

Chapter 4

Meeting Programmatic Challenges



Chapters 2 and 3 outlined a massive environmental management cleanup program, the cost of which is an estimated \$147 billion (constant 1998 dollars). Completion of the scope of work of the program will take more than 50 years. To reduce the monumental costs of the cleanup effort, Environmental Management (EM) sites must seek, and find, significant opportunities to accelerate the scope of work of the cleanup. *Paths to Closure*, while grounded in baseline estimates, explores opportunities to increase efficiency and thereby enhance performance that will enable the EM program to achieve its cleanup mission more quickly and at a lower cost.

EM's adoption of such opportunities to enhance performance is the first step in resolving problems that will arise because of inevitable differences between baselines and either assumed or actual funding levels for any given year. *Paths to Closure* also outlines other options for reducing life-cycle costs, should enhanced performance not address fully the funding challenges that an effort of the size of EM's cleanup program will face.

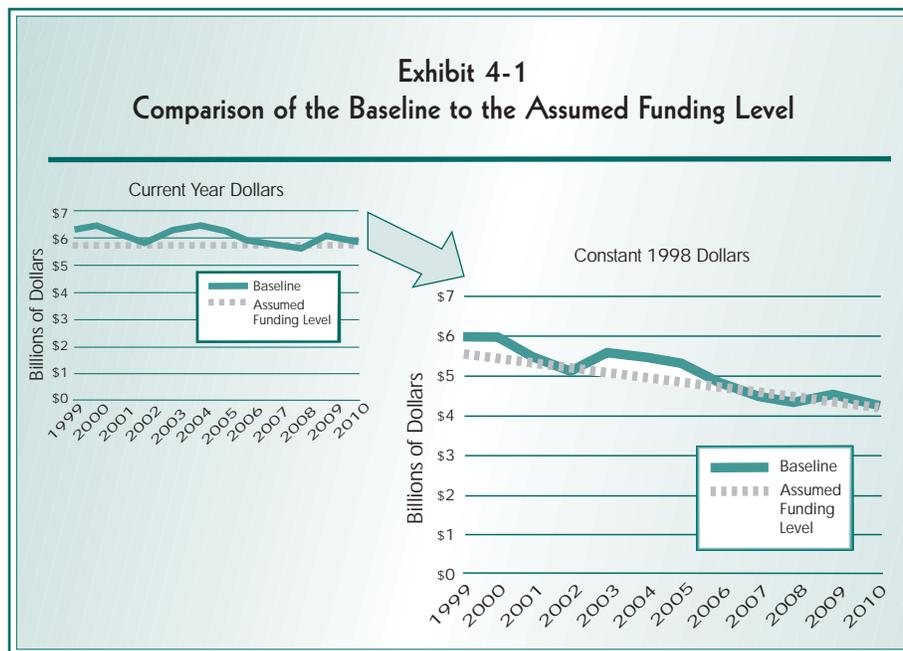
Since EM began developing the vision of accelerated cleanup, the President and Congress have reached a balanced budget agreement. As an underlying premise, therefore, *Paths to Closure* reflects the Department of Energy's (DOE's) need to control costs and comply with the President's balanced budget agreement with Congress. Consistent with this premise, DOE's annual budgeting process includes a process for making adjustments to account for differences between work that is planned, annual appropriations, and projected funding levels using information contained in *Paths to Closure*.

4.1 Relationship Between Baselines and Funding Guidelines

In developing the estimates of cost and schedule set forth in Chapters 2 and 3, the EM program assigned each Operations/Field Office an annual funding guideline which was consistent with recent appropriations levels. In some cases, sites exceeded this funding guideline to meet compliance commitments. EM established the funding guideline last October prior to receiving final FY 1999 and outyear budget targets. It was essential to establish an assumption at that time in order to produce a draft of this report by February 1998. For planning purposes, this funding assumption has not changed.

The EM program assumed that the \$5.75 billion per year funding guideline would already include adjustments for inflation—the same assumption the federal government makes in providing outyear budget targets to government agencies for planning. In effect, the true buying power of the EM program decreases over time. In developing their baselines, each Operations/Field Office factored the effect of inflation into planning assumptions as they scheduled work.

