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Catalyst for Improving the Environment

Congressional Testimony

The Clean Water Act after 37 Years: Recommitting to the Protection of the Nation's Waters

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Good morning Mr. Chairman and Members of the Committee. I am Wade Najjum, Assistant Inspector General for Program Evaluation at the U.S. Environmental Protection Agency (EPA) Office of Inspector General (OIG). I am pleased to be here today to discuss some of the challenges facing EPA that bears on its ability to effectively manage, oversee, and enforce environmental laws, including the Clean Water Act.

Over the years the OIG has issued numerous reports that pertain to aspects of the Clean Water Act ranging from EPA's oversight of major facilities in long-term significant noncompliance; efforts to clean up the Chesapeake Bay and the Great Lakes; and delays in establishing water quality standards for nutrients. Some of these reports are summarized at the end of my statement. We also have a significant body of work addressing enforcement and related issues in other EPA program areas. While this hearing is focused on clean water, I mention other program areas because the OIG believes that there are common roots to many of the problems we identified in other media that bear on clean water management and enforcement.

EPA and the Clean Water Act

Steps taken by EPA and others under the Clean Water Act have resulted in significant improvement in the nation's waters over what they would have been without this law. EPA has led a change in the nation's attitude toward protecting our rivers and streams. Billions of dollars are spent annually by companies and federal, State, and local governments to work toward the goals that Congress established 37 years ago. As a result, significant amounts of pollutants from factories and wastewater treatment plants are now removed before discharges reach rivers and streams; and many water bodies have been made safe for fishing and swimming.

Despite these accomplishments, the full potential of the Clean Water Act has not been realized. For example, when I spoke before the Subcommittee on Water Resources and Environment last year, I discussed gaps in clean water protections that inhibit attainment of clean water goals for the Chesapeake Bay. Also, we are currently evaluating EPA's wetlands program and are finding issues that impair its ability to effectively enforce the program.

Management Challenges that Impede Effective Management and Enforcement

Every year the OIG issues a listing of management challenges facing EPA based on OIG work performed and additional analysis of EPA operations. Management challenges are defined as a lack of capability derived from internal self-imposed constraints or, more likely, externally imposed constraints that prevent an organization from reacting effectively to a changing environment. In April 2009, the OIG identified 10 key management challenges for Fiscal Year 2009. Three of those challenges impact EPA's management and enforcement capability:

- EPA's organization and infrastructure;
- Oversight of delegations to States; and
- Performance measurement.

In the remainder of my testimony I will present our conclusions about how these challenges impact EPA's management and enforcement capability with reference to some of the reports that we have issued in recent years. It should be noted that EPA has addressed some of the specific findings as a result of adopting the recommendations contained in those reports. However, we believe that the underlying issues persist.

EPA's Organization and Infrastructure

In July 1970, the first EPA Administrator formally organized EPA based upon existing environmental legislation that encompassed discrete media programs for water, air, pesticides, radiation, and solid waste, as well as 10 regional offices and a laboratory structure inherited from other federal agencies. However, President Nixon's Advisory Council on Executive Organization, also known as the Ash Council, recommended organizing EPA according to functional categories (e.g., monitoring, research, standard-setting, enforcement, assistance) rather than along media lines (e.g., air, water, land). This recommended organizational approach was intended to recognize the interrelated nature of pollution problems, acknowledge that pollutants cut across media lines, encourage balanced budget and priority decisions between component functions, and permit more effective evaluations of total program performance.

However, the realities of environmental legislation made this type of integration difficult and would require an incremental, three-phased approach. The first phase of EPA organization was dominated by its discrete medium orientation. The second phase followed a hybrid functional/media structure similar to EPA's current organization. Finally, the third phase would eliminate the media-oriented program offices in favor of the functional units recommended by the Ash Council. This was never realized. Studies we reviewed indicate that EPA's failure to move to this third phase may hinder EPA's ability to effectively enforce and oversee environmental laws.

OIG work has also shown that EPA's organization has impeded achievement of environmental goals and efficient use of resources. Recurring themes include: inadequate coordination between EPA headquarters offices; inconsistencies in enforcement among EPA's Regions; inadequate national (Agency) guidance, procedures, or priorities on programs; a lack of strategic plans that link program missions, goals, and performance measures; and decentralized management contributing to allocation and resource management problems. For example:

- In a review of EPA's Drinking Water Program, it was unclear whether the Office of Enforcement and Compliance Assurance (OECA) was adequately coordinating its efforts with the Office of Ground Water and Drinking Water (OGWDW). OECA reported that it has "substantive, regular, and consistent" coordination with OGWDW on both rule development and enforcement, while other sources indicated that OECA's enforcement priorities may be out of alignment with those of OGWDW.

- In a review that assessed EPA's oversight and assistance of tribal community water systems, we found that the five Regions we reviewed varied in the quality of oversight they provided to tribal community water systems. One Region failed

to monitor for certain contaminants, chose not to enter known monitoring violations into the Safe Drinking Water Information System, and did not conduct enforcement actions against the systems that committed these violations.

- EPA relies heavily on guidance to communicate Agency policy and regulations. OIG work has shown a culture in EPA that treats guidance as non-binding to parties, including EPA Regions, and accepting of guidance that is incomplete, draft, or interim. This could lead to inconsistent implementation and impede EPA's ability to effectively enforce necessary actions since private parties may perceive unfairness and the absence of boundaries on their activities.

