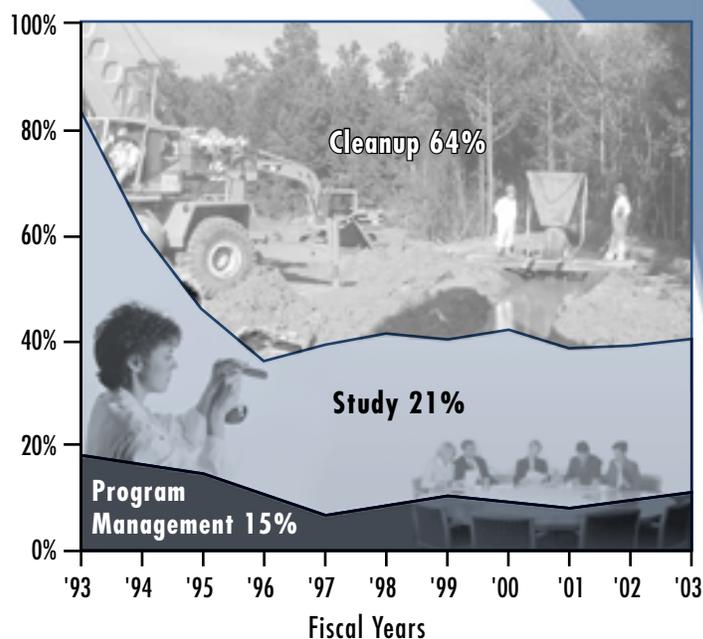


Figure 4.4. How ER,N funds were spent FY 1993 to FY 2003.

## FY 2003 ER,N Spending

Although ER,N funding is split into the categories of studies, cleanup and program managements costs, this section will emphasize the cleanup category. Cleanup is divided into Remedial Actions (RAs) and Interim Remedial Actions (IRAs) which includes removal actions. RAs are final cleanup solutions, after which no further cleanup is needed at a site. IRAs (including removal actions) are quick response actions to stabilize a site or remove contamination sources and are generally conducted before the study phase is complete.

In recent years, DON has increased the use of IRAs and removal actions to protect human health and the environment, accomplish cleanups quickly, and reduce long-term risks and study costs. IRAs often become final remedial solutions once further confirmation studies are complete. In FY 2003, IRAs (including removal actions) represented approximately 44% of the cleanup dollars spent as shown in Figure 4.5.

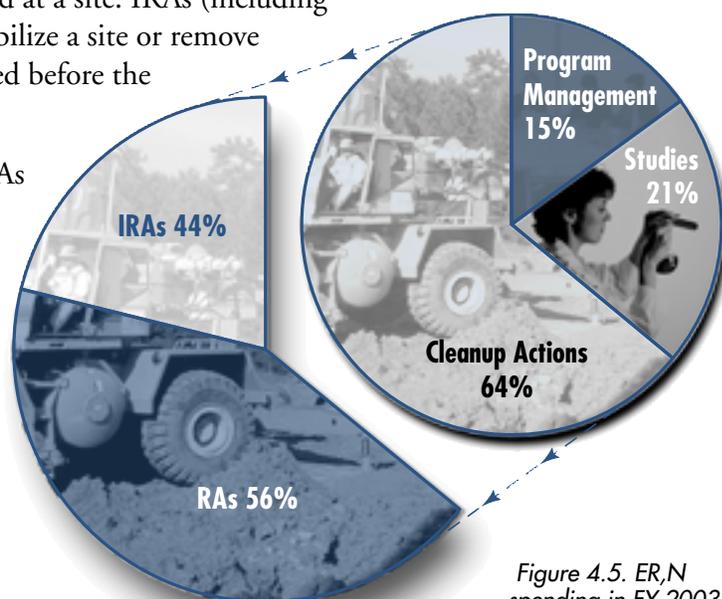


Figure 4.5. ER,N spending in FY 2003.

