



Testimony

Before the Subcommittee on Oversight
and Investigations, Committee on
Energy and Commerce, House of
Representatives

For Release on Delivery
Expected at 10:15 a.m. ET
Wednesday, September 6,
2017

ENVIRONMENTAL PROTECTION

Status of GAO Recommendations Made to EPA since Fiscal Year 2007

Statement of J. Alfredo Gómez, Director, Natural
Resources and Environment

Accessible Version

GAO Highlights

Highlights of [GAO-17-801T](#), a testimony before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

EPA's mission is to protect human health and the environment. To accomplish this mission, EPA develops and enforces environmental regulations; awards grants; and studies environmental issues, among other things. GAO has conducted reviews focused on various aspects of EPA's operations and programs. Through this work, GAO has made numerous recommendations to improve EPA's performance and the efficiency and effectiveness of its operations.

GAO follows up with executive branch agencies to determine the extent to which they have implemented its recommendations. In fiscal year 2015, GAO began sending letters annually to the heads of key executive branch agencies, including EPA, identifying unimplemented recommendations that warrant priority attention.

This statement discusses (1) the status of EPA's implementation of GAO recommendations made since fiscal year 2007 and how these recommendations relate to EPA's operations and programs and (2) examples of benefits realized by EPA and others based on GAO's work, including through the agency's implementation of these recommendations. This statement is based on GAO's work since fiscal year 2007 and on an analysis of recommendations GAO has made to EPA during this period.

View [GAO-17-801T](#). For more information, contact Alfredo Gómez at (202) 512-3841 or gomezj@gao.gov.

September 6, 2017

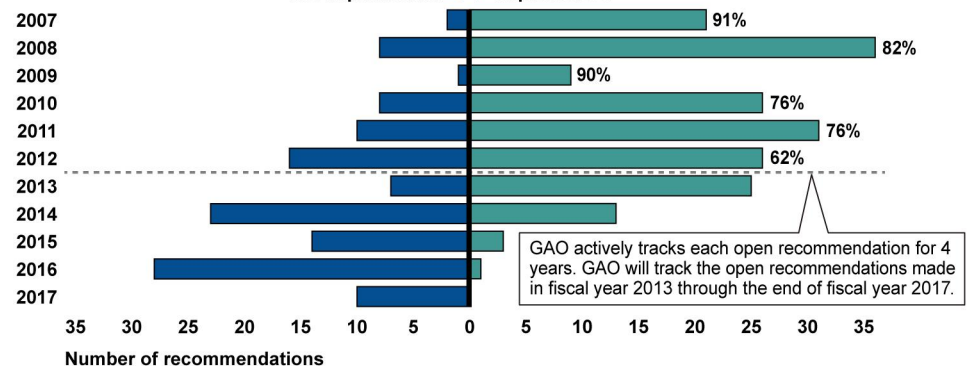
ENVIRONMENTAL PROTECTION

Status of GAO Recommendations Made to EPA since Fiscal Year 2007

What GAO Found

As of August 23, 2017, the U.S. Environmental Protection Agency (EPA) had implemented 191 of the 318 recommendations GAO made since fiscal year 2007. EPA had not yet implemented the remaining 127 recommendations. The figure below shows the status of the 318 recommendations. The recommendations fall into six broad categories that relate to EPA programs and operations: (1) management and operations; (2) water issues; (3) environmental contamination and cleanup; (4) toxics, chemical safety, and pesticides; (5) public health and environmental justice; and (6) air quality, climate change, and energy efficiency. Almost three-fourths of the recommendations fall into the first three categories and include actions for EPA to better manage grants, improve the regulation of drinking water contaminants, and better manage hazardous waste cleanup. Most of the recommendations that have not yet been implemented concern EPA management and operations and water issues. For example, regarding management and operations, EPA has not yet implemented GAO's recommendation to link its workforce plan with its strategic plan to help ensure EPA has an appropriately skilled workforce to achieve its mission. Similarly, for water issues, EPA has not fully implemented GAO's recommendation to provide guidance to regional offices on overseeing state water quality programs.

Status of GAO Recommendations Made to EPA since Fiscal Year 2007, as of August 23, 2017
Not implemented ◀ ▶ Implemented



Source: GAO. | GAO-17-801T

Data Table for Status of GAO Recommendations Made to EPA since Fiscal Year 2007, as of August 23, 2017

Fiscal Year	Implemented	Not Implemented
2007	21	2
2008	36	8
2009	9	1
2010	26	8
2011	31	10
2012	26	16
2013	25	7
2014	13	23

Fiscal Year	Implemented	Not Implemented
2015	3	14
2016	1	28
2017	0	10

GAO has identified many benefits—that is, process and programmatic improvements and financial benefits—based on EPA taking actions on GAO's recommendations and related work. For example, in October 2012, GAO recommended that EPA and the U.S. Department of Agriculture (USDA) develop guidelines to assist states in developing uniform environmental analyses to meet state and federal requirements for water and wastewater infrastructure projects. EPA and USDA issued a joint memorandum in February 2017 that, among other things, highlighted best practices to eliminate duplicative environmental reviews. In addition, GAO has identified financial benefits from the implementation of its recommendations and related work. For example, during the course of work related to a July 2008 report, GAO identified an error in EPA's calculation of recoverable indirect costs for hazardous waste cleanup. EPA acknowledged the error and published revised indirect costs rates. As a result, GAO estimated in 2010 that EPA had recovered or would recover \$42.2 million.

Chairman Murphy, Ranking Member DeGette, and Members of the Subcommittee:

Thank you for the opportunity to testify on the status of recommendations GAO has made to the U.S. Environmental Protection Agency (EPA). As you know, the mission of EPA is to protect human health and the environment, with the purpose of protecting all Americans from significant risks to human health and the environment where they live, learn, and work, among other things. To accomplish this mission, EPA develops and enforces environmental regulations; awards grants to state environmental programs, non-profits, educational institutions, and others; studies environmental issues; and sponsors partnerships, among other things. We have conducted reviews focused on various aspects of EPA's operations and programs. For example, we have conducted reviews focused on aspects of EPA's operations, such as managing grants, workforce planning, and processes for developing and enforcing regulations. We have also conducted reviews on EPA's programs to manage toxic chemicals, improve water infrastructure, and clean up hazardous waste sites. Through these reviews, we have made numerous recommendations to improve EPA's performance and the efficiency and effectiveness of its operations and programs. Today I will discuss (1) the status of EPA's implementation of recommendations we have made since fiscal year 2007 and how these recommendations relate to EPA's operations and programs and (2) examples of benefits realized by EPA and others based on our work, including through the agency's implementation of our recommendations.

This statement is based on our reports issued since fiscal year 2007, including reports issued from October 1, 2006, through May 31, 2017.¹ To determine the number and status of recommendations we made to EPA during this period, we reviewed data from our internal database that maintains information on the status of recommendations we have made to all agencies. To determine how these recommendations relate to EPA operations and programs, we developed categories based on areas of EPA's work and its organizational structure. Two analysts then independently categorized each of the recommendations and resolved any differences. To identify benefits realized by EPA in implementing our recommendations, we also relied on our internal database for information

¹Appendix 1 lists the reports upon which this statement is based as well as the status of the recommendations to EPA made in those reports.

on financial and non-financial benefits. In addition, we asked EPA to review the information provided in this statement for completeness and accuracy. Detailed information about the scope and methodology used to conduct our prior work can be found in each of our issued reports.

We conducted the work on which this statement is based in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Many of our reports and testimonies include recommendations that, if acted upon, may result in tangible benefits for the U.S. taxpayer by improving the federal government's efficiency, effectiveness, and accountability. Implemented recommendations can result in financial or nonfinancial benefits for the federal government.² An estimated financial benefit is based on agency actions taken in response to our recommendations; such benefits can result in reduced government expenditures, increased revenues, or a reallocation of funds to other areas. For example, in fiscal year 2016, our work across the federal government resulted in \$63.4 billion in financial benefits.³ Other benefits that result from our work cannot be measured in dollar terms, and we refer to them as nonfinancial or other benefits. During fiscal year 2016, we recorded a total of 1,234 other benefits from our work that cannot be measured in dollars, but that led to program and operational improvements to the federal government.⁴ These benefits are linked to specific recommendations or other work that we completed over several years and could include improvements to agency programs, processes, and policies. In some cases, benefits are realized based on the actions of

²For the purpose of this testimony, we consider financial benefits to be net benefits—that is, estimates of financial benefits that have been reduced by the costs associated with taking the action that we recommended.