The funding guideline can be compared with the baseline in one of two ways: current year dollars (that is, dollars that include costs associated with inflation), or constant 1998 dollars (that is, dollars that have been adjusted to remove the inflationary component, in the manner in which data are reported in Chapters 2 and 3 of this document). Exhibit 4-1 illustrates the correct comparison of the funding guideline with the baseline using both current and constant 1998 dollars. As the exhibit shows, EM's overall baseline, which has not been adjusted to reflect FY 1998 appropriations and the FY 1999 budget request, exceeds the funding guideline from the current period through 2006. The projected difference during the period 1999 to 2006 is estimated at \$4.4 billion in current year dollars or \$3.9 billion in constant 1998 dollars. At this time, the forecasted difference over the next eight years is only an estimate, but highlights the need to maximize enhanced performance and work with stakeholders, regulators, and Tribal Nations to review site priorities and identify the best use of resources under various funding scenarios.



To facilitate a better understanding of what drives the baseline requirements and funding needs for the near term, EM has identified requirements drivers. EM uses the requirements drivers during the annual budget process to identify program needs in detail. The overall baseline cost for EM is driven largely by four components:

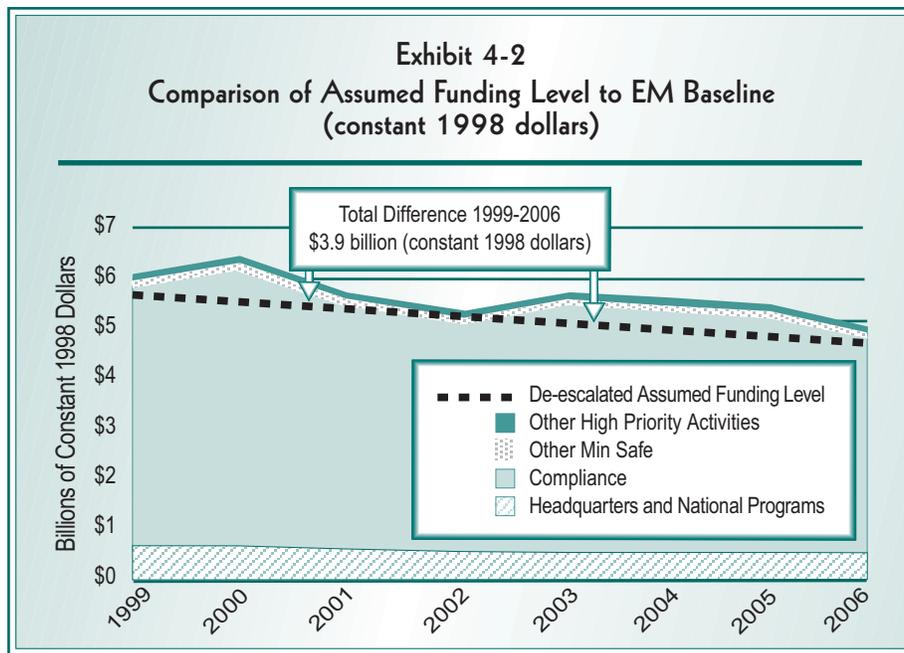
- (1) **Compliance.** Compliance activities are those designed to meet all legally applicable requirements as directed by Executive Order 12088. During the annual budget process, EM asks sites to identify funding requirements to meet compliance agreements, court orders, settlement agreements, consent decrees, federal, state, and local statutes or regulations. Compliance by far accounts for the largest cost element of the program. For FY 1999, baseline estimates include \$5.1 billion for compliance costs.
- (2) **Additional “Minimum-Safe” Activities.** Site baseline estimates also reflect the scope, schedule, and costs necessary to conduct “minimum-safe” activities, which are necessary to address recommendations of the Defense Nuclear Facilities Safety Board (DNFSB) and comply with applicable DOE Orders that ensure the safety and health of workers and the public, and protection of the environment. Many “minimum-safe” activities actually are included in compliance activities. Baseline estimates include approximately \$122 million for requirements that result strictly from DNFSB commitments and compliance with DOE Orders for safety and health in addition to the \$5.1 billion earmarked for compliance.
- (3) **Additional High-Priority Items.** Site baseline estimates may include additional high-priority work scope including program management and support activities, planning and oversight functions, and other activities associated with the management and completion of work under the EM program. For FY 1999, such high-priority items are estimated to account for approximately \$156 million of the overall baseline total, in addition to the \$5.1 billion for compliance and \$122 million for additional “minimum-safe” activities. The costs of accelerated closure activities at the Rocky Flats Environmental Technology Site and the Ohio Field Office sites also are included in this category.
- (4) **National Programs, Federal Salaries, and Headquarters Functions.** A portion of the overall baseline estimate of the cost of the EM program includes National Program activities, salaries for federal employees who oversee work in the Field, and other crosscutting work that supports the effective execution of EM’s responsibilities. Specifically, such activities include the National Science and Technology program, the National Transportation program, and the National Pollution Prevention program. Most such activities are executed in the Field; EM Headquarters provides oversight, overall management, and policy guidance. For FY 1999, the estimate of baseline costs to support the activities of Headquarters and the National Programs is approximately \$627 million.

