

# **NATIONAL WATER PROGRAM *DRAFT* GUIDANCE**

## **FISCAL YEAR 2010**



**Office of Water  
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# EXECUTIVE SUMMARY

## ***I) PROGRAM OFFICE: NATIONAL WATER PROGRAM***

This *National Water Program Guidance* for fiscal year (FY) 2010 describes how the Environmental Protection Agency (EPA), states, and tribal governments will work together to protect and improve the quality of the Nation's waters, including wetlands, and ensure safe drinking water. Within EPA, the Office of Water oversees the delivery of the national water programs, while the regional offices work with states, tribes, and others to implement these programs and other supporting efforts.

## ***II) INTRODUCTION/CONTEXT***

The *Guidance* describes the key actions needed to accomplish the public health and environmental goals proposed in the EPA *2009-2014 Strategic Plan*. These goals are:

- Protect public health by improving the quality of drinking water, making fish and shellfish safer to eat, and assuring that recreational waters are safe for swimming;
- Protect and restore the quality of the Nation's fresh waters, coastal waters, and wetlands; and
- Improve the health of large aquatic ecosystems across the country.

## ***III) WATER PROGRAM PRIORITIES***

The Office of Water recognizes that EPA regional offices, states, and tribes need flexibility in determining the best allocation of resources for achieving clean water goals and safe drinking water at the regional, state, and tribal level. From a national perspective, however, EPA, states, and tribes need to give special attention in FY 2010 to the priority areas identified below:

- Support Sustainable Water Infrastructure;
- Improve Water Security and Preparedness;
- Restore, Improve, and Protect Wetlands;
- Improve Water and Wetlands Monitoring;
- Restore Water Quality on a Watershed Basis; and
- Improve Achievement of Drinking Water Standards.

In addition, regional priorities support the National Water Program priorities. More information on these priorities is provided in the Introduction to this *Guidance*.

## ***IV) IMPLEMENTATION STRATEGIES***

The *National Water Program Guidance* describes, in general terms, the work that needs to be done in FY 2010 to reach the public health and water quality goals that are proposed in the EPA *2009-2014 Strategic Plan*. In the draft *Guidance*, these public health and environmental goals are organized into 15 “subobjectives,” and each of the subobjectives is supported by a specific implementation strategy that includes the following key elements:

- **Environmental/Public Health Results Expected.** Each subobjective strategy begins with a brief review of national goals for improvements in environmental conditions or public health, including national “targets” for progress in FY 2010.
- **Key Strategies.** For each subobjective, the key strategies for accomplishing environmental goals are described. The role of core programs (e.g. State Revolving Funds, water quality standards, discharge permits, development of safe drinking water standards, and source water protection) is discussed and a limited number of key program activity measures are identified. A comprehensive summary, listing all strategic target and program activity annual measures under each subobjective, is in *Appendix A*.
- **FY 2010 Targets for Key Program Activities.** For some of the program activities, EPA, states, and tribes will simply report progress accomplished in FY 2010 while for other activities, each EPA region will define specific “targets”. These targets are a point of reference for the development of more binding commitments to measurable progress in state and tribal grant workplans. In the draft *Guidance*, national or programmatic targets are shown, where applicable, in *Appendix A*.
- **Grant Assistance.** Each of the subobjective strategies includes a brief discussion of EPA grant assistance that supports the program activities identified in the strategy. New for FY 2010, the Section 106 Grant Guidance for Water Pollution Control Programs is incorporated within the Water Quality Subobjective and *Appendix D* to pilot a more streamlined approach to issuing the grant guidance. The National Water Program’s approach to managing grants for FY 2010 is discussed in Part V of this *Guidance*.
- **Environmental Justice.** For FY 2010, the Office of Water is continuing to align the development of this *Guidance* with the development of EJ Action Plan. The National Water Program places emphasis on achieving results in areas with potential environmental justice concerns through two national EJ priorities that are covered by two subobjectives and other EJ water related elements.
- **A Strategic Response to a Changing Climate.** In September of 2008, the National Water Program published a *Strategy* for responding to the impacts of climate change on clean water and drinking water programs. Key goals of the *Strategy* are to help

water program managers recognize the impacts of climate change on water programs and to identify needed adaptation actions. Additional information on the *Strategy* is in Appendix E.

## V) **MEASURES**

The National Water Program uses three types of measures to assess progress toward the proposed goals in the EPA *2009-2014 Strategic Plan*:

- Measures of changes in environmental or public health (i.e., outcome measures);
- Measures of activities to implement core national water programs (i.e., program activity measures); and
- Measures of activities to restore and protect large aquatic ecosystems and implement other water program priorities in each EPA region (i.e., ecosystem outcome and program activity measures).

In 2006 - 2008, EPA worked with states and tribes to align and streamline performance measures. The National Water Program will continue to engage states and tribes in 2009 in the Agency's performance measurement improvement efforts.

## VI) **TRACKING PROGRESS**

The National Water Program will evaluate progress toward the environmental and public health goals described in the EPA *Strategic Plan* using four key tools:

- **National Water Program Performance Reports:** The Office of Water will use data provided by EPA regional offices, states, and tribes to prepare performance reports for the National Water Program at the mid-point and end of each fiscal year.
- **Senior Management Measures and EPA Quarterly Reports (EQR):** The Office of Water reports the results on a subset of the *National Water Program Guidance* measures on a quarterly basis. In addition, headquarters and regional senior managers are held accountable for a select group of the *Guidance* measures in their annual performance assessments.
- **EPA Headquarters (HQ)/Regional Dialogues:** Each year, the Office of Water will visit up to four EPA regional offices and great waterbody offices to conduct dialogues on program management, grant management, and performance.
- **Program-Specific Evaluations:** In addition to looking at the performance of the National Water Program at the national level and performance in each EPA region, individual water programs will be evaluated periodically under the Program

Assessment Rating Tool (PART) program managed by the Office of Management and Budget. Additional evaluations will be conducted internally by program managers at EPA headquarters and regional offices; and externally by the EPA Inspector General, Government Accountability Office, and other independent organizations.

## ***VII) PROGRAM CONTACTS***

For additional information concerning this *Guidance* and supporting measures, please contact:

- Michael Shapiro; Deputy Assistant Administrator for Water
- Tim Fontaine; Senior Budget Officer, Office of Water
- Vinh Nguyen; Program Planning Team Leader, Office of Water

***INTERNET ACCESS:*** This *FY 2010 National Water Program Guidance* and supporting documents are available at (<http://www.epa.gov/water/waterplan>).

## I) INTRODUCTION

### *Clean and Safe Water Goals for 2014*

The EPA 2006-2011 *Strategic Plan*, published in October of 2006, defines specific environmental and public health improvements to be accomplished by 2011. The Agency is currently updating the current *Strategic Plan* to develop the 2009-2014 *Strategic Plan* by September 2009. With the help of states, tribes, and other partners, EPA expects to make significant progress toward protecting human health and improving water quality by 2014, including:

#### **Protect Public Health**

- **Water Safe to Drink:** maintain current high percentage of the population served by systems meeting health-based Drinking Water standards;
- **Fish Safe to Eat:** reduce the percentage of women of child-bearing age having mercury levels in their blood above levels of concern; and
- **Water Safe for Swimming:** maintain the currently high percentage of days that beaches are open and safe for swimming during the beach season.

#### **Restore and Protect Fresh Waters, Coastal Waters, and Wetlands**

- **Healthy Waters:** address an increasing number of the approximately 40,000 impaired waters identified by the states in 2002, with the goal of having at least 3,250 of these waters attain water quality standards fully by 2014;
- **Healthy Coastal Waters:** show improvement in the overall condition of the Nation's coastal waters while at least maintaining conditions in the four major coastal regions; and
- **More Wetlands:** restore, improve, and protect wetlands with the goal of increasing the overall quantity and quality of the Nation's wetlands.

