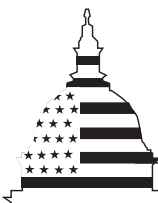


GAO

Report to the Ranking Minority
Member, Senate Committee on
Governmental Affairs

ENVIRONMENTAL PROTECTION AGENCY

Status of Achieving Key Outcomes and Addressing Major Management Challenges



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United States General Accounting Office
Washington, DC 20548

June 15, 2001

The Honorable Fred Thompson

Ranking Minority Member
Committee on Governmental Affairs
United States Senate

Dear Senator Thompson:

As you requested, we reviewed the Environmental Protection Agency's (EPA) fiscal year 2000 performance report and fiscal year 2002 performance plan required by the Government Performance and Results Act of 1993 (GPRA) to assess the agency's progress in achieving selected key outcomes that you identified as important mission areas for the agency.¹ These are the same outcomes we addressed in our June 2000 review of the agency's fiscal year 1999 performance report and fiscal year 2001 performance plan to provide a baseline by which to measure the agency's performance from year-to-year.² These selected key outcomes are

- the air in every community is safe and healthy to breathe,
- water is safe for drinking and recreation,
- hazardous waste ("Superfund") sites are cleaned up, and
- food supplies are free from unsafe pesticide residues.

As agreed, using the selected key outcomes for EPA as a framework, we (1) assessed the progress EPA has made in achieving these outcomes and the strategies the agency has in place to achieve them and (2) compared the EPA fiscal year 2000 performance report and fiscal year 2002 performance plan with the agency's prior year performance report and plan for these outcomes. Additionally, we agreed to analyze how EPA addressed its major management challenges, including the governmentwide high-risk areas of strategic human capital management and information security, that we and EPA's Office of Inspector General

¹This report is one of a series of reports on the 24 Chief Financial Officers (CFO) Act agencies' fiscal year 2000 performance reports and fiscal year 2002 performance plans.

²See *Observations on the Environmental Protection Agency's Fiscal Year 1999 Performance Report and Fiscal Year 2001 Performance Plan* (GAO/RCED-00-203R, June 30, 2000).

(OIG) identified. (App. I provides detailed information on how EPA addressed these challenges).

Results in Brief

EPA reported reasonable progress in achieving its key outcomes. In general, EPA's strategies for achieving these outcomes appear to be clear and reasonable. Specifically,

- Planned outcome: The air in every community is safe and healthy to breathe. EPA reported attaining air quality standards in more areas of the country and reducing emissions of toxic pollutants. However, EPA noted that the data demonstrating attainment have potential limitations, including imprecise measurement and recording and inconsistent or nonstandard methods of data collection and processing. The agency further noted that data to confirm the toxic emissions reductions will not be available for several years. EPA's strategy for achieving its goal of improving air quality appears clear and reasonable and relies on working with states, tribes, and local governments to achieve compliance with standards for six principal pollutants. For other toxic air pollutants, EPA has developed a monitoring strategy with the assistance of states and local regulators and is beginning to implement this strategy.
- Planned outcome: Water is safe for drinking and recreation. EPA reported that it is making strides in achieving its goal of safe and clean drinking water by achieving the annual performance goal of having 91 percent of the population served by community drinking water systems receiving drinking water that meets all health-based standards that were in effect as of 1994. However, EPA acknowledged that the data for drinking water are of uncertain quality, noting discrepancies between state and national databases. The agency further reported that it achieved its goal of reducing exposure to contaminated recreational waters by increasing information available to the public and decisionmakers on beach contamination; however, this information may be incomplete because it is reported voluntarily and there are no rigorous quality checks on data quality. EPA's strategy for ensuring that water is safe for drinking and recreation appears reasonable and involves several approaches, such as providing states with funding for drinking water revolving funds. These strategies may not be fully successful in achieving the strategic goal because of factors such as funding constraints that may impair the states' ability to implement their programs, as we reported.

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- Planned outcome: Hazardous waste (“Superfund”) sites are cleaned up. EPA reported that it made progress in cleaning up hazardous waste sites by exceeding its fiscal year 2000 goal of completing construction cleanup at 85 Superfund sites by having 87 sites completed. EPA’s measure of completing construction reflects that a cleanup remedy is in place, and not necessarily that all cleanup work is completed and the sites can be returned to economic use. The agency also reported that it nearly attained its goal of securing cleanup commitments from responsible parties for 70 percent of new construction sites. For federal Superfund sites, the agency fell short in reaching inter-agency agreements with other agencies that are responsible for site contamination and clean up. Of the six agreements targeted for completion in fiscal year 2000, only two were completed. EPA’s strategy of working in partnership with state and tribal governments to clean up Superfund sites is reasonable. EPA’s strategy for reaching interagency agreements for site cleanups with other federal agencies is less clear without more specific information in its performance report.
 - Planned outcome: Food supplies are free from unsafe pesticide residues. EPA reported making progress in ensuring that food is free from unsafe pesticide residues, especially where children are concerned. It reported that it met its goals in registering new pesticides for use that are safe for human health and the environment. However, the agency reported that it fell short in its efforts to reassess the safety of existing pesticide residue levels to ensure that they meet the statutory standard, primarily because of the continued development of a policy on addressing cumulative risk. EPA’s strategies to accomplish its goals involve evaluating test data on pesticide ingredients before it registers a product for sale and developing and evaluating improved methods to estimate human exposure risk from pesticides. These reported strategies appear clear and reasonable.

EPA made a number of improvements to its fiscal year 2000 performance report. For example, the report (1) presents tables of performance results by individual strategic goal, rather than a consolidated table for all goals; (2) presents more information on the actions taken to identify or validate the quality of information included in the report; and (3) addresses, in a separate section, the major management challenges that we and the OIG raised as well as agency-identified internal weaknesses. Several of these changes are in direct response to the concerns we raised regarding the prior year’s report. The performance report still falls short, however, in providing information on crosscutting goals and measures, such as how other federal agencies’ goals supplement or complement EPA’s goals.