Exhibit 4-2 displays a breakdown of the baseline cost of the EM program by the four categories discussed above over time. Because such data are collected only for the budget planning year, the exhibit is based on the assumption that the trend for FY 1999 will continue through time.⁶ As the graph shows, for several

⁶It is very difficult to estimate compliance requirements in detail for outyears. Many compliance agreements have two- to three- year windows within which requirements are specified; definitive needs beyond that window have not been fully documented. At other sites, compliance requirements are defined more fully. For analysis at the EM level, Exhibit 4-2 simply extrapolates compliance needs based on FY 1999 data. This methodology provides a high-level mechanism for comparing compliance needs with potential planning levels.

years between the current period and FY 2006, there is the potential that the EM program will experience a difference between the funding guideline of \$5.75 billion per year and the baseline estimate.

A closer examination of Exhibit 4-2 shows that, even if the focus were on compliance alone, the difference would remain for some years (assuming that National Programs and federal oversight activities are funded).



4.2 Reducing Costs and Maintaining Schedules

Paths to Closure is not a budget or decision document. The annual budget process is different from *Paths to Closure*. Establishing the EM budget requires a careful balancing of multiple factors:

- Protecting public health, the environment, and workers;
- Complying with applicable environmental laws, regulations, and agreements;
- Accelerating the completion of cleanup activities at DOE sites;
- Allocating resources among DOE sites;
- Weighing EM program needs against competing DOE and Executive Branch needs such as the President's recent balanced budget agreement with Congress; and
- Accounting for "local" priorities of stakeholders and Tribal Nations at individual sites.

Although *Paths to Closure* is not part of the annual budget development process, the two are related. *Paths to Closure* is a useful tool, not only for assisting in annual budget formulation, but also for making annual adjustments to the execution of the cleanup program based on budget funding decisions. In evaluating annual budget scenarios, *Paths to Closure* gives EM the management tools needed to understand impacts to life-cycle costs and closure date schedules.

Paths to Closure is representative of baselines and is not updated to reflect various budget scenarios that occur throughout the course of the annual budget process. This is because it is extremely difficult and unrealistic for sites to “re-baseline” multiple times during the course of a year. Typically, EM works to align the baselines on a year-to-year basis so that work scope planned for the execution year (currently FY 1998) is consistent with the budget. During these annual updates, sites can also reflect outyear planning changes in the baseline, changes that have resulted from variances in actual results from the previous year, scope changes, enhanced performances, improvements in estimates, and other changes in planning assumptions.

