OFFICE OF INSPECTOR GENERAL'S FY 2007 KEY MANAGEMENT CHALLENGES

As required by the Reports Consolidation Act of 2000, OIG identifies, briefly assesses, and reports annually the most serious management and performance challenges facing the Agency. In FY 2007 OIG identified ten areas it considers to be EPA's most pressing management challenges. While some are new, others, such as managing human capital/workforce planning and homeland security, are recurring issues that take time to resolve. Notably, OIG did not suggest elevating any of these issues to the level of a material weakness. EPA has made great progress in addressing the issues OIG identified and will continue to work diligently in assessing and resolving vulnerabilities before they become serious management issues.

The table below summarizes the issues that OIG identified in FY 2007 as key management challenges facing EPA and their relationship to the Agency's Strategic Plan and to the President's Management Agenda. Following the table is a detailed discussion of the challenges, as reported in OIG's April 19, 2007 memorandum to EPA's Administrator, "EPA's Key Management Challenges." EPA's response to each challenge follows in italics.

EPA's Top Major Management Challenges Reported by the Office of Inspector General	FY 2005	FY 2006	FY 2007	Link to EPA Strategic Goal	Link to President's Management Agenda
Managing for Results:* Focusing on the logic of design, measures of success (outputs and outcomes), and measures of efficiency, so that EPA programs and processes can be set up to evaluate results and make necessary changes.	•	•	•	Cross-Goal	Integrating Performance & Budget
Agency Efforts in Support of Homeland Security: Implementing a strategy to effectively coordinate and address threats.	•	•	•	Cross-Goal	Homeland Security
Data Standards and Data Quality:** Improving the quality of data used to make decisions and monitor progress, and data accessibility to EPA's partners.	•	•	•	Cross-Goal	E-Gov
Emissions Factors for Sources of Air Pollution: Reliable emission factors and data are needed for targeting the right control strategies, ensure permitting is done properly, and measure the effectiveness of programs in reducing air pollution.		•	•	Goal 1	
Workforce Planning: **** Implementing a strategy that will result in a competent, well-trained, and motivated workforce.	•	•	•	Cross-Goal	Human Capital
Voluntary Programs:*** Applying voluntary approaches and innovative or alternative practices to provide flexible, collaborative, market driven solutions for measurable results.		•	•	Cross-Goal	
Efficiently Managing Water and Wastewater Resources and Infrastructure: Current drinking water, treatment and supply, and wastewater treatment and disposal systems are wearing out and will take huge investments to replace, repair and construct facilities.		•	•	Goal 2	
Information Technology Systems Development and Implementation: Overseeing information technology projects to ensure they meet planned budgets and schedules.		•	•	Cross-Goal	E-Gov
Data Gaps: Deciding what environmental and other indicators will be measured, providing data standards and common definitions to ensure that sufficient, consistent and usable data are collected.		•	•	Cross-Goal	E-Gov
Privacy Program: Integrating policies and controls into EPA's E-Government and other systems infrastructure for the protection of personal identifiable information.			•	Cross-Goal	E-Gov Homeland Security

***** From FY 2004 and 2005 Working Relationships with the States and Linking Mission to Management were consolidated into Managing for Results.

****** From FY 2004 and 2005 Information Resources Management and Data Quality were consolidated into Data Standards and Data Quality

*** FY 2006 titled Voluntary, Alternative, and Innovative Practices and Programs

**** FY 2006 and 2006 titled Human Capital Management

Managing for Results

EPA programs reviewed using OMB's Program Assessment Rating Tool (PART) continue to receive improved scores. Overall, nearly 90 percent of the 51 programs reviewed have received "adequate" or passing scores. While many of EPA's programs received high PART scores in areas such as program purpose and program management, EPA continues to be challenged in demonstrating program results. Only 24 percent of EPA's programs achieved passing scores in the area of Program results/Accountability[2]. According to the PART results, the Agency scored low in this area for several reasons:

- EPA is not regularly conducting independent evaluations of sufficient scope and quality to support program improvements and evaluate program effectiveness.
- EPA does not collect timely and credible performance information, including information from program partners, and use it to manage the program and improve performance.
- EPA programs do not have ambitious targets and timeframes for their long-term measures.
- EPA's budget requests are not tied to accomplishment of annual and long-term performance goals, and resource needs are not presented in a complete and transparent manner in the program's budget.[3]

To address these factors and better demonstrate results, EPA management needs to make a concerted effort to focus on the logic of program design and to ensure that the Agency designs programs and processes so that it can measure, evaluate, and demonstrate results.[4] Designing programs with clear and measurable results allows for transparency of, and accountability for, program performance. EPA also needs to ensure program managers are held accountable for ensuring that programs are designed with the means to measure and demonstrate program results and that the information gathered is used to manage and improve program results.[5]

EPA does not have a systematic process for conducting evaluations of its programs and operations, but rather conducts evaluations on an ad-hoc informal basis.[6] The Evaluation Support Division (ESD) in the Office of Policy, Economics, and Innovation serves as the Agency's center of expertise for program evaluation and provides support to the Agency programs when requested.[7] However, with only six FTEs, ESD does not have the work force to conduct a meaningful number of evaluations for the Agency.[8] ESD primarily tries to build capacity for program evaluation within the Agency by running a program evaluation competition (PEC), providing performance measurement and program evaluation training, and coordinating an evaluation network. Program and regional managers initiate evaluations of programs within their offices. ESD provides program and regional managers an opportunity to submit proposals for program evaluations from which ESD selects, funds, and manages approximately five evaluations annually under the PEC. While this approach provides coverage for some Agency programs, it does not fully meet the Agency's need for program evaluation.

EPA has limitations to overcome before establishing a systematic approach to program evaluation. Currently, ESD estimates that EPA spends approximately $1 million annually on program evaluation, up to .03 percent of its budget. Other Federal agencies and corporations, considered leaders in program evaluation, budget for or set aside about 1 percent of their annual budgets, or up to 15 percent per project, for program evaluation. EPA also needs additional staff capable of commissioning and managing independent, high-quality program evaluations with sound methodologies that produce evidence of program effectiveness or guide decisions to improve effectiveness and results. EPA does not have a large community of knowledgeable and experienced evaluators of environmental programs from which it can draw

to perform its evaluations. EPA's reliance on States and localities for data on program performance makes obtaining consistent quality data a major challenge for the Agency.[9] With the complexity of environmental programs and the difficulty in measuring environmental performance, a well-designed program evaluation function is an important tool that can assist EPA in demonstrating program performance and improving results. Leveraging the evaluative resources provided by GAO and OIG should be part of EPA's plan for addressing this challenge.[10]

The Agency recently completed its *2006-2011 Strategic Plan* (Plan) which the Agency expects to help focus its efforts on obtaining measurable results. The Plan reported continued improvement in the quality of the Agency's performance measures, its ability to track costs, and its ability to provide this information to managers for their use in managing their programs more effectively. The Plan also highlighted progress in improving the outcome orientation of objectives and targets, analyzing performance trends and budget information to establish budget priorities, and improving and developing performance and financial management reports.[11]