- In a review of the Border 2012 Program, a joint U.S.-Mexico effort to improve the environment and protect the health of people living along the border, we found that success varied across the different media areas as well as by leadership despite a program structure aimed at reducing stove-piping. Program implementation varied depending on the Region. There was no systematic roadmap that defined the relationships between resources, activities, and intended outcomes; nor were there management controls to ensure that results were documented or that goals were being achieved.

- An OIG review found that EPA's decentralized management of the Superfund program contributes to allocation and resource management problems. EPA spreads its Superfund appropriation across a variety of offices and Regions. This has limited EPA's opportunities to effectively manage Superfund resources for cleanup.

Oversight of Delegations to the States

EPA's mission is to protect human health and the environment. To accomplish its mission, EPA develops regulations and establishes programs that implement environmental laws. These programs may be delegated to State, local, and tribal agencies that request to take primacy of the program. Delegation, however, does not relieve EPA of its statutory and trust responsibilities for protecting human health and the environment. EPA performs oversight of State, local, and tribal programs in an effort to provide reasonable assurance that delegated programs are achieving their goals. EPA does not have the resources to effectively administer all its responsibilities directly. EPA relies heavily on local, State, and tribal agencies for compliance and enforcement and to obtain performance data. In its *FY 2007 Performance and Accountability Report*, EPA states it delegated the responsibility for issuing permits and for monitoring and enforcing compliance to the States and tribes.

A critical management challenge to EPA is oversight of its delegations to States. Federal environmental statutes grant EPA a significant role in implementing the intent of the law, and also authorize a substantial role for States. However, quality data is often lacking to ensure that the intent of the law is met. Also, Federal requirements establish consistency for businesses and within industries nationwide. States' discretion adds flexibility to address specific circumstances and local issues. However, joint

implementation and enforcement leads to special challenges in interpretations, strategies, and priorities.

Our evaluations have shown that EPA's oversight of State programs requires improvement for several reasons. These include inconsistent enforcement guidance interpretation; States and Regions not meeting minimum reporting requirements; differing standards for State delegation agreements among the Regions; disagreements on enforcement priorities between OECA and the Regions; inaccurate data systems; and internal control deficiencies. For example:

- We found that EPA did not provide effective enforcement oversight of major facilities with National Pollutant Discharge Elimination System (NPDES) permits in long-term significant noncompliance. EPA inconsistently applied guidance defining timely formal enforcement actions. Also, EPA guidance did not provide meaningful direction on what constitutes "appropriate" actions. Timely and appropriate formal enforcement actions are important to minimize additional pollutants from being discharged into the nation's waters to ensure protection of human health and the environment. We estimated that up to 51 million pounds of excess pollutant loads were discharged during our review period by 44 facilities reviewed, representing loads that could have been minimized.

- EPA and States did not maintain complete and accurate records of NPDES compliance and enforcement activities. Many Region and State files were incomplete, and data in EPA's information systems were incomplete and inaccurate. Further, Regions and States did not report inspection-related violations in EPA's Permit Compliance System. An accurate history of the compliance and enforcement activities at a facility is important for oversight and making future enforcement decisions. The lack of accurate information inhibits EPA's ability to provide effective oversight to NPDES major facilities and thus protect human health and the environment from excess levels of toxic or harmful pollutants.

- We found Regions and States did not always oversee industrial users discharging into wastewater treatment plants without approved programs. EPA was working on developing guidance for overseeing categorical and significant industrial users discharging to plants without approved programs, but had put it off due to other priorities.

- In a review of EPA's oversight and assistance of tribal community water systems, we found internal control deficiencies existed in administering EPA's oversight in some of the Regions we reviewed. To varying degrees, tribal drinking water records were incomplete due to a failure to maintain oversight of system operations and/or poor records management. Internal controls are an important safeguard for ensuring that systems operate as intended. Deficiencies in these controls may indicate that the systems are vulnerable to failure, resulting in increased risk to public health.

Performance Measurement

EPA has been recognized for its efforts to align its budgeting, planning, and accounting systems to track and report on resource use. However, EPA continues to be challenged in measuring the human health and environmental results of its environmental programs. Despite the vast array of data reported and contained in EPA's information systems, the Government Accountability Office (GAO), the States, regulated entities, and EPA have pointed out that the Agency does not have much of the information it needs pertaining to environmental conditions and trends and the potential human health risks of various pollutants. This makes it difficult to evaluate and report on the benefits derived from environmental activities and make optimal decisions about how to invest EPA's resources to maximize environmental results.

Our reviews have shown EPA to have flawed performance measurements for several reasons. These include activity-based rather than performance-based metrics; inadequate performance measures; inaccurate reporting on performance results; and an inability to enforce performance reporting at the State level. For example:

- We evaluated the combined sewer overflow (CSO) enforcement priority area strategy in our 2008 review of OECA's strategic priorities. We found that EPA's primary focus was to ensure that communities representing significant population centers were making appropriate progress towards addressing CSO problems and violations. However, the CSO strategy did not contain long-term or annual outcome performance measures of success. Without outcome measures that contain targets and timeframes, EPA could not gauge whether the pace of progress was satisfactory. It also did not measure the resources EPA expends on this and the other priority areas. The lack of input measures prevents EPA from assessing the cost effectiveness of its programs.