EPA's fiscal year 2002 performance plan is similar—in format, clarity, and amount of information presented—to the prior year's plan. However, the 2002 plan is based on EPA's revised (in fiscal year 2000) Strategic Plan, while the fiscal year 2001 performance plan was based on the previous Strategic Plan; accordingly, the goals and the objectives differ somewhat. For example, the focus of the safe food goal has been modified, and the number of objectives has been changed.

EPA's fiscal year 2000 performance report addressed all of the major management challenges that we raised. For example, the report presents information on the agency's implementation of a human capital strategy and sets forth the agency's corrective action strategy, which calls for identifying program skills needed in the future and the gap with existing skills. EPA's 2002 performance plan's goals and performance measures address some, but not all, major management challenges. Of the four major management challenges we identified, EPA's performance plan has four goals and seven measures that are directly related to three of the challenges—strategic human capital management, information security, and environmental and performance information management. We provided copies of a draft of this report to EPA for its review and comment. The agency generally agreed with our findings and provided several technical clarifications, which we incorporated, as appropriate, into the report.

Background

GPRA is intended to shift the focus of government decisionmaking, management, and accountability from activities and processes to the results and outcomes achieved by federal programs. New and valuable information on the plans, goals, and strategies of federal agencies has been provided since federal agencies began implementing GPRA. Under GPRA, annual performance plans are to clearly inform the Congress and the public of (1) the annual performance goals for agencies' major programs and activities, (2) the measures that will be used to gauge performance, (3) the strategies and resources required to achieve the performance goals, and (4) the procedures that will be used to verify and validate performance information. These annual plans, issued soon after transmittal of the president's budget, provide a direct linkage between an agency's longer-term goals and mission and day-to-day activities.³ Annual performance reports are to subsequently report on the degree to which performance goals were met. The issuance of the agencies' performance

³The fiscal year 2002 performance plan is the fourth of these annual plans under GPRA.

reports, due by March 31, represents a new and potentially more substantive phase in the implementation of GPRA—the opportunity to assess federal agencies’ actual performance for the prior fiscal year and to consider what steps are needed to improve performance, and reduce costs in the future.⁴

With over 18,000 employees and an annual budget of approximately \$7 billion, EPA funds diverse regulatory, research, enforcement, and technical assistance programs and activities that are directed toward controlling pollution of the air, land, and water. The nation’s annual costs to comply with environmental regulations are substantial and have been growing, and costs were estimated at about \$148 billion in 2000. A key aspect of EPA’s performance management involves working cooperatively with its state partners in managing environmental programs. As authorized by environmental statutes, the agency has delegated to the states the responsibility for day-to-day implementation of most federal environmental programs; thus, EPA’s working relationships with the states can directly affect the achievement of many of the agency’s strategic goals. Over the past few years, we have identified weaknesses and made a number of recommendations designed to improve EPA’s working relationships with the states.⁵

Assessment of EPA’s Progress and Strategies in Achieving Selected Key Outcomes

This section discusses our analysis of the EPA’s performance in achieving its selected key outcomes and the strategies the agency has in place, particularly strategic human capital management⁶ and information technology, for achieving these outcomes. In discussing these outcomes, we have also provided information drawn from our prior work on the extent to which the agency provided assurance that the performance information that it is reporting is credible.

⁴The fiscal year 2000 performance report is the second of these annual reports under GPRA.

⁵For example, see *EPA and the States: Environmental Challenges Require a Better Working Relationship* (GAO/RCED-95-64, Apr. 3, 1995); *Superfund: Stronger EPA-State Relationship Can Improve Cleanups and Reduce Costs* (GAO/RCED-97-77, Apr. 24, 1997); and *Environmental Protection: Collaborative EPA-State Effort Needed to Improve New Performance Partnership System* (GAO/RCED-99-171, June 21, 1999).

⁶Key elements of modern human capital management include strategic human capital planning and organizational alignment; leadership continuity and succession planning; acquiring and developing staffs whose size, skills, and deployment meet agency needs; and creating results-oriented organizational cultures.

Safe and Healthy Air for Communities

EPA reported making progress toward achieving its long-term goal of safe and healthy air in communities. Specifically, the agency reported achieving its goals of improving air quality in areas that do not meet the National Ambient Air Quality Standards (NAAQS) established by EPA under the Clean Air Act. For example, the number of areas attaining air quality standards for carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead pollutants increased from 46 to 56, affecting 27.7 to 31.1 million people, respectively. EPA reported progress in reducing airborne toxic emissions that pose serious adverse health effects, including cancer, and expected to exceed its goal for fiscal year 2000. The agency also reported that it was on schedule to reach its goals for reductions of sulfur dioxide and nitrogen oxide emissions from utility sources under the Acid Rain Program.

The performance report acknowledges that there are some data limitations with the Aerometric Information Retrieval System for reporting NAAQS progress. For example, the report states that data demonstrating improvement in national ambient air quality standards may be limited by inaccuracies due to imprecise measurement and recording and inconsistent or nonstandard methods of data collection and processing. On the other hand, the report states that monitoring stations providing data must meet certain requirements for accurate data gathering and reporting, and reviews are conducted to ensure requirements are met. (In commenting on a draft of this report, an official of EPA's Office of Air and Radiation stressed that the agency has quality assurance and control procedures so that legal determinations can be made about areas' attainment status.) Further, EPA's reported progress for its annual performance goal related to toxic air pollutant emissions relies on calculations and estimates. The performance report notes that the data to confirm reductions in toxic emissions will not be available until 2004 because of time lags associated with reporting and analysis. Similarly, for reductions in sulfur dioxide and nitrogen oxide from utility sources, the data to confirm the reported progress will not be available until the end of calendar year 2001. Speeding the collection and verification of emissions data would enhance the agency's ability to report its actual performance and to support its claims of progress toward these goals by the required date for annual reports. However, according to EPA, the time taken to perform data quality assurance for both the toxic air pollutants and Acid Rain Program will result in continued data-reporting lags.