The OIG recognizes that directly linking public health and environmental improvements to actions by EPA and its partners is a challenging undertaking. Nevertheless, the Agency should continue its efforts to improve its strategic planning and tracking of accomplishments and their associated costs. The Agency needs to evaluate its programs to ensure that they include the means to measure and demonstrate program results. Then it needs to follow through to obtain timely, accurate data that it can use to improve the efficiency and effectiveness of its programs and hold Agency employees accountable.[12]

EPA's Response (Prepared by the Agency)

Over the past years, national programs, regional offices, and the Agency's external stakeholders have worked collaboratively to strengthen results-based management at EPA. In FY 2006, the Agency issued its 2006-2011 Strategic Plan, which charts an ambitious course for environmental protection over the next 5 years and focuses on achieving measurable results that will help advance the protection of human health and the environment. The revised Strategic Plan reflects more outcome-oriented goals and objectives and benefits from information on environmental indicators and from futures analysis. The Agency continues to improve the quality of its performance measures as well as its ability to track the cost of achieving environmental results by reducing reporting burden, strengthening data quality, and reinforcing accountability.

OMB acknowledges EPA's significant accomplishments in the area of Financial Performance and Budget and Performance Integration under the PMA. For the 2nd and 3rd quarters of FY 2007, EPA received status and progress scores of "green" for its continued use of financial and performance information in day-to-day program management and decision making. EPA also continued efforts to streamline efficiency measures.

Highlights of progress include:

- *Maintained and improved the ACS as a management tool for senior managers to support more effective program management and use of results in Agency decision making.*
- *Enhanced the Annual Commitment System (ACS) to track three new classes of measures (Senior Executive Service organizational assessment, state grant template, and regional priorities). The system also flags measures that contribute to OMB's PART reviews.*
- *Launched a new intranet website (http://intranet.epa.gov/ocfo/acs) to provide Agency staff with information on ACS development and the annual performance commitment process.*
- *Developed new detailed performance reports through the Office of the Chief Financial Officer's Reporting and Business Intelligence Tool (ORBIT).*

- *Retired the Management and Accounting Reporting Systems (MARS), saving $1 million annually and improving Agency access to key budget and financial management reports.*
- *Achieved OMB approval of efficiency measures for all 51 of EPA's completed PART programs.*
- *Issued the 2006-2011 Strategic Plan, which reflects a sharper focus on priorities established by the Administrator (i.e., environmental justice, innovation and collaboration, environmental stewardship, and the role of state and tribal partners).*
- *Received a "green" status score for Budget and Performance Integration under the PMA for the 2nd and 3rd Quarters of FY 2007.*

Plans for further improvements:

- *Identify and implement initiatives that support the Agency's vision for greater central governance of performance measures and stronger program and organizational accountability.*
- *Improve senior managers' access to the Agency's performance information by modifying data systems (BAS, PERS, ACS) to include a "measures central" screen. The screen will improve the usability of the data system and serve as a filter for all Agency performance measures (GPRA, QMR, and senior management measures).*
- *Identify and endorse a limited set of "top tier" measures and integrate them in the FY 2008 National Program Managers Guidance, FY 2008 annual commitment process, and FY 2009 budget.*
- *Continue to promote and maintain ORBIT as a primary reporting tool for Agency budget, financial, and performance data.*
- *Expand the Agency's use of the state grant template to report on FY 2007 results, increasing transparency and ensuring that state grants are accountable for achieving EPA's mission.*

Efforts in Support of Homeland Security

The Department of Homeland Security (DHS) maintains the lead for the unified national effort to better prepare for, prevent, and respond to potential attacks against the United States from those who seek to harm it. In addition to carrying out its mission to protect human health and the environment, EPA also plays a vital role in homeland security efforts by helping to protect the environment from terrorist acts. EPA has developed technical and scientific expertise that enhances the ability of DHS to address potential terrorist threats. The National Response Plan and several Homeland Security Presidential Directives direct EPA to support, coordinate, or lead responses to incidents of national significance, including terrorist attacks.

EPA has faced unprecedented new challenges in responding to incidents of national significance including the World Trade Center and Pentagon terrorist attacks, and Hurricanes Katrina and Rita. These events further defined and demonstrated the Nation's expectations of EPA's emergency response role. These new expectations have expanded EPA's traditional emergency response functions.

In June 2006, the Agency finalized its *Emergency Response Business Plan* (ERBP or Plan). The stated purpose of the ERBP is to address EPA's overall readiness to respond to five simultaneous incidents of national significance while maintaining effective day-to-day emergency response operations. The Plan identifies national incident scenarios and gaps in resources to respond to the scenarios, and documents the distribution of available emergency response resources in the regions. The OIG evaluated the Plan in 2006 and 2007. We identified planning assumptions and aspects of the planning process that may challenge EPA's ability to rely on the Plan as a valid assessment of its readiness, including:

- The Plan does not provide the rationale for the incidents of national significance on which it is based.

- The Plan does not document the methodology used to determine the required emergency response resources.
- In developing the Plan, EPA conducted little or no coordination with other Federal government response agencies, or State and local emergency response agencies. The Plan does not address the likely involvement of these resources.
- The Plan does not incorporate lessons learned from responses to similar incidents of national significance or incidents involving tasks similar to those described in the Plan.
- The Plan does not address the criteria or responsible agencies for deciding when it is safe for residents to return to areas impacted by the incidents.

We will formally communicate our findings to the Agency and will continue to monitor Agency progress in ensuring readiness to meet its homeland security responsibilities.

EPA's Response (Prepared by the Agency)

EPA has an Emergency Response Business Plan to increase the Agency's preparedness in responding to environmental and homeland security related disasters. The plan provides a framework for the Agency to address simultaneous incidents of national significance while maintaining effective day-to-day emergency response and removal operations. In preparing the plan, headquarters and regions use five simultaneous incidents in a "worst case" planning scenario around which to develop detailed assessments, gap analyses, and program activities. The plan incorporates chemical, biological and radiological scenarios, and it briefly describes changes needed in managing personnel, financial, and other resources required to address incidents of national significance readiness.

Additionally, the Agency has developed a Draft Homeland Security 2007, 2008, 2009 Priority Work Plan to identify EPA's overall planning framework for advancing the Agency to the next level of preparedness. The draft work plan summarizes EPA's Presidential and other externally driven homeland security mandates and identifies the Agency's desired end state, or final destination, and its desired results and actions for each through 2009. The Agency plans to use the work plan as a tool to define priorities and encourage progress as EPA continues to improve its level of homeland security preparedness.