- Our review of EPA's pretreatment program showed it did not have the information systems necessary to effectively measure, analyze, demonstrate, and improve pretreatment program performance. EPA's pretreatment measures have been activity-based to show compliance with program regulations or that compliance mechanisms are in place, rather than noting the impact of the program on the environment.

- Our review of EPA's backlog of NPDES permits found that the backlog measures did not provide an accurate view of the status of the permit program or an adequate measure of environmental results. These measures did not properly compare progress against baselines, and the measures focused on outputs (tasks performed) rather than outcomes (environmental results achieved). Therefore, they were not useful for making management decisions.

- We reported on the Total Maximum Daily Load (TMDL) program and found that TMDL and surface water quality performance measures did not provide clear and complete metrics of the program's accomplishments. Since the TMDL program did not have any outcome measures, we reviewed the two TMDL output measures along with two of EPA's annually reported surface water quality measures that

were broader than, but related to, the TMDL program. All of these measures were unclear, and some were inconsistently reported in EPA's publications.

- Our review of EPA's watershed approach found that EPA did not develop measures to evaluate key programs and activities, including implementation of some core water programs on a watershed basis. Further, while EPA's national outcome measures were relevant, they were not understandable, comparable, and reliable. Without these improvements, the ability of EPA's performance measurement system to convey useful information on EPA's strategy to improve water quality on a watershed basis will be hampered.

- We found that OECA's 2005 publicly-reported Government Performance and Results Act performance measures did not effectively characterize changes in compliance or other outcomes because OECA lacked compliance rates and other reliable outcome data. In the absence of compliance rates, OECA reports proxies for compliance to the public and does not know if compliance is actually going up or down. As a result, OECA did not have all of the data it needed to make management and program decisions.

- Our review of EPA's voluntary programs showed weaknesses in their current data collection and reporting systems – caused by limited, unverified, and anonymous data reporting. These systems are neither transparent nor verifiable, and are limited by anonymous reporting and use of third party industry data. As a result, the reported accomplishments of these voluntary programs may be based on unreliable data.

Conclusion

Mr. Chairman, EPA's ability to effectively manage, oversee, and enforce the environmental laws under its jurisdiction, including the Clean Water Act, has been impeded by several factors including its current organizational structure, how it oversees State delegated authorities, and limitations in performance measurements. On the 37th anniversary of the Clean Water Act, we believe that a recommitment to the protection of the nation's waters can be achieved by an EPA that is strategically aligned to uniformly enforce environmental statutes and provide consistent oversight of its Regions and State delegations. This will require a comprehensive review of EPA's current organization and a commitment to implement best practices. The OIG is ready to assist in this effort. We are continuing to monitor these issues. We are also currently in the midst of establishing a product line that will focus on reviewing EPA's organization and management practices and making recommendations that will help the Agency more effectively accomplish its mission.

Thank you for the opportunity to testify before you today. I would be pleased to answer any questions the Committee may have.

Attachment

Summaries of Selected EPA Office of Inspector General Reports on the Clean Water Act Since 2001

EPA Needs a Cohesive Plan to Clean Up the Great Lakes Areas of Concern	**09-P-0231** **September 14, 2009**

Since 2004, EPA has completed five Legacy Act-funded contaminated sediment clean-ups and remediated approximately 800,000 cubic yards of contaminated sediment. However, EPA is challenged by the overall extent of the contaminated sediment problem in the Great Lakes areas of concern (AOCs). EPA is the designated lead Agency for the clean-ups; however, we found EPA does not have a regime for coordinating remediation activities across its program offices as well as with States, localities, and other stakeholders. While some results have been achieved in cleaning up individual sediment sites, EPA has not developed or implemented a coordinated approach to manage clean-ups.

EPA does not know the full extent of the contaminated sediment problem. Accurate sediment estimates for more than 30 percent of the remediation sites remain unknown. Potential Great Lakes Legacy Act clean-up sites have an estimated federal cost of $2.25 billion. Local partners will have to come up with a total of $1.21 billion in non-federal matching funds before Legacy Act assistance is provided. We estimate that at the current rate of progress, it may take more than 77 years to complete all of these clean-ups. Moreover, remediation will be conducted in the order that individual local governments and stakeholders can afford, rather than with regard to the risks posed to human health or the environment. Without improved management, coordination, and accountability, EPA will not succeed in achieving the results intended for the AOC program.

EPA Needs to Accelerate Adoption of Numeric Nutrient Water Quality Standards	**09-P-0223** **August 26, 2009**

EPA's 1998 National Strategy and Plan to promote State adoption of nutrient water quality standards (which better protect aquatic life and human health) has been ineffective. In 1998, EPA stated that a critical need existed for improved water quality standards, given the number of waters that were impaired from nutrients. In the 11 years since EPA issued its strategy, half the States still had no numeric nutrient standards. States have not been motivated to create these standards because implementing them is costly and often unpopular with various constituencies. EPA has not held the States accountable to committed milestones. The current approach does not assure that States will develop standards that provide adequate protection for downstream waters. Until recently, EPA has not

used its Clean Water Act authority to promulgate water quality standards for States.