EPA's strategy for achieving its goal of improving air quality is to work with states, tribes, and local governments to achieve compliance with NAAQS for six principal pollutants—carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. Specifically, EPA

required selected states to develop implementation plans to reduce nitrogen oxide emissions and is working with states to collect information on particulate matter. For toxic air pollutants, EPA has developed a monitoring strategy with the assistance of states and local regulators and is beginning to implement this strategy. The agency is also conducting a national assessment focusing on 33 air toxics that present the greatest threat to human health in urban areas, and is planning to establish a monitoring network for toxic pollutants similar to the network for the NAAQS pollutants. EPA's strategy for achieving its goal of improving air quality appears clear and reasonable.

One of the agency's strategies for clean air is the continued implementation of the Acid Rain Program, which is focused on reducing sulfur dioxide and nitrogen oxide emissions at the highest-emitting power plants in the nation. In a March 2000 report, we observed that trends in nitrate levels in lakes affected by acid rain highlighted the significance of nitrogen oxide emissions and that because the Acid Rain Program (as authorized by the Clean Air Act) requires relatively little reduction in nitrogen oxide emissions, the prospects are uncertain for the recovery of already acidified lakes and for preventing further acidification.⁷ As noted above, EPA has taken other action, outside of the Acid Rain Program, to reduce nitrogen oxide emissions.

Safe Water for Drinking and Recreation

EPA reported that it is making strides in achieving its goal of safe and clean drinking water. The agency reported that it achieved its goal of having 91 percent of the population, served by community drinking water systems, receiving drinking water that meets all health-based standards that were in effect as of 1994. The agency further reported that it achieved its goal of reducing exposure to contaminated recreational waters by increasing information available to the public and decisionmakers. For example, the agency made electronic information available on the condition of 1,981 beaches, which enabled the public to locate beach closings and reduce its exposure to contaminated recreational waters.

Concluding that both of these goals have been achieved, however, relies on information from sources with data limitations acknowledged by EPA. For example, the Safe Drinking Water Information System is the main data source for states' implementation of and compliance with drinking water

⁷See *Acid Rain: Emissions Trends and Effects in the Eastern United States* (GAO/RCED-00-47, Mar. 9, 2000).

regulations. EPA notes that there are recurrent reports of discrepancies between national and state databases and misidentifications, resulting in EPA designating the system data as an agency weakness in 1999 under the Federal Managers' Financial Integrity Act. To help correct these discrepancies, EPA developed and implemented state-specific training for data entry and developed transaction processing and tracking reports. Similarly, beach condition information is voluntarily reported into a database for public access. EPA notes that there are no rigorous quality checks on data quality and, because reporting is voluntary, data are incomplete. However, EPA officials stated that data are checked for completeness and questions about missing data are resolved with state or local officials.

EPA's strategy for ensuring that water is safe for drinking involves several approaches, and relies heavily on actions by the states. (Under the Safe Drinking Water Act Amendments of 1996, the states are responsible for implementing programs to help ensure that drinking water systems have the financial, technical, and managerial ability to comply with regulations and for overseeing water systems' compliance with regulations on specific contaminants.) While these are reasonable strategies to accomplish EPA's goals, we have identified opportunities for the agency to implement them more effectively. For example:

- First, the agency uses a regulatory approach by issuing standards that address acceptable levels of contaminants in drinking water. For example, within the past year the agency established a new standard for arsenic in drinking water. (The agency recently delayed the effective date of the arsenic standard until February 2002.) EPA conducts research to support these standards. We have recommended, and EPA subsequently concurred, that the agency improve its planning for this research to ensure that it will be adequately funded and research results will be available when needed.⁸
- Second, the agency provides funding to states for drinking water revolving funds. While the state revolving funds are primarily directed at financing local infrastructure, the states, at their option, may reserve up to 31 percent of their annual allotments for related program activities, such as training water system operators. In an August 2000

⁸ See *Drinking Water Research: Better Planning Needed to Link Needs and Resources* (GAO/RCED-99-273, Sept. 24, 1999).

report, we observed that, even with the funding available from EPA, state-level spending constraints could impair the states' ability to meet future program requirements, and concluded that it will become imperative to address the factors that have thus far affected the states' ability to implement their programs.⁹

- Finally, the agency addresses state drinking water sources through the Source Water Assessment and Prevention Program. Under this program states conduct assessments of public water supplies in helping to determine the susceptibility of contamination. While we have not specifically evaluated the source water assessment program, we have identified difficulties EPA and the states have faced in assessing the quality of surface waters.¹⁰

Cleaning Up Hazardous Waste (“Superfund”) Sites

EPA reported that it made progress in cleaning up hazardous waste sites and that most long-term commitments for the Superfund program were on track or ahead of schedule. The agency reported that it exceeded its fiscal year 2000 goal of completing construction cleanup at 85 Superfund sites by having 87 sites with construction cleanup complete, which the agency defines as the point at which a cleanup remedy is in place. While reaching this point may take many years, more time may be needed before all cleanup standards are achieved and some remaining long-term threats are addressed at the site. Therefore, we have reported that “construction complete” should not be construed as an indicator that all cleanup work is completed and the sites can be returned to economic use.¹¹ Accordingly, while EPA attained its goal, this should not be construed that the sites are cleaned up and no further actions are necessary.

The agency fell short of its annual performance goal for reaching interagency agreements with other federal agencies that are responsible for site contamination and clean up. Of the six agreements targeted for completion in fiscal year 2000, only two were completed but the agency reported that two more were completed since the beginning of fiscal year 2001. For nonfederal sites, the agency reported that it nearly attained its

⁹ See *Drinking Water: Spending Constraints Could Affect States' Ability to Implement Increasing Program Requirements* (GAO/RCED-00-199, Aug. 31, 2000).