Highlights of progress include:

- *Established a Steering Committee to provide oversight and leadership to the numerous workgroups that support the Agency's National Approach to Response.*
- *Developed a draft Incident Management Handbook that provides guidance on organizational structure and outlines the communications flow during an incident of national significance (expected issuance December 2007).*
- *Developed and implemented an Information Technology Strategy that allows EPA to share information with its partners through the Emergency Management Portal and with the general public from its public web site.*
- *Formed an Administrative and Finance Workgroup to address procurement, property tracking, and pay issues.*
- *Developed a draft plan for acquiring and maintaining field communications equipment for EPA's emergency response programs.*

***Plans for further improvements include**:*

- *Release the final version of EPA's National Approach to Response (NAR) Crisis Communication Plan. (The plan addresses roles and responsibilities for Incidents of National Significance).*
- *Implement the Emergency Response Business Plan's approach for making the necessary changes in the management of personnel, financial, and other resources through NAR priority projects.*
- *Continue to develop training courses related to weapons of mass destruction and pandemic and avian influenza.*

Data Standards and Data Quality

The Agency has a substantive effort in place to develop data standards and provide guidance for their implementation, but incorporating data standards in information collections from initial plans to obtaining the data for analysis is not yet a routine activity in all programs.[13] Data standards are an essential component of EPA's information program. They promote efficiently sharing environmental information among EPA, States, tribes, and other information partners. Using common data standards among partners ensures consistently defined and formatted data elements and sets of data values, and ensures access to more meaningful environmental data.

EPA has acknowledged the challenge of implementing data standards in Agency systems, and developed a three-pronged corrective action plan involving (1) a communication strategy that promotes awareness of implementation procedures and best practices, (2) tracking implementation of data standards, and (3) a validation strategy to review progress in implementing the standards and the effectiveness of corrective actions. The Agency made considerable progress on the action plan and will continue to track program implementation of data standards and conduct performance reviews of key systems through fiscal 2010.[14]

EPA and its partners also need to continue to focus on ensuring that data are of sufficient quality for decision-making. OIG evaluation and investigative activities involving laboratories' analysis of drinking water samples continue to raise concerns with the integrity of sample results. Without any national studies of water quality data that include examining laboratory integrity, the full extent of the problem remains unassessed. Given the potential impact of poor quality data on human health, EPA should

- assess drinking water laboratory integrity and incorporate promising techniques to identify improper practices and fraud in the laboratory oversight process,
- develop a mechanism to identify, and a policy to address, data in EPA databases from questionable laboratories[15] and,
- conduct routine quality assurance and quality control analysis for the non-reporting of violations of drinking water standards and violations of regulatory monitoring and reporting requirements.[16]

EPA considers data quality for drinking water an Agency-level weakness, and originally established a corrective action completion target that extended into 2007.[17] However, EPA still needs to negotiate several key action items and milestones that may extend the completion date for this weakness into fiscal 2008 or beyond.

Recent OIG work regarding emergencies, such as Hurricane Katrina, also shows an immediate need for decision makers at various levels of government to have reliable water quality data. One of the databases used by EPA to assist in managing environmental data caused local officials difficulty querying the database due to a lack of training and trouble

verifying the quality of data due to inconsistent data entry. We recommended that EPA set protocols to address these types of issues.[18]

EPA's Response (Prepared by the Agency)

EPA declared "Implementation of Data Standards" an Agency-level weakness under FMFIA in FY 2005, and has since made progress in addressing challenges related to data standards and data quality. The Agency currently has in place a corrective action strategy that addresses issues identified by OIG. In response to OIG concerns regarding the integrity of laboratories, EPA continues to require laboratories to submit Quality Assurance Reports and Work Plans annually. In accordance with a February 2004 policy directive developed by the Agency's Science Policy Council, laboratories are to seek accreditation from independent accrediting organizations or conduct independent external assessments of their laboratory practices to demonstrate competency. As of April 2007, nine laboratories have achieved accreditation. While EPA has completed the milestones associated with correcting its "Implementation of Data Standards" weakness, we will continue to monitor and verify performance, promote awareness, and develop training modules to implement data standards.

***Highlights of progress include**:*

- *Developed a communications plan promoting implementation of upcoming standards and awareness of associated documentation, including implementation strategy, procedures, and best practices.*
- *Issued a semi-annual Data Standards "Report Card" designed to track program implementation of data standards.*
- *Reviewed data standards implementation for all systems managed under one prime contractor.*

***Plans for further improvements include**:*

- *Continue to develop training modules and conduct training on standards implementation for system developers supporting EPA program offices.*
- *Design and launch a new EPA data standards website that will provide data standards and implementation information for EPA program offices and system developers.*
- *Continue to monitor implementation of data standards within the Registry of EPA Application and Databases and publish the semi-annual Data Standards Report Card.*

Emissions Factors for Sources of Air Pollution

Emissions factors are used to develop the emissions data that are the cornerstone of a host of important environmental decisions made by EPA; State, local, and tribal agencies; industries; environmental groups; and others.[19] Emissions factors are used for about 80 percent of emissions determinations for sources of air pollution.[20] These decisions include facility permitting, developing control strategies, making compliance and enforcement decisions, measuring environmental progress, and demonstrating program results under Government Performance and Results Act.[21] Without reliable emissions factors, users cannot be sure that (1) air pollution control strategies target the right industries or products, (2) permitting programs include all required sources and establish proper emissions limits, and (3) air programs are effective in reducing air pollution.[22]

The Agency faces significant challenges in improving emissions factors. A March 2006 OIG evaluation found (1) conflicting guidance on the appropriate use of emissions factors, (2) a rating system that did not quantify the uncertainty associated with the emissions factors, (3) inadequate funding of the emissions factor program, and (4) the lack of a comprehensive plan to improve data collection and set emissions factor priorities.[23] These management-related issues

continue to contribute to the impairment of emissions factor development, hampering achievement of the Clean Air Act's requirements and major Air program goals.[24]

As a result, emissions factors are being inappropriately used for key environmental decisions.[25] For example, emissions factors have been used for non-inventory purposes, such as setting permit limits and reporting the level of air pollution control at specific facilities.[26] For three industry sectors EPA examined, inappropriately using emissions factors contributed to more than one million tons of pollutants not being controlled.[27] EPA guidance states that the user must take into account the uncertainty of the emissions factor when considering its use;[28] however, emissions factor uncertainty is little understood, leading to inappropriate uses.[29] For example, the fiberglass industry believed EPA emissions factors were overestimating its emissions so it developed new emissions factors.[30] However, instead of decreasing estimated emissions for the industry, the improved emissions factors increased the estimated emissions for the fiberglass industry by about 100 percent.[31]

EPA is shifting its efforts toward more direct, continuous monitoring and measurement of emissions from all major emissions sources.[32] However, increased demand for low-cost environmental data is driving the need for more quality emissions factors.[33] Use of emissions factors will continue for a broad array of environmental decisions for years to come, including measuring and reporting environmental progress.[34] For example, EPA is planning to use emissions factor derived data to make decisions regarding the risks that remain after air toxics technology-based standards have been implemented, and to decide the effectiveness of existing air toxics practices, processes, and control technologies.[35] If EPA can improve the quality of its factors, this should improve environmental decision-making for reducing air pollution.[36] However, if EPA continues to use insufficient measures to determine program results, the Agency may not be reaching the goals it has claimed to reach, the air may not be as clean as the Agency claims,[37] and EPA and States may make misinformed decisions for the most promising future actions to improve air quality.[38]