³GAO, *Performance and Accountability Report Fiscal Year 2016*, [GAO-17-1SP](#) (Washington, D.C.: Nov. 15, 2016).

⁴[GAO-17-1SP](#).

Congress. For example, since 1994, we have found that EPA faces challenges in its ability to assess and control toxic chemicals under the Toxic Substances Control Act of 1976—largely due to issues of statutory choice, regulatory control, data, confidentiality, workload, and resources. In response to our work and the work of others, Congress passed the Lautenberg Act in 2016, giving EPA greater authority to implement several of our outstanding recommendations related to these six areas and positioning the agency to better protect public health and the environment from the risks posed by toxic chemicals.

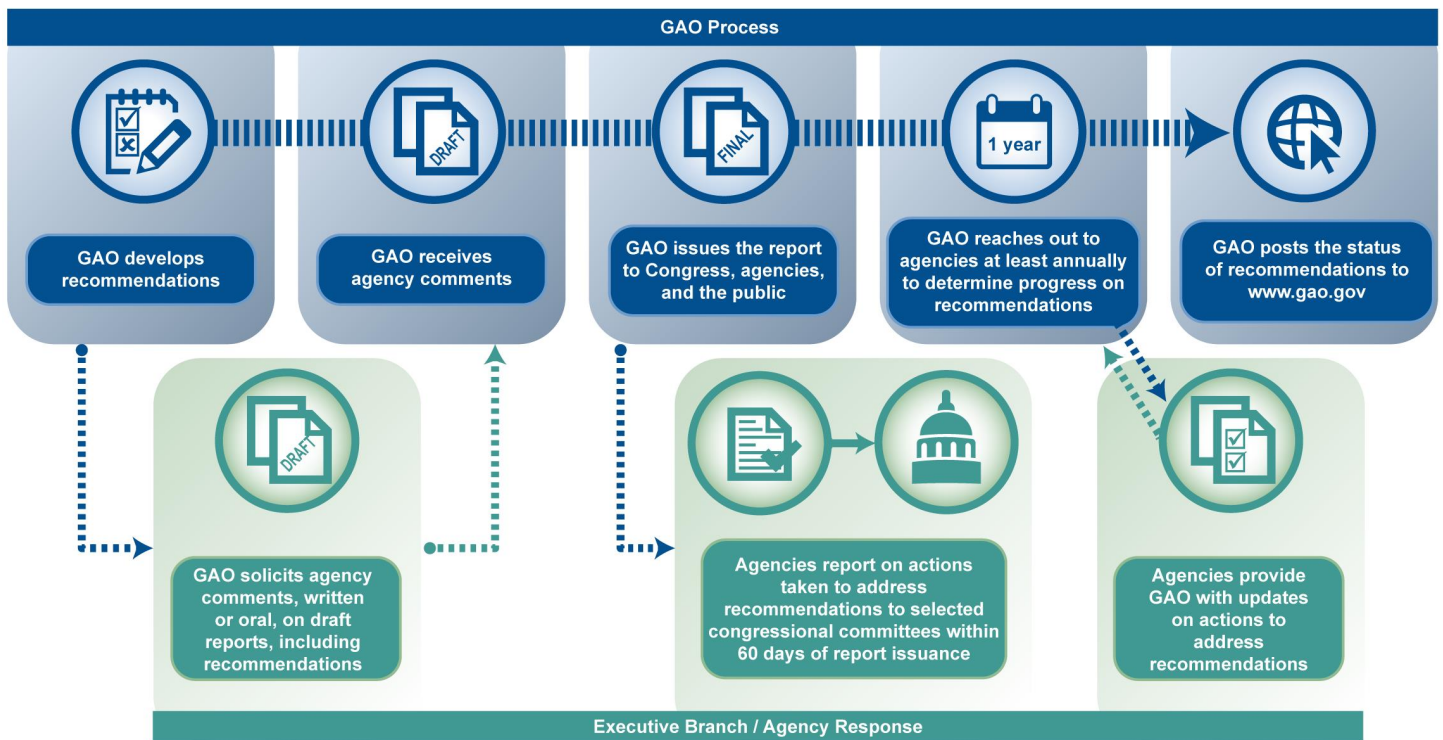
As part of our responsibilities under generally accepted government auditing standards, we periodically follow up on recommendations we have made to agencies and report their status to Congress. Agencies also have a responsibility to monitor and maintain accurate records on their progress made toward addressing our recommendations.⁵ After issuing a report, we follow up with audited agencies at least once a year to determine the extent to which they have implemented our recommendations and the benefits that they have realized.⁶ During these follow-up contacts, we identify for agencies what additional actions, if any, they would need to take to address our recommendations. A recommendation is considered implemented when agencies have taken actions that, consistent with our recommendation, address the issue or deficiency we identified and upon which the recommendation is based. Experience has shown that it takes time for agencies to implement some

⁵These responsibilities are detailed in both the Office of Management and Budget (OMB) Circulars A-50 and A-123. For example, OMB Circular A-50 provides the policies and procedures for use by executive agencies when considering reports issued by GAO and inspectors general, other executive branch audit organizations, and nonfederal auditors where follow-up is necessary. OMB Circular A-123 addresses internal management control systems and requires that agencies track GAO recommendations and provide a response to Congress on actions taken on the recommendations. Specifically, among the requirements of Circular A-123 are that the agency (1) appoint a top-level audit follow-up official, (2) maintain accurate records on the status of recommendations, and (3) assign a high priority to following up on audit recommendations. In addition, when we issue a report containing recommendations to an agency, the agency head is required to submit a written statement of the actions taken in response to the recommendations to the Committee on Homeland Security and Governmental Affairs of the Senate and Committee on Oversight and Government Reform of the House of Representatives not later than 60 days after the date of the report. 31 U.S.C. § 720(b) (providing further that the statement shall be submitted to the Committees of Appropriations of both Houses of Congress in the first request for appropriations submitted more than 60 days after the date of the report).

⁶We work with agencies to establish processes for recommendation follow-up. In fiscal year 2016, we worked with EPA to increase the frequency of follow-up from annually to semiannually.

recommendations. For this reason, we actively track unaddressed (i.e., open) recommendations for 4 years and review them to determine whether implementation can be reasonably expected. The review includes consideration of alternative strategies an agency may have for implementing recommendations. Our experience has shown that recommendations remaining open after 4 years are generally not implemented in subsequent years. We will close a recommendation as not implemented if an agency has indicated that it was not planning to take action or if we have determined that it is unlikely that the agency will take action to address the recommendation. Figure 1 shows our process for monitoring and reporting on recommendations.

Figure 1: GAO's Process for Monitoring and Reporting on Recommendations



Source: GAO. | GAO-17-801T

We maintain a publicly available database with information on the current status of most open recommendations.⁷ The database allows searches by

⁷Because of the sensitive or classified nature of certain recommendations, we are unable to include them in our publicly accessible database.

agency, congressional committee, or key words and is available at <http://www.gao.gov/openrecs.html>.