¹⁰ See *Water Quality: Key EPA and State Decisions Limited by Inconsistent and Incomplete Data*, (GAO/RCED-00-54, Mar. 15, 2000).

¹¹ See *Superfund: Extent to Which Most Reforms Have Improved the Program Is Unknown*, (GAO/RCED-00-118, May 12, 2000).

goal for securing cleanup commitments from responsible parties for 70 percent of the new construction starts and for recovering costs from responsible parties when EPA spends \$200,000 or more for site cleanups.

EPA works in partnership with state and tribal governments to clean up Superfund sites and ensure that parties responsible for the site contamination pay a fair share of the cleanup costs. EPA may compel parties responsible for the contamination to perform the cleanup, or it may pay for the cleanup and attempt to recover the costs. EPA may also enter into settlements with responsible parties to clean up sites or recover costs. The agency must initiate cost recovery actions within time periods specified in the statute of limitations, and EPA's goal is to take action on all cases with cleanup costs of \$200,000 or more within those timeframes. We previously found that EPA had excluded certain indirect cost items in recovering amounts from responsible parties; however, in October 2000, EPA adopted a new indirect cost rate that should increase recoveries and make more funds available for the program.¹²

EPA's strategy for reaching interagency agreements for site cleanups with other federal agencies is less clear without more specific information in the performance report. The agency reported that it will continue to compel federal parties to complete the agreements but did not elaborate on a strategy for achieving this goal in the performance report. Without more specific information on interagency activities it is unclear how EPA will accomplish this performance goal.

Unsafe Pesticide Residues in Food Supplies

EPA reported making progress in ensuring that food is free from unsafe pesticide residues, especially where children are concerned. The agency continues to register new pesticides for use that pose lower risk to human health and the environment than some older pesticides. For example, the agency reported that it met its goal of approving 6 new chemicals that are safe for use in pesticides; exceeded its goal for reduced risk chemicals by approving 16; and approved 427 new uses in fiscal year 2000. EPA also reported on its efforts to reassess the safety of existing allowable pesticide residue levels (tolerances) to ensure that they are safe as required in the 1996 Food Quality Protection Act. EPA reassessed 121 tolerances, well short of its goal of 1,250 for fiscal year 2000. As of September 2000, the agency reported that it had completed reassessments for 3,551 tolerances

¹²See *Major Management Challenges and Program Risks: Environmental Protection Agency*, (GAO-01-257, Jan. 2001).

and that it was on track to complete 6,415 tolerances by August 2002, and 9,721 by August 2006, as mandated by the act. As we noted in a September 2000 report, however, the only tolerances that EPA counted as “reassessed” for the high-risk organophosphate pesticides—which account for more than half of all food crop insecticides used in this country—were ones that were canceled voluntarily by the manufacturers, without the need for extensive EPA work.¹³

EPA’s reported strategies to accomplish the agency’s goal that food does not have unsafe pesticide residues appear clear and reasonable, and involve EPA evaluating test data on pesticide ingredients before it registers a product for sale and use. The test data include studies on the effects products will have on humans, animals, and plants. The agency is also developing and evaluating improved methods to estimate human exposure risk from pesticides. For example, the agency sought public comment on 14 guidelines or policy papers on evaluating pesticide topics and consulted with stakeholders through the Tolerance Reassessment Advisory Committee. To reassess tolerances as required under the Food Quality Protection Act, the agency has focused on tolerance assessments involving high-risk organophosphate pesticides. EPA views this activity as a major step in risk reduction and we believe this is a reasonable approach. Because this class of chemical has a common method of toxicity, EPA must also perform a cumulative risk assessment as required by the Food Quality and Protection Act. EPA reports that when a cumulative risk policy is issued by the end of fiscal year 2001, the number of completed reassessments will surge. The agency’s report mentions, but does not elaborate on, difficulties in developing a cumulative risk policy as planned and steps that are needed to attain completion of the policy by the end of fiscal year 2001. While the agency reports that it is making progress in attaining the future reassessment goals, the uncertainty surrounding the development of a cumulative risk policy raises questions as to whether the goals will be ultimately achieved.

¹³See *Children and Pesticides: New Approach to Considering Risk Is Partly in Place*, (GAO/HEHS-00-175, Sept. 11, 2000).

Comparison of EPA's Fiscal Year 2000 Performance Report and Fiscal Year 2002 Performance Plan With the Prior Year Report and Plan for Selected Key Outcomes

For the selected key outcomes, this section describes major improvements or remaining weaknesses in EPA's (1) fiscal year 2000 performance report in comparison with its fiscal year 1999 report, and (2) fiscal year 2002 performance plan in comparison with its fiscal year 2001 plan. It also discusses the degree to which the agency's fiscal year 2000 report and fiscal year 2002 plan addresses concerns and recommendations by the Congress, GAO, the EPA's OIG, and others.

Comparison of Performance Reports for Fiscal Years 1999 and 2000

EPA has made several improvements to its fiscal year 2000 report from the prior year. Some of these changes are in direct response to concerns that we raised in our June 2000 report on EPA's fiscal year 1999 performance report. These concerns included the need for the performance report to discuss the prior fiscal year's performance, actions taken by other organizations to attain goals, and actions taken to validate data on performance. In its fiscal year 2000 report, EPA made the following improvements:

- Included relevant information on actual performance under the fiscal year 1999 plan, in addition to performance relative to the goals for fiscal year 2000.
- Identified actions by other federal, state, and local agencies that affect attainment of its goals, as well as the type of automated systems and databases that were used to capture information and measure performance towards meeting the stated goals.
- Identified actions taken to identify or validate the quality of data being provided by the agency along with data limitations, and audits or reviews of the data.
- Presented tables of results by individual strategic goal, rather than a consolidated table for all goals.

The 2000 performance report could also be easily compared to the fiscal year 2002 performance plan because the report was organized by goal and objective.