EPA has recently taken steps to improve the quality of the emissions data used to make environmental decisions through the development of a Quality Management Plan.[39] The purpose of this management plan is to help ensure that data generated by or for the Agency are of known and acceptable quality.[40] In addition, EPA completed a statistical study of the uncertainty associated with published emissions factors that are based on emissions testing data.[41] While progress has been made since our 2006 report, the Agency's challenges are to address the large number of emissions factors rated low; ensure stable, sufficient funding to address underlying data gaps and limitations;[42] limit decisions made with poor quality emissions factors; and provide significant non-regulatory incentives to industry, State, and local agencies to provide EPA with the data the Agency has long sought to improve the quality of emissions factors.[43]

EPA's Response (Prepared by the Agency)

The Agency has made significant progress in addressing the issues identified in OIG's March 2006 evaluation report, EPA Can Improve Emissions Factors Development and Management. EPA remains on track in implementing its plan to make it easier for others to transmit and transform their emissions data into emissions factors that account for uncertainty. Building on previous success, the Agency continues to re-engineer the emissions factor program to develop emissions factors faster, increase the number of emission factors, and account for uncertainty in emissions factors.

With respect to developing guidance for using emissions factors, EPA agrees that the Agency needs to be clearer about the regulatory and environmental risks of using emissions factors, including the risks associated with their original intended application and for programs that have adopted their use as an

expeditious means of achieving their goals. The Agency has developed a new, streamlined emissions factor development process that is currently undergoing public review, and we expect to finalize these new procedures later this year.

In response to OIG's finding that the current emissions factor rating system did not quantify the uncertainty associated with emissions factors, the Agency has completed a statistical study of the uncertainty associated with published emissions factors that are based on emissions testing data, such as those contained in AP-42. We presented our approach and study results to internal reviewers and a panel of expert peer reviewers and addressed their comments and suggestions. In February 2007, EPA submitted a report describing the technical approach and the results to Congress and OMB. The report is currently available on the web for public review and comment. EPA is now beginning to analyze various policy options available for accounting for uncertainty.

The OIG has recommended the development of a comprehensive plan to improve data collection and set emission factor priorities. We have developed and submitted a comprehensive strategic plan meeting those recommendations, which is currently under review by OIG. The plan focuses on advancing direct, continuous site-specific measurements of the pollutant of concern and addresses the development and use of emissions factors for situations where site-specific measurements are infeasible or the risks of adverse program decisions are unacceptable.

Highlights of progress include:

- *Launched WebFIRE, an interactive website that combines AP-42 and FIRE data so that users are no longer required to conduct independent checks while searching for emission factors.*
- *Conducted an analysis to determine the uncertainty of highly-rated emissions factors.*

***Plans for further improvements include**:*

- *Enhance WebFIRE to allow users independently to check and verify background information for emissions factors.*
- *Develop emissions factors for coke ovens, landfills, municipal waste combustors, steel mini-mills, landing losses for external floating roofs, and low pressure petroleum storage tanks.*
- *Initiate development of emissions factors for natural gas engines, rubber manufacturers, and animal feeding operations.*

Workforce Planning

Achieving EPA's environmental and human health goals depends on the ability to attract, develop, and retain a highly skilled, diverse, and results oriented work force. To accomplish this,
EPA leaders must strategically manage their most important resource - human capital. In March 2006, EPA issued its first comprehensive Strategic Workforce Plan to address the challenge of having the right people, at the right location, at the right time.[44]

Human capital management is one of the government-wide initiatives under the President's Management Agenda (PMA). The PMA initiative requires agencies to improve workforce planning by moving beyond the concept of managing through attrition and replacing employees on a one-to-one basis. Under the PMA, Federal agencies' human capital strategies are required to be linked to organizational mission, vision, core values, goals, and objectives. Further, the PMA requires agencies to use strategic workforce planning as a tool to recruit and retain employees, identify required competencies, and determine the size and location of its workforce.[45]

Audits reports, issued by OIG and GAO between 2000 and 2004, identified significant concerns with EPA's human capital strategy. The reports indicated the Agency's strategy did not (1) explain how to achieve its human capital objectives for protecting the environment, (2)

identify the resources needed and the specific milestones for implementing the human capital objectives, and (3) provide results-oriented (outcome) measures to track the Agency's progress and evaluate its success in achieving these objectives.[46]

Based in part on these concerns, as well as challenges the Agency faces in meeting requirements under PMA, Human Capital Management has been listed as a top management challenge since 2001. EPA is working closely with OMB and the Office of Personnel Management (OPM) to align the Agency's human capital strategy to meet the objectives outlined in the PMA, as it relates to the strategic management of human capital. [47]

Actions the Agency is taking, or has completed, to improve workforce planning include:

- Completed a comprehensive Strategic Workforce Plan in March 2006.
- Developed and is currently implementing a Mission Critical Occupation (MCO) competency-based and resource-based approach for identifying occupations deemed critical for the Agency to achieve its mission.
- Identified 19 MCOs and prioritized the list to establish the Agency's first six priority MCOs to be evaluated (Information Technology Specialist, Human Resources Specialist, Leader, Toxicologist, Grant Specialist, and Contract Specialist).
- Adopted OPM's four step model for strategic workforce planning which includes an analysis of the critical occupation supply, demand, gaps, and strategies to address gaps.
- Began applying OPM's four step process to the priority MCOs. As of March 2007, EPA had completed the four steps for the IT Specialist; steps 1 through 3 for Human Resources Specialist and Leader; and step 1 for Toxicologist, Grant Specialist and Contract Specialist.
- Procured a competency assessment tool and is completing competency assessments for toxicologists, grant and contract specialists.[48]

Despite these accomplishments, the Agency continues to face challenges to workforce planning. A review of the Agency's workforce planning efforts revealed challenges which may affect the Agency's ability to get to "green" status on the PMA scorecard, including the need to:

- Complete the remaining steps in the workforce planning model for the six priority MCOs by the first quarter of FY 2008.
- Assess the remaining 13 MCOs that include occupations key to achieving the Agency's mission, such as health and physical scientists, biologists, chemists, environmental engineers, and support occupations.
- Meet the OPM Senior Executive Service certification requirement by aligning performance goals using a cascading approach.
- Meet OMB and OPM expectations to identify the number of employees and locations for each of the 19 Mission Critical Occupations, as well as narrow any gaps identified.[49]

EPA acknowledges human capital as an Agency-level weakness and is taking actions to strengthen this area.[50] However, because many of the actions taken are not yet completed or not to a point where their effectiveness can be measured, additional time is needed to determine whether the actions will be effective in addressing EPA's workforce challenges. EPA plans to continue to monitor and report on the progress of its human capital initiatives, assess the overall effectiveness of the Agency strategy for human capital, and determine whether EPA is achieving its desired human capital results.[51]

EPA's Response (Prepared by the Agency)

In FY 2001, EPA acknowledged human capital (HC) as an Agency-level weakness. Over the years, the Agency has made significant progress in strengthening its HC program. This included developing a robust HC accountability program, improving the HC audit program and expanding the Agency's leadership development programs to enhance skills and ensure continuity of leadership. Despite these accomplishments, the Agency continues to face challenges in addressing the workforce planning component of its human capital weakness. To address the workforce planning concerns identified by OIG and GAO, EPA developed a workforce planning/competency management system that gauges skill gaps and guides the design of strategies for closing the gaps. Additionally, EPA is working closely with OMB and the Office of Personnel Management (OPM) to align the Agency's Human Capital Strategy to meet the objectives outlined in the PMA as it relates to the Strategic Management of Human Capital. The Agency expects to complete all final corrective actions related to this weakness by December 2007.