## Cost-to-Complete & Cost Avoidance

The cost for completing the entire Installation Restoration Program consists of dollars already spent (Executed Costs) plus anticipated future costs (Cost-To-Complete). As DON continues to discover and implement newer, faster, and more efficient methods of restoring sites, projected future costs will continue to shrink.

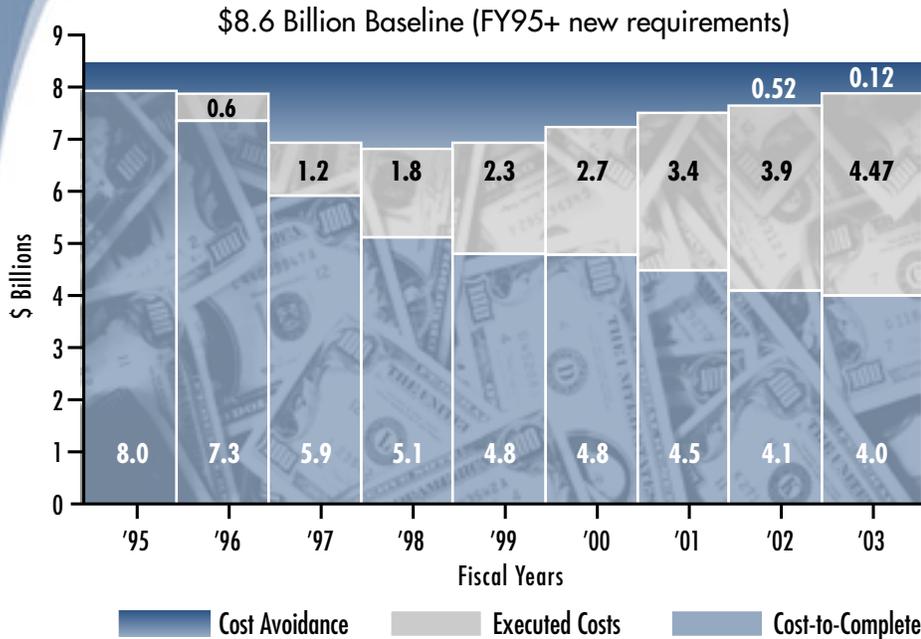


Figure 4.6. DON cost avoidance FY 1995 to FY 2003.

Figure 4.6 shows the estimates of total cost for completing the Installation Restoration Program each year from FY 1995 through FY 2003 as compared to a baseline Cost-to-Complete (CTC). The baseline consists of the CTC estimate originally made in FY 1995 with costs included for new site requirements that have been added to the program over time. The costs for new site requirements are added so that the baseline represents what the CTC

estimate would have been in FY 1995 if these new requirements had been in place at that time. As Figure 4.6 illustrates, the FY 2003 estimated total cost for completing the Installation Restoration Program is \$8.47 billion. When compared to the baseline of \$8.6 billion for the FY 1995 CTC plus increases due to new site requirements, the overall program cost has been reduced by \$120 million. This reduction is attributable to the Navy's continued efforts to foster partnerships, employ more efficient remediation methods and optimize existing treatment systems (Figure 4.7).

The cumulative executed costs (spent dollars) are shown in Figure 4.6 as a portion of the total program estimated CTC in FY 1996-2003 for comparison to the FY 1995 baseline plus new site requirements. The remaining cost to complete restoration at all bases at the end of FY 2003 is \$4.0 billion. The Navy continues to make steady progress in reducing the CTC through its annual execution of budgeted funds and also through employment of more efficient treatment technologies and optimization methods.

Figure 4.7. Construction of a consolidation unit at the former NAS Barbers Point avoided cost, reduced risk, and allowed successful transfer of 88 acres of former Navy property to the state and city (see Chapter 3).



## Site Status: Number of Sites

In the early years, the Installation Restoration Program grew quickly as new sites were identified. The total number of sites has stabilized as fewer and fewer new sites are discovered each year.