EPA's performance report states that in setting future annual performance goals and targets, it will focus on developing outcome-based program

goals where possible. The agency has heretofore relied more on output-oriented performance measures, rather than end outcome measures directly related to environmental conditions. In analyzing EPA's performance plan for fiscal year 2000, for example, we found that 16 percent of the agency's performance goals and measures focused on end-outcomes.¹⁴

Comparison of Performance
Plans for Fiscal Years 2001 and
2002

EPA's fiscal year 2002 performance plan reflects numerous changes to the performance goals and the related objectives from the 2001 performance plan. EPA notes in the fiscal year 2002 plan that strategic goals and objectives are based on the strategic plan as revised in fiscal year 2000 and may differ from those associated with the previous strategic plan. While the agency has maintained the titles of goals for the key outcomes we reviewed, the definition of the safe food goal was changed in the fiscal year 2002 plan by emphasizing all subpopulations that are particularly susceptible to pesticides (the fiscal year 2001 plan emphasized only children even though the program addressed the vulnerability of all susceptible subpopulations).

The number and definition of selected objectives under the strategic goals also changed in the fiscal year 2002 plan. For example, the goal for clean air in the 2002 plan has three objectives, whereas the 2001 plan had four. This change resulted from combining objectives related to attainment of air quality standards. In addition, the definition of some objectives changed in the 2002 plan. For example, in the 2001 plan under the goal of waste management, the first objective stated that:

"By 2005, EPA and its partners will reduce or control the risk to human health and the environment at over 375,000 contaminated Superfund, Resource Conservation and Recovery Act (RCRA), Underground Storage Tank (UST), and brownfield sites."

In the 2002 plan the objective has been expanded, and its focus and expected accomplishments modified to state that:

"By 2005, EPA and its federal, state, tribal, and local partners will reduce or control the risk to human health and the environment at more than 374,000 contaminated Superfund, RCRA, and UST and brownfields sites and have the planning and preparedness capabilities

¹⁴See *Managing for Results: EPA Faces Challenges in Developing Results-Oriented Performance Goals and Measures* (GAO/RCED-00-77, Apr. 28, 2000).

to respond successfully to all known emergencies to reduce the risk to human health and the environment.”

EPA’s revised strategic plan does not indicate why changes were made to various goals and objectives.

In our report on EPA’s fiscal year 2001 performance plan, we concluded that the plan fell short on providing specifics on crosscutting goals and measures. For example, we reported that EPA did not describe how other federal agencies’ goals complement or supplement EPA’s goals. The agency’s fiscal year 2002 performance plan also falls short in this regard. For example, the section of the plan describing coordination with other agencies on safe drinking water is virtually the same as in the prior year’s plan and does not discuss other federal agency goals that complement or supplement EPA’s goals.

EPA’s Efforts to Address Its Major Management Challenges Identified by GAO

GAO has identified two governmentwide high-risk areas: strategic human capital management and information security. Regarding strategic human capital management, we found that the agency’s performance report did describe its progress in resolving human capital challenges and EPA’s performance plan did have a goal and measures related to human capital. For example, the report identifies human capital strategy implementation as a management challenge and states that it has a blueprint in place for initial and long-term steps needed to address the weakness. However, we found in a January 2001 report that the strategy did not contain information on specific steps to address human capital issues related to each of EPA’s 10 strategic goals.¹⁵ We also reported that while the agency has developed a strategy for assessing its human capital needs, it has not yet implemented the strategy. EPA’s performance plan sets forth human capital performance measures, but does not clearly convey the rationale for specific measures or relate them to program-related goals such as those for clean air or safe drinking water. For example, one performance measure is to have 40 participants in the SES Candidate Program, but it is unclear how this measure relates to the growing number of individuals eligible for retirement or to the needs of any particular program area. With respect to information security, we found that the agency’s performance report does describe its progress in resolving its information security

¹⁵See *Major Management Challenges and Program Risks: Environmental Protection Agency* (GAO-01-257, Jan. 2001).

challenges and EPA's performance plan does have goals and measures related to information security.

We have identified four major management challenges facing EPA. Two of these involved the governmentwide high-risk areas of human capital and information security. The third challenge involves EPA-state working relationships and the fourth challenge involves environmental and performance information management. EPA's performance report discusses the agency's progress in resolving all of these challenges. For example, the report discusses EPA's working relationships with the states and the need to establish a central authority for its National Environmental Performance Partnership System. Of the four major management challenges that we identified, EPA's performance plan has four goals and seven measures that are directly related to three of the challenges—human capital, information security, and environmental and performance information management. For example, in the area of information security, the agency has a goal for improving the quality of environmental information and under that goal is an objective to improve agency information infrastructure and security. The performance measure for this objective is directed at completion of risk assessments for information systems. There are no specific goals or measures related to the major management challenge of improving working relationships with the states.

Agency Comments

We provided copies of a draft of this report to EPA for its review and comment. The agency generally agreed with the findings in the report and suggested several technical clarifications, which we incorporated, as appropriate, into the report. These comments were provided by EPA officials from the Office of Air and Radiation, Office of Water, Office of Solid Waste and Emergency Response, Office of Pollution Prevention, Pesticides, and Toxic Substances, and Office of the Chief Financial Officer.

Scope and Methodology


Our evaluation was generally based on the requirements of GPRA, the Reports Consolidation Act of 2000, guidance to agencies from the Office of Management and Budget (OMB) for developing performance plans and reports (OMB Circular A-11, Part 2), previous reports and evaluations by us and others, our knowledge of EPA's operations and programs, our identification of best practices concerning performance planning and reporting, and our observations on EPA's other GPRA-related efforts. We also discussed our review with agency officials in various EPA headquarters offices. The agency outcomes that were used as the basis for our review were identified by the Ranking Minority Member of the Senate

Governmental Affairs Committee as important mission areas for the agency. The major management challenges confronting EPA, including the governmentwide high-risk areas of strategic human capital management and information security, were identified by GAO in our January 2001 performance and accountability series and high risk update, and were identified by EPA's Office of Inspector General in December 2000. We did not independently verify the information contained in the performance report and plan, although we did draw from other GAO work in assessing the validity, reliability, and timeliness of EPA's performance data. We conducted our review from April 2001 through June 2001 in accordance with generally accepted government auditing standards.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to appropriate congressional committees; the Administrator, Environmental Protection Agency, and the Director, Office of Management and Budget. Copies will also be made available to others on request.