Highlights of progress include:

- *Furthered the local-level awareness of the comprehensive Agency Strategic Workforce Plan and utilized various HR options to close gaps.*
- *Began phase I implementation of the electronic Official Personnel Folders program by training HR specialists and administrators on its use.*
- *Continued to work with OMB on HR LoB initiative to address duplicative and redundant HR systems.*
- *Launched the "Successful Leaders Program" to survey employees and their supervisors to determine needed training.*
- *Improved the efficiency of the EZHire system, enabling the Agency to better track and monitor its compliance with OPM's 45-day hiring model.*
- *With its Union partners, EPA established an Agency-wide Leave Bank Board in February 2007.*

Plans for further improvements include:

- *Continue to track and assess program and regional workforce plans to ensure alignment with the Agency's workforce plans and strategic goals.*
- *Continue to monitor and report on progress of EPA's HC initiatives to assess the overall effectiveness of the Agency Strategy for Human Capital and to complete all final corrective actions related to this weakness by December 2007.*

Voluntary Programs

EPA supports and advocates for a range of voluntary programs designed to provide flexibility and novel and beneficial approaches to achieve environmental goals. The basic premise of voluntary approaches is flexible, collaborative, market-driven solutions that can deliver measurable environmental results. These programs primarily work with business, community, or other partners to either reduce pollution below regulatory requirements, or ameliorate environmental problems not otherwise regulated by EPA (e.g. water and energy use, recycling).[52] In 2002, EPA released an innovation strategy that described EPA activities and priority issues.[53]

Voluntary programs have proliferated in recent years and now address a wide variety of environmental challenges.[54] However, their growth has not been matched by appropriate organization and oversight. Recent OIG work illustrates that EPA does not have Agency-wide policies that require the inclusion of key evaluative elements such as standardized management processes, consistent and reliable data, and uniform operational guidelines that allow for comparative assessment. EPA has not developed specific definitions that help EPA staff to categorize or identify these diverse voluntary programs. Finally, EPA has not implemented a systematic process to develop, test, and market voluntary programs, or to regularly evaluate the effectiveness of these programs. As a result, EPA cannot identify a consistent population of

voluntary programs, there are no policies requiring voluntary programs to have comparative programmatic elements, and there is no systematic process in place to regularly assess the effectiveness of these programs. In addition, we found shortcomings in EPA's "gold standard" voluntary programs with quality controls, performance measurement, and strategic planning.[55]

Clearly, EPA must be innovative and flexible, and adapt to changes in environmental protection to continue progress toward environmental goals. The challenge is to maintain those vital elements of the existing system, such as the standards, permits, and compliance assurance efforts which are part of EPA's basic mandate, while simultaneously pursuing creative new tools and approaches that complement and enhance the Agency's efficiency and effectiveness.

In 2004, the Innovation Action Council was charged with voluntary program oversight and created the Voluntary Program Coordination team. This team has issued several guidance documents and has attempted to stay in regular contact with many of the voluntary programs.

However, it does not have Agency-wide oversight authority to conduct day-to-day management functions, or to develop management procedures, measurement protocols, or outcome reporting requirements. EPA can take steps to address these oversight, evaluation and management challenges to maximize potential environmental benefits of voluntary programs.

EPA's Response (Prepared by the Agency)

EPA programs and regions support a range of voluntary/partnership programs, which function as an adjunct to regulatory programs or fill in where a regulatory approach is not practicable. These programs are diverse in size, scope, environmental media, target environmental issue, and stakeholder base. They range from high-profile programs such as ENERGY STAR and Performance Track to smaller, more targeted programs such as Sunwise or Natural Gas STAR. There are more than 50 partnership programs Agency-wide which are managed by many different program offices and regions, each of which is responsible for ensuring that programs are well designed and well run. Thus, it is difficult for any single office response to address such a broadly-defined management challenge.

However, the Agency's Innovation Action Council (IAC), which directs and oversees the Agency's innovation agenda, has initiated a number of efforts to clarify the goals and measures and evaluate the results of innovative and "voluntary" partnership programs. As part of this initiative, a Partnership Program Coordination Team has been formed within OPEI's National Center for Environmental Innovation.

Highlights of progress include:

- *Issued guidelines on optimal program design, performance measurement, and marketing.*
- *Implemented a notification system for new and expanding programs.*
- *Established a charter that includes an Agency-wide workgroup and network to maximize uniform understanding of and compliance with relevant policies and procedures.*
- *Established a coordination function in the Office of the Administrator to encourage sound program design and management, with a special emphasis on performance measurement.*
- *Finalized guidelines for marketing partnership programs, and issued a compilation of previous guidelines. Guidelines are available on the Partners intranet website at: http://www.epa.gov/partners.*
- *Formed a cross-agency Partnership Program Review Workgroup, charged with developing a framework for the systematic evaluation and assessment of partnership programs.*

***Plans for further improvements include**:*

- *Initiate the development of a new set of Guidelines on Program Evaluation for partnership programs.*
- *Finalize a Progress/Accomplishments Report that will compile the environmental results reported by programs across the Agency.*
- *Conduct training on best practices and procedures, and arrange seminars and discussion groups on new research on trends and strategies.*

Efficiently Managing Water and Wastewater Resources and Infrastructure

America's water assets are critical to the country's public health and economic, environmental, and cultural vitality. About 160,000 public drinking water systems and 16,000 sewage treatment plants throughout the Nation supply fresh water and remove and treat used water. Over the past 20 years, communities have spent more than $1 trillion (in 2001 dollars) on drinking water treatment and supply, and wastewater treatment and disposal. Still, these systems are projected to have huge costs to repair, replace, and construct new water infrastructure. Current systems are wearing out, and recent and future environmental requirements from EPA will necessitate additional investments.

In 2002, EPA estimated the 20-year water infrastructure capital needs as ranging between $485 billion and $896 billion. EPA annually commits funding to the Clean Water and Drinking Water State Revolving Funds (SRFs) to ensure that communities have access to capital for their drinking and wastewater infrastructure needs. The 2008 President's Budget proposes $688 million for the Clean Water SRF and $842 million for the Drinking Water SRF[56]. These amounts are unchanged from the prior year's budget submission.