The number of sites has grown from 4,288 in FY 1995 to 4,715 in FY 2003 (Figure 4.8). This is an overall site growth of 10%. During FY 2003, 27 new sites entered the Installation Restoration Program. Of the total FY 2003 sites, 3,688 are active sites and 1,027 are BRAC sites.

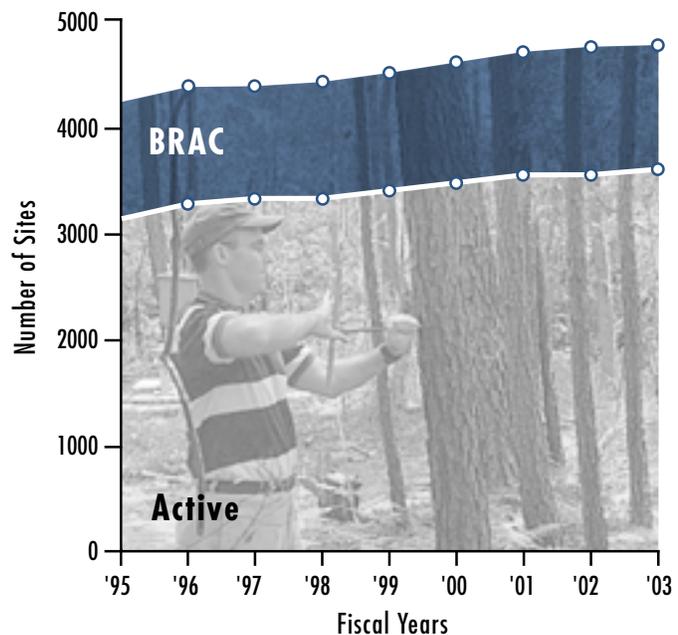


Figure 4.8. The number of sites in Installation Restoration (IR) Program by funding type FY 1995 to FY 2003.

## Addressing Relative Risk

DON uses DoD's Relative Risk Site Evaluation Model to rank and prioritize IRP sites, one against the other. Sites are ranked as high, medium, or low based on their relative risk. Sites with insufficient data are classified as "not evaluated." Sites are classified as "ranking not required" when the response action has been completed (response complete or RC), a final remedy is in place and operating as designed (remedial action operations or RAO), or the site is in long-term monitoring (LTM).

The Installation Restoration Program requires that sites be addressed on a worst-first basis. Sites with a high relative risk are normally given priority for funding. In FY 2003, 90.2% of the funding was spent on cleanup of sites having a high relative risk ranking as shown in Figure 4.9, even though the high relative risk sites constitute only 12.7% of the total number of sites.