If you or your staff have any questions, please call me at (202) 512-3841. Key contributors to this report were Willie Bailey, Bernice Dawson, Alice London, Ron Parker, Colleen Phillips, John Wanska, and Greg Wilshusen.

Sincerely yours,


David G. Wood
Director, Natural Resources and
Environment

Appendix I: Observations on the Environmental Protection Agency's Efforts to Address Its Major Management Challenges

The following table identifies the major management challenges confronting the Environmental Protection Agency (EPA), which includes the governmentwide high-risk areas of human capital and information security. The first column of the table lists the management challenges that we and/or EPA's Office of Inspector General (OIG) have identified. The second column discusses what progress, as discussed in its fiscal year 2000 performance report, EPA made in resolving its challenges. The third column discusses the extent to which EPA's fiscal year 2002 performance plan includes performance goals and measures to address the challenges that we and the EPA's OIG identified. We found that EPA's performance report discussed the agency's progress in resolving its challenges. Of the agency's nine major management challenges, its performance plan had (1) four that were directly related to goals and measures, (2) three that were indirectly applicable to goals and measures, and (3) two that had no related goals and measure but discussed strategies to address them.

**Appendix I: Observations on the
Environmental Protection Agency's Efforts to
Address Its Major Management Challenges**

Table 1: Major Management Challenges

Major management challenge	Progress in resolving major management challenge as discussed in the fiscal year 2000 performance report	Applicable goals and measures in the fiscal year 2002 performance plan
<p>GAO-designated governmentwide high-risk</p>		
<p><u>Strategic Human Capital Management</u>: GAO has identified shortcomings at multiple agencies involving key elements of modern strategic human capital management, including strategic human capital planning and organizational alignment; leadership continuity and succession planning; acquiring and developing staffs whose size, skills, and deployment meet agency needs; and creating results-oriented organizational cultures.</p> <p>(GAO also identified human capital as a management challenge for EPA, specifically that EPA needs to better link its human capital efforts with its strategic plan and needs to implement a workforce strategy.)</p> <p>(The OIG also recognized that EPA is challenged with developing a workforce planning strategy that focuses its attention and resources on employee development. Illustratively, training is lacking for EPA employees implementing the National Environmental Performance Partnership System.)</p>	<p>EPA acknowledged in its performance report the importance of managing its human capital more strategically and that it had declared human capital strategy implementation an internal agency weakness in fiscal year 2000. EPA discussed the issuance of its new human capital strategy and its development of a corrective action plan that identifies activities slated for completion by fiscal year 2003.</p> <p>EPA discussed various workforce planning efforts related to employee competencies, including piloting five competency training courses for mid-level managers; identifying future skills needs; and determining gaps between those needs and the current workforce. EPA stated that in fiscal year 2000 it had implemented or was designing several staff developmental programs, including starting the first SES candidate program in more than 10 years in spring 2001. No further details were included on these activities, nor was information provided on when specific actions would be completed.</p>	<p>Under its "Effective Management" goal, EPA has a specific performance goal on workforce improvement focused on the agency's Senior Executive Service (SES) Candidate Program and continuing to hire talented and diverse individuals. The performance plan specifies 2 output-oriented performance measures: (1) having 40 participants in the SES Candidate Program and (2) hiring 120 interns.</p> <p>EPA also acknowledges in the "Special Analysis" section of its plan that it will continue focusing on human capital as significant challenges remain in its efforts to maintain a workforce with the highly specialized skills and knowledge required to help the agency accomplish its environmental mission.</p>

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Major management challenge	Progress in resolving major management challenge as discussed in the fiscal year 2000 performance report	Applicable goals and measures in the fiscal year 2002 performance plan
<p><u>Information Security</u>: Our January 2001 high-risk update noted that the agencies' and governmentwide efforts to strengthen information security have gained momentum and expanded. Nevertheless, recent audits continue to show federal computer systems are riddled with weaknesses that make them highly vulnerable to computer-based attacks and place a broad range of critical operations and assets at risk of fraud, misuse, and disruption.</p> <p>(GAO also designated information security as a high-risk area specifically for EPA in GAO's January 2001 high-risk series update.)</p> <p>(The OIG also found that weaknesses in EPA's financial systems and various regional operations require a centralized security program with strong oversight processes.)</p>	<p>EPA reported that it had made substantial progress toward improving the security of its information assets. The agency noted that it had (1) taken steps to separate and protect its network from the Internet, (2) conducted reviews of information security plans, (3) updated policies and procedures governing the handling of confidential and privacy information, and (4) increased efforts to create a more security conscious workforce. EPA also reported that it established a special Technical Information Security Staff as a focal point for protecting the agency's information. The agency also reported that it had developed a security action plan that would take 2 years to implement.</p>	<p>As part of its strategic goal "Quality Environmental Information," EPA has a specific goal to improve agency information infrastructure and security. Three performance measures are to complete and document risk assessment findings for 12 critical infrastructure systems, 13 critical financial systems, and 5 mission-critical environmental systems. The agency plans to use the results of these assessments to guide future investment decisions focused on improving information technology security and services.</p> <p>Although these efforts represent a step in the right direction, GAO continues to believe that sustained improvements will require ongoing vigilance and top EPA management support and leadership attention. EPA acknowledges that the agency must institute fundamental changes in the way it manages security, or current and planned efforts may not have a lasting effect.</p>