EPA has to find ways to be more innovative on the finance and management fronts to assist States and communities in overcoming infrastructure issues. OIG reports on such topics as Drinking Water Protection Efforts, Source Water Protection, Small Drinking Water Systems[57], Combined Sewer Overflows and State Revolving Funds have identified funding as a significant barrier to progress. Our work has shown that a competition exists between infrastructure and other priority water needs (e.g. drinking water source protection, regulatory program implementation, security) for the limited available SRF money.

Funding requirements can be more difficult for small systems to meet, impeding their ability to obtain much needed resources. The Agency faces a continuing challenge to find ways to reach and influence the management behavior, skills, and abilities of thousands of small utilities. Preparing and publishing documents, and convening workshops reach only a small portion of the systems that need EPA's expertise. Recent OIG work shows that lack of long-term planning, management and operator competencies and retention, and problems understanding regulations continue to be challenges for small utilities. Good practices, such as mentoring programs by larger utilities, show promise for wider application to benefit small utilities and could help address the management issues that are a component of the water infrastructure challenges. EPA needs to define its role as part of a long-term National strategy on sustainable water infrastructure that addresses financial and management issues, so that the Nation's water quality is protected now and in the future.

In addition, EPA regulations and policies allowing States to use bonds repaid from SRF interest to meet SRF match requirements are resulting in fewer dollars being available for water projects. Twenty States have used the Clean Water SRF to repay bonds issued to meet the required fund match, and 16 of those States also did so for the Drinking Water SRF. Further, four States used short-term bonds for their State match and then retired those bonds from SRF funds within a week of issuing them. These practices have resulted in an estimated $937 million less available for loans since the inception of the SRF programs. We acknowledge that States have funding limitations and depend on legislatures for funding. Nonetheless, the

majority of States have been able to finance their 20-percent match without using bonds financed by the SRFs, and we believe this is a goal toward which all States should strive.[58]

EPA has approached this challenge by focusing on its "Four Pillars of Sustainable Infrastructure" – better management, water efficiency, full cost pricing, and the watershed approach. While EPA hopes to build upon these "pillars" using the tools of technology, innovation, and collaboration, it is faced with the challenge of trying to do more with less. In the absence of growth in Federal funding, EPA has taken a non-financial and non-regulatory approach to meet the infrastructure challenge. For example, in the past year it established a voluntary program to conserve water ("WaterSense"), issued a "green infrastructure" policy, and convened a national conference on sustainable infrastructure. The Agency recognizes that much more remains to be done and recently pointed to the need for innovative actions and technologies for closing the infrastructure gap. However, the critical question for the agency is whether EPA's approach is adequate to the infrastructure challenge.

EPA's Response (Prepared by the Agency)

EPA believes it has taken and will continue to take effective steps to define and pursue its role in ensuring that the nation's water and wastewater infrastructure is sustainable in the future. While much of the change is needed at the local level, EPA provides leadership, tools, innovation, and momentum to encourage a shift toward financial and managerial sustainability. The Agency's role is to provide education and outreach and to serve as a "wholesaler" of information to our state and national professional association partners. EPA's Four Pillars of Sustainable Infrastructure (SI) have provided the structure to define the sustainability challenge, raised the visibility of the issue to a national scale, and offered a suite of approaches to move towards sustainability. Water infrastructure has been further elevated on the national stage as one of the Administrator's top four priorities.

EPA is leading by example by breaking down barriers to progress in its own programs and partnerships and working toward policies that foster sustainability, while protecting human health and the environment. Internally, EPA is speaking with one voice—reaching across offices to promote the innovation needed to address the sustainability challenge. SI has been a major topic for the national Water Division Directors' and SES meetings, helping the Agency work across traditional organizational lines to allow and promote innovation. The Agency is promoting SI through permits, Special Environmental Projects, and injunctive relief. The Agency is also coordinating efforts in its Performance Track and Smart Growth programs to foster aspects of sustainability, energy, and infrastructure related to climate change.

EPA's efforts go well beyond the areas of focus under the Four Pillars. In the area of innovative finance, the Agency is working to allow the expanded use of Private Activity Bonds to bring more private capital into the sector and exploring and promoting innovative uses of SRF loans. In March 2007, in partnership with 14 other organizations, EPA convened a national conference on Paying for Sustainable Water Infrastructure that brought stakeholders from all levels of government and the private sector together to explore creative methods of paying for sustainable water infrastructure. Four conference tracks covered topics related to reducing costs and increasing investment in drinking water and wastewater systems and programs. The conference looked beyond the Four Pillars to broader issues and expanding all stakeholders' efforts, since solutions to the sustainability challenge will require joint and collaborative effort. EPA has since met with conference co-sponsors to consolidate learning and define critical areas for additional collaborative action, such as improved outreach to local officials.

On July 2, 2007, EPA responded to OIG's audit recommendations, indicating that the Agency has followed the tenets embedded in legislation and regulation to allow states maximum flexibility in operating their SRFs. States face differing fiscal realities and need the ability to adopt policies for meeting their match requirements that are appropriate for their situations. As noted in the report, EPA

agreed to assess the effects on states of its state match bond policy and the potential impact of changes to the current policy. Our assessment indicates that states show near unanimous support for the current policy and believe that its cumulative effect on the SRF program has been highly beneficial. States further indicate that adopting the OIG recommendation would be disruptive and detrimental to the SRF program. Finally, at least 11 states that take advantage of the current policy believe they would be unable to procure state appropriations for match, and therefore unable to apply for federal funds. It is notable that the majority of states that issue match bonds also leverage their federal capitalization grants to make maximum use of the program. EPA believes that, on balance, its current policy on state match bonds is successful in providing maximum state flexibility and effective environmental and public health protection and that further action is not warranted at this time.

Highlights of progress include:

- *Launched WaterSense, a market enhancement program that is increasing national awareness of water-efficient choices and the value of clean and safe water.*
- *Signed a ground-breaking agreement with six major water and wastewater associations jointly to promote effective utility management based on a series of Attributes of Effectively Managed Utilities, other management tools, and utility performance measures.*
- *Co-sponsored the Water Quality Trading Conference with USDA that brought utility companies and the agricultural community together to build momentum for trading programs that maximize impact from infrastructure investments.*
- *Continued to produce assistance documents and tools targeting the needs and special circumstances of small utilities (e.g., Simple Tools for Effective Performance and Total Electronic Asset Management Software).*
- *Convened a Watershed Forum with several major utilities to discuss ways to promote adoption of various watershed tools, such as green infrastructure, into local infrastructure decisions.*
- *Convened a panel of experts to discuss the importance of full cost pricing of water and wastewater services by utilities.*
- *Co-sponsored the Paying for Sustainable Water Infrastructure: Innovations for the 21st Century Conference which brought together stakeholders from all levels of government and the private sector to explore creative methods for paying for sustainable water infrastructure today and into the future.*