EPA cannot rely on the States alone to ensure that numeric nutrient standards are established. EPA should prioritize States/waters significantly impacted by excess nutrients and determine if it should set the standards. EPA also needs to establish effective monitoring and measures so that accurate program progress is reported. This will assist EPA management in program decision-making.

Congressionally Requested Report on Comments Related to Effects of Jurisdictional Uncertainty on Clean Water Act Implementation	**09-N-0149** **April 30, 2009**

During our interviews, while conducting the wetlands enforcement evaluation, the U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers, and State wetlands staff spoke about a variety of impacts to their programs caused by the Rapanos decision (Rapanos v. United States). This information was not verified or substantiated by Office of Inspector General (OIG). The OIG did not analyze its content or draw any conclusions from this information.

Overall, CWA enforcement activities [for Sections 311 (oil spills), 402 (National Pollutant Discharge Elimination System), and 404] have decreased since the Rapanos ruling. An estimated total of 489 enforcement cases (Sections 311, 402, and 404 combined) have been affected such that formal enforcement was not pursued as a result of jurisdictional uncertainty, case priority was lowered as a result of jurisdictional uncertainty, or lack of jurisdiction was asserted as an affirmative defense to an enforcement action.

EPA Has Initiated Strategic Planning for Priority Enforcement Areas, but Key Elements Still Needed	**08-P-0278** **September 25, 2008**

OECA has instituted a process for strategic planning in its national enforcement priority areas. It has developed strategic planning guidance and a strategy template to facilitate continual review and improvement of the strategies. The Fiscal Years 2008-2010 strategic plans we reviewed, for air toxics, combined sewer overflows, and mineral processing, contain an overall goal, a problem statement, a description of the current status of the priority area, anticipated environmental benefits, the facilities to be addressed, the tools to be used, and OECA Headquarters and regional responsibilities.

However, each of the plans is missing key elements to monitor progress and accomplishments and efficiently utilize Agency resources. All three strategies lack a full range of measures to monitor progress and achievements. Two strategies lack detailed exit plans. Additionally, the combined sewer overflow strategy does not address the States' key roles in attaining the strategy's overall

goal. The absence of these elements hinders OECA from monitoring progress and achieving desired results in a timely and efficient manner.

EPA Needs to Better Report Chesapeake Bay Challenges: A Summary Report	**08-P-0199** **July 14, 2008**

Despite many noteworthy accomplishments by the Chesapeake Bay partners, the Bay remains degraded. This has resulted in continuing threats to aquatic life and human health, and citizens being deprived of the Bay's full economic and recreational benefits. Through its reporting responsibilities, EPA could better advise Congress and the Chesapeake Bay community that (a) the Bay program is significantly short of its goals and (b) partners need to make major changes if goals are to be met. Current efforts will not enable partners to meet their goal of restoring the Bay by 2010. Further, new challenges are emerging. Bay partners need to address:

- uncontrolled land development
- limited implementation of agricultural conservation practices
- limited control over air emissions affecting Bay water quality

EPA does not have the resources, tools, or authorities to fully address all of these challenges. Farm policies, local land development decisions, and individual life styles have huge impacts on the amount of pollution being discharged to the Bay. EPA needs to further engage local governments and watershed organizations in efforts to clean up the Bay.

Despite Progress, EPA Needs to Improve Oversight of Wastewater Upgrades in the Chesapeake Bay Watershed	**08-P-0049** **January 8, 2008**

Chesapeake Bay wastewater treatment facilities risk not meeting the 2010 deadline for nutrient reductions if key facilities are not upgraded in time. In the 7 years since signing the *Chesapeake 2000* agreement, EPA and its State partners have taken a number of steps to lay the foundation for achieving the 2010 wastewater nutrient reduction goals. Water quality standards have been set, nutrient loadings have been allocated, and nutrient limits are beginning to be incorporated into permits. However, States need to finish adding nutrient limits to the permits, and the facilities will need to make significant reductions by 2010. Crucially, these reductions will need to be maintained once achieved. Significant challenges include generating sufficient funding and addressing continuing population growth. EPA needs to better monitor progress to ensure needed upgrades occur on time and loading reductions are achieved and maintained. Otherwise, Bay waters will continue to be impaired.

Total Maximum Daily Load Program Needs Better Data and Measures to Demonstrate Environmental Results	2007-P-00036 September 19, 2007

EPA does not have comprehensive information on the outcomes of the Total Maximum Daily Load (TMDL) program nationwide, nor national data on TMDL implementation activities. Although EPA and States are responsible for implementing point source TMDLs, EPA cannot identify all of the permitted dischargers that should receive or have received wasteload allocations. Measuring nonpoint source TMDL implementation is difficult because it is highly dependent on State and local stakeholders, and EPA does not have statutory authority to regulate nonpoint sources. EPA's lack of information prevents the Agency from determining if TMDL implementation activities are occurring in a timely manner, and the extent to which TMDLs are restoring impaired waters.

EPA measures the pace at which TMDLs are developed and approved. For the last 2 years, EPA and States have exceeded goals for these measures. EPA has begun to take steps to measure program results and improve program data, has sponsored several studies of TMDL implementation, and is studying additional TMDL results measures. Developing meaningful measures of the environmental results of water quality programs is challenging. However, EPA needs to provide more management direction to improve its ability to assess how well this critical program is functioning.