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Major management challenge GAO- and OIG- designated major management challenge	Progress in resolving major management challenge as discussed in the fiscal year 2000 performance report	Applicable goals and measures in the fiscal year 2002 performance plan
<p><u>Environmental and Performance Information Management to Set Priorities and Measure Program Results:</u> GAO identified that significant gaps exist in environmental data; incompatible data systems limit the usefulness of environmental data; data limitations hinder the development of performance measures; and the agency's information security program needs strengthening.</p> <p>(The OIG concluded that EPA is not adequately planning its information technology infrastructure and raises concerns about the agency's ability to track technology development and implementation effectively.)</p> <p>(The OIG identified that several aspects of EPA's environmental data need to be addressed, including data architecture, data standards, and implementation of revised policies and procedures.)</p>	<p>EPA's performance report discusses progress made towards working internally and in partnership with the states to improve data management, comprehensiveness, consistency, reliability, and accuracy for achieving better performance measurement and environmental results. EPA reported undertaking actions to address this broad challenge. For example, EPA reported it established a senior management-level Quality and Information Council to promote development and implementation of key data standards. As part of its data integration effort, the report notes that EPA developed a 5-year Integration Management Plan with specific actions and milestones and a one-stop electronic reporting initiative involving a fledging EPA-state data exchange network. EPA also said that it worked with its state partners to establish an Environmental Data Standards Council to help identify and develop further data standards for collecting, storing, and retrieving environmental data.</p> <p>Although EPA does describe progress towards meeting this challenge, the report does not provide detailed information on the completion milestones for many of its initiatives. Although EPA has concurred with a recommendation GAO made in 1999 that it develop a comprehensive information management strategy to ensure the completeness, compatibility, and accuracy of data, EPA has made slow progress in developing and implementing such a strategy and the performance report did not discuss the status of agency efforts to comprehensively address its long-standing and continuing information management challenges. EPA's efforts to improve information security are discussed under the governmentwide high-risk area.</p>	<p>There are 2 performance goals and 2 performance measures relating to selected aspects of this broad management challenge. First, there is a goal and associated measure concerning the new National Environmental Information Exchange Network. The goal is for the Central Data Exchange, a key component of the Exchange Network and EPA's node on the Exchange Network, is to become fully operational for 15 states to send data to EPA and thus improve data consistency with participating states; the performance measure is that 15 states will use the exchange to send data to EPA. Second, the data quality goal specified in the plan is that in fiscal year 2002, publicly available facility data in EPA's national data systems that are accessible on its web site will be incorporated into the agency's Integrated Error Correction Progress in order to detect errors. The performance measure is that 100 percent of such data will be part of this integrated error correction process.</p>

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<p><u>Working Relationships With States:</u> GAO identified the need for EPA to strengthen its working relationships with the states.</p> <p>(The OIG found that EPA's program implementation of the National Environmental Performance Partnership System (NEPPS) and performance partnership grants are not well integrated into EPA. The agency could increase the success of these efforts by establishing goals, providing training, overseeing accomplishments, and ensuring accountability.)</p>	<p>EPA's relationship with its state partners has been characterized by fundamental disagreements over roles, priorities, and the extent of federal oversight. Under NEPPS, the states and EPA agree on environmental priorities in performance partnership agreements. EPA acknowledges that efforts to improve NEPPS must continue, but believes the partnership system has been strengthened through progress in several areas, including coordinating and integrating systems and programs and by mutually agreed upon "core" performance measures to gauge environmental progress.</p> <p>The performance report noted that EPA and states are making progress working collaboratively in managing national environmental programs. Under the agency's "Clean and Safe Drinking Water" strategic goal, for example, EPA reports meeting a NEPPS core performance measure that in fiscal year 2000, 91 percent of the population served by community drinking water systems would receive drinking water that met all health-based standards in effect as of 1994.</p>	<p>EPA's performance plan did not include specific goals and measures directly related to this management challenge. The need for strong positive relationships with its state partners is critical for EPA to meet its environmental mission and thus the challenge crosscuts all of the agency's 10 strategic goals. And, in fact, strategies for improving EPA's working relationships with its state partners are discussed throughout the plan. For example, under its "Clean and Safe Water" goal, EPA said that clean water goals associated with reduction of pollution discharges from point sources through the National Pollutant Discharge Elimination System (NPDES) permitting program rely heavily on EPA's partnership with the states. The agency intends to continue partnering with the states to improve the efficiency and effectiveness of the NPDES program by, among other things, developing strategies that target permitting activities toward those facilities posing the greatest risk to the environment.</p>
<p>OIG-designated major management challenges</p>	<p><u>Accountability:</u> The Inspector General found that EPA needs to take further action to develop accountability systems that tie performance to the agency's organizational goals.</p>	<p>There are no specific goals and measures for this management challenge, as they are inherent in the various management improvements proposed by EPA and are thus covered throughout its performance plan. Nonetheless, the means and strategy section of the agency's "Effective Management" strategic goal cites some strategies that are key to performing the agency's mission and promoting responsible and accountable management. Among other things, the agency intends to increase accountability for results-based management processes by committing to a 2 percent increase in outcome-oriented annual performance goals and performance measures over fiscal year 2001 levels.</p>