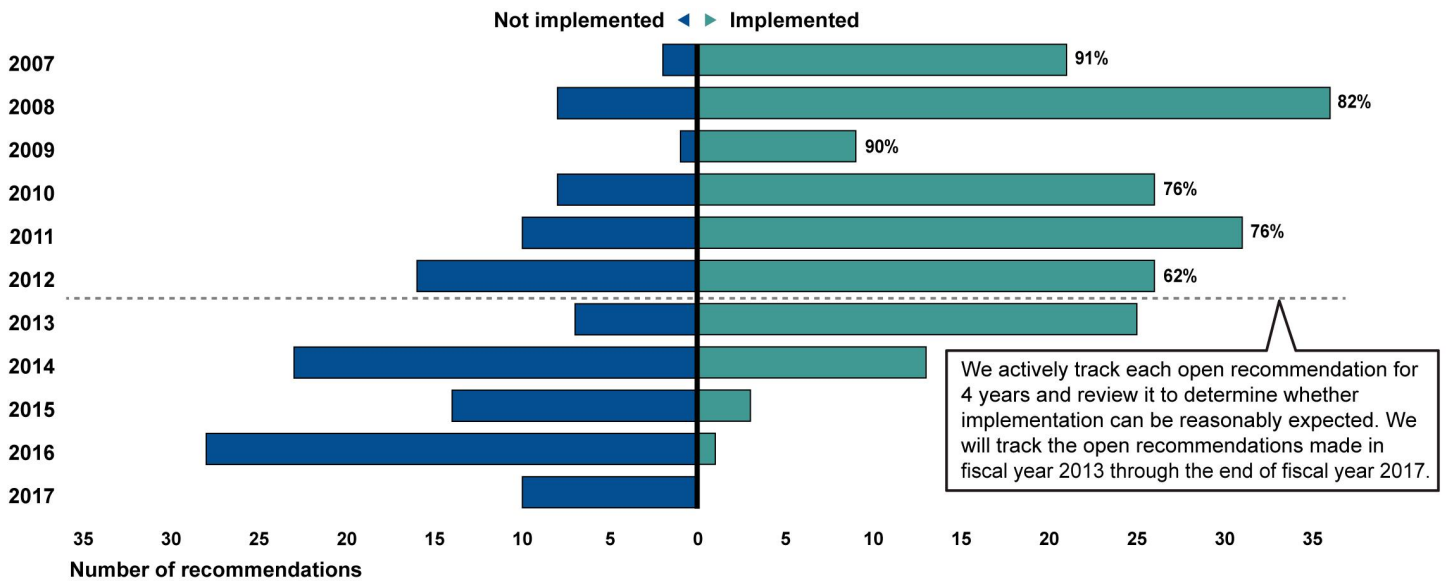
In addition to our process for monitoring and reporting on recommendations, we use other mechanisms to encourage agencies to implement our recommendations in a timely manner. For example, we initiated an effort in fiscal year 2015 to call attention to unimplemented recommendations that we believe warrant priority attention by the Secretary or agency heads at key departments and agencies. We sent letters to the heads of key executive branch agencies, including EPA, in fiscal years 2015, 2016, and 2017 identifying these high-priority recommendations and urging the agency head to continue to provide attention to these issues.

EPA Has Implemented 191 of 318 GAO Recommendations, Which Relate to a Variety of EPA Operations and Programs

As of August 23, 2017, EPA had implemented 191 of the 318 recommendations we made since fiscal year 2007, and the recommendations fall into six broad categories that relate to EPA operations and programs. EPA had not yet fully implemented the remaining 127 recommendations.⁸ Figure 2 shows the status of the 318 recommendations. For recommendations that we made over 4 years ago (i.e., fiscal years 2007 to 2012), EPA had implemented 77 percent. For recommendations made since fiscal year 2013, EPA had implemented 34 percent.

⁸GAO continually works with EPA to verify implementation of recommendations and close them out in our database, so the number of implemented recommendations can change on a daily basis. Also, some of these recommendations were addressed to other agencies in addition to EPA. Finally, the numbers of recommendations reported here do not include any recommendations to EPA that were sensitive or classified in nature.

Figure 2: Status of GAO Recommendations Made to EPA since Fiscal Year 2007, as of August 23, 2017



Source: GAO. | GAO-17-801T

Data Table for Figure 2, Status of GAO Recommendations Made to EPA since Fiscal Year 2007, as of August 23, 2017

Fiscal Year	Implemented	Not Implemented
2007	21	2
2008	36	8
2009	9	1
2010	26	8
2011	31	10
2012	26	16
2013	25	7
2014	13	23
2015	3	14
2016	1	28
2017	0	10

The 318 recommendations we made to EPA since fiscal year 2007 fall into six broad categories that relate to EPA operations and programs and generally align with many of the goals and strategies identified in EPA's

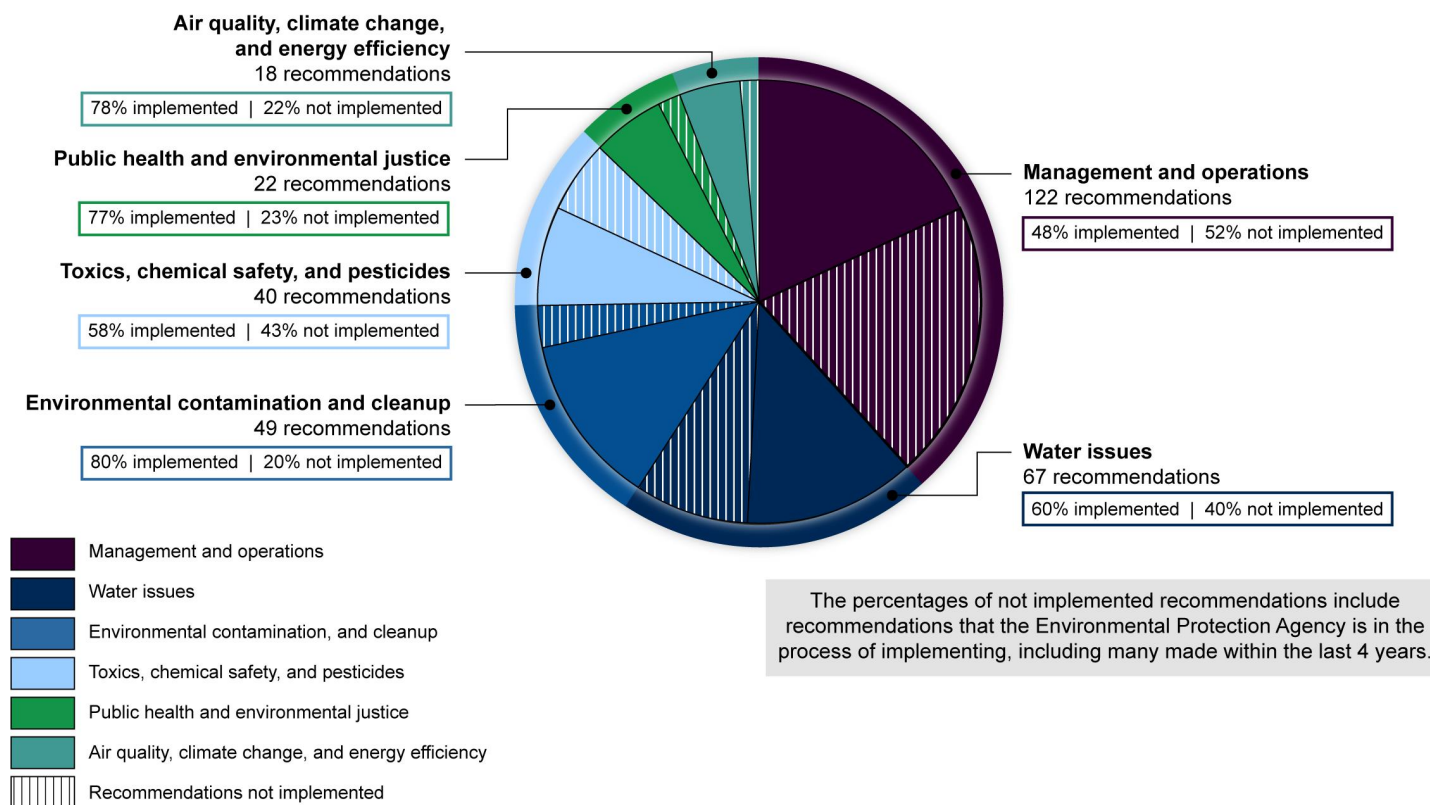
Fiscal Year 2014-2018 Strategic Plan.⁹ These six broad categories are: (1) management and operations; (2) water issues, which includes water infrastructure, drinking water, water quality, and ecosystem restoration; (3) environmental contamination and cleanup, which includes environmental cleanup, pollution prevention, hazardous and other waste programs, and emergency management; (4) toxics, chemical safety, and pesticides; (5) public health and environmental justice; and (6) air quality, climate change, and energy efficiency. The percentage of recommendations implemented within each category ranged from 80 percent for the environmental contamination and cleanup category to 48 percent in the management and operations category.¹⁰ Figure 3 shows the number of recommendations we identified in each of these categories and the percentage of recommendations within each category that had been implemented and not implemented.