***Plans for further improvements include**:*

- *Develop a Small Communities Team work plan focused on better management of wastewater for small communities and disadvantaged or underserved populations.*
- *Prepare a Drinking Water Capacity Development Strategic Plan to ensure that the Agency's outreach efforts to small utilities are well coordinated and effective.*
- *Release the Water Quality Trading Toolkit for Permit Writers, which explains how to implement the National Water Quality Trading Policy and is the first "how to trade" guidance published by the Agency.*
- *By end of summer of 2008, publish a series of "technical guides" that will provide technical information for establishing trading programs in such areas as water quality monitoring and developing scientifically-based trade ratios.*
- *By winter 2008, complete the Check Up Program for Small Systems software, an asset management tool designed to help small systems.*
- *Work with the Green Infrastructure Collaborative workgroup on a strategy to expand the use of green infrastructure solutions.*
- *Host a National Capacity Development Program workshop to expand outreach and explore solutions to the challenges faced by small systems.*

Information Technology Systems Development and Implementation

EPA requested approximately $433 million in system development/maintenance funding for fiscal year 2007.[59] As noted by GAO, major systems development efforts are inherently risky[60] and EPA has experienced problems similar to those encountered by other Federal agencies.[61] Our report on information technology (IT) project management identified instances where EPA needed to continue efforts to ensure its IT projects met (1) planned budgets and schedules and (2) Agency prescribed system life cycle documentation requirements.[62]

Since FY 2006, EPA has made some improvements in the area of IT systems development and implementation. EPA issued an Operational Analysis Guidance document[63] and System Life Cycle Management (SLCM) policy.[64] In addition, EPA (1) completed independent validations for reasonableness for 10 ongoing development projects, (2) validated IT project manager qualifications, and (3) initiated a quarterly certification process for all major IT acquisitions to ensure there is no duplication with the President's E-Gov initiatives.[65]

However, despite these efforts, more management control and oversight is necessary to ensure IT projects meet the performance standards established by the Office of Management and Budget (OMB).[66] In particular, EPA needs to take steps to ensure the following.

- High-risk IT projects do not exceed prescribed cost and schedule variances. Recently, EPA reported that 22 percent (4 of 18) of its current high-risk IT projects have cost and schedule variances over 10 percent.[67] Despite having qualified project managers for these investments, EPA has experienced: (1) schedule slippages in the Financial System Modernization Project acquisition process, (2) unforeseen schedule delays in system integration planning and testing of interfaces to the Defense Finance Accounting Service payroll system, and (3) a high number of unanticipated and significant technical and systems issues associated with the Agency's E-Travel migration. These problems have resulted in overall schedule variances of Agency systems ranging from 13 to 36 percent over planned milestones.[68]

- EPA regional and program offices complete system life cycle documentation to guide the development of Agency systems, in a timely manner, as required by Agency policy. The OIG conducted follow-up work on EPA efforts to complete key system documentation for major environmental systems. This review showed that EPA offices do not prepare essential documentation as required by Agency policy. In particular, current audit work identified instances of missing or unapproved System Management Plans (SMP) for major environmental systems.[69] The SMP is the principal tool used by System Managers to control, assess, and document the system throughout the system life cycle process.[70] Although EPA is currently revising its SLCM procedures to address these issues, the Agency has not indicated when it will issue the new procedures.[71] Inadequate system documentation prevents the OIG from assessing the reliability of the automated application processing controls in EPA's Integrated Financial Management System (IFMS). While EPA has made progress towards replacing IFMS, delays and the lack of documentation continue to result in a reportable condition in the Agency's financial statements.[72]

- Earned Value Management procedures are strengthened. EPA has not finalized its draft November 2006 Earned Value Management (EVM) Procedures used to assist project managers in collecting and reporting on performance of major IT investments.[73] These procedures include (1) implementing modifications to EPA contracts that require the contractor to use EVM procedures and (2) validating the project's performance measurement baseline.[74]

EPA's Response (Prepared by the Agency)

In its September 2005 report, "EPA Needs to Improve Oversight of Its Information Technology Projects," OIG noted that EPA has experienced system development and implementation problems and did not sufficiently oversee information technology (IT) projects to ensure they met planned budgets and schedules. In response to OIG's audit findings, EPA developed an action plan to enhance management control and oversight. The action plan calls for formally delegating the responsibility for independent oversight review, adding a question in the Capital Planning and Investment Control (CPIC) process focusing on System Life Cycle documentation and approvals, and further emphasizing the importance of reviewing solutions architecture documents. It also calls for revising the System Life Cycle Management Procedures and continued outreach and education for senior management and Senior Information Officials. While EPA's Chief Information Officer (CIO) has the lead for ensuring effective IT project management, primary authority and responsibility lies with the senior manager in the office that owns the IT project, with appropriate oversight by the CIO.

Highlights of progress include:

- *Received certification from program and regional Senior Information Officials that all IT acquisitions of $2 million or more had undergone an E-Gov, Line of Business, and SmartBuy review.*
- *Ensured that program offices completed Earned Value Management (EVM) analysis and reporting for on-going development projects.*
- *Developed Enterprise Architecture Governance Procedures that require review, approval, and certification that solutions architectures are aligned with both federal and EPA enterprise architectures.*
- *Conducted outreach briefings for Agency Senior Information Officials, discussing CPIC and project management.*
- *Issued the draft Enterprise Architecture Program 2007 Architecture Development Standard and Guidance.*

***Plans for further improvements include**:*

- *Finalize the draft Earned Value Management Procedures by the end of FY 2007.*
- *Continue to conduct outreach briefings with senior management.*
- *Conduct annual EVM program reviews with project managers.*
- *Continue to work with the appropriate office to ensure that EVM systems are included in contracts and to establish guidelines for project/program compliance and system certification.*

Data Gaps

If EPA is to manage for results, it needs to decide what environmental and other indicators will be measured so that organizations responsible for delivering environmental programs identify, collect, and measure what is important. Ensuring that the right type of data is available for analysis is essential for effective environmental decision making. OIG audits and evaluations pointed out that data to measure program success are not always present.

While EPA has developed a comprehensive work plan to measure the performance of the National Environmental Exchange Network (Network), data necessary to measure progress in meeting key Network objectives have not been collected. Such performance measures would provide the baseline data necessary to measure the Network's performance over time. Without the key performance data, management is hindered in its efforts to ensure funds spent on electronic data collection initiatives provide the quality and quantity of environmental data necessary to improve program efficiency and effectiveness.[75]

EPA and its partners also need to take steps to implement the numerous data requirements designed to provide better protection against the health risks of pesticides under

the Food Quality Protection Act. Although EPA took some steps to collect required data for assessing the health risks of pesticides on children, significant data gaps remain. EPA needs to collect more data on aggregate exposure risk and take various steps to improve its cumulative risk assessments, including updating databases and expanding partnerships with other Federal organizations.[76]

While extensive data have been collected on mercury emissions from coal-fired utilities, data gaps still exist with respect to understanding the effectiveness of specific controls in reducing mercury emissions from coal. In a February 2005 study on the control of mercury emissions, EPA noted that there are data and science gaps associated with existing control technologies that are intended to reduce emissions of other pollutants (with the co-benefit of reducing mercury), as well as with emerging technologies specifically designed to reduce mercury emissions. These mercury emissions uncertainties, which EPA has not yet quantified, could impact the accuracy of the estimated utility emissions entered into EPA's atmospheric models and the resulting deposition estimates. [77]