The Environmental Management program recognizes that there will be differences in future iterations of *Paths to Closure* between actual budget requests and appropriations and the funding guideline amount due to the dynamic nature of the budget process. Because of the inevitability of differences between baselines, planning levels, and budget funding, the budget process contains a systematic process for resolving funding differences. Reducing life-cycle costs through enhanced performance, and therefore addressing differences between planning and funding levels, is EM’s most viable and most desirable option. Receiving sufficient funds to eliminate all future differences is unlikely, given that DOE’s costs must be controlled to meet the President’s balanced budget agreement with Congress. The budget process includes a systematic process for making work execution adjustments to account for annual fluctuations in funding levels using information in *Paths to Closure*:

- Constantly seeking ways to enhance performance;
- Requesting additional funding and/or considering reallocation of funds among sites to address immediate health and safety needs;
- In cases of small funding differences in budget outyears, using funding available for other EM programs at a site to address compliance-related project scope; and
- In cases where large funding differences are projected, working with the Office of Management and Budget and the Congress to seek additional funds, and also working with stakeholders, regulators, and Tribal Nations to review sites’ environmental activities to reach agreement on site programs that balance many competing priorities and needs.

The following sections discuss the steps of this part of the budget process in greater detail.

4.2.1 Enhanced Performance Mechanisms

Enhancing performance is not a strategy reserved for situations in which there is a funding issue; rather, it is an integral part of the overall EM program's work culture. EM has and will continue to implement performance enhancements as a means of reducing the significant costs of the cleanup program. The EM program has available a number of mechanisms or tools that offer the potential to reduce the life-cycle cost of the cleanup program and thus help address funding differences. These tools include the application of science and technology deployment, project sequencing, pollution prevention, contract reform, integration, and implementing lessons learned. As sites identify and document project-specific applications of these tools, the baselines will be modified to reflect the "real" savings, and permit the acceleration of other projects.

Application of Science and Technology Deployment. As the cleanup program has progressed, EM has accelerated the use of new technologies. Technology offers the potential to provide solutions to currently intractable problems and may offer better, safer, and cheaper alternatives to current baseline technologies. New technologies range in size from small thumbnail-size sensors that fit in one-inch pipes to the melter placed in the Defense Waste Processing Facility. These new technologies already are having a positive effect on the progress of cleanup. By 1998, more than 140 new technologies had been used to characterize and treat waste and to remediate contaminated soils and groundwater. As it is proven that such new technologies can lower cost while improving worker safety and reducing environmental risk, their use will increase.

Site versions of *Paths to Closure* have identified 543 science and technology needs based upon the designation of technical programmatic risk in the projects. The EM program intends to bring more than 100 new technologies to bear in the next four years to begin to address these needs. Each of the Operations/Field Offices has developed a site-specific technology deployment plan which describes its approach to overcoming barriers to technology deployment. Implementation of these plans will enable rapid integration of these new technologies into site cleanup activities to fill key technology gaps. The Accelerated Site Technology Deployment program, authorized by Congress for the first time in FY 1998, is a positive step towards that goal. This program accounted for 14 of the deployment opportunities identified in *Paths to Closure*.

EM has identified technology-related cost savings opportunities exceeding \$9 billion. Of this amount, about \$5 billion already has been incorporated into the assumptions used to develop site baseline estimates. However, some of the assumptions about technologies that have been incorporated into baselines require additional investment of resources to ensure their deployment. The additional benefits of innovative technologies presumably will be reflected in

future baseline estimates as sites identify opportunities to use those technologies.

The budget requests for the Technology Development program for FY 1999 and FY 2000 were formulated and prioritized using the Operations/Field Office data provided through *Paths of Closure*. Each of the technology work packages is linked to, and prioritized by, specific EM projects and waste streams.

To reduce the cost of cleanup—and in some cases to allow cleanup—EM must identify, develop, and apply science and new technologies aggressively. In 37 Project Baseline Summaries (PBSs), representing an estimated life-cycle cost of \$33 billion, more than 80 opportunities have been identified to help meet EM's enhanced performance goals. The potential savings identified for those 37 PBSs exceed \$4 billion. Clearly, even a small fraction of the 353 projects discussed in *Paths to Closure* can contribute significantly to the achievement of enhanced performance goals. For the most part, savings associated with technology-based opportunities are to be realized in the high-level waste programs at the Savannah River and Richland Operations Offices.