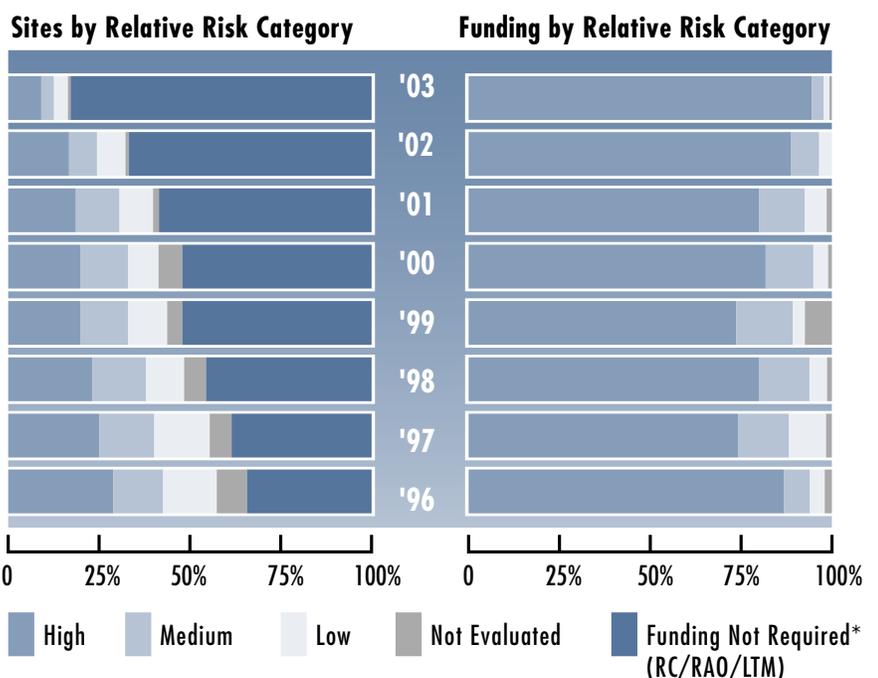


Figure 4.9. Relative Risk sites and funding.

## Defense Planning Guidance Goals

DoD established program metrics as part of the Defense Planning Guidance (DPG) to measure progress and provide a framework for assessing budgeting requirements. Current DPG goals call for cleanup of all high and medium relative risk sites by FY 2007 and FY 2011, respectively. All remaining sites are projected to be completed by FY 2014. The original DPG milestones and the revised FY 2003 projections of what can be accomplished are illustrated in Figure 4.10. As the figure shows, the DPG goal of having remedy in place (RIP) or response complete (RC) at 50% of the high relative risk sites by the end of FY 2002 was met and even exceeded, with 59% of these sites achieving RIP/RC by the end of FY 2002. The FY 2003 projections for meeting the FY 2007 and FY 2011 DPG goals indicate that substantial progress toward these goals is expected. The DPG goal for FY 2007 is to achieve RIP/RC at 100% of the high relative risk sites and the current projection is that 93% of these sites will achieve RIP/RC by then. The DPG goal for FY 2011 is to achieve RIP/RC at 100% of the medium relative risk sites and the current projection is that 90% of these sites will achieve RIP/RC by that time. The FY 2003 projection for FY 2014 is that the DPG goal will be met and RIP/RC will be achieved at all sites.

By the end of FY02, the DPG goal was to have 50% of the High Relative Risk sites reduced to remedy in place (RIP) or response complete (RC) (RIP/RC). (FY02 Projection was 59%)

By the end of FY07, the DPG goal is to have 100% of the High Relative Risk sites RIP/RC. (FY03 Projection is 93%)

By the end of FY11, the DPG goal is to have 100% of the Medium Relation Risk sites RIP/RC. (FY03 Projection is 90%)

By the end of FY14, the DPG goal is to have 100% of the Low Relative Risk sites RIP/RC. (FY03 Projection is 100%)