#### **Improve the Health of Large Aquatic Ecosystems**

Implement collaborative programs with other federal agencies and with states, tribes, local governments, and others to improve the health of communities and large aquatic ecosystems including:

- U.S.-Mexico Border waters
- Pacific Island waters
- the Great Lakes
- the Chesapeake Bay
- the Gulf of Mexico
- the Long Island Sound
- South Florida waters

- the Puget Sound
- the Columbia River

### ***Purpose and Structure of this FY 2010 Guidance***

This *National Program Guidance* defines the process for creating an “operational plan” for EPA, state, and tribal water programs for FY 2010. This draft *Guidance* is divided into three major sections:

1. **Subobjective Implementation Strategies:** The EPA *Strategic Plan* addresses water programs in Goal 2 (i.e., “Clean and Safe Water”) and Goal 4 (i.e., “Healthy Communities and Ecosystems”). Within these goals, there are 16 subobjectives that define specific environmental or public health results to be accomplished by the National Water Program by 2010. This *Guidance* is organized into 15 subobjectives and describes the increment of environmental progress EPA hopes to make in FY 2010 for each subobjective and the program strategies to be used to accomplish these goals.

The National Water Program is working with EPA’s Innovation Action Council (IAC) to promote program innovations, including: 1) the National Environmental Performance Track Program (<http://www.epa.gov/performancetrack/>); 2) Environmental Management Systems (EMS) (<http://www.epa.gov/ems/>); and, 3) the Environmental Results Program (ERP) (<http://www.epa.gov/permits/erp/index.htm>). States and tribes may be able to use these or other innovative tools in program planning and implementation.

2. **Water Measures:** Appendix A, a comprehensive list of performance measures in the draft *Guidance*, includes three types of measures that support the subobjective strategies and are used to manage water programs:
  - **“Outcome” Strategic Target Measures:** Measures of environmental or public health changes (i.e. outcomes) are described in the EPA *Strategic Plan* and include long-range targets for this *Guidance*. These measures are described in the opening section of each of the subobjective plan summaries in this *Guidance*.
  - **National Program Activity Measures:** Core water program activity measures (i.e., output measures) address activities to be implemented by EPA and by states/tribes that administer national programs. They are the basis for monitoring progress in implementing programs to accomplish the environmental goals in the Agency *Strategic Plan*. Some of these measures have national and regional “targets” for FY 2010 that serve as a point of reference as EPA regions work with states/tribes to define more formal regional “commitments” in the Spring/Summer of 2009.
  - **Ecosystem Program Activity Measures:** These measures address activities to restore and protect communities and large aquatic ecosystems and implement other water program priorities in each EPA region.



Over the past seven years, EPA has worked with the Office of Management and Budget (OMB) to evaluate key water programs using the Program Assessment Rating Tool (PART). This work included identifying measures of progress for each program. Most of the measures identified in the PART process are included in this *Guidance*.

**3. Water Program Management System:** Part V of this *Guidance* describes a three-step process for management of water programs in FY 2010:

- Step 1 is the development of this *National Water Program Guidance*.
- Step 2 involves consultation among EPA regions, states, and tribes, to be conducted during the Spring/Summer 2009, to convert the “targets” in this *Guidance* into regional “commitments” that are supported by grant workplans and other agreements with states and tribes. This process allocates available resources to those program activities that are likely to result in the best progress toward accomplishing water quality and public health goals given the circumstances and needs in the state/region. **The tailored, regional “commitments” and state/tribal workplans that result from this process define, in an operational sense, the “strategy” for the National Water Program for FY 2010.**
- Step 3 involves work to be done during FY 2010 to assess progress in program implementation and improve program performance.

In addition and new for FY 2010, the grant guidance for the Water Pollution Control Grants from Section 106 of the Clean Water Act (Section 106 grants) is incorporated into this draft *National Water Program Guidance*. This is a pilot effort to gain efficiency in the issuance of the Section 106 Grant Guidance within this *Guidance*. Text boxes with specific Section 106 guidance are incorporated within Section III, 1 (Restore and Improve Water Quality on a Watershed Basis) of this draft *Guidance*. Appendix D has additional information for states and the interstate agencies. The Tribal Program, Monitoring Initiative, and Water Pollution Enforcement Activities are not included in this pilot, and grantees should follow the specific, separate guidances for these programs. This is a pilot and the Office of Water welcomes comments on this approach.

### ***FY 2010 Program Priorities***

The Office of Water recognizes that EPA regions, states, and tribes need flexibility in determining the best allocation of program resources for achieving clean water goals given their specific needs and condition. From a national perspective, however, EPA, states, and tribes need to give special attention in FY 2010 to the priority areas identified below:

- 1. Support Sustainable Water Infrastructure:** EPA will work with utilities, states, tribes, and others to ensure that the Nation’s wastewater and drinking water infrastructure is maintained and sustained over time, including ongoing attention to the effective operation of the State Revolving Funds. EPA will also encourage practices that reduce the costs of water infrastructure and promote the adoption of proven management approaches, like

environmental management systems and asset management. This effort will include work to enhance the market for water efficient products, encourage adoption of pricing structures that recover full cost of service, and promote a watershed approach as an integral part of infrastructure decision-making.

- 2. Improve Water Security and Preparedness:** EPA will work with partners to improve security and preparedness at drinking water and wastewater facilities to reduce the risks associated with potentially catastrophic natural and deliberate incidents. EPA will produce tools and training to enhance general preparedness and continue to implement the Water Security Initiative while assessing lessons learned to support adoption of contaminant warning systems by additional communities. EPA will continue to train and equip regional water teams to provide support to drinking water and wastewater systems, tribes, local and state government, and other federal agencies, such as USACE and FEMA, during emergencies that impact the water sector.
- 3. Restore, Improve and Protect Wetlands:** A key objective of EPA's wetlands program is to restore, improve, and protect wetlands through cooperative partnerships with federal resource agencies, non profit organizations, states, and tribes. Between FY 2005 and FY 2008, EPA played a leadership role in working with partners to restore and improve 82,875 acres of wetlands through the National Estuary Program, CWA 319 program, Great Waterbodies Programs, and 5-Star Restoration Program. In FY 2010, EPA committed to increasing this total of restored and improved wetland acres to at least 96,000 acres through the programs mentioned above. A key step in meeting this commitment is building the capacity of state and tribal wetlands programs. At the same time, EPA will continue in partnership with the U.S. Army Corps of Engineers, states and tribes to ensure no net loss of wetlands regulated under the CWA Section 404.
- 4. Improve Water Monitoring:** Water quality monitoring is essential for providing the information that EPA, states, tribes, and others use to establish goals, determine current water quality, and track changes over time. Improving monitoring, reporting, and measuring progress towards environmental goals to keep the Nation's waters clean, safe, and secure remain a top priority. EPA will work with states, tribes, and territories as they implement their monitoring strategies and enhance their monitoring programs, including participating in the national statistical surveys of water conditions, adopting state-scale statistical surveys, enhancing designs to address other CWA requirements, enhancing biological assessment programs and biological thresholds, providing water quality assessment data to the STORET warehouse using WQX, and submitting state integrated report assessment data using the Assessment Database or a compatible electronic format. These activities are critical to measuring progress toward water quality goals. Also in FY 2010, EPA will continue to work to improve the quality of drinking water data and implement the Water Security Initiative.
- 5. Restore Water Quality on a Watershed Basis:** The National Water Program continues efforts to build a nationwide capacity to restore the health of aquatic systems on a waterbody and watershed basis. In FY 2010, EPA, states, and tribes should give priority to implementing key national program activities supporting this goal, including:

- Implementing Total Maximum Daily Loads (TMDLs), including organizing restoration on a waterbody or watershed basis where appropriate;
- Targeting Clean Water Act Section 319 nonpoint pollution control funds to develop and implement watershed plans to help restore impaired waters;
- Encouraging water quality trading; and
- Assuring that high priority permits are current.

**6. Improve Achievement of Drinking Water Standards:** The percentage of the population served by community water systems (CWSs) that are in compliance with health-based standards was 92 percent in FY 2008. Water systems are challenged to simultaneously comply with regulatory requirements that represent a higher overall level of public health protection. In FY 2010, EPA, states, tribes, and local water systems should enhance efforts to maintain compliance with existing drinking water standards, promptly address cases of noncompliance, prepare to comply with new rules, and improve the quality of data by which drinking water compliance is measured, including paying special attention to reporting under the Lead and Copper Rule.

EPA, states, and tribes also need to pay special attention to regional priorities. EPA regional offices identified a limited number of regional and state priorities. These priorities were based upon geographic areas and performance measures that were established to support the priorities. The geographic areas include the Northeast, Midwest, Great South, Great American West, tribes, U.S.–Mexico Border, and Islands.