In 2006, an OIG audit revealed that data gaps exist regarding the management of hazardous waste units granted interim status under Subtitle C of the Resource Conservation and Recovery Act.[78] Undoubtedly, EPA must be creative and work collectively with States, tribes, territories, and industry to address many of these immense data gap problems. In its efforts to address these challenges, EPA implemented a process to identify and prioritize data gaps. This included coordinating the latest draft Report of the Environment (ROE) with the Agency's strategic planning and budgeting processes. In developing EPA's *2006-2011 Strategic Plan*, National Program Managers considered the suite of ROE questions and indicators in an effort to help the Agency develop better environmental performance goals and measures. This effort also set out to help the Agency identify and set priorities for filling gaps in the information needed to manage programs. In the future, EPA must continue its plans to analyze and discuss the ROE indicator gaps and limitations. EPA also must continue to develop new, and strengthen existing, outreach programs to identify how and where EPA can leverage data collection efforts among its partners.[79]

EPA's Response (Prepared by the Agency)

As part of its strategic planning, EPA continues to implement and refine processes to identify data gaps and to set priorities for addressing them. For example, the Agency is coordinating the draft Report of the Environment (ROE) with its strategic planning and budgeting process. As part of developing EPA's 2006-2011 Strategic Plan, national program managers (NPMs) considered the suite of ROE questions and indicators to help develop better environmental performance goals and measures and to identify and set priorities for filling gaps in the information needed to manage programs. NPMs were also required to develop preliminary strategies for improving performance measures to make them more environmental-outcome oriented. Each strategy identified priorities for filling key data gaps to meet the most critical needs and provided a brief recommendation on how to address critical gaps in program data.

Highlights of progress include:

- *Developed a pilot (endorsed by ICS) that assesses how the ROE and strategic planning efforts can best inform and support one another.*
- *Completed the Water pilot, as part of the ROE/SP pilots.*
- *Briefed the Indicators Steering Committee on the preliminary accomplishments of the ROE/SP Pilot.*
- *Implemented a comprehensive work plan to measure the performance of the Exchange Network.*

Plans for further improvements include:

- *Continue to further refine the process to identify and prioritize data gaps identified in the ROE as part of the Agency's Strategic Plan and budgeting planning processes.*

Privacy Program

With the increased scrutiny regarding the protection of personally identifiable information (PII), Federal agencies' privacy programs have become the subject of recent oversight by OMB.[80] EPA, like many agencies, has found it a challenge to remain focused on its privacy responsibilities and integrate privacy into the evolving nature of E-Government and other mandated privacy activities. EPA is currently in the process of re-establishing its Privacy Program (Program).[81] However, recent OIG audit work discovered that EPA needs to implement a more comprehensive management control structure to govern and ensure its Privacy Program's success. In particular, EPA needs to strengthen its management controls over developing and distributing key privacy guidance, monitoring the effectiveness of the Program, and putting processes in place to measure the Agency's compliance with key privacy program tenets.[82]

EPA needs to update the overarching policy that outlines the administration and management of the Program and establish a structure to ensure key privacy policies, procedures, and guidance are readily available to personnel responsible for implementation. The current Program policy is outdated and lacks the specificity needed for EPA offices to understand the Program's standards or the duties and responsibilities of those responsible for implementing the program. Furthermore, EPA needs to complete projects to develop a centralized location where key privacy guidance documents are accessible. EPA has indicated it plans to establish (1) an intranet site for posting privacy policies, procedures and guidance; and (2) a privacy liaison structure within each EPA office to ensure key documents are distributed. EPA indicated that it is currently updating the Privacy Program policy; however, the project intended to make key privacy guidance documents available on the Agency's intranet site is on hold, without any planned completion milestone date. Likewise, the Agency has not set a milestone date for establishing the envisioned privacy liaison structure.

EPA also needs to complete plans for ensuring compliance with the Agency's Privacy Program's policies and procedures,[83] and establishing an effective oversight process to perform compliance evaluations or inspections.[84] Like many of the Privacy Program provisions, establishing a monitoring process is still in the planning stage.[85] EPA's Privacy officials indicated they plan to monitor compliance by using the Privacy Program liaison structure, established at the program and regional office level. Privacy officials also plan to ensure that the Agency is not collecting unnecessary PII and that required forms have legally sufficient Privacy Act Statements. However, none of these activities has been initiated nor has a target date been set for their implementation.[86]

In addition, EPA needs to continue its efforts to establish practices that will help Privacy Program managers effectively measure the success of the Program. Although the Agency's Privacy Program is still in the infancy stage, EPA needs to establish a formal plan with milestones to identify the activities to be performed and performance measures for assessing progress.

Managing an effective Privacy Program will require EPA to work closely with its program and regional offices to ensure they develop and implement a successful program, thereby meeting the requirements for protecting PII collected by the Agency. Although EPA is poised to meet this challenge, it needs an effective, yet flexible, management control structure to oversee what will be an evolving process. Furthermore, EPA needs to aggressively complete and implement key Privacy Program guidance and other vital planned activities.

EPA's Response (Prepared by the Agency)

EPA acknowledges that it faces challenges in establishing privacy programs, including revising and developing policies, establishing oversight and accountability, ensuring compliance, and measuring success. However, over the past year, EPA has made significant progress in integrating its privacy and security reporting responsibilities into its business processes.

In June 2006, the Agency established a Personal Identifiable Information (PII) Workgroup under the Quality Information Council to identify and implement short- and long-term actions to protect PII from unauthorized access and disclosure. The workgroup developed an action plan to ensure that key privacy initiatives are met and that the critical tenets of the privacy program are accomplished. The action plan, which includes milestones and expected outcomes, will help the Agency better understand its risks for PII breaches by knowing where its privacy collections are located, managed, and accessed and whether the Agency is storing and collecting unnecessary PII. EPA has already completed several critical activities within the action plan and will continue to monitor progress in this area.

Highlights of progress include:

- *Reviewed the Agency's technical controls to ensure consistency with the National Institute of Standards and Technology (NIST) and OMB requirements*
- *Prepared System of Records for new system (on-going)*
- *Established and implemented guidance for preparing Privacy Impact Assessments on all new Agency systems (on-going).*
- *Reviewed Agency privacy policies to ensure they address the controls identified by NIST.*
- *Reviewed all Agency Privacy Act Systems of Records to determine which systems are remotely accessed, are downloaded, and/or collect sensitive PII, and whether stringent controls are required.*
- *Reviewed and submitted draft language for the Agency's new telework policy to ensure that employees are aware of their responsibilities to protect PII when working offsite.*

***Plans for further improvements include**:*

- *Develop a privacy intranet website that will make privacy documents available to employees.*
- *Continue to monitor progress to ensure the Agency is in compliance with NIST and OMB standards and/or requirements.*