The construction of science and technology roadmaps within EM and elsewhere in the Department will enable EM to bring the relevant research and development efforts of the rest of the Department to bear on EM's long-term, high cost projects, as well as high-risk activities and waste streams. The overall EM investment strategy for science and technology will be described in the *EM Research and Development Program Plan* which is scheduled to be released later this year.

EM has identified 50 PBSs that present medium to high technological risk that are on the critical path to site closure. The projects include more than 80 medium to high-risk activities or events that could benefit from highly focused investments in science and technology. EM will evaluate these high-risk projects carefully and identify those cases in which failure to complete the project will have the most significant effect on the progress of the cleanup program. EM-built, project-level roadmaps will be considered for those selected projects that can benefit from significant investments in science and technology.

Focusing Science and Technology Investments

The cleanup strategy aids EM in efforts to maximize return on investments made in science and technology.

For each project, sites have determined specific technology needs that could improve cleanup, accelerate the schedule, or reduce costs. Information about where and when new technologies are being deployed, a nationally prioritized set of technology needs, specific cost savings opportunities, and an assessment of technological risk are all crucial to building the right cleanup investment portfolio. EM will develop its science and technology budget based on these data. Such highly focused investments will help achieve challenging enhanced performance goals and reduce the technological risk associated with projects that are on the critical path to site completion.

In addition, through preparation of the disposition maps, the EM program has identified more than 80 waste streams that present medium to high technological risk. Disposition maps will also help to focus future science and technology investments. “Roadmapping” the technology needs and technological risk to specific science and technology investments will ensure that waste treatment can proceed successfully on the national level, according to an established process. The roadmaps will help establish requirements, both schedule and technical, for when and where the results of these investments need to be delivered.

Opportunities for technology-based cost savings identified in *Paths to Closure* represent an appropriate first step. However, as part of EM’s roadmapping efforts, we will reevaluate the technical approach on long-term, high-cost activities that present minimal technological risk. More than 60 projects will extend past 2004, cost more than \$50 million each, and present minimal technological risk. The EM program will review these projects to determine whether new technologies can replace conventional cleanup technologies to reduce costs and accelerate cleanup schedules.

Integration. Although each DOE site and laboratory is unique in its capabilities, some problems are common throughout the complex: e.g., what is the best technology to treat, store, and dispose of various types of radioactive and hazardous waste and how should we manage our nuclear materials inventory? Accordingly, EM will be utilizing existing unique capabilities and developing new technologies at sites to do business efficiently to achieve common objectives.

This integration effort means sharing across sites: consolidating treatment, storage, and disposal facilities where it makes good sense; applying innovative technologies among sites; and working to ensure consistency in reporting data such as waste inventory and generation, as well as available packaging and transportation systems for shipments of waste and nuclear materials.

The guiding planning document for DOE is the Strategic Plan. The Environmental Management program plays a key role in implementing the strategies and achieving the goals in the Strategic Plan. *Paths to Closure* provides more detail on the strategies being employed to meet the Department’s strategic objectives. As strategies are developed, the EM program identifies gaps and opportunities for improvements. Integration provides valuable insight into ways to improve current strategies as well as proposed solutions which use resources effectively.

One of the first steps in the analysis of opportunities for integration is the uniform reporting of waste volumes and related data. Waste and material disposition maps are a new management tool added in response to stakeholder and Tribal Nation concerns about nuclear material and waste disposition. The maps are graphical representations of each DOE site’s current conceptual approach to managing wastes, nuclear materials, and contaminated media from its current status through its ultimate disposition, including shipping and off-site treatment and disposal. Chapter 3 and Appendix E display Conceptual Summary Disposition Maps for each Operations/Field Office.

Project Sequencing. Projects for which “mortgages” or carrying costs are high typically include “support” activities, such as general maintenance, security, infrastructure, and other activities not directly associated with environmental cleanup. The scope and life-cycle cost of such projects could be reduced if the EM program were to accelerate their completion. EM has identified two general approaches to accomplishing “mortgage reduction”: (1) increasing near-term investment in specific projects to allow for accelerated completion of those projects, and (2) reallocating funding to focus funds used at sites on projects with high “mortgages”.