⁹EPA, *Fiscal Year 2014-2018 EPA Strategic Plan* (Washington, D.C.: Apr. 10, 2014).

¹⁰The percentages of implemented and not implemented recommendations include recommendations that EPA is in the process of implementing, including many made within the last 4 years.

Figure 3: Categories of GAO Recommendations Made to EPA Since Fiscal Year 2007 and Percentage Implemented and Not Implemented, as of August 23, 2017

Total Recommendations: 318



Source: GAO. | GAO-17-801T

Data Table for Figure 3: Categories of GAO Recommendations Made to EPA Since Fiscal Year 2007 and Percentage Implemented and Not Implemented, as of August 23, 2017

Recommendation Status by Category	Total	% Implemented		% Not Implemented	
Management and Operations	122	48%	58	52%	64
Water Issues	67	60%	40	40%	27
Environmental Contamination and Cleanup	49	80%	39	20%	10
Toxics, Chemical Safety, and Pesticides	40	58%	23	43%	17
Public Health and Environmental Justice	22	77%	17	23%	5

Recommendation Status by Category	Total	% Implemented	% Not Implemented
Air Quality, Climate Change, and Energy Efficiency	18	78% 14	22% 4

Note: The percentages of implemented and not implemented recommendations for each category may not add up to 100 due to rounding.

Almost three-fourths of the recommendations we made since fiscal year 2007 fall into three categories: management and operations, water issues, and environmental contamination and cleanup. The recommendations to EPA relating to management and operations included actions for better managing its grants, better coordinating management of its laboratories, and improving the agency's information security. Recommendations on water issues included actions targeted at improving the regulation of contaminants in drinking water, improving water quality and ecosystem health in regions such as the Great Lakes and Chesapeake Bay, and better managing water pollution from both point and nonpoint sources.¹¹ Recommendations related to environmental contamination and cleanup included: taking actions for better managing cleanup at hazardous waste sites; enhancing responses to disasters, such as the collapse of the World Trade Center on September 11, 2001, and Hurricane Katrina in August 2005; and promoting proper disposal and recycling of electronic waste. The remaining quarter of the recommendations fell into the other three categories of toxics, chemical safety, and pesticides; air quality, climate change, and energy efficiency; and public health and environmental justice. Appendix I lists, by category, our reports with recommendations to EPA since fiscal year 2007, and for each report lists the numbers of implemented, not implemented, and total recommendations, as of August 23, 2017.

Of the 127 recommendations that EPA has not implemented, we made 82, or 65 percent, since fiscal year 2013 and 45, or 35 percent, earlier (i.e., fiscal years 2007 to 2012).¹² Most of these recommendations concern EPA management and operations and water issues. Some

¹¹A point source is any discernable, confined and discrete conveyance from which pollutants are or may be discharged, such as a pipe carrying effluent from a wastewater treatment plant or an industrial facility. Nonpoint source pollution is water pollution from diffuse sources, such as runoff from farms or construction sites.

¹²In general, we continue to believe that our prior recommendations are valid and should be addressed. While we recognize that agencies need time to act on our recommendations, in our experience, recommendations that have not been implemented after 4 years are generally not implemented in subsequent years.

examples of recommendations that have not yet been implemented in these categories are described below.

Management and Operations

In January 2017, we made recommendations to EPA related to their management of grants.¹³ In 2015, EPA awarded roughly \$3.9 billion, about 49 percent of its budget, in grants to states, local governments, tribes, and other recipients. These grants supported activities such as repairing aging water infrastructure, cleaning up hazardous waste sites, improving air quality, and preventing pollution. In our January 2017 report, we concluded that EPA's ability to manage this portfolio depended primarily on grant specialists and project officers, but the agency did not have the information it needed to allocate grants management resources in an effective and efficient manner. In addition, EPA had not identified project officer critical skills and competencies or monitored its recruitment and retention efforts for grant specialists. We recommended that EPA, among other things, develop documented processes that could be consistently applied by EPA offices to collect and analyze data about grants management workloads and use these data to inform staff allocation. We also recommended that EPA review project officer critical skills and competencies and determine training needs to address gaps and develop recruitment and retention performance measures and collect performance data for these measures. According to a May 2017 letter, EPA agreed with the five recommendations we made in the report and identified steps it was initiating to address them. We will continue to monitor EPA's actions to implement these recommendations.

In August 2014, we made recommendations to EPA related to information security.¹⁴ Federal agencies rely on contractors to operate computer systems and process information on their behalf. Federal law and policy require that agencies ensure that contractors adequately protect these systems and information. In our August 2014 report, we evaluated how six agencies, including EPA, oversaw contractor-operated systems. With regard to EPA, we found that the agency generally established security and privacy requirements for contractors to follow and prepared for

¹³GAO, *Grants Management: EPA Partially Follows Leading Practices of Strategic Workforce Planning and Could Take Additional Steps*, [GAO-17-144](#) (Washington, D.C.: Jan. 9, 2017).

¹⁴GAO, *Information Security: Agencies Need to Improve Oversight of Contractor Controls*, [GAO-14-612](#) (Washington, D.C.: Aug. 8, 2014).

assessments to determine the effectiveness of contractors' implementation of controls but was inconsistent in overseeing the execution and review of those assessments. We recommended that EPA develop, document, and implement oversight procedures for ensuring that, for each contractor-operated system: (1) a system test is fully executed and (2) plans of action and milestones with estimated completion dates and resources assigned for resolution are maintained. In comments on the report, EPA generally agreed with our recommendations and has recently told us that it has taken steps to implement these recommendations. We will evaluate whether these steps meet the intent of the recommendations.

In March 2010, we made recommendations to EPA related to workforce planning.¹⁵ The ability of federal agencies to achieve their mission and carry out their responsibilities depends in large part on whether they can sustain a workforce that possesses the necessary education, knowledge, skills, and other competencies. We and others have shown that successful organizations use strategic workforce planning to help meet present and future mission requirements. In our March 2010 report on workforce planning at EPA and other agencies, we found that EPA's workforce plan was not clearly aligned with its strategic plan or budget formulation, consistent with leading workforce planning principles. For example, EPA's workforce plan did not show how full-time equivalent employees, skills, and locations would be aligned with the strategic plan or budget. Without alignment to the strategic plan, we concluded that EPA was at risk of not having the appropriately skilled workforce it needs to effectively achieve its mission. We recommended, among other things, that EPA incorporate into its workforce plan clear and explicit links between the workforce plan and the strategic plan, and describe how the workforce plan will help the agency achieve its strategic goals. In comments on our report, EPA generally agreed with our recommendation. According to EPA, the agency has taken some positive steps toward better workforce planning, such as developing workforce planning gap analyses. However, EPA has not fully implemented this recommendation.

¹⁵GAO, *Workforce Planning: Interior, EPA, and the Forest Service Should Strengthen Linkages to Their Strategic Plans and Improve Evaluation*, [GAO-10-413](#) (Washington, D.C.: Mar. 31, 2010).