The TMDL and surface water quality performance measures we reviewed do not provide clear and complete metrics of the program's accomplishments. Since the TMDL program did not have any outcome measures, we reviewed the two TMDL output measures along with two of EPA's annually reported surface water quality measures that are broader than, but related to, the TMDL program. All of these measures are unclear, and some are inconsistently reported in EPA's publications.

Development Growth Outpacing Progress in Watershed Efforts to Restore the Chesapeake Bay	2007-P-00031 September 10, 2007

EPA and its Chesapeake Bay watershed partners will not meet load reduction goals for developed lands by 2010 as established in the *Chesapeake 2000* agreement. In fact, new development is increasing nutrient and sediment loads at rates faster than restoration efforts are reducing them. Developed lands contribute less than one-third of the Bay loads but would require about two-thirds of the overall estimated restoration costs. Consequently, EPA and its Bay partners focused on more cost-effective approaches, such as upgrading wastewater facilities and implementing agricultural best practices. Additional challenges impeding progress include:

- Lack of community-level loading caps.
- Shortage of up-to-date information on development patterns.
- Ineffective use of regulatory programs to achieve reductions.

- Limited information and guidance on planning and applying environmentally sensitive development practices.
- Limited funding available for costly practices.

A cost-effective start to reversing the trend of increasing loads from developed land is for communities to concentrate on new development. Opportunities abound for EPA to show greater leadership in identifying practices that result in no-net increases in nutrient and sediment loads from new development and assisting communities in implementing these practices. If communities do not sufficiently address runoff from new development, loads from developed lands will continue to increase rather than diminish.

Federal Facilities in Chesapeake Bay Watershed Generally Comply with Major Clean Water Act Permits	**2007-P-00032 September 5, 2007**

Overall, EPA and the States are doing well managing how major federal facilities comply with their NPDES permits. In EPA's last reporting period (2004), major federal facilities in the Chesapeake Bay watershed had a lower rate of Significant Noncompliance than other federal and non-federal major-permit facilities nationwide. EPA and States have a variety of formal and informal tools available to enforce federal facility compliance with NPDES permits. These tools included: multimedia, voluntary agreement, and media press release approaches; Notices of Violation; an administrative order; and a Federal Facility Compliance Agreement. Also, EPA developed the Wastewater Integrated Strategy, which seeks to eliminate federal facility Significant Noncompliance with NPDES permit limits. EPA also worked with the Department of Defense to make NPDES permit compliance a higher priority at military installations (eight of the nine federal facilities with major NPDES permits are at military installations). We made no recommendations in this report.

Assessment of EPA's Projected Pollutant Reductions Resulting from Enforcement Actions and Settlements	**2007-B-00002 July 24, 2007**

The accuracy and reliability of EPA's projected pollutant reductions for Fiscal Years 2003-2006 were dependent on the specific program in which the enforcement action took place. For example, more reliable data were available to project reductions from oil spill and power plant cases than other Clean Water Act (CWA) and Clean Air Act (CAA) cases, respectively. EPA has improved its internal control process for ensuring more accurate pollutant reduction estimates from concluded enforcement cases. The accuracy of estimated reductions from CWA enforcement actions has likely improved as a result of these internal control changes. However, we noted some inconsistencies in the calculation of projected CAA emission reductions. For example, three of the six power plant cases we reviewed did not include estimates for particulate matter reductions, thereby underreporting reductions. Also, different methodologies were used to estimate post-compliance emissions from power plant cases. Further, three of the six

regions we surveyed did not independently review the basis for the projected reductions for some CAA cases as called for by OECA's guidance.

EPA's annual projected reductions were heavily influenced by a few large cases. Less than 1 percent of the CWA cases accounted for 52 percent of the projected pollutant reductions from concluded CWA enforcement actions. Similarly, a few large power plant cases resulted in a marked increase in total estimated CAA-related reductions for Fiscal Years 2004-2005. For example, two power plant cases accounted for over 600 million pounds in reductions, about 78 percent of the Fiscal Year 2004 total.

Facilities were on target to meet the projected reductions for the CAA cases we reviewed. However, it will take years to complete all corrective actions in these cases. Consequently, we could not determine whether they had achieved their total projected reductions. Projected reductions have already been achieved for at least one CWA case, and other CWA cases were making progress toward meeting their projected reductions. EPA's 2006 Annual Report used terms such as "achieved," "reduced," and "actual" to describe emission reductions for that year even though the reductions were often only projected amounts, since it can take years for reductions to occur. OECA agreed to use more precise wording in future reports.

Better Enforcement Oversight Needed for Major Facilities with Water Discharge Permits in Long-Term Significant Noncompliance	**2007-P-00023** **May 14, 2007**

EPA did not provide effective enforcement oversight of major facilities with National Pollutant Discharge Elimination System permits in long-term significant noncompliance. While flexibility is required in a national program, EPA inconsistently applied guidance defining timely formal actions. Also, EPA guidance did not provide meaningful direction on what constitutes "appropriate" actions. Moreover, for 21 of 56 facilities reviewed, EPA and States did not take suitable formal enforcement actions to address all instances of significant noncompliance. At the remaining 35 facilities, none of the actions we could assess were timely based on criteria in EPA's Enforcement Management System.