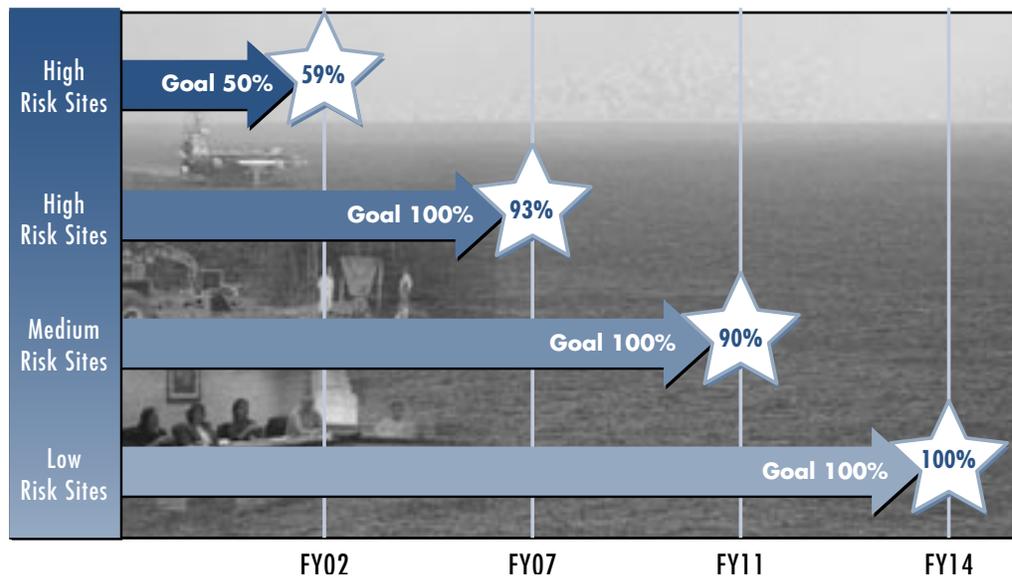


Figure 4.10. DPG goal status chart illustrates DON's projected progress as of the end of FY 2003.

## Site Status: National Priority List Sites

The EPA's National Priorities List (NPL) identifies sites that are believed to present the greatest risk to human health and the environment on a nationwide basis. As of September 30, 2003, 1,295 listings were on the NPL, both proposed and final, of which 51 were for the DON installations, accounting for 1,886 sites. The status of DON's NPL listings compared to federal and non-federal NPL listings can be found in Figure 4.11. No new Navy or Marine Corps installations were proposed or listed for the NPL in FY 2003. Once all cleanup requirements at an NPL installation are met, the installation is eligible for delisting. Sabana Seca, Puerto Rico was de-listed October 7, 1998 and Naval Air Station (NAS) Whidbey (Seaplane), Washington was partially de-listed September 21, 1995. At NAS Cecil Field, delisting of 16,584 of the 17,200 acres became final on June 21, 2003.

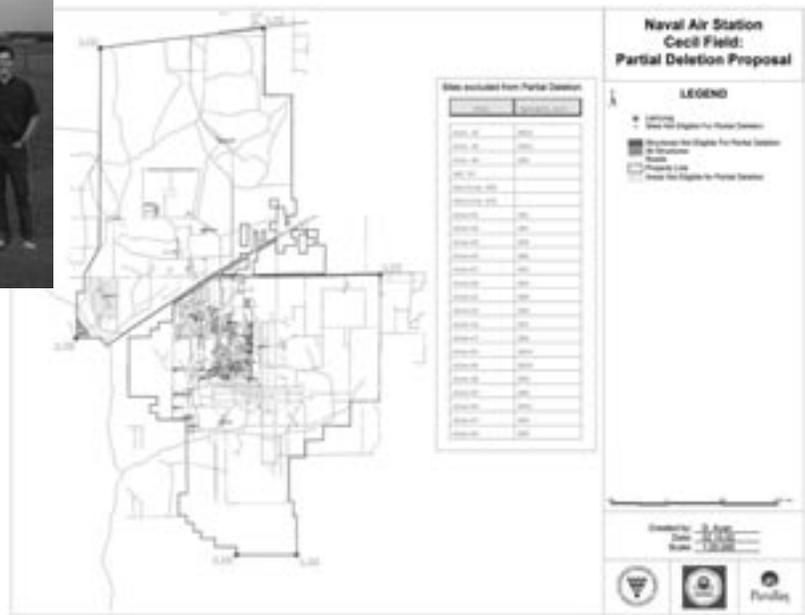
NPL Listings				
Status	DON Listings	All Other Federal Listings	Non-Federal Listings	Total Listings
Proposed	0	6	48	54
Final	51*	107	1083	1241
<b>Total</b>	<b>51</b>	<b>113</b>	<b>1131</b>	<b>1295</b>

\*Pearl Harbor Complex, counted as one listing, is composed of six installations and Jackson Park Housing is included under Puget Sound Naval Shipyard.

Figure 4.11. Site status.



Collaborative efforts of the NAS Cecil Field Partnering Team led to delisting of 16,584 acres from the NPL.