Water Issues

In May 2012, we made recommendations to EPA related to a key program under section 319 of the Clean Water Act to address water pollution from nonpoint sources.¹⁶ Under this program, EPA provides grants to states to implement programs and fund projects that address nonpoint source pollution. We found that EPA's regional offices had varied widely in the extent of their oversight and the amount of influence they had exerted over states' nonpoint source pollution management programs. In addition, EPA's primary measures of effectiveness of states' management programs did not always demonstrate the achievement of program goals, which are to eliminate remaining water quality problems and prevent new threats from creating future water quality problems in water bodies currently of high quality. To help protect water quality, we recommended that EPA (1) provide guidance to its regional offices on overseeing state programs and, (2) in its revised reporting guidelines to states, emphasize measures that more accurately reflect the overall health of targeted water bodies and demonstrate states' focus on protecting high-quality water bodies, where appropriate.¹⁷ EPA agreed with these recommendations in its comments on the report. In 2013, EPA issued final guidelines laying out expectations for EPA's regional oversight and issued a memorandum to its regional managers highlighting their oversight responsibilities. However, in a subsequent report issued in July 2016, we found that EPA's 2013 guidance did not completely address our recommendation to provide sufficient guidance to states to fulfill their oversight responsibilities.¹⁸ We also found that according to EPA officials, the agency planned to make changes to some of the program's measures of effectiveness. Although EPA has taken some action, these recommendations remain open pending EPA's (1) ensuring that the guidelines to states incorporate specific instructions on how to review states' plans and criteria for ensuring funded projects reflect characteristics of effective implementation and tangible results, and (2) improving its measures of program effectiveness.

¹⁶GAO, *Nonpoint Source Water Pollution: Greater Oversight and Additional Data Needed for Key EPA Water Program*, [GAO-12-335](#) (Washington, D.C.: May 31, 2012).

¹⁷We included these recommendations in our 2015, 2016, and 2017 letters to EPA highlighting recommendations warranting priority attention.

¹⁸GAO, *Environmental Protection Agency: Status of Efforts to Address Nonpoint Source Water Pollution through the Section 319 Program*, [GAO-16-697R](#) (Washington, D.C.: July 14, 2016).

EPA's Implementation of GAO Recommendations and Related Work Has Resulted in Process and Programmatic Improvements and Financial Benefits

We have identified many benefits—process and programmatic improvements and financial benefits—based on EPA taking actions on our recommendations and related work. Since fiscal year 2007, we have identified improvements to EPA's operations and programs in categories such as management and operations, water issues, and public health and environmental justice. In addition, we have identified financial benefits resulting from the implementation of our recommendations and our related work.¹⁹

Process Improvements

The following are examples of process improvements we have identified based on actions EPA has taken in response to our recommendations.

Management and Operations

In August 2015, we reviewed EPA's grant management program, including the extent to which its grants management plan followed leading practices for federal strategic planning.²⁰ We found that EPA could better ensure the effectiveness of its planning framework for meeting grants management goals. We recommended that EPA incorporate all leading practices in federal strategic planning relevant to grants management as it finalized its draft 2016-2020 grants management plan, such as defining strategies that address management challenges and identifying the resources, actions, and time frames needed to meet EPA's goals. In response to our recommendation, EPA fully incorporated each of the

¹⁹Our findings and recommendations can produce measurable financial benefits for the federal government after Congress or agencies act on them and government expenditures are reduced or funds are reallocated to other areas. To calculate our financial benefits we rely on estimates from non-GAO sources. These sources are typically the agency that acted on our work, a congressional committee, or the Congressional Budget Office.

²⁰GAO, *Grants Management: EPA Has Opportunities to Improve Planning and Compliance Monitoring*, [GAO-15-618](#) (Washington, D.C.: Aug. 17, 2015).

relevant leading practices for federal strategic planning in its final 2016-2020 grants management plan, issued in February 2016. Specifically, EPA included an annual priority-setting process to identify strategies to address management challenges and the resources needed to achieve its goals. EPA also incorporated mechanisms to ensure leadership accountability for achieving results, including numeric targets and time frames for each action identified in performance measures. Consequently, EPA has better assurance that its 2016-2020 grants management plan is an effective framework to guide and assess its efforts to meet its grants management goals.

In August 2011, we found that EPA operated 37 laboratories across the nation to provide the scientific research, technical support, and analytical service to support its mission.²¹ In that report, we also found that EPA did not use a comprehensive process for managing its laboratories' workforce and lacked basic information on its laboratory workload and workforce. Without such information, we found that EPA could not undertake succession planning and management to help the organization adapt to meet emerging and future needs. We recommended that EPA for all of its laboratories develop a comprehensive workforce planning process that is based on reliable workforce data and reflects the agency's current and future needs in the overall number of federal and contract employees, skills, and deployment across all laboratory facilities. EPA generally agreed with our recommendation and, in 2015, developed a comprehensive workforce planning process for all of its laboratories and, according to the agency, collected, verified, and analyzed, from all of its laboratories, workforce data that included personnel's organization, location, grade levels, and area of expertise.

Water Issues

In October 2012, we found that funding for rural water and wastewater infrastructure was fragmented across the three largest federal programs—EPA's Drinking Water and Clean Water State Revolving Fund programs and the U.S. Department of Agriculture's (USDA) Rural Utilities Service Waste and Waste Disposal program—leading to program overlap and possible duplication of effort when communities applied for these

²¹GAO, *Environmental Protection Agency: To Better Fulfill Its Mission, EPA Needs a More Coordinated Approach to Managing its Laboratories*, [GAO-11-347](#) (Washington, D.C.: July 25, 2011).

programs.²² For example, we found that some communities had to prepare separate environmental analyses for each program, resulting in delays and increased costs to communities applying to the programs. We recommended that EPA and USDA work together and with state and community officials to develop guidelines to assist states in developing uniform environmental analyses that could be used, to the extent appropriate, to meet state and federal requirements for water and wastewater infrastructure projects. In February 2017, EPA and USDA issued a joint memorandum to address concerns identified in our report and highlighted best practices currently employed in some states to eliminate duplicative environmental reviews. In particular, the memorandum highlighted a uniform environmental review document developed by the state of Pennsylvania. To eliminate potential duplication of effort during the environmental review process, the memorandum encouraged state programs to evaluate the best practices and incorporate the practices into their own operations where applicable.

Programmatic Improvements

The following are examples of programmatic improvements we have identified based on actions EPA has taken in response to our recommendations.

Water Issues

Under the Clean Water Act, EPA currently regulates 58 industrial categories of wastewater pollution—such as petroleum refining, fertilizer manufacturing, and coal mining—with technology-based regulations called “effluent guidelines.” Such guidelines are applied in permits to limit the pollutants that facilities may discharge. The Clean Water Act also calls for EPA to revise the guidelines when appropriate. EPA has done so, for example, to reflect advances in treatment technology or changes in industries. EPA uses a two-phase process to identify industrial categories needing new or revised effluent guidelines, including an initial “screening” phase in which EPA ranks industrial categories according to

²²GAO, *Rural Water Infrastructure: Additional Coordination Can Help Avoid Potentially Duplicative Application Requirements*, [GAO-13-111](#) (Washington, D.C.; Oct. 16, 2012)

the total toxicity of their wastewater.²³ In September 2012, we concluded that limitations in EPA's screening phase may have led the agency to overlook some industrial categories that warrant further review for new or revised effluent guidelines.²⁴ For example, during the screening phase, EPA had not considered the availability of advanced treatment technologies for most industrial categories. We recommended that EPA modify the screening phase of its review process to include a thorough consideration of information on the treatment technologies available to industrial categories as it considered revisions to its screening and review process. In comments on the report, EPA agreed that factoring treatment technology information into its reviews would be valuable. In September 2014, EPA published a combined Final 2012 and Preliminary 2014 Effluent Guidelines Program report that discussed revisions to its screening process in response to our report. Specifically, EPA stated that it recognized the need to consider the availability of treatment technologies, process, changes, or pollution-prevention practices in the screening phase of its process and said that it was targeting new data sources to provide such information. In July 2015, EPA published its "Final 2014 Effluent Guidelines Program" with a diagram showing the change to EPA's screening process to include screening of treatment technologies.

Public Health and Environmental Justice

EPA established a 1995 Policy on Evaluating Health Risks to Children to ensure that the agency consistently considers children in its actions, since children can be more vulnerable than adults to certain environmental hazards. In August 2013, we found that EPA did not have a specific process for program offices that led regulatory workgroups to document how the agency considers children's health risks in rulemakings and other

²³EPA's 2002 draft Strategy for National Clean Water Industrial Regulations was the foundation for EPA's process. In the first, or "screening," phase, EPA uses data from two EPA databases to rank industrial categories according to the total toxicity of their wastewater. Using this ranking, public comments, and other considerations, EPA has identified relatively few industrial categories posing the highest hazard for the next, or "further review," phase. In this further review phase, EPA evaluates the categories to identify those that are appropriate for new or revised guidelines because treatment technologies are available to reduce pollutant discharges.