EPA and States also did not maintain complete and accurate records of National Pollutant Discharge Elimination System compliance and enforcement activities. Many region and State files were incomplete, and data in EPA's information systems were incomplete and inaccurate. Further, regions and States did not report inspection-related violations in EPA's Permit Compliance System. We also noted that bacteria exceedances are not required to be reported as significant noncompliances.

Timely actions could help minimize the millions of pounds of excess pollutants released by these facilities. We estimate that up to 51 million pounds of excess pollutant loads were discharged from July 2002 through June 2005 by 44 facilities reviewed, representing loads that could be minimized.

EPA Relying on Clean Air Act Regulations to Reduce Atmospheric Deposition to the Chesapeake Bay and Its Watershed	2007-P-00009 February 28, 2007

CBPO is relying on anticipated nitrogen deposition reductions from Clean Air Act regulations already issued by EPA, combined with anticipated reductions from other non-air sources, to meet water quality goals for the Bay watershed. EPA believes these activities will provide sufficient nitrogen deposition reduction to enable the Bay to meet its overall nitrogen cap load, assuming non-air activities achieve planned reductions. EPA estimates that Clean Air Act regulations already issued will reduce nitrogen that falls directly into the Bay, as well as nitrogen deposited to the Bay watershed, by 19.6 million pounds annually by 2010. Even greater reductions should occur as States undertake additional measures in the next few years to meet the ozone and fine particulate matter standards. State and EPA strategies do not include additional air reduction activities specifically designed to clean up the Bay, although many State activities should have the co-benefit of reducing nitrogen deposition in the Bay.

If additional reductions in air emissions are needed to clean up the Bay, one potentially significant source of deposition not currently controlled is ammonia emissions from animal feeding operations. The magnitude of these emissions to nitrogen deposition in the Bay is uncertain. Ammonia emissions monitoring of animal feeding operations, expected to begin in the spring or early summer of 2008, should provide data to help EPA better determine the amount of such emissions from farming operations.

Saving the Chesapeake Bay Watershed Requires Better Coordination of Environmental and Agricultural Resources	2007-P-00004 November 20, 2006

State-level partners have committed the agricultural community to making nutrient reductions, but numerous practices abound and are generally performed on a voluntary basis. Few of the agricultural practices in the tributary strategies have been implemented because the agricultural community considers many of these practices as either being unprofitable or requiring significant changes in farming techniques. Although the State-level partners have provided substantial funding to implement these practices, one of the key State partners acknowledged substantial additional funding is still needed. At the federal level, applications for USDA's technical and financial assistance programs went unfunded, making it difficult to expand incentives for Bay area agricultural producers.

EPA must improve its coordination and collaboration with its Bay partners and the agricultural community to better reduce nutrients and sediment entering the Chesapeake Bay watershed. However, members of the agricultural community have been reluctant to participate with EPA because of EPA's regulatory enforcement role. USDA, a Bay partner at the federal level, could significantly

assist EPA in implementing the needed conservation practices within the agricultural community, given its many conservation programs, extensive field organization, and long experience working with the agricultural community. However, USDA has not coordinated a Department-wide strategy or policy to address its commitment as a Bay partner.

EPA Grants Supported Restoring the Chesapeake Bay	**2006-P-00032** **September 6, 2006**

EPA awarded assistance agreements (grants) that contributed toward meeting the goals of the Clean Water Act and the *Chesapeake 2000* agreement. These grants funded activities designed primarily to: reduce the nutrients and sediment entering the Bay and its tributaries, monitor ongoing efforts to restore Bay water quality, and model (estimate) the results of Bay implementation strategies. In Fiscal Years 2003, 2004, and 2005, Congress appropriated $23 million each year for EPA's Chesapeake Bay Program. In each of those years, EPA awarded about $8 million for State implementation grants and $7 million for technical and other grants for specific projects. EPA used the remaining $8 million to fund EPA personnel and office management, interagency agreements, and congressional earmarks. The efforts contributed to EPA's overall Bay restoration program. This report did not contain recommendations.

Sustained Commitment Needed to Further Advance Watershed Approach	**2005-P-00025** **September 21, 2005**

If EPA is committed to the watershed approach, it needs to make improvements in four key elements:

- Integrating watershed activities into its core water programs.
- Addressing stakeholder concerns to increase their participation.
- Refining and improving key aspects of its strategic planning process.
- Improving the watershed performance measurement system.

Although progress has been made in each of the four critical elements that we reviewed, further improvements are needed for each. EPA has made progress integrating watershed approach principles into some of its core water programs, but needs to address challenges to ensure further success. Stakeholders were enthusiastic about the watershed approach, but identified a number of obstacles when adopting the approach. EPA has made important strides incorporating the watershed approach into its strategic plans, but it must improve some key steps. Although EPA developed a performance measurement system for improving water quality on a watershed basis, EPA did not develop measures to evaluate key programs and activities, and its national outcome measures were not understandable, comparable, and reliable.