Mortgage and Mortgage Reduction

“**Mortgage**” refers to support activities and their associated costs. Mortgage costs represent the fixed-cost portion of a project and support activities required to maintain a facility and stored waste or material in a stable or operative configuration.

“**Mortgage Reduction**” refers to those activities whose primary focus is to treat waste, stabilize nuclear materials, and deactivate, decontaminate, and decommission facilities, and their associated costs. As such activities are completed, their associated mortgage costs are reduced or eliminated.

The EM “mortgage reduction” initiative has four objectives: (1) identify projects for which support costs are high (such as materials for stabilization, waste treatment or disposal, facility deactivation) and where acceleration of activities may reduce costs for support activities significantly; (2) identify those projects that offer a high potential internal rate of return if funding can be increased and if the “mortgage reduction” could be quantified; (3) identify those projects that currently are providing “mortgage reduction” benefits and quantify those benefits; and (4) identify those long-term, high cost projects that present minimal technological risk so that new technology can be applied to accelerate cleanup or reduce costs with minimal additional programmatic risk. In many cases, sequencing projects that have a high “mortgage reduction” potential also reduces urgent risks and meets our compliance commitments. By reducing high “mortgages”, the EM program can reduce risk, accelerate site closures, minimize the need for near- and long-term surveillance and monitoring activities, and reduce support costs.

Pollution Prevention. The DOE pollution prevention program is a management tool for optimizing waste reduction and pollution prevention. Pollution prevention is a core program that helps sites maximize their environmental compliance, while reducing costs associated with the generation and management of waste. Pollution prevention programs at the sites are instrumental in achieving cost reductions for individual projects. The financial benefits of pollution prevention typically extend beyond the avoided costs of waste management and often accrue to a number of organizations at a given site.

Contract Reform. The largest portion of annual EM program funds is allocated to contractors that execute the work that accomplishes the cleanup mission. Reforms in contracting mechanisms offer the potential for significant savings. The EM program is developing site-specific contract strategies to improve overall program efficiency. Specific elements of these strategies include:

- Increased use of contractor incentives for improved performance (quality results and accelerated completion) and disincentives for poor performance;
- Additional privatization of certain EM cleanup activities by encouraging free market principles through a more open, competitive bidding process;
- Increased use of performance-based contracting mechanisms (for example, competitively awarded fixed-price contracts) to encourage more efficient cleanup; and
- Additional focus on linking work planning to the way contract types are selected, the incentives, and the make or buy process.

To ensure that sites work to implement the strategies, EM has undertaken a review of current contracting practices, focusing on integration of related activities and the periodic sharing of lessons learned to identify the contract vehicles most likely to facilitate the completion of the work. In addition, EM requested that sites report both quantitative and qualitative improvements in implementation of performance-based management contracts and the increases in dollar value or numbers of competitively awarded fixed-price contracts, including privatization contracts.

The improvements described above are being implemented at sites at which accelerated completion of the site scope of work is planned. Sites currently funded under the Closure Account have adopted new contracting principles that provide both incentives for accelerating cleanup and meaningful disincentives for falling behind schedule. Such a dual approach is crucial to the overall goal of making accelerated completion a reality. Eventually, each of the sites funded under the Closure Account will reach a stage at which the site managers can quantify required completion activities fully and award a competitive, performance-based contract, much like the contract awarded recently at the Miamisburg Environmental Management Project in Ohio.

Lessons Learned. As organizations perform the same activities repeatedly, they learn to do them more efficiently. Therefore, the cost (in constant dollars) of performing such activities declines. Data prepared by the Bureau of Labor Statistics, which measures productivity in the U.S. economy, indicate that, in the manufacturing sector of the economy, productivity has increased at an average annual rate of approximately 2.5 percent for the past 25 years. Therefore, in the average manufacturing industry, the cost of performing an activity is reduced by approximately one-half every 25 years. Although the EM program includes numerous technically complex, one-of-a-kind challenges and may not be able to match the industrial sector as a whole, there nevertheless are significant

opportunities to improve productivity (that is, to achieve enhanced performance).