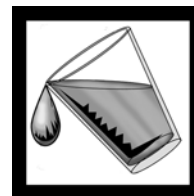
Many of the performance measures developed by these regional groups support the National Water Program national priorities. The selected regional priorities that align with or support the National Water Program national goals include water safe to drink; water safe for swimming; improve water quality on a watershed basis; increase wetlands; and improve the health of the U.S.-Mexico border area, Pacific Islands Territories, Great Lakes, the Chesapeake Bay Ecosystem, and Long Island Sound.

### **A Strategic Response to a Changing Climate**

In September of 2008, the National Water Program published a *Strategy* for responding to the impacts of climate change on clean water and drinking water programs (see [www.epa.gov/water/climatechange/](http://www.epa.gov/water/climatechange/)). Key goals of the *Strategy* are to help water program managers recognize the impacts of climate change on water programs (e.g. warming water temperatures, changes in rainfall amounts and intensity, and sea level rise) and to identify needed adaptation actions. Additional information on the *Strategy* is in Appendix E.

## II STRATEGIES TO PROTECT PUBLIC HEALTH

For each of the key subobjectives related to water addressed in the EPA *Strategic Plan*, EPA has worked with states and other stakeholders to define strategies for accomplishing the improvements in the environment or public health identified for the subobjective. This *National Program Guidance* draws from the *Strategic Plan* but describes plans and strategies at a more operational level and focuses on FY 2010. In addition, this *Guidance* refers to “Program Activity Measures” that define key program activities that support each subobjective (see Appendix A).



### 1) *Water Safe to Drink*

- A) ***SUBOBJECTIVE:*** Percent of the population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through approaches including effective treatment and source water protection.

**2005 Baseline: 89%**  
**2010 Target: 90%**

**2009 Commitment: 90%**  
**2014 Target: 93%**

(Note: Additional measures of progress are identified in Appendix A.)

### B) *Key Program Strategies*

For more than 30 years, protecting the Nation’s public health through safe drinking water has been the shared responsibility of EPA, the states, and over 51,900 CWSs<sup>a</sup> nationwide that supply drinking water to more than 292 million Americans (approximately 95% of the U.S. population). Over this time, safety standards have been established and are being implemented for 91 microbial, chemical, and other contaminants. Forty-nine states have adopted primary authority for enforcing their drinking water programs. Additionally, CWS operators are better informed and trained on the variety of ways to both treat contaminants and prevent them from entering the source of their drinking water supplies.

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<sup>a</sup> Although the Safe Drinking Water Act applies to 154,879 public water systems nationwide (as of October 2008), which include schools, hospitals, factories, campgrounds, motels, gas stations, etc. that have their own water system, this implementation plan focuses only on CWSs. A CWS is a public water system that provides water to the same population year-round. As of October 2008, there were 51,988 CWSs.

EPA, states, tribes, and CWSs will work together so that the population served by CWSs receives drinking water that meets all health-based standards. This goal reflects the fundamental public health protection mission of the national drinking water program. Health protection-based regulatory standards for drinking water quality are the cornerstone of the program. The standards do not prescribe a specific treatment approach; rather, individual systems decide how best to comply with any given standard based on their own unique circumstances. Systems meet standards by employing "multiple barriers of protection" including source water protection, various stages of treatment, proper operation and maintenance of the distribution and finished water storage system, and customer awareness.

The overall objective of the drinking water program is to protect public health by ensuring that public water systems deliver safe drinking water to their customers. To achieve this objective the program must work to maintain the gains of the previous years' efforts; drinking water systems of all types and sizes that are currently in compliance will work to remain in compliance. Efforts will be made to bring non-complying systems into compliance and to assure all systems will be prepared to comply with the new regulations.

Making sound decisions to allocate resources among various program areas requires that each EPA region first work with states to define goals for the program in public health (i.e., "outcome") terms. The table below describes estimates of progress under the key drinking water measure describing the percent of the population served by community water systems that receive water that meets all health based drinking water standards.

**Targets for Population Served by Systems Meeting Standards**

<b>EPA Region</b>	<b>2005 Baseline</b>	<b>2008 Actual</b>	<b>2009 Commitment</b>	<b>2010 Target</b>
1	92.5%	91%	89%	%
2	55.3%	82%	75%	%
3	93.2%	90%	90%	%
4	93%	94%	91%	%
5	94.1%	95%	91%	%
6	87.8%	89%	89%	%
7	91.2%	83%	92%	%
8	94.7%	96%	90%	%
9	94.6%	98%	95%	%
10	94.8%	96%	91%	%
<b>National Total</b>	<b>89%</b>	<b>92%</b>	<b>90%</b>	<b>90%</b>

Although EPA regions should use the national FY 2010 target of the population served by community water systems receiving safe drinking water as a point of reference, regional commitments to this outcome goal may vary based on differing conditions in each EPA region.

EPA and states support the efforts of individual water systems by providing a program framework that includes core programs implemented by EPA regional offices and states. Core national program areas that are critical to ensuring safe drinking water are:

- Development or revision of drinking water standards;
- Implementation of drinking water standards and technical assistance to water systems to enhance their technical, managerial, and financial capacity;
- Drinking Water State Revolving Fund;
- Water security;
- Source water protection;
- Underground injection control (UIC); and
- Integration of programs to protect surface water that is a source of drinking water.

Collectively, these core areas of the national safe drinking water program comprise the multiple-barrier approach to protecting public health. In each of these areas, specific Program Activity Measures indicate progress being made and some measures include “targets” for FY 2010. For measures with targets, a national target and a target for each EPA region, where applicable, are provided in *Appendix A*.

### **1. Development/Revision of Drinking Water Standards**

In FY 2010, EPA will carry out a number of efforts to support decision-making on existing, proposed, and potential future regulations.

- In FY 2010, EPA will conclude monitoring for the second Unregulated Contaminant Monitoring Rule, which is collecting frequency and level of occurrence data for 25 unregulated, suspected drinking water contaminants. Compliance follow-up and data analysis will continue through 2011. This information supports future determinations whether to regulate a contaminant in the interest of protecting public health.
- The Agency will propose the third Unregulated Contaminant Monitoring Rule (UCMR 3) in 2010. Up to 30 unregulated, suspected drinking water contaminants, many from the third Contaminant Candidate List (CCL 3; published in 2009), will likely be proposed for monitoring. Following public comment, EPA will promulgate UCMR 3 in 2011 with monitoring to be conducted between 2012 and 2014.
- EPA will evaluate comments and new information on health effects, occurrence, and other information submitted during the public comment period in response to the publication of the Agency’s preliminary review of existing National Primary Drinking Water Regulations (published in 2009). After evaluating comments and new

information submitted by commenters, the Agency will publish the final review results in 2011. The purpose of this review, which is performed every six years and called the “Six-Year Review,” is to identify those existing drinking water standards which, if any, need revision.

- The current Total Coliform Rule (TCR; published in 1989) is the only microbial drinking water regulation that applies to all public water systems. The rule objectives include ensuring the integrity of the distribution system, indicating the effectiveness of treatment, and monitoring the presence of fecal contamination. In 2010, the Agency will propose revisions to the Total Coliform Rule based on recommendations from the Total Coliform Rule/Distribution Systems Federal Advisory Committee.

## **2. Implementation of Drinking Water Standards and Technical Assistance**

In order to facilitate compliance with drinking water regulations, EPA will use the following tools in partnership with states and tribes:

- **Sanitary Surveys:** Sanitary surveys are on-site reviews of the water sources, facilities, equipment, operation, and maintenance of public water systems. States and tribes conduct sanitary surveys for community water systems once every three years, or for systems determined by the state or tribe to have outstanding performance based on prior surveys, subsequent surveys may be conducted every five years. EPA will also conduct surveys at systems on tribal lands. Focused monitoring of this activity was initiated in 2007, for the three-year period starting in 2004 (see Program Activity Measure SDW-1). This measure applies to surface water systems and ground water systems under direct influence of surface water and ground water systems.
- **Technical Assistance and Training:** Reference materials to support implementation of recent regulations will be developed. These materials will include technical guidance, rollout strategies, implementation guidance, and quick reference guides. Assistance will focus particularly on the Ground Water Rule and revised Lead and Copper Rule. EPA will promote operation and maintenance best practices to small systems in support of long term compliance success with existing regulations. EPA will also support states with technical reviews of public water system submissions required for the Stage 2 Disinfection Byproduct Rule in 2010. EPA will work directly with systems by conducting training and reviewing monitoring submissions in states that are not conducting early implementation of the LT2/Stage 2 rules (a subset of a universe of over 59,000 systems that will need to comply with the rules during FY 2010).
- **Small System Assistance:** EPA will also continue to provide technical assistance and leverage partners to help systems serving less than 3,300 people meet existing and new drinking water standards. The Agency will also support states in their efforts to provide technical, managerial, and financial assistance to small systems to improve those systems’ capacity to consistently meet regulatory requirements. We

will accomplish this by promoting cost-effective treatment technologies, proper disposal of treatment residuals, and compliance with contaminant requirements, including monitoring under the arsenic and radionuclide rules and rules controlling microbial pathogens and disinfection byproducts.