Efforts to Manage Backlog of Water Discharge Permits Need to Be Accompanied by Greater Program Integration	2005-P-00018 June 13, 2005

EPA and the States have had varying success in eliminating the backlog of NPDES permits requiring renewal, and more still needs to be done. The NPDES permit program is only one of many EPA programs to improve surface water quality. EPA needs to integrate its efforts to eliminate the NPDES backlog with the other programs to improve and maintain water quality based on Clean Water Act requirements.

To eliminate the NPDES permits backlog, EPA needs to address challenges involving resource constraints, increasing workload, complex permitting issues, external sources of permitting delays, and oversight limitations. EPA is now managing the NPDES permit program through the "Permitting for Environmental Results" Strategy that increases focus on environmental outcomes.

Congressionally Requested Review of EPA Region 3's Oversight of State National Pollutant Discharge Elimination System Permit Programs	2005-S-00002 October 29, 2004

The review answers five specific questions:

1. What are the statutory and regulatory requirements that EPA must follow for conducting oversight of State NPDES programs? The oversight requirements in the law are limited, but requirements are in the regulations.

2. How many major and minor NPDES permitted sources are in Region 3 States? Of the 7,499 traditional NPDES permitted sources in the Region, 750 are major sources and 6,749 are minor sources with individual permits.

3. How many inspections and enforcement actions were taken? According to the information in the Permit Compliance System, from October 1, 2002, to August 9, 2004, Region 3 and States inspected 3,729 permittees and took 205 enforcement actions. However, States do not report all of their actions in the system.

4. What are Region 3's procedures for ensuring that States comply with grant work plans? EPA Order 5700.6, entitled Policy on Compliance, Review and Monitoring, is the official policy that the Regions should follow to ensure grant recipients are complying with grant work plans. In Region 3, multiple people within the Water Division manage the grants. The project officers rely on technical staff in the Division to obtain some of the reports States should submit and inform them if they are having problems with a State. The Region also conducts joint evaluations with States regarding the grant work plan.

5. What are Region 3's procedures for ensuring that States are monitoring permits and taking timely enforcement actions? Region 3 uses various tools for overseeing States, including (a) reviewing information in the Permit Compliance System, (b) making quarterly calls with States, (c) carrying out Federal inspections and enforcement actions, and (d) reviewing State programs.

Congressional Request Regarding EPA Clean Water Enforcement Actions	**2005-S-00001** **October 18, 2004**

According to respondents from the 10 EPA regions, wet weather enforcement cases require more resources to complete than traditional National Pollutant Discharge Elimination System (NPDES) enforcement actions. Further, 8 of the 10 regions said that conducting enforcement actions against combined sewer overflows/sanitary sewer overflows requires more resources than other types of wet weather actions.

Evidence suggests that EPA has shifted NPDES compliance and enforcement staff from traditional NPDES program activities to work on wet weather issues. All five of the EPA regions that provided information from Fiscal Year (FY) 1999 through 2003 delineating traditional and wet weather resources indicated that they have shifted resources to address wet weather violations of the Clean Water Act.

EPA Needs to Reinforce Its National Pretreatment Program	**2004-P-00030** **September 28, 2004**

The reductions in industrial waste discharges to the nation's sewer systems that characterized the early years of the pretreatment program have not endured, according to EPA published data compiled from information provided by industrial facilities. Since the middle of the 1990s, there has been little change in the volume of a broad list of toxic pollutants transferred to POTWs or in the index of risk associated with these pollutants. As a result, the performance of EPA's pretreatment program, which is responsible for controlling these discharges, is threatened and progress toward achieving the Congress' Clean Water Act goal of eliminating toxic discharges that can harm water quality has stalled. The curtailing of the early gains may be explained in part by two factors: (1) dischargers that developed systems in response to EPA's initial program requirements have not enhanced their pretreatment systems in recent years, and (2) the rate at which EPA has been issuing effluent guidelines dramatically declined since 1990.

Without more visible leadership from Headquarters, improved programmatic information, and the adoption of results-based performance measures, EPA's pretreatment program is at risk of losing the gains it made in its early years. The leveling off of those early gains, coinciding with EPA's diminishing program emphasis, paints a picture of a program at risk. Headquarters has delayed finalizing guides and regulations intended to update the pretreatment program by not allocating sufficient resources or requesting budget increases for additional

pretreatment resources. Additionally, results-based performance measures on pretreatment program activities have not been developed partially due to the lack of adequate, accessible data. As a result, POTWs' pretreatment programs may not be as effective in protecting environmental quality or worker health and safety as they could be, and EPA cannot assess the effectiveness of its pretreatment program.

Effectiveness of Effluent Guidelines Program for Reducing Pollutant Discharges Uncertain	**2004-P-00025** **August 24, 2004**

Regarding effectiveness, the impact of effluent guidelines remains uncertain. Although effluent guidelines were used in the National Pollutant Discharge Elimination System (NPDES) permits we analyzed, pollutant discharge data were not readily available to determine whether effluent guidelines reduced pollutant discharges. We found a lag in issuing NPDES permits that utilized the revised effluent guidelines. Once reissued, permit limits were derived from the revised guidelines to a very large extent. We also found that adequate information was widely absent, although revised guideline-derived permit limits had an impact on the limited number of facilities with adequate information. Due to a lack of pollutant discharge data, we could not determine the extent of environmental benefits brought about by EPA's investment in the effluent guidelines program.