The EM program is an active participant in DOE's Lessons Learned program, a multifaceted initiative that uses information technologies to link Lessons Learned programs; rapidly transfer time-critical information about lessons learned to key points of contact; report upcoming events, such as conferences; and provide access to pertinent information available from sources outside DOE.

In addition, the EM program is reviewing PBSs to identify cases in which sharing of lessons learned might provide cost savings. For example, in deactivation and decommissioning of facilities, some sites are conducting smaller-scale projects during the period from 1998 to 2006, while other sites are conducting major deactivation and decommissioning work from 2020 to 2040. If the EM program can capitalize on lessons learned during the early years, significant savings may be achievable for later projects.

4.2.2 *Implementing Enhanced Performance*

The *Discussion Draft* identified cost reduction targets to eliminate differences between baselines and assumed funding levels entirely through enhanced performance. Initially, the targets in the *Discussion Draft* were estimates based on the experiences of DOE, organizations in the private sector, and other government agencies. These targets were based on assumptions that the EM program would:

- Reduce support costs to 30 percent of site costs by FY 2000;
- Achieve annual productivity improvements of 3.5 percent for definable (or pure) projects; and
- Achieve annual productivity improvements of 6 percent for operations (or operational projects).

Many reviewers of the *Discussion Draft*, however, questioned the validity of cost estimates based on these assumptions because they were derived from “across the board” application of the assumptions rather than by modifying specific project scope, schedule, and costs in the site baselines. The Environmental Management program has taken this reviewer criticism to heart; as a result, life-cycle cost estimates of the cleanup program are derived entirely from the sites' baselines in *Paths to Closure*. Thus the only enhanced performance reflected in the life-cycle cost estimates in *Paths to Closure* are those documented in site baselines.

However, EM is still pursuing the strategy of accelerating cleanup and reducing costs. Using the above assumptions in the *Discussion Draft* as a starting point, EM conducted a series of “workouts” with several sites. The objectives of the workout sessions were to identify opportunities to reduce costs significantly, increase efficiency, define better ways of managing resources and environmental objectives, and incorporate the resulting savings in site baselines. During the

summer and fall of 1997, EM sponsored workouts at the Hanford Site, Idaho National Engineering and Environmental Laboratory, Rocky Flats Environmental Technology Site, Carlsbad Area Office, and the Savannah River Site. This round of workouts focused on performance enhancement targets and actions necessary to achieve those targets.

By using the workout process, Field Office Managers and contractors committed to enhanced performance goals for FY 1998 and FY 1999. FY 1998 and FY 1999 were a focus for two reasons: (1) the need to ensure full compliance in these years and (2) the goal of maximizing savings in the short term for reinvestment in the following years. The workout sessions achieved the results illustrated in Exhibit 4-3.

Sites have stated that since the targets were identified, total baseline costs have been reduced by over \$5.6 billion based on identified opportunities to reduce cost and become more efficient. Unfortunately, during this same time, some sites have incurred some work scope growth, which offsets the substantial gains made by these performance enhancement opportunities. To help further lower costs, sites have targeted an additional \$2.5 billion in enhanced performance savings. Despite these most recent targets, sites must still strive for additional enhanced performances; committing to additional enhanced performances will allow additional work scope to be completed for the same amount of money with resulting acceleration of site completion dates.

The Environmental Management program is deferring the establishment of accelerated closure dates and reduced life-cycle costs for most sites based on stakeholder concerns. After analysis of existing data, EM can establish credible acceleration goals based on the likelihood and difficulty of achieving technology development, integration, and other enhanced performance opportunities. EM plans to establish these acceleration goals in the 1999 update to *Paths to Closure*.