## Completed Actions

When all restoration activities at a site are accomplished, the site is considered a “completed action” or response complete. As of the end of FY 2003, a combined total of 3,457 sites (73%) are considered response complete. Figures 4.12 and 4.13 provide a breakout of completed actions for ER,N and BRAC funded sites. Although much work remains, DON expects to meet the DoD goal to complete all IRP cleanups by FY 2014.

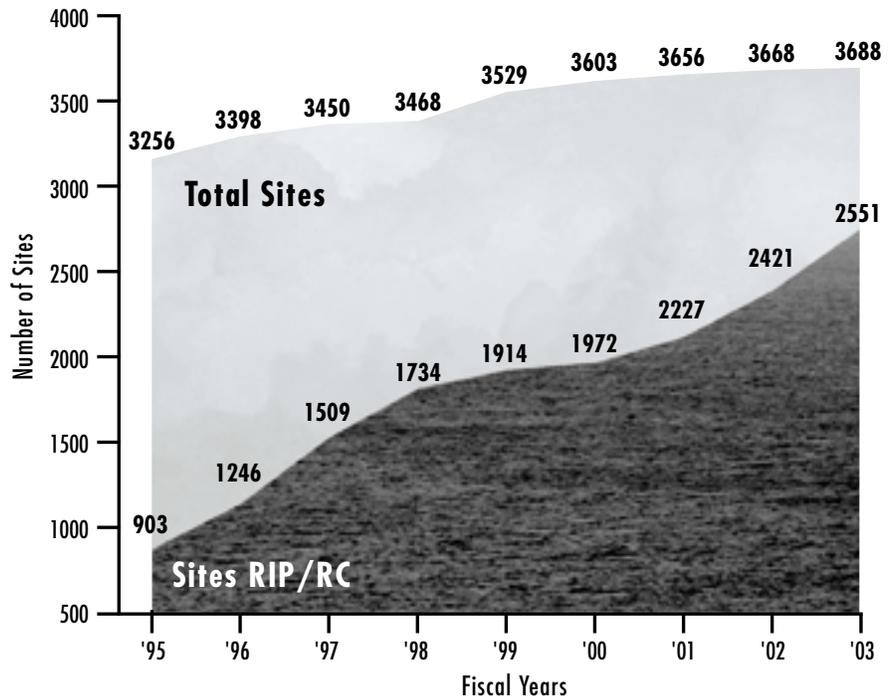


Figure 4.12. Active sites with completed actions.

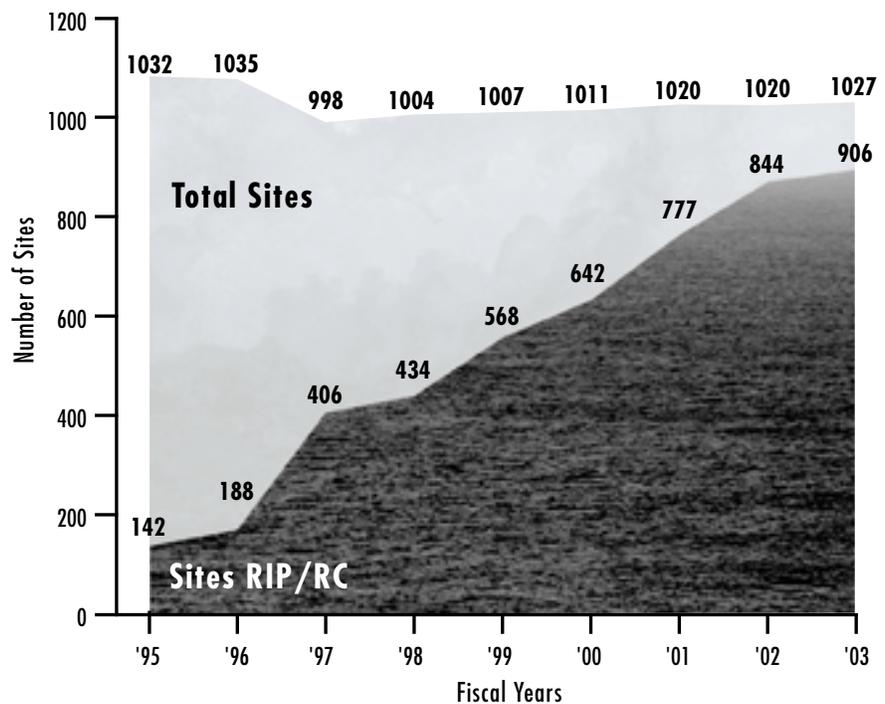


Figure 4.13. BRAC sites with completed actions.