Small and/or rural public water systems face many challenges in providing safe drinking water and meeting the requirements of SDWA. These challenges include: (1) turnover of operations personnel; (2) part-time personnel who may lack necessary technical, financial, and managerial skills; (3) volunteer boards and councils; and (4) complex drinking water regulations. Water systems benefit from face-to-face training and on-site technical assistance.

- **Area-wide Optimization Program:** Under EPA's voluntary Area-Wide Optimization Program (AWOP), drinking water systems and states will continue to use a variety of optimization tools, including comprehensive performance evaluations (CPEs) to assess the performance of filtration technology. AWOP is a highly successful technical assistance and training program that enhances the ability of small systems to meet existing and future microbial, disinfectant, and disinfection byproducts standards. By 2010, EPA will have worked with four EPA regions and 22 states to have facilitated the transfer of specific skills using the performance-based training approach targeted towards optimizing key groundwater system and distribution system integrity management. These groundwater and distribution system performance objectives are an expansion of the original program elements, which were focused on optimizing drinking water treatment plants that utilize surface water sources.
- **Data Access, Quality and Reliability:** The Safe Drinking Water Information System (SDWIS) serves as the primary source of national information on compliance with all health-based regulatory requirements of SDWA. EPA will continue to work with states, with one focus being to increase the use of SDWIS/State because of its ease of reporting and compatibility with the national SDWIS.

To improve SDWIS data quality, EPA will continue to work with states to implement the recommendations of the Agency's Data Reliability Improvement Plan that are based on results of program reviews conducted by the Agency. In FY 2010, EPA will report annually the percent of data concerning health-based violations that is complete and accurate (see Program Activity Measure SDW-2). In addition, for community water systems serving greater than 3,300 people, EPA will also monitor lead monitoring results for the Lead and Copper Rule to ensure that the data is complete (see Program Activity Measure SDW-3).

- **Coordination with Enforcement:** The EPA regional offices and the Office of Water will also work with the Office of Enforcement and Compliance Assurance to identify instances of actual or expected non-compliance that pose risks to public health and to take appropriate actions as necessary.



### **3. Drinking Water State Revolving Fund**

The Drinking Water State Revolving Fund (DWSRF), established under the Safe Drinking Water Act, enables states to offer low interest loans to help public water systems across the nation make improvements and upgrades to their water infrastructure, or other activities that build system capacity. As of the end of FY 2008, more than 6,177 infrastructure improvement projects had been funded from the more than \$16.2 billion available from a combination of federal grants, state contributions, bond proceeds, repayments, and earnings.

EPA will work with states to increase the DWSRF fund utilization rate<sup>b</sup> for projects from a 2002 level of 73% to 89% in 2010 (see Program Activity Measure SDW-4). EPA will also work with states to monitor the number of projects that have initiated operations (see Program Activity Measure SDW-5). In addition to implementing these measures as part of the DWSRF base program in 2009, EPA will separately carry out the provisions of the American Recovery and Reinvestment Act of 2009 which includes a supplemental DWSRF appropriation for economic stimulus purposes.

By 2010, the Agency will have released the next Drinking Water Infrastructure Needs Assessment report, based on data collected from utilities in 2007. The survey documents 20-year capital investment needs of public water systems that are eligible to receive DWSRF monies – approximately 52,000 community water systems and 21,400 not-for-profit non-community water systems. The survey reports infrastructure needs that are required to protect public health, such as projects to ensure compliance with the Safe Drinking Water Act (SDWA). As directed by the SDWA, EPA will use the results of the survey to determine allocations of DWSRF funds to the states and tribes for the period FYs 2010-2013.

In FY 2010, EPA will further contribute to the sustainable infrastructure initiative through partnership-building activities, including the Agency's capacity development and operator certification work with states, and efforts with leaders in the drinking water utility industry to promote asset management and the use of watershed-based approaches to manage water resources. The drinking water program will engage states and other stakeholders to facilitate the voluntary adoption by public water systems of attributes associated with effectively managed utilities. Finally, the program will continue to expand efforts to encourage water efficient practices at public water systems aimed at reducing leakage and better understanding linkages between water production/distribution and energy use.

### **4. Water System Security**

EPA will provide tools, training, and technical assistance to help protect the Nation's critical water infrastructure from terrorist and other catastrophic events. Reducing risk in

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<sup>b</sup> Fund Utilization Rate is the cumulative dollar amount of loan agreements divided by cumulative funds available.

the water sector requires a multi-step approach of determining risk through vulnerability assessments, reducing risk through security enhancements, and preparing to effectively respond to and recover from incidents. Homeland Security Presidential Directives (HSPDs) 7 and 9 direct EPA to help the water sector implement protective measures including comprehensive water surveillance and monitoring programs.

To advance the water preparedness and resiliency of water utilities, EPA and its water security program—through tools, training, and technical assistance—will establish a Climate Ready Water Utilities effort. This will help drinking water and wastewater utilities to assess climate change impacts and to implement effective adaptation strategies. The Climate Ready Utilities program has as its primary goal improving resiliency of the Nation's water infrastructure. This program would be implemented through a cross-office effort linking several important activities already underway within the Office of Water (OW), including water security/preparedness, sustainable infrastructure, and capacity development, and in collaboration with other key offices, agencies, and stakeholders. This effort comports well with the Nation's strategy for protecting critical infrastructure that began with an almost exclusive focus on terrorism, but has since evolved into an all-hazards approach addressing both human-induced events and natural disasters. It will also advance the long-term sustainability of water sector infrastructure and water supplies by incorporating the impacts of climate change into decision making. This effort will enhance the water sector's ability to articulate the type and magnitude of adaptation-related investments to local, state, and federal decision makers.

EPA will, in FY 2010, continue prevention, detection, response, and recovery activities for the water sector in collaboration with the Department of Homeland Security and states' homeland security and water officials. Also in FY 2010, the program will continue to support deployment and operation of contamination warning systems at five pilot cities. These pilots will provide opportunities to evaluate operational experience at different water systems. EPA also will evaluate operation, performance, and sustainability for the first pilot contamination warning system; and conduct outreach efforts to migrate lessons learned from the pilots to the water sector.

Preparedness is critical to effective recovery after an incident. In FY 2010, as part of the Water Laboratory Alliance, EPA regional offices will continue to build regional alliances to provide laboratories and utilities with access to supplemental analytical capability and capacity, improved preparedness for analytical support to an emergency situation, and coordinated and standardized data reporting systems and analytical methods.

EPA will continue to facilitate training for emergency preparedness and development of mutual aid Water and Wastewater Agency Response Networks (WARNS) in every state. The program will also continue efforts to build effective relationships to support activities carried under Emergency Support Functions 10 (on hazardous materials, managed by EPA), and 3 (on infrastructure, managed by FEMA).

## **5. Preserving and Protecting Sources of Drinking Water**

EPA will serve as an analytic resource and facilitator for states and communities in developing strategies and coordinating across jurisdictions to preserve drinking water resources and continue a multiple barrier approach to drinking water management that uses source water protection as the initial barrier to contamination. Source water includes surface water, ground water, and the interchange between them.

EPA's goal is to increase the number of community water systems with minimized risk to public health through development and implementation of protection strategies for source water areas (counted by states) from a baseline of 20% of all areas in FY 2005 to 41% in FY 2010 (see measure SP-4a). EPA also has a goal of maintaining the percent of the population served by these community water systems at 60% in FY 2010 (see measure SP-4b).