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<p><u>Managerial Accounting</u>: The OIG has identified this as a new management challenge. Current and past audits revealed that improvements are needed in EPA's cost accounting system and processes, including those designed to increase the timeliness, accuracy, reliability, and usefulness of the financial information used in carrying out the agency's environmental activities. Also, improvements are still needed in EPA's process for preparing agency financial statements.</p>	<p>EPA reported that it had substantially complied with the Managerial Cost Accounting Standards, but recognized that improvements and enhancements would necessarily continue to evolve. EPA cited several cost accounting corrective actions, stating for example that it had linked resources in the Annual Plan and Budget with its GPRA goals; provided policy guidance and training on budget restructuring and cost accounting; and issued a Superfund indirect cost rate complying with Managerial Cost Accounting Standards. Few details were provided on the ongoing and planned corrective action strategies, including targeted completion dates.</p> <p>In addition, EPA describes actions that it said would help the agency deliver timely financial statements and obtain clean audit opinions by March 1, 2001, and each year thereafter. Actions taken already included issuing policies and procedures on the financial statement preparation process and providing training for staff preparing financial statements.</p>	<p>Under the "Effective Management" strategic goal, the GPRA implementation performance goal includes a component that is related to this challenge. It states that EPA's goal will be to strengthen goal-based decision making by developing and issuing timely planning and resource management products that meet customer needs. There are 2 related performance measures pertaining to EPA's preparation of its audited financial statements: (1) EPA's audited financial statements and annual report will be submitted on time by 3/01/02 and (2) EPA's audited financial statements will receive an unqualified opinion and provide information that is useful and relevant to the agency and external parties.</p>
<p><u>EPA's Use of Assistance Agreements to Accomplish Its Mission</u>: Assistance agreements (grants) are the primary administrative vehicles through which EPA helps protect human health and the environment. Historically, these agreements constituted a significant proportion of EPA's budget. Over the years, many of the Inspector General's audits disclosed problems in EPA's management of assistance agreements. Problems have persisted, including inadequate contract management controls to ensure proper management of federal funds.</p>	<p>The report showed progress as EPA closed all but 26 of the estimated backlog of 19,000 that had been reported to Congress in July 1996. Other planned actions included closing 24 of the remaining 26 grants after resolving an outstanding indirect cost rate issue, and closing 2 remaining grants after the completion of the audit resolution process.</p> <p>To more efficiently manage assistance agreements, corrective actions included developing and implementing policies to ensure effective post-award management and establishing interim closeout goals for each year. EPA said that it planned additional corrective action strategies in fiscal year 2001 to assess its management of grants, including conducting evaluations of Management Effectiveness Reviews. Although the report said that all corrective actions would be completed by fiscal year 2002, no specific targets were cited.</p>	<p>There were no specific goals and measures related to this management challenge. However, this challenge relates to the "Effective Management" strategic goal with its overall focus on effective internal management and fiscal responsibility to ensure a high level of integrity and accountability in the management of grants and contracts, including continuing efforts to strengthen pre-award and post-award management of assistance agreements. In the "Special Analysis" section of the performance plan, EPA acknowledged the importance of gaining improvements in this area and had designated grants closeout and oversight of assistance agreements an internal agency weakness in fiscal year 1999.</p>

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<p><u>Backlog of National Pollutant Discharge Elimination System Permits</u>: The permit backlog remains a nationwide environmental threat because, among other things, many entities that discharge pollutants have permits tied to older, less stringent discharge requirements, resulting in the discharge of higher levels of pollutants into surface waters that could adversely affect human health and the aquatic environment.</p>	<p>The performance report stated each EPA region was directed to prepare an updated permit backlog reduction plan for every state and territory that reaffirms commitments to meet backlog reduction targets. EPA also says that it was on track to meet its goal of substantially reducing the backlog of major and minor permits by fiscal year 2005. During fiscal year 2000, EPA reports that the backlog of EPA issued permits was reduced from 46 percent to 30 percent.</p>	<p>EPA states that the permits program remains a key element in its effort to achieve clean and safe water by reducing pollutant discharges from point and nonpoint sources. Under EPA's "Clean and Safe Water" goal, the agency has established a performance goal and 5 broad performance measures which directly relate to the NPDES permit program. The agency says that along with its progress toward eliminating its backlog problem, several states had already reduced their permits backlog to below the 10 percent nationwide target and that EPA anticipated another 18 states would meet that target by December 31, 2001. EPA states that it has developed and is implementing a plan to address the backlog which includes providing technical support and training for states and EPA regions.</p> <p>Specific programmatic results owing to NPDES improvements were also discussed under the "Clean and Safe Water" strategic goal. It included a fiscal year 2000 performance goal that industrial discharges of pollutants to the nation's waters would be significantly reduced through the implementation of effluent guidelines under the permit program, and performance measures for each polluting source covered by the permits. The goal was exceeded, with EPA reporting that the actual number of permits issued in different industrial sectors resulted in greater than expected reductions in conventional pollutants—473 million pounds versus the stated goal of 385 million pounds.</p>

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<p><u>Quality of Laboratory Data</u>: High quality scientific analysis is critical to accomplishing EPA's mission of protecting human health and the environment. The Inspector General reported management control weaknesses and some instances of fraud and misconduct in laboratory practices. Data quality and integrity problems associated with laboratory data could impact environmental and enforcement decisions.</p>	<p>In acknowledging the importance of having high-quality data to help it carry out its mission, the agency points out that along with the Inspector General's designation of laboratory data as a major management challenge in fiscal years 1999 and 2000, the agency itself declared this area to be an internal agency weakness in fiscal year 2000. The performance report cites several corrective actions, including EPA's completion of independent technical reviews of its regional laboratories to assess their ability to produce data of known and documented quality. Reviews of all remaining laboratories are targeted by the end of fiscal year 2001.</p> <p>Additional corrective actions are either ongoing or planned and EPA expects to complete these activities by December 2003. Ongoing actions include establishing a workgroup to, among other things, identify weaknesses in laboratory data quality systems and establish methods to detect and deter misconduct in labs. EPA said the effort would include monitoring and oversight of the agency-approved quality systems by third parties. No completion targets were included for specific ongoing and planned corrective action strategies.</p>	<p>There were no specific goals and measures cited for this challenge. However, EPA's "Quality Environmental Information" includes components that are applicable to this challenge, especially since the agency needs to ensure that it has access to high-quality scientific data to inform the agency's environmental and regulatory decision making. Under this goal, EPA discusses various initiatives, which are intended to ensure that environmental data collection are of appropriate quality for their intended use, including developing agencywide policies and procedures for planning, documenting, implementing, and assessing data collection and use in agency decisions.</p>

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