## Installations With Completed Actions

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### BRAC Installations with Completed Actions

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Annapolis NSWC Det Bay Head Annex	Oakland FISC
Billings NMCRC	Oakland NMC
Charleston FMWTC	Orlando NRL UWS REF DET
Charleston NRC	Orlando NTC
Charleston NS*	Philadelphia NH
Charleston NSY	Philadelphia NS
Chase Field NAS	Philadelphia NSY
Driver NAVRADSTA	Puget Sound NS
Glenview NAS	Salton Sea Test Range
Indianapolis NAWC	Trenton NAWC
Libertyville Training Site	Warminster NAWC
New York NS Ft. Wadsworth	
Novato DoD Housing Facility	

### Active Installations with Completed Actions

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Amchitka FSSC Det 1	Coos Head NAV Ocean Processing Facility
Arlington HQ	Corona NOC NWAD*
Arlington Service Center	Dam Neck FCTC
Athens NAVSCSCOL	Everett NRC
Atlanta NMCRC	Fishers Island NUSC
Bainbridge NTC	Flagstaff NOS
Baltimore NRC	Floyd Bennett Field NMCRC
Bangor NSB*	Fridley NIROP
Bayview ID NSWC	Guam NAVFAC
Binghamton NRC	Guam NAVREGDENCEN
Bridgeport MC MWTC	Indian Island NAVMAG*
Broken Arrow NMCRC	Jacksonville FISC
Butte NRF	Jim Creek NAVRADSTA
Cape Prince Wales NCCOSCO	Kings Bay NSB
Centerville Beach NAVFAC	Kingsville NAS
Cheltenham NCTC	Knoxville NMCRC
Chesapeake Bay Det NRL*	Lakehurst NAWCAD*
Chesapeake Bay Det NSGA NWEST*	Lincoln NRC
Chocolate Mountain AGR	Lowry AFB ARMFORAIRC*

Active Installations, continued

Lubbock NMCRC	San Diego SPASURFLDSTA*
Magna NIROP	San Juan SUPSHIP
Monterey NPGS	San Nicolas Island OLF
New London NUWC Det.	Seattle NAVRESREDCEN
New Orleans NAS*	Sentinel NCCOSC
New Orleans NSA	Solomons Annex NAVRECCEN
North Island NADEP	Spokane NMRC
Pearl Harbor INACTSHIPDET	St. Lawrence NCCOSC
Pensacola PWC	St. Paul NIROP
Philadelphia ASO	Sugar Grove NSGA
Point Sur NAVFAC	Sunnyvale NIROP
Pomomkey Test Range NRL	Syracuse MCRTC
Portland NMCRC	Tacoma NMCRC
Portsmouth NAVMEDCTR	Tin City NCCOSC
Puget Sound FISC Bremerton	Waldorf NRL
Puget Sound FISC Manchester	Warner Springs SERE Camp
Puget Sound NH Bremerton*	Washington NAVOBSY
Puget Sound NS Everett	Washington NRL
Quincy NRC	Watertown NRC
Sabana Seca NSGA	Wilmington NRC
Salem NMCRC	Wyoming MCRC
San Diego NAVMEDCTR	Yorktown FISC Fuels Division
San Diego NCTS	Yuma MCAS*

*\*Denotes installations that have received RIP/RC for all Installation Restoration Program sites and have their Munitions Response Program sites underway.*