Exhibit 4-3
Summary of Site Workout Results

Office	Areas of Attention to Achieve Savings	FY 1998-99 Savings
Richland	The site is reducing direct/support areas, streamlining redundancy areas with contractors, maximizing use of contracting incentives, and exerting greater effort in implementation of new technologies.	\$475 million
Savannah River	The site is deferring some work to accelerate “mortgage” reducing projects, reducing overlapping contractor responsibilities, using manpower more effectively, re-engineering processes to simplify the work needed to complete a task, and collaborating with regulators for scope changes on environmental restoration activities and safeguards and securities programs.	\$300 million
Carlsbad	The site is working to ensure that it opens on schedule and is able to receive wastes from other sites as scheduled. By continuing to work to meet this milestone, savings will presumably result from other sites who are disposing the waste. In addition, Carlsbad has been able to achieve past efficiencies from expediting some activities.	\$12 million
Idaho	EM and the site discussed several options to achieve further efficiencies during the workout but none appeared able to produce significant results. The site has a system in place that produced past improvements on various projects, allowing acceleration on other projects. Nevertheless, Idaho agreed to re-examine areas of efficiencies where future savings might be possible.	\$52 million
Rocky Flats	The site goal is to accelerate site completion activities to 2006.	^a

^aTwelve percent per year positive schedule variance against the life-cycle baseline

4.2.3 Requesting Additional Funds

The budget is determined through an annual budget process (see text box). EM works with the Department and the Administration to request sufficient funds for compliance, consistent with its continued commitment to compliance. EM's needs are weighed during the budget process against other DOE and federal government priorities and the amount appropriated to EM has typically been less than the full request. Therefore, while EM could conceivably eliminate the difference between planning and funding levels by receiving more funding, fiscal realities are such that closing the gap completely by this mechanism is unlikely.

Process for Determining EM's Budget

- EM requests sufficient funds to comply with applicable environmental requirements as directed by Executive Order 12088.
- EM also requests funding for
 - “Minimum-safe” activities (DNFSB recommendations and to protect worker safety and health);
 - High-priority activities for the management and closure of sites; and
 - National programs and federal oversight at a level necessary and sufficient for EM.
- The Department works with the Administration to formulate a budget, balancing Department and other federal priorities.
- The President transmits a budget to Congress, which passes appropriations legislation.
- After Congress appropriates funds to specific accounts (Closure, Project Completion, Post-2006 Completion), the Department allocates each account to sites. See Section 5.4 for a description of each account.

4.2.4 Meeting Immediate Health and Safety Needs

If performance enhancements are not sufficient to address funding differences—either real or projected—at specific sites and additional funding requests are not successful, EM plans to pursue several options. In cases where new work is required immediately to protect safety and health, and related costs exceed available appropriations, the Department will shift funds from lower priority activities to ensure that public health and safety are adequately protected. The Environmental Management program will work with stakeholders, regulators, and Tribal Nations to address site priorities and proposed work deferrals, and will seek the reprogramming of any funds that may be necessary.

4.2.5 Addressing Small, Projected Funding Differences

Where performance enhancements are insufficient and small funding differences are projected at some sites in budget “outyears” (as is the case in FY 1999), the Environmental Management program will work with stakeholders, regulators, and Tribal Nations to identify funding for activities not required to maintain compliance or other high priorities to address such differences.

4.2.6 Addressing Larger Funding Differences in the Future

In future years where larger funding differences are projected, the Department intends to work with the Office of Management and Budget to seek additional funds for vitally important missions. Also, through site acceleration, it is DOE's goal to make additional resources available in the "outyears." DOE will propose shifting these resources from completed sites to other sites. No matter how successful these efforts are, however, the discipline of working within binding budget ceilings means that the Environmental Management program must engage in an active dialogue with stakeholders, regulators, and Tribal Nations about activities and programs at each of the Department's sites—and collectively make hard choices regarding priorities. The Environmental Management program will seek adequate funding to meet safety requirements and compliance obligations—but also will attempt to do more under limited funding projections.

The Environmental Management program is committed, therefore, to work with stakeholders, regulators, and Tribal Nations to review all aspects of the Department's environmental programs, including activities covered in enforceable agreements and activities that are not required under those agreements, to reach agreement on site programs that balance many competing priorities and needs. The Environmental Management program expects the strategy and the review of program options embodied in the development of *Paths to Closure* to become an important element of this effort.