EPA's resources will go mostly to support:

(a) initiatives of the Source Water Collaborative – a multi-partner group of federal agencies and non-governmental organizations representing states, communities, utilities and planners who are interested in fostering source water protection at the watershed or aquifer scale;

(b) implementing the lessons learned from a seven state pilot program, under a competitive grant led by Trust for Public Land and the Smart Growth Leadership Institute, to leverage state water quality protection and land use management in protecting source water;

(c) nutrient reduction initiatives in the agricultural community, particularly through corporate partnerships to influence corporate supplier agricultural practices, and educational curriculum through the National FFA Organization to reduce source water pollution; and

(d) state and local source water preservation analyses and initiatives to address issues related to Water Availability, Variability and Sustainability (WAVS) through the Association of State Drinking Water Administrators, and possibly other partners.

EPA will continue working with federal programs to align source water preservation and protection with their priorities. In particular, we are working to integrate source water protection into Clean Water Act programs like the watershed approach and storm water management. State water quality standards set the benchmarks for surface water quality under the Clean Water Act and minimum instream flow regimes that protect aquatic habitats will also preserve surface water and ground water supplies for all uses. States and communities should review these standards and regimes to make sure their source waters will be preserved and protected.

EPA will also continue working with other federal agencies like the U.S. Forest Service to maintain healthy land cover and the U.S. Department of Agriculture on land conservation programs and best management practices to protect water quality. EPA encourages states and communities to leverage these programs to preserve and protect drinking water supplies.

## **6. Underground Injection Control**

EPA works with states to monitor and regulate the injection of fluids, by wells, underground, both hazardous and non-hazardous, to prevent contamination of underground sources of drinking water. In FY 2010, EPA, states, and tribes will continue to implement the Underground Injection Control (UIC) Program for Classes I, II, III that lost mechanical integrity and are returned to compliance within 180 days, thereby reducing the potential to endanger underground sources of drinking water (see Program Activity Measure SDW-7).

In FY 2010, EPA will merge identified Class V motor vehicle waste disposal wells closed or permitted with high priority class V wells that are identified in sensitive ground water protection areas that are closed or permitted. EPA, states, and tribes will work to address the number and percent of high priority Class V wells that are identified, closed, or permitted in sensitive ground water protection areas (see Program Activity Measure SDW-8).

Also in FY 010, EPA will continue to process new applications for primacy from states and tribes, work with states wanting to return primacy to the Agency, and update the UIC grant allocation guidance used by states and EPA regions.

EPA will continue to work with states to populate the national database for the Underground Injection Control (UIC) program, which will help the Agency to better track wells and the success of the program. Specifically, we will deploy and implement the UIC database through orientation and training of users and leveraging opportunities to reach users through their national association.

EPA, through the UIC program, is responsible for establishing a regulatory framework for carbon sequestration wells, which will ensure that underground sources of drinking water are not placed at risk. In 2007, EPA released comprehensive national technical guidance to assist EPA regional, state, and tribal UIC programs in permitting pilot-scale CO<sub>2</sub> geologic sequestration (GS) projects, operated by the Department of Energy's Regional Partnerships, as Class V Experimental Technology wells. In FY 2008, EPA proposed regulations to manage commercial scale GS projects, and held several public meetings to ensure appropriate solicitation of comments from stakeholders and the potentially-regulated community. In FY 2010, EPA will continue to carry out responsibilities in regulating current and future geologic sequestration of carbon dioxide projects. The planned activities include:

- Continue to facilitate research on key areas of geologic sequestration via UIC wells, which address such issues as the potential mobilization of metals and organics in injection zones towards USDWs, the potential disruption of regional ground water flow by the injection of extremely high volumes of supercritical CO<sub>2</sub> in the subsurface, and the introduction of materials as co-contaminants in the CO<sub>2</sub> injection stream. This research will be conducted in close coordination with OAR, ORD, and Department of Energy to avoid unnecessary duplication of effort;
- On an expedited schedule, continue the development of final national rule under the SDWA for the GS of carbon dioxide recovered from emissions of power plants, refineries, and other point source facilities. A final rule is planned for late 2010 or early 2011, depending on the Agency's position on taking intermediate steps to further notice any new data from pilot scale projects, or to address new key issues with GS (see next bullet);
- Analyze any data collected through Department of Energy Class II EOR and Class V pilot projects and additional industry efforts to demonstrate, commercialize, and implement geologic sequestration of carbon dioxide technology;
- Engage states and public stakeholders through meetings, workshops, and other avenues, as appropriate; and also work closely with NGOs on addressing climate change issues; and
- Provide necessary technical assistance, such as the issuance of technical guidance concerning well construction and financial responsibility, to states and tribes in permitting initial GS projects; and where EPA has direct implementation authority, permit GS projects.

### ***C) Grant Program Resources***

EPA has several program grants to the states, authorized under the Safe Drinking Water Act, that support work towards the drinking water strategic goals including the Public Water System Supervision (PWSS), Drinking Water State Revolving Fund (DWSRF), Underground Injection Control (UIC), and water security grants. For additional information on these grants, see the grant program guidance on the website (<http://www.epa.gov/water/waterplan>).

The PWSS grants support the states' primacy activities (e.g., enforcement and compliance with drinking water regulations). PWSS grant guidance issued for FY 2005 will continue to apply in FY 2010. Of the FY 2010 President's Budget request of \$xx million, approximately \$xx million will support implementation of the Tribal Drinking Water Programs.

The DWSRF program provides significant resources for states to use in protecting public health. Through FY 2008, the program as a whole provided over \$14.6 billion in assistance and states

reserved over \$1.5 billion in set-asides to support key drinking water programs. In FY 2010, the Agency requested \$xxx million for the program. EPA is emphasizing targeting DWSRF resources to achieve water system compliance with health-based requirements.

Tribal drinking water systems and Alaska Native Village water systems face the challenge of improving access to safe drinking water for the populations they serve. Funding for development of infrastructure to address public health goals related to access to safe drinking water comes from several sources within EPA and from other federal agencies. EPA reserves 1.5% of the DWSRF funds for grants for Tribal and Alaska Native Village drinking water projects, including upgrading of community water systems and improving access through construction of new systems. EPA also administers a grant program for drinking water and wastewater projects in Alaska Native Villages. Additional funding is available from other federal agencies, including the Indian Health Service.

The FY 2010 budget requests \$xx million for grants to states to carry out primary enforcement (primacy) responsibilities for implementing regulations associated with Classes I, II, III, IV, and V underground injection control wells. In addition, emphasis is directed to activities that address shallow wells (Class V) in source water protection areas.



## **2) *Fish and Shellfish Safe to Eat***

### **A) *SUBJECTIVE: Percent of women of childbearing age having mercury levels in blood above the level of concern (of 4.6 percent).***

**2005 Baseline: 5.7%**

**2009 Commitment: 5.2%**

**2010 Target: 5.1%**

**2014 Target: 4.6%**

(Note: Additional measures of progress are identified in Appendix A.)

### **B) *Key National Strategies***

Elevated blood mercury levels pose a significant health risk and consumption of mercury-contaminated fish is the primary source of mercury in blood. Across the country, states and tribes have issued fish consumption advisories for a range of contaminants covering 930,000 stream miles and over 15 million lake acres. In addition, a significant portion of the valuable shellfishing acres managed by states are not open for use. EPA's national approach to meeting safe fish goals and improving the quality of shellfishing waters is described on the following pages.

## 1) Safe Fish

EPA's approach to making fish safer to eat includes several key elements:

- Encourage development of statewide mercury reduction strategies;
- Reduce air deposition of mercury; and
- Improve public information and notification of fish consumption risks.

### a) *Comprehensive Statewide Mercury Reduction Programs*

EPA recognizes that restoration of waterbodies impaired by mercury may require coordinated efforts to address widely dispersed sources of contamination and that restoration may require a long-term commitment.

In early March 2007, EPA established guidelines allowing states the option of developing comprehensive mercury reduction programs in conjunction with their FY 2008 lists of impaired waters developed under Section 303(d) of the Clean Water Act. Under the new guidelines, EPA allows states that have a comprehensive mercury reduction program to place waters impaired by mercury in a subcategory "5m" of their impaired waters lists and defer development of mercury TMDLs for these waters. These mercury impaired waters would not be included in estimates of the "pace" of TMDL development needed to meet the goal of developing TMDLs for impaired waters within 8 to 13 years of listing the waterbody.