Further, EPA does not measure the effectiveness of either the effluent guidelines program or individual effluent guidelines. Consequently, EPA does not have sufficient evidence to show that this program has actually produced reductions. Although our work showed significant reductions in a few facilities, EPA has not systematically collected data to evaluate this program as a whole. Therefore, EPA cannot support a statement made in its recent Annual Report that industrial discharges of pollutants have been reduced by billions of pounds as a result of effluent guidelines. The effluent guidelines program has a marked insufficiency of information to make managerial decisions because EPA has not developed a systematic way of collecting such information.

EPA Should Take Further Steps to Address Funding Shortfalls and Time Slippages in Permit Compliance System Modernization Effort	**2003-M-00014** **May 20, 2003**

Without a modernized Permit Compliance System (PCS), EPA's Office of Water cannot effectively manage its Clean Water NPDES program. Having a modernized system is vital for EPA to effectively manage NPDES permitting and enforcement under current requirements. The current system is incomplete, obsolete, and difficult to use. The glaring weaknesses in the current PCS system have created a presumption in EPA that it will be modernized. We agree with EPA's view of the importance of this project, and believe delaying the project's rollout or reducing its functionality will hamper EPA's ability to achieve its goal of managing pollution sources on a watershed basis. The growth, variety, and

complexity of the regulated community have greatly outstripped the system's capabilities.

However, costs are dramatically escalating, and timeframes repeatedly pushed back, in part due to the failure to adequately plan, prepare, and manage the work. The critical role of the modernized PCS system does not make project management unimportant. On the contrary, management risks may be greater when a project is perceived as being vital. For this reason, it is imperative that EPA immediately conduct necessary analyses and develop realistic estimates of funding and schedules in order to place this project on a secure footing.

Wastewater Management: Controlling and Abating Combined Sewer Overflows	**2002-P-00012** **August 26, 2002**

Combined Sewer Overflows (CSOs) are the total discharges into water bodies of untreated domestic, commercial, and industrial waste and wastewater, as well as storm water runoff, from a Combined Sewer System. Such a system collects and transports both sanitary sewage and storm water runoff in a single-pipe system to a wastewater treatment facility. Overflows can impair water quality and adversely affect the health of humans, animals, and aquatic organisms, as well as cause beach closings and fishing and recreational restrictions. The Environmental Protection Agency (EPA) issued a CSO Policy in 1994, and states and communities have implemented CSO programs with varying success. Since 1978, the number of CSO permittees has been reduced from approximately 1,300 to 859. Some states have given the CSO program a higher priority than others.

An estimated $44.7 billion is needed nationwide for CSO abatement efforts, and raising sufficient funding for often expensive projects is obviously a significant barrier for many communities. The Clean Water State Revolving Fund is a major funding mechanism, but even its vast resources cannot meet the demand. Another key barrier that we noted is finding suitable sites for needed facilities.

Despite the barriers noted, states and communities demonstrated numerous promising practices that could be employed in the CSO programs of others to improve operations, reduce costs, and eliminate some of the aforementioned barriers. These promising practices included a variety of technical approaches and innovations, state grant programs, government cooperative efforts, public education initiatives, and neighborhood improvements. However, there is a need for a central mechanism within EPA to disseminate this information.

Land Application of Biosolids	**2002-S-000004** **March 28, 2002**

Sewage sludge is the solid, semi-solid, or liquid by-product generated during the treatment of wastewater at sewage treatment plants. According to the U.S. Environmental Protection Agency (EPA), over half the sludge produced each year is "used beneficially," primarily on agricultural land. The treated sewage sludge

used in land application is called "biosolids" by EPA and the industry. Land application of biosolids is a controversial issue. Concerns have been expressed about potentially adverse impacts of biosolids on human health and the environment as well as quality of life for nearby residents. However, EPA has taken the position that the biosolids program is low-risk and low-priority.

In March 2001, the National Whistleblower Center submitted a series of allegations to the EPA Office of the Inspector General (OIG) concerning EPA's conduct in regard to regulating biosolids. The allegations by the Center were based largely on issues raised by an EPA research scientist. In addition, a previous OIG audit on biosolids, issued in March 2000, found inadequacies in EPA's management and enforcement of the biosolids program. For these reasons, we are providing a status report on land application of biosolids.

The Clean Water Act gives EPA authority to delegate the biosolids program to States, but little progress has been made thus far. Only five States have received formal delegation from EPA for the biosolids program. Given EPA's lack of resources devoted to the Federal program, EPA cannot be certain that all citizens in non-delegated States are provided at least the same level of protection as in the Federal program.

Water Enforcement: State Enforcement of Clean Water Act Dischargers Can Be More Effective	**2001-P-00013** **August 14, 2001**

We believe that state enforcement programs could be much more effective in deterring noncompliance with discharge permits and, ultimately, improving the quality of the nation's water. EPA and the states have been successful in reducing point source pollution since the Clean Water Act passed in 1972. However, despite tremendous progress, nearly 40 percent of the nation's assessed waters are not meeting the standards states have set for them.

The state enforcement strategies we evaluated needed to be modified to better address environmental risks, including contaminated runoff. Contaminated runoff, including agricultural and urban runoff, was widely accepted as causing the majority of the nation's remaining water quality problems. Although many sources of contaminated runoff were regulated, some were not.