²⁴GAO, *Water Pollution: EPA Has Improved Its Review of Effluent Guidelines but Could Benefit from More Information on Treatment Technologies*, [GAO-12-845](#) (Washington, D.C.: Sept. 10, 2012).

actions or how the agency's analyses comply with the 1995 policy.²⁵ We recommended that EPA require lead program offices to document their decisions in rulemakings and other actions regarding how health risks to children were considered and that their decisions be consistent with EPA's children's health policy. In comments on our report, EPA generally agreed with the recommendation and stated that the Office of Children's Health Protection worked with the Office of Policy and the program offices to assure a consistent approach for documenting these decisions as part of EPA's process to develop rules, regulations, and other agency actions. Subsequently, in October of 2014, EPA finalized a template for all EPA employees to use that outlined how to address EPA's 1995 policy and other requirements under various situations. The template instructs lead program offices to document their decisions in rulemaking and other actions regarding how they considered health risks to children (e.g., conducting a children's health risk assessment), or provide a rationale for why such an evaluation was not necessary.

Financial Benefits

The following are examples of financial benefits we have identified based on actions EPA has taken in response to our prior reviews.

Environmental Contamination and Cleanup

During the course of work related to a July 2008 report on the funding and reported costs of Superfund enforcement and administrative activities,²⁶ we reviewed EPA's methodology for calculating the indirect costs—or administrative costs for managing the Superfund program—that EPA charged responsible parties in fiscal year 2006. In conducting this work, we identified two spending codes for which associated administrative costs had not been carried over into EPA's calculations of the indirect cost rate applicable to each region for fiscal year 2006.²⁷ As a result of this error, we determined that the percentage that EPA was charging

²⁵GAO, *Environmental Health: EPA Has Made Substantial Progress but Could Improve Processes for Considering Children's Health*, [GAO-13-254](#) (Washington, D.C.: Aug. 12, 2013).

²⁶GAO, *Superfund: Funding and Reported Costs of Enforcement and Administrative Activities*, [GAO-08-841R](#) (Washington, D.C.: July 18, 2008).

²⁷We identified this error and EPA corrected it during the course of our work. Therefore, we did not report on it in [GAO-08-841R](#).

responsible parties for indirect costs associated with fiscal year 2006 spending was lower than it should have been. In response to our finding, EPA published revised indirect cost rates for fiscal years 2005 and 2006 in May 2008 to correct the error. EPA acknowledged that correcting this error would result in more money being potentially recoverable from responsible parties. In 2010, we estimated that the additional amount EPA has recovered (or would recover) had a present value worth about \$42.2 million.²⁸

Management and Operations

Since fiscal year 2000, we have issued a body of work aimed at raising the level of attention given to improper payments across government.²⁹ Our work demonstrated that improper payments have been a long-standing, widespread, and significant problem in the federal government and as a result, contributed to Congress passing the Improper Payments Information Act of 2002 (IPIA). This act, as amended, requires, among other things, that all agencies annually identify and review programs and activities that may be susceptible to significant improper payments, provisions that coincide with recommendations we have made that agencies estimate, reduce, and publicly report improper payments.³⁰ Subsequently, in 2005, EPA began reporting on the improper payment rate for the Clean Water and Drinking Water State Revolving Funds.³¹ By

²⁸Precise data were not available on the exact amount of the additional fiscal year 2005 and 2006 indirect costs that EPA had recovered (or would recover) as a result of correcting the error we identified.

²⁹GAO, *Improper Payments: Progress Made but Challenges Remain in Estimating and Reducing Improper Payments*, [GAO-09-628T](#) (Washington, D.C.: Apr. 22, 2009); GAO, *Improper Payments: Status of Agencies' Efforts to Address Improper Payment and Recovery Auditing Requirements*, [GAO-08-438T](#) (Washington, D.C.: Jan. 31, 2008); GAO, *Improper Payments: Agencies' Fiscal Year 2005 Reporting under the Improper Payments Information Act Remains Incomplete*, [GAO-07-92](#) (Washington, D.C.: Nov. 14, 2006); GAO, *Financial Management: Coordinated Approach Needed to Address the Government's Improper Payments Problems*, [GAO-02-749](#) (Washington, D.C.: Aug. 9, 2002); GAO, *Financial Management: Increased Attention Needed to Prevent Billions in Improper Payments*, [GAO/AIMD-00-10](#) (Oct. 29, 1999).

³⁰See, for example, [GAO-02-749](#).

³¹The federal government provides some financial support to communities for their drinking water and wastewater infrastructure projects. Under the Clean Water Act and Safe Drinking Water Act, the federal government contributes some funding to states through EPA's Clean Water and Drinking Water State Revolving Fund Programs. States use this funding to make low- or no-interest loans to communities to build water and wastewater infrastructure, in addition to other assistance.

2009, the most recent year for which we identified financial benefits from the agency addressing improper payments, EPA reported that its total improper payment error rates for the State Revolving Funds declined by 0.16 percent since it first reported on this issue. This resulted in about a \$4.5 million decrease in improper payments from the Clean Water and Drinking Water State Revolving Funds for fiscal years 2008 and 2009.³²

In conclusion, as the fiscal pressures facing the government continue, so too does the need for executive branch agencies to improve the efficiency and effectiveness of government programs and activities. Our recommendations provide a significant opportunity to improve the government's fiscal position, better serve the public, and make government programs more efficient and effective. We believe that EPA's implementation of our outstanding recommendations will enable the agency to continue to improve its performance and the efficiency and effectiveness of its operations. We will continue to work with Congress to monitor and draw attention to these important issues.

Chairman Murphy, Ranking Member DeGette, and Members of the Committee, this completes my prepared statement. I would be pleased to answer questions that you may have at this time.

GAO Contacts and Staff Acknowledgments

If you or your staff members have any future questions about this testimony, please contact Alfredo Gómez at (202) 512-3841 or gomezj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Key contributors to this testimony include Barb Patterson, Assistant Director; Cindy Gilbert; Anne Hobson; Richard Johnson; Dan C. Royer; and Kiki Theodoropoulos.

³²We confirmed with EPA officials that there were no offsetting implementation costs associated with this program. Data used to calculate these benefits were derived from EPA's reported independent estimates of improper payments.

Appendix I: GAO Reports since Fiscal Year 2007 with Recommendations to EPA, by Category

Table 1: GAO Reports Containing Recommendations to EPA, by Category, and Status of Recommendations as of August 23, 2017

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
Management and Operations	58	64	122
GAO-07-883 Environmental Protection: EPA-State Enforcement Partnership Has Improved, but EPA's Oversight Needs Further Enhancement	3	1	4
GAO-08-265 Health and Safety Information: EPA and OSHA Could Improve Their Processes for Preparing Communication Products	3	1	4
GAO-08-304 Environmental Protection: EPA Needs to Ensure That Best Practices and Procedures Are Followed When Making Further Changes to Its Library Network	4	—	4
GAO-08-742 Federal Records: National Archives and Selected Agencies Need to Strengthen E-Mail Management	1	1	2
GAO-08-925 Information Technology: Agencies Need to Establish Comprehensive Policies to Address Changes to Projects' Cost, Schedule, and Performance Goals	—	1	1
GAO-08-1111R Environmental Enforcement: EPA Needs to Improve the Accuracy and Transparency of Measures Used to Report on Program Effectiveness	6	—	6
GAO-09-205 Federal Rulemaking: Improvements Needed to Monitoring and Evaluation of Rules Development as Well as to the Transparency of OMB Regulatory Reviews	1	—	1
GAO-09-446 Biofuels: Potential Effects and Challenges of Required Increases in Production and Use	1	—	1
GAO-10-202 Information Security: Agencies Need to Implement Federal Desktop Core Configuration Requirements	2	—	2

**Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category**

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-10-413 Workforce Planning: Interior, EPA, and the Forest Service Should Strengthen Linkages to Their Strategic Plans and Improve Evaluation	1	1	2
GAO-10-947 Environmental Protection Agency: EPA Needs to Complete a Strategy for Its Library Network to Meet Users' Needs	3	3	6
GAO-11-347 Environmental Protection Agency: To Better Fulfill Its Mission, EPA Needs a More Coordinated Approach to Managing Its Laboratories	6	1	7
GAO-11-548R Mentor-Protege Programs Have Policies That Aim to Benefit Participants but Do Not Require Postagreement Tracking	—	1	1
GAO-11-565 Data Center Consolidation: Agencies Need to Complete Inventories and Plans to Achieve Expected Savings	2	—	2
GAO-11-605 Social Media: Federal Agencies Need Policies and Procedures for Managing and Protecting Information They Access and Disseminate	2	—	2
GAO-12-629 Information Technology Cost Estimation: Agencies Need to Address Significant Weaknesses in Policies and Practices	2	—	2
GAO-12-635 EPA Regulations and Electricity: Better Monitoring by Agencies Could Strengthen Efforts to Address Potential Challenges	1	—	1
GAO-12-692 Human Capital: HHS and EPA Can Improve Practices Under Special Hiring Authorities	1	—	1
GAO-12-696 Information Security: Environmental Protection Agency Needs to Resolve Weaknesses	10	2	12
GAO-12-791 Organizational Transformation: Enterprise Architecture Value Needs to Be Measured and Reported	—	2	2
GAO-13-115 Environmental Protection: EPA Should Develop a Strategic Plan for Its New Compliance Initiative	2	—	2
GAO-14-65 Information Technology: Additional OMB and Agency Actions Are Needed to Achieve Portfolio Savings	—	3	3
GAO-14-249 Petroleum Refining: Industry's Outlook Depends on Market Changes and Key Environmental Regulations	2	—	2

**Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category**

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-14-413 Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide	—	6	6
GAO-14-519 Environmental Regulation: EPA Should Improve Adherence to Guidance for Selected Elements of Regulatory Impact Analyses	1	3	4
GAO-14-612 Information Security: Agencies Need to Improve Oversight of Contractor Controls	—	2	2
GAO-14-713 Data Center Consolidation: Reporting Can Be Improved to Reflect Substantial Planned Savings	1	—	1
GAO-15-431 Telecommunications: Agencies Need Better Controls to Achieve Significant Savings on Mobile Devices and Services	—	3	3
GAO-15-500 EPA's Science Advisory Board: Improved Procedures Needed to Process Congressional Requests for Scientific Advice	2	2	4
GAO-15-617 Information Technology Reform: Billions of Dollars in Savings Have Been Realized, but Agencies Need to Complete Reinvestment Plans	—	1	1
GAO-15-618 Grants Management: EPA Has Opportunities to Improve Planning and Compliance Monitoring	1	3	4
GAO-16-79 Critical Infrastructure Protection: Sector-Specific Agencies Need to Better Measure Cybersecurity Progress	—	1	1
GAO-16-323 Data Center Consolidation: Agencies Making Progress, but Planned Savings Goals Need to Be Established [Reissued on March 4, 2016]	—	2	2
GAO-16-494 IT Dashboard: Agencies Need to Fully Consider Risks When Rating Their Major Investments	—	1	1
GAO-16-510 Managing for Results: Agencies Need to Fully Identify and Report Major Management Challenges and Actions to Resolve them in their Agency Performance Plans	—	1	1
GAO-16-511 Information Technology: Agencies Need to Improve Their Application Inventories to Achieve Additional Savings	—	1	1

**Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category**

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-16-526 Government Purchase Cards: Opportunities Exist to Leverage Buying Power	—	1	1
GAO-16-530 Grants Management: EPA Could Improve Certain Monitoring Practices	—	6	6
GAO-16-686 Federal Chief Information Security Officers: Opportunities Exist to Improve Roles and Address Challenges to Authority	—	3	3
GAO-16-777 Superfund Sediment Sites: EPA Considers Risk Management Principles but Could Clarify Certain Procedures	—	1	1
GAO-17-144 Grants Management: EPA Partially Follows Leading Practices of Strategic Workforce Planning and Could Take Additional Steps	—	5	5
GAO-17-161 Grants Management: EPA Has Taken Steps to Improve Competition for Discretionary Grants but Could Make Information More Readily Available	—	2	2
GAO-17-388 Data Center Optimization: Agencies Need to Complete Plans to Address Inconsistencies in Reported Savings	—	2	2
GAO-17-453 Small Business Research Programs: Most Agencies Met Spending Requirements, but DOD and EPA Need to Improve Data Reporting	—	1	1
Water Issues	40	27	67
GAO-07-479 Clean Water: Further Implementation and Better Cost Data Needed to Determine Impact of EPA's Storm Water Program on Communities	1	—	1
GAO-07-591 Great Lakes: EPA and States Have Made Progress in Implementing the BEACH Act, but Additional Actions Could Improve Public Health Protection	3	—	3
GAO-10-549 Nanotechnology: Nanomaterials Are Widely Used in Commerce, but EPA Faces Challenges in Regulating Risk	1	—	1
GAO-10-604 Recovery Act: States' and Localities' Uses of Funds and Actions Needed to Address Implementation Challenges and Bolster Accountability	1	—	1
GAO-11-254 Safe Drinking Water Act: EPA Should Improve Implementation of Requirements on Whether to Regulate Additional Contaminants	13	4	17

**Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category**

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-11-346 Environmental Health: Action Needed to Sustain Agencies' Collaboration on Pharmaceuticals in Drinking Water	1	—	1
GAO-11-381 Drinking Water: Unreliable State Data Limit EPA's Ability to Target Enforcement Priorities and Communicate Water Systems' Performance	1	3	4
GAO-11-802 Chesapeake Bay: Restoration Effort Needs Common Federal and State Goals and Assessment Approach	3	1	4
GAO-12-335 Nonpoint Source Water Pollution: Greater Oversight and Additional Data Needed for Key EPA Water Program	—	2	2
GAO-12-845 Water Pollution: EPA Has Improved Its Review of Effluent Guidelines but Could Benefit from More Information on Treatment Technologies	3	—	3
GAO-13-39 Water Quality: EPA Faces Challenges in Addressing Damage Caused by Airborne Pollutants	—	1	1
GAO-13-111 Rural Water Infrastructure: Additional Coordination Can Help Avoid Potentially Duplicative Application Requirements	3	—	3
GAO-13-797 Great Lakes Restoration Initiative: Further Actions Would Result in More Useful Assessments and Help Address Factors That Limit Progress	6	1	7
GAO-14-80 Clean Water Act: Changes Needed If Key EPA Program Is to Help Fulfill the Nation's Water Quality Goals	—	4	4
GAO-14-103 Drinking Water: EPA Has Improved Its Unregulated Contaminant Monitoring Program, but Additional Action Is Needed	3	—	3
GAO-14-555 Drinking Water: EPA Program to Protect Underground Sources from Injection of Fluids Associated With Oil and Gas Production Needs Improvemen	1	3	4
GAO-15-567 State Revolving Funds: Improved Financial Indicators Could Strengthen EPA Oversight	—	2	2
GAO-16-237 Water Infrastructure: EPA and USDA Are Helping Small Water Utilities with Asset Management; Opportunities Exist to Better Track Results	—	2	2

Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-16-281 Drinking Water: EPA Needs to Collect Information and Consistently Conduct Activities to Protect Underground Sources of Drinking Water	—	4	4
Environmental Contamination and Cleanup	39	10	49
GAO-07-37 Recycling: Additional Efforts Could Increase Municipal Recycling	1	—	1
GAO-07-152 Leaking Underground Storage Tanks: EPA Should Take Steps to Better Ensure the Effective Use of Public Funding for Cleanups	4	—	4
GAO-07-651 Hurricane Katrina: EPA's Current and Future Environmental Protection Efforts Could Be Enhanced by Addressing Issues and Challenges Faced on the Gulf Coast	5	1	6
GAO-07-763 Aboveground Oil Storage Tanks: Observations on EPA's Economic Analyses of Amendments to the Spill Prevention, Control, and Countermeasure Rule	1	—	1
GAO-07-1091 World Trade Center: EPA's Most Recent Test and Clean Program Raises Concerns That Need to Be Addressed to Better Prepare for Indoor Contamination Following Disasters	3	—	3
GAO-08-71 Hazardous Materials: EPA May Need to Reassess Sites Receiving Asbestos-Contaminated Ore from Libby, Montana, and Should Improve Its Public Notification Process	3	—	3
GAO-08-482 Aboveground Oil Storage Tanks: More Complete Facility Data Could Improve Implementation of EPA's Spill Prevention Program	—	3	3
GAO-08-1044 Electronic Waste: EPA Needs to Better Control Harmful U.S. Exports through Stronger Enforcement and More Comprehensive Regulation	4	—	4
GAO-09-278 Superfund: Greater EPA Enforcement and Reporting Are Needed to Enhance Cleanup at DOD Sites	1	—	1
GAO-09-656 Superfund: Litigation Has Decreased and EPA Needs Better Information on Site Cleanup and Cost Issues to Estimate Future Program Funding Requirements	2	—	2
GAO-10-348 Superfund: Interagency Agreements and Improved Project Management Needed to Achieve Cleanup Progress at Key Defense Installations	2	1	3

**Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category**

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-10-380 Superfund: EPA's Estimated Costs to Remediate Existing Sites Exceed Current Funding Levels, and More Sites Are Expected to Be Added to the National Priorities List	1	—	1
Environmental Contamination and Cleanup (continued)			
GAO-10-626 Electronic Waste: Considerations for Promoting Environmentally Sound Reuse and Recycling	1	1	2
GAO-11-513 Biofuels: Challenges to the Transportation, Sale, and Use of Intermediate Ethanol Blends	1	—	1
GAO-11-514 Hazardous Waste: Early Goals Have Been Met in EPA's Corrective Action Program, but Resource and Technical Challenges Will Constrain Future Progress	1	—	1
GAO-12-74 Electronic Waste: Actions Needed to Provide Assurance That Used Federal Electronics Are Disposed of in an Environmentally Responsible Manner	1	—	1
GAO-12-488 Anthrax: DHS Faces Challenges in Validating Methods for Sample Collection and Analysis	1	—	1
GAO-12-505 Phosphate Mining: Oversight Has Strengthened, but Financial Assurances and Coordination Still Need Improvement	—	1	1
GAO-12-544 Uranium Mining: Opportunities Exist to Improve Oversight of Financial Assurances	1	—	1
GAO-12-585 Oil Dispersants: Additional Research Needed, Particularly on Subsurface and Arctic Applications	1	—	1
GAO-13-252 Superfund: EPA Should Take Steps to Improve Its Management of Alternatives to Placing Sites on the National Priorities List	4	—	4
GAO-14-323 Uranium Contamination: Overall Scope, Time Frame, and Cost Information Is Needed for Contamination Cleanup on the Navajo Reservation	1	—	1
GAO-15-35 Hazardous Waste: Agencies Should Take Steps to Improve Information on USDA's and Interior's Potentially Contaminated Sites	—	3	3
Toxics, Chemical Safety, and Pesticides	23	17	40

**Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category**

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-08-440 Chemical Assessments: Low Productivity and New Interagency Review Process Limit the Usefulness and Credibility of EPA's Integrated Risk Information System	7	1	8
GAO-09-353 Biomonitoring: EPA Needs to Coordinate Its Research Strategy and Clarify Its Authority to Obtain Biomonitoring Data	3	—	3
GAO-10-549 Nanotechnology: Nanomaterials Are Widely Used in Commerce, but EPA Faces Challenges in Regulating Risk	3	2	5
GAO-12-42 Chemical Assessments: Challenges Remain with EPA's Integrated Risk Information System Program	1	5	6
GAO-13-145 Pesticides: EPA Should Take Steps to Improve Its Oversight of Conditional Registrations	2	1	3
GAO-13-249 Toxic Substances: EPA Has Increased Efforts to Assess and Control Chemicals but Could Strengthen Its Approach	—	3	3
GAO-13-369 Chemical Assessments: An Agencywide Strategy May Help EPA Address Unmet Needs for Integrated Risk Information System Assessments	2	1	3
GAO-14-274 Chemical Safety: Actions Needed to Improve Federal Oversight of Facilities with Ammonium Nitrate	1	1	2
GAO-14-289 Pesticide Safety: Improvements Needed in EPA's Good Laboratory Practices Inspection Program	3	1	4
GAO-16-220 Bee Health: USDA and EPA Should Take Additional Actions to Address Threats to Bee Populations	1	2	3
Public Health and Environmental Justice	17	5	22
GAO-08-1155T Environmental Health: EPA Efforts to Address Children's Health Issues Need Greater Focus, Direction, and Top-Level Commitment	2	—	2
GAO-09-60 Genetically Engineered Crops: Agencies Are Proposing Changes to Improve Oversight, but Could Take Additional Steps to Enhance Coordination and Monitoring	—	1	1
GAO-10-205 Environmental Health: High-level Strategy and Leadership Needed to Continue Progress toward Protecting Children from Environmental Threats	8	—	8

Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-12-77 Environmental Justice: EPA Needs to Take Additional Actions to Help Ensure Effective Implementation	3	1	4
GAO-13-254 Environmental Health: EPA Has Made Substantial Progress but Could Improve Processes for Considering Children's Health	4	—	4
GAO-16-305 High-Containment Laboratories: Comprehensive and Up-to-Date Policies and Stronger Oversight Mechanisms Needed to Improve Safety	—	3	3
Air Quality, Climate Change, and Energy Efficiency	14	4	18
GAO-08-944 Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern	3	1	4
GAO-08-980 Indoor Mold: Better Coordination of Research on Health Effects and More Consistent Guidance Would Improve Federal Efforts	2	—	2
GAO-08-1080 Climate Change: Federal Actions Will Greatly Affect the Viability of Carbon Capture and Storage As a Key Mitigation Option	1	—	1
GAO-09-446 Biofuels: Potential Effects and Challenges of Required Increases in Production and Use	1	—	1
GAO-10-336 Vehicle Fuel Economy: NHTSA and EPA's Partnership for Setting Fuel Economy and Greenhouse Gas Emissions Standards Improved Analysis and Should Be Maintained	3	—	3
GAO-11-888 Energy Star: Providing Opportunities for Additional Review of EPA's Decisions Could Strengthen the Program	1	—	1
GAO-12-79 Green Building: Federal Initiatives for the Nonfederal Sector Could Benefit from More Interagency Collaboration	1	—	1
GAO-12-261 Diesel Pollution: Fragmented Federal Programs That Reduce Mobile Source Emissions Could Be Improved	—	1	1
GAO-12-590 Air Pollution: EPA Needs Better Information on New Source Review Permits	—	2	2
GAO-13-135 Energy Efficiency: Better Coordination among Federal Programs Needed to Allocate Testing Resources	1	—	1

Appendix I: GAO Reports since Fiscal Year
2007 with Recommendations to EPA, by
Category

Category and report	Number of recommendations made since fiscal year 2007		
	Implemented	Not Implemented	Total
GAO-13-242	1	—	1
Climate Change: Future Federal Adaptation Efforts Could Better Support Local Infrastructure Decision Makers			
Grand Total	191	127	318

Legend: “—” indicates 0 recommendations.
Source: GAO | GAO-17-801T

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (<http://www.gao.gov>). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to <http://www.gao.gov> and select "E-mail Updates."

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <http://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [LinkedIn](#), [Twitter](#), and [YouTube](#).
Subscribe to our [RSS Feeds](#) or [E-mail Updates](#). Listen to our [Podcasts](#).
Visit GAO on the web at www.gao.gov and read [The Watchblog](#).

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Website: <http://www.gao.gov/fraudnet/fraudnet.htm>
E-mail: fraudnet@gao.gov
Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Katherine Siggerud, Managing Director, siggerudk@gao.gov, (202) 512-4400,
U.S. Government Accountability Office, 441 G Street NW, Room 7125,
Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

Strategic Planning and External Liaison

James-Christian Blockwood, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814,
Washington, DC 20548