The key elements of a state comprehensive mercury reduction program are:

- Identification of air sources of mercury in the state, including adoption of appropriate state level programs to address in-state sources;
- Identification of other potential multi-media sources of mercury in products and wastes and adoption of appropriate state level programs;
- Adoption of statewide mercury reduction goals and targets, including targets for percent reduction and dates of achievement;
- Multi-media mercury monitoring;
- Public documentation of the state's mercury reduction program in conjunction with the state's Section 303(d) list; and
- Coordination across states where possible, such as through the use of multi-state mercury reduction programs.

EPA expects that these elements of a comprehensive mercury reduction program will be in place in order for 5m listings to be appropriate (i.e., specific legislation, regulations, or other programs that implement the required elements have been formally adopted by the state, as opposed to being in the planning or implementation stages). States will have the option of using the "5m" listing approach as part of the 2010 Section 303(d) lists due to EPA in April 2010.

EPA will also use available tools to identify specific waters with high mercury levels and then address these problems using core Clean Water Act program authorities, including TMDL and permitting programs where a state does not develop a comprehensive statewide reduction strategy for specific waters in which a local source of mercury can be addressed using existing tools.

*b) Reduce Air Deposition of Mercury*

Most fish advisories are for mercury, and a critical element of the strategy to reduce mercury in fish is reducing emissions of mercury from combustion sources in the United States. On a nationwide basis, by 2010, federal regulatory programs are expected to reduce electric-generating unit emissions of mercury from their 2000 level (see EPA *Strategic Plan*; Goal 1: Clean Air, Subobjective 1.1.2: Reduced Risk from Toxic Air Pollutants).

*c) Improve Public Information and Notification of Fish Consumption Risks*

Another key element of the strategy to make fish safer to eat is to expand and improve information and notification of the risks of fish consumption. As part of this work, EPA is also encouraging and supporting states and tribes to adopt the new fish tissue criterion for mercury that EPA issued in 2001 and apply it based on implementation guidance issued in 2009.

EPA is actively monitoring the development of fish consumption advisories and working with states to improve monitoring to support this effort. Fish tissues has been assessed to support waterbody-specific or regional consumption advisories for 26% of lake acres and 38% of river miles (see Program Activity Measure FS-1). EPA also encourages states and tribes to monitor fish tissue based on national guidance and most states are now doing this work.

## **2) Safe Shellfish**

Shellfish safety is managed through the Interstate Shellfish Sanitation Conference (ISSC), a partnership of the U.S. Food and Drug Administration (FDA); the state shellfish control agencies, the National Oceanic and Atmospheric Administration (NOAA), and the EPA. The state shellfish control agencies monitor shellfishing waters and can prohibit or restrict harvesting if the waters from which shellfish are taken are considered unsafe.

Success in achieving improved quality in shellfishing waters relies on implementation of Clean Water Act programs that are focused on sources causing shellfish acres to be closed. Important new technologies include pathogen source tracking, new indicators of pathogen contamination and predictive correlations between environmental stressors and their effects. Once critical areas and sources are identified, core program authorities,



including expanded monitoring, development of TMDLs, and revision of discharge permit limits can be applied to improve conditions.

In addition, a wide range of clean water programs that apply throughout the country will generally reduce pathogen levels in key waters. For example, work to control Combined Sewer Overflows, to reduce discharges from Concentrated Animal Feeding Operations, to reduce storm water runoff, and to reduce nonpoint pollution will contribute to restoration of shellfish uses.

Finally, success in achieving improved water quality in shellfishing waters also depends on improving the availability of state shellfish information. EPA, along with NOAA and FDA, is encouraging states to participate in the ISSC and report shellfish information. EPA is also working to improve data concerning the location of open and restricted shellfishing areas.

### **C) *Grant Program Resources***

Grant resources supporting this goal include the state program grant under Section 106 of the Clean Water Act, other water grants identified in the Grant Program Resources section of Subobjective 4, and grants from the Great Lakes National Program Office. For additional information on these grants, see the grant program guidance on the website (<http://www.epa.gov/water/waterplan>).



## **3) *Water Safe for Swimming***

**A) *SUBOBJECTIVE: Percent of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming:***

**2006 Baseline: 97%**

**2009 Commitment: 93%**

**2010 Target: 95%**

**2014 Target: 96%**

(Note: Additional measures of progress are included in Appendix A.)

### **B) *Key National Strategies***

The Nation's waters, especially beaches in coastal areas and the Great Lakes, provide recreational opportunities for millions of Americans. Swimming in some recreational waters, however, can pose a risk of illness as a result of exposure to microbial pathogens. By

“recreational waters” EPA means waters officially recognized for primary contact recreation use or similar full body contact use by states, authorized tribes, and territories.

For FY 2010, EPA’s national strategy for improving the safety of recreational waters will include four key elements:

- Establish pathogen indicators based on sound science;
- Identify unsafe recreational waters and begin restoration;
- Reduce pathogens levels in all recreational waters; and
- Improve beach monitoring and public notification.

**1) Continue to Develop the Scientific Foundation to Support the Next Generation of Recommended Water Quality Criteria**

The Beach Act requires EPA to develop new or revised recreational water quality criteria. EPA is implementing a science plan that will provide the support needed to underpin the next generation of recommended water quality criteria.

**2) Identify Unsafe Recreational Waters and Begin Restoration**

A key component of the strategy to restore waters unsafe for swimming is to identify the specific waters that are unsafe and develop plans to accomplish the needed restoration. A key part of this work is to maintain strong progress toward implementation of Total Maximum Daily Loads (TMDLs) which are developed based on the schedules established by states in conjunction with EPA. Program Activity Measure WQ-8 indicates that most EPA regions expect to maintain schedules providing for completion of TMDLs within 13 years of listing. EPA will continue to work with states to expand implementation of TMDLs, including developing TMDLs on a water segment or watershed basis where appropriate (see Section II.1).

In a related effort, the Office of Water will work in partnership with the Office of Enforcement and Compliance Assurance (OECA) to better focus compliance and enforcement resources to unsafe recreational waters. In addition, wet weather discharges, which are a major source of pathogens, are one of OECA’s national priorities.

**3) Reduce Pathogen Levels in Recreational Waters Generally**

In addition to focusing on waters that are unsafe for swimming today, EPA, states and tribes will work in FY 2010 to reduce the overall level of pathogens discharged to recreational waters using three key approaches:

- Reduce pollution from Combined Sewer Overflows (CSOs);
- Address other sources discharging pathogens under the permit program; and
- Encourage improved management of septic systems.

Overflows from combined storm and sanitary sewers in urban areas can result in high levels of pathogens being released during storm events. Because urban areas are often upstream of recreational waters, these overflows are a significant source of unsafe levels of pathogens. EPA is working with states and local governments to fully implement the CSO Policy providing for the development and implementation of Long Term Control Plans (LTCPs) for CSOs. EPA expects that close to 80% of the 853 CSO permits will have schedules in place to implement approved LTCPs in FY 2010 (see Program Activity Measure SS-1). EPA will also work with states to resolve longstanding issues associated with sanitary sewer overflows and bypasses at treatment plants.

Other key sources of pathogens to the Nation's waters are discharges from Concentrated Animal Feeding Operations (CAFOs) and municipal storm sewer systems and industrial facilities. EPA expects to work with states to assure that these facilities are covered by permits.

Finally, there is growing evidence that ineffective septic systems are adversely impacting water resources. EPA will work with state and local governments to develop voluntary approaches to improving management of these systems.

#### **4) Improve Beach Monitoring and Public Notification**

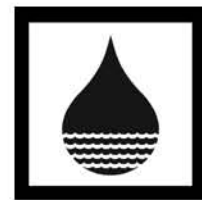
Another important element of the strategy for improving the safety of recreational waters is improving monitoring of public beaches and notifying the public of unsafe conditions. EPA continues to work with states to implement the Beaches Environmental Assessment and Coastal Health (BEACH) Act and expects that 99 percent of "significant" public beaches will be monitored in accordance with BEACH Act requirements in FY 2009 (see Program Activity Measure SS-2). Significant public beaches are those identified by states as "Tier 1" in their Beach monitoring and notification programs. Finally, EPA will continue to receive state information on beach notifications and displace it through the BEACON system (<http://www.epa.gov/beaches/>).

#### **C) Grant Program Resources**

Grant resources supporting this goal include the Clean Water Act Section 106 grant to states, nonpoint source program implementation grants (Section 319 grants), and the BEACH Act grant program grants. For additional information on these grants, see the grant program guidance on the website (<http://www.epa.gov/water/waterplan>).

### III) STRATEGIES TO PROTECT AND RESTORE FRESH WATERS, COASTAL WATERS, AND WETLANDS

An overarching goal of the National Water Program is to protect and restore aquatic systems throughout the country, including rivers, lakes, coastal waters, and wetlands. Although the three subobjective strategies described below address discrete elements of the Nation's water resources, the National Water Program manages these efforts as part of a comprehensive effort. In addition, the national strategies described below are intended to work in concert with the efforts to restore and protect the large aquatic ecosystems described in Part IV of this *Guidance*.



#### ***1) Restore and Improve Water Quality on a Watershed Basis***

- A) SUBOBJECTIVE: Use pollution prevention and restoration approaches to protect and restore the quality of rivers, lakes, and streams on a watershed basis.***

(NOTE: Additional measures of progress are included in the Appendices, including measures related to watersheds and maintaining water quality in streams already meeting standards.)

#### ***B) Key National Strategies***

In FY 2010, EPA will work with states and others to implement programs to protect and restore these water resources with three key goals in mind:

- **Core Water Programs:** EPA, states, and tribes need to continue maintaining and improving the integration and implementation of the core national clean water programs throughout the country to most effectively protect and restore water quality.
- **Use of the Watershed Approach:** EPA will continue to support the implementation of “watershed approaches” to restoring and protecting waters. This work will be coordinated with the efforts to restore and protect large aquatic ecosystems discussed in Part IV of this *Guidance*.

- **Water Restoration Goals and Strategies:** EPA will continue to work with states and tribes to strengthen capacities to identify and address impaired waters and to use adaptive management approaches to implement cost-effective restoration solutions, giving priority to watershed approaches where appropriate.
- **Water Protection Goals and Strategies:** EPA will work with states and tribes to strengthen capacities to identify and protect high quality waters including efforts to integrate these efforts with restoration approaches.

### 1) **Implement Core Clean Water Programs to Protect All Waters Nationwide**

In FY 2010, EPA and the states need to continue to effectively implement and better integrate programs established under the Clean Water Act to protect, improve, and restore water quality. To achieve this, EPA will apply adaptive management principles to our core programs and initiatives. Key tasks for FY 2010 include:

- Strengthen the water quality standards program;
- Improve water quality monitoring and assessment;
- Implement TMDLs and other watershed plans;
- Strengthen the NPDES permit program;
- Implement practices to reduce pollution from all nonpoint sources; and
- Support sustainable wastewater infrastructure.

As part of this process, EPA will continue efforts to integrate across programs, media and federal agencies to more effectively support efforts to protect and restore waters. In the event that the Office of Water finds that existing programs, initiatives, or processes are not resulting in a significant contribution to national goals, we will work with regions, states, tribes, and other partners to rethink and redesign the delivery of clean water programs to more effectively protect and restore waterbodies and watersheds. Similarly, EPA regional offices have the flexibility to emphasize various parts of core national programs and modify targets to meet EPA regional and state needs and conditions.

### **Section 106 Grant Guidance to States and Interstate Agencies: General Information**

On a pilot basis, this *National Water Program Guidance* for FY 2010 includes guidance for state and interstate recipients of Section 106 grants for Water Pollution Control Programs. As a general matter, grant recipients are expected to conduct their programs to help achieve the goals, objectives, subobjectives, strategic targets, and program activity measures specified in section III.1 of this *Guidance*. In addition, section III.1 includes specific guidance for State and Interstate grant recipients in text boxes like this. Together, section III.1, the text boxes, and Appendix D replace the corresponding portions of the biannual Section 106 Grant Guidance formerly provided separately.

This pilot covers only the core water pollution control activities listed above this box. EPA continues to provide separate guidance for the following water pollution control activities:

- Tribal water pollution control programs.\*  
See <http://epa.gov/owm/cwfinance/106tgg07.htm>.
- State and Interstate use of Monitoring Initiative funds.  
See <http://epa.gov/owm/cwfinance/106-guidelines-monitor.htm>.
- Water pollution enforcement activities.  
See <http://www.epa.gov/ocfo/npmguidance/index.htm>.

EPA welcomes comments on this pilot effort to integrate Section 106 Grant Guidance into the FY 2010 *National Water Program Guidance*.

\*This exception does not apply to regulatory programs for which tribes have been found eligible under section 518(e) of the Clean Water Act to be treated in the same manner as a state (TAS), such as to administer a water quality standards program. Tribes with TAS for regulatory programs are expected to follow the same guidance as states for these programs.

Priorities for FY 2010 in each of these program areas are described below.

- a) ***Strengthen Water Quality Standards:*** Water Quality Standards are the regulatory and scientific foundation of water quality protection programs under the Clean Water Act. Under the Act, states and authorized tribes establish water quality standards that define the goals and limits for waters within their jurisdictions. They are used to determine which waters must be cleaned up, how much may be discharged, and what is needed for protection.

To help achieve strategic targets, EPA will continue to review and approve or disapprove state and tribal water quality standards and promulgate replacement standards where needed; develop water quality criteria, information, methods, models, and policies to ensure that each waterbody in the United States has a clear, comprehensive suite of standards that define the highest attainable uses; and as needed, provide technical and scientific support to states, territories, and authorized tribes in the development of their standards.

A high priority is to support state and territory development of numeric nutrient criteria -- water quality criteria to help target reductions in excess nitrogen and phosphorus that can cause eutrophication and other problems in lakes, estuaries, rivers, and streams. EPA will work with states and territories as they develop and implement mutually-agreed upon plans for developing numeric nutrient water

quality standards and will provide technical tools and guidance to assist them (see Program Activity Measure WQ-1).

In a related effort, EPA will continue to encourage and support tribes to obtain approval to administer water quality standards programs and to develop water quality standards (see Program Activity Measure WQ-2).

EPA will also work with states, territories, and authorized tribes to ensure the effective operation of the standards program, including working with them to keep their water quality standards up to date with the latest scientific information (see Program Activity Measures WQ-3a and 4b) and to facilitate adoption of standards that EPA can approve (see Program Activity Measures WQ-4a and 4b).

EPA will encourage states, territories, and authorized tribes to make their water quality standards accessible to the public on the Internet in a systematic format.

**Section 106 Grant Guidance to States and Interstate Agencies: Water Quality Standards.** It is EPA's objective for states and authorized tribes to administer the water quality program consistent with the requirements of the CWA and the water quality standards regulation.\* EPA expects states and tribes will enhance the quality and timeliness of their water quality standards triennial reviews so that these standards reflect EPA guidance and updated scientific information. EPA will work with states and tribes to reach early agreement on triennial review priorities and schedules and coordinate at critical points to facilitate timely EPA reviews of state water quality standards submissions. States with disapproved standards provisions should work with EPA to resolve the disapprovals promptly. A high priority is for states to implement their agreed-upon work plans for developing and adopting numeric nutrient criteria – water quality criteria to help target reductions in excess nutrients that can cause eutrophication and other problems in lakes, estuaries, rivers, and streams.

States should make their water quality standards accessible to the public on the Internet in a systematic format. Users should be able to identify the current EPA-approved standards that apply to each waterbody in the State, for example by providing tables and maps of designated uses and related criteria. EPA has developed the Water Quality Standards Database for this purpose. EPA will provide a copy of the Database for a State to populate, operate, and maintain locally if it does not have its own database. You may request a copy of the WQSDB and guidance for its installation and use at <http://www.epa.gov/waterscience/standards/wqshome/>.

\*Tribes found eligible to be treated in the same manner as a state (TAS) to administer water quality standards programs under section 518 of the Clean Water Act. As of January 2009, 44 tribes have been found so eligible.

- b) *Improve Water Quality Monitoring and Assessment:*** EPA will continue to work with states, tribes, territories, and other partners to provide the monitoring data and information needed to make good water quality protection and restoration decisions and to track changes in the Nation's water quality over time.

Beginning in FY 2005, Congress designated \$18.5 million in new Section 106 funds for a monitoring initiative, which builds upon states' base investments in monitoring to include enhancements to state and interstate monitoring programs and collaboration on statistically-valid surveys of the Nation's waters. EPA recognizes that these funds represent a small amount of the total needed to address all state water monitoring needs. The basis for allotting these funds are found in the *Amendment to the Guidelines for the Award of Monitoring Initiative Funds under Section 106 Grants to States, Interstate Agencies, and Tribes* in the *Federal Register* in July 17, 2008 (<http://www.epa.gov/owm/cwfinance/award-monitoring-fund.htm>). The guidelines specify the activities that states and interstates carry out under the monitoring initiative. These included funding new, expanded, or enhanced monitoring activities as part of the state's implementation of its comprehensive state monitoring strategy. Some monitoring priorities that states should consider include:

- Integration of statistical survey and targeted monitoring designs to assess the condition of all water resources over time;
- Evaluate the effects of implementation of TMDLs and watershed plans,
- Development of criteria and standards for nutrients and excess sedimentation;
- Enhancement of bioassessment and biocriteria for all water resources; and
- Support other state monitoring objectives.

A separate Section 106 workplan component must be submitted that includes water monitoring activities and milestones for both implementation of state strategies and collaboration on statistically-valid surveys of the nation's waters.

State and EPA cooperation on statistically-valid assessments of water condition nationwide remains a top priority. In FY 2010, states, tribes, EPA, and other partners will be analyzing samples for a statistically valid survey of rivers and streams. The results of this survey will be issued in FY 2012, with a report on the baseline condition of rivers and changes in stream condition since 2006 (see Strategic Target SP-14). During FY 2010, field sampling for a fifth statistically valid survey of coastal waters will occur. (See Subobjective 2.2.2 and Strategic Targets SP-16 to 19) Planning for a survey of baseline conditions of wetlands will also continue. A portion of the FY 2010 CWA Section 106 Monitoring Initiative funds will be allocated for sampling and analysis for a wetland condition survey. EPA will enhance and expand work with states and other partners to improve the administration, logistical, and technical support for the surveys.

In FY 2010, states will continue to enhance and refine their monitoring programs and make progress according to schedules established in their monitoring strategies. (see Program Activity Measure WQ-5). EPA stresses the importance of using statistical surveys to generate statewide assessments and track broad-scale trends; enhancing and implementing designs to address water information



needs at local scales (e.g., watersheds) including monitoring waters where restoration actions have been implemented, and integrating both statistical surveys and targeted monitoring to assess the condition of all water resources over time.

EPA will assist tribes in developing monitoring strategies appropriate to their water quality programs and work with tribes to provide data in a format accessible for storage in EPA data systems (see Program Activity Measure WQ-6). As tribal strategies are developed, EPA will work with tribes to implement them over time.

EPA's goal is to achieve greater integration of federal, regional, state, and local level monitoring efforts to connect monitoring and assessment activities across geographic scales, in a cost-efficient and effective manner, so that scientifically defensible monitoring data is available to address issues and problems at each of these scales. In addition EPA will work with states and other partners to address research and technical gaps related to sampling methods, analytical approaches, and data management.

**Section 106 Grant Guidance to States and Interstate Agencies: Monitoring.**

EPA encourages states, tribes, territories, and interstate commissions to use a combination of section 106 monitoring funds, base 106 funds, and other resources available to enhance their monitoring activities. During FY 2010, these efforts include:

- Implementing monitoring strategies;
- Undertaking statistical surveys; and
- Integrating assessments of water conditions, including reports under Section 305(b) of the Clean Water Act and listing of impaired waters under Section 303(d) of the Clean Water Act by April 1, 2010.

In FY 2010, states will transmit water quality data to the national STORET warehouse using the Water Quality Exchange (WQX) and submit assessment results for the 2010 Integrated Report via the Assessment Database version 2, or a compatible electronic format, and geo-reference these assessment decisions (see Program Activity Measure WQ-7). EPA will support states' and tribes' use of WQX through technical assistance and exchange network grants. Water quality assessment data are critical to measuring progress towards the Agency's and states' goals of restoring and improving water quality.

- c) ***Implement TMDLs and Other Watershed Related Plans:*** Development and implementation of TMDLs for 303(d) listed waterbodies is a critical tool for meeting water quality restoration goals. TMDLs focus on clearly defined environmental goals and establish a pollutant budget, which is then implemented via permit requirements and through local, state, and federal watershed plans/programs. Strong networks, including the National Estuary Programs (see "Protect Coastal and Ocean Waters" Subobjective), as well as the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA), and the partnership galvanized by a recent EPA-Forest Service Memorandum of Agreement (<http://www.epa.gov/owow/tmdl/usfsepamoa/>), foster efficient strategies to address water quality impairments. These networks are uniquely

positioned to improve water quality through development and implementation of TMDLs.

EPA will track the degree to which states develop TMDLs on approved schedules, based on a goal of at least 80 percent on pace each year to meet state schedules or straight-line rates that ensure that the national policy of TMDL development within 8-13 years of listing is met (see Program Activity Measure WQ-8).

As noted below, EPA is encouraging states to organize schedules for TMDLs to address all pollutants on an impaired segment when possible (see Program Activity Measure WQ-21). Where multiple impaired segments are clustered within a watershed, EPA encourages states to organize restoration activities across the watershed (i.e., apply a watershed approach). To assist in the development of Watershed TMDLs, the TMDL program developed two tools recently: Draft Handbook for Developing Watershed TMDLs, and a 'checklist' for developing

mercury TMDLs where the source is primarily atmospheric deposition (<http://www.epa.gov/owow/tmdl/>).

Another tool supporting the development of watershed TMDLs is the Causal Analyses/Diagnosis Decision Information System (<http://cfpub.epa.gov/caddis>).

For waters impaired by problems for which TMDLs are not appropriate, EPA will work with partners to develop and implement activities and watershed plans to restore these waters

**Section 106 Grant Guidance to States and Interstate Agencies: TMDLs.**

EPA encourages states to effectively assess their waters and make all necessary efforts to ensure the timely submittal of required § 303(d) lists of impaired waters. For the 2008 Integrated Reporting Cycle, there was a significant improvement in timely list submissions. In 2010, EPA will continue to work with states, interstate agencies, and tribes to foster a watershed approach as the guiding principle of clean water programs. In watersheds where water quality standards are not attained, states will develop Total Maximum Daily Loads (TMDLs), critical tools for meeting water restoration goals. States should establish a schedule for developing necessary TMDLs as expeditiously as practicable. EPA policy is that TMDLs for each impairment listed on previous § 303(d) lists should be established in a time frame that is no longer than 8 to 13 years from the time the impairment is identified. States have started to address more difficult TMDLs, such as the recently approved a broad-scale mercury TMDL for the Northeast Region, and nutrient TMDLs for the Mississippi River Delta Region, which required involvement at the State and Federal level across multiple programs. EPA will also continue to work with states to facilitate accurate, comprehensive, and georeferenced data made available to the public via the Assessment, TMDL Tracking, and Implementation System (ATTAINS).

e.g., TMDL alternatives. Additionally, EPA will work with partners to improve our ability to identify and protect healthy waters/watersheds, and to emphasize integration of and application of core program tools, the watershed approach, and innovative ideas for protecting these waters.

- d) ***Strengthen the NPDES Permit Program:*** The NPDES program requires point sources discharging to waterbodies to have permits and requires pretreatment programs to control discharges from industrial facilities to sewage treatment plants.

EPA's "Permitting for Environmental Results Strategy" focuses on permit issuance and the health of state NPDES programs. The strategy focuses limited resources on the most critical environmental problems and addresses program efficiency and integrity. Based on EPA and states' assessment of NPDES program integrity, EPA developed a commitment and tracking system to ensure that NPDES programs implement follow-up actions resulting from these assessments. EPA continues to emphasize the importance of these follow-up actions (see Program Activity Measure WQ-11). As the Office of Water conducts regional reviews, EPA does permit quality reviews for states within the region being reviewed. Additional action items will continue to be identified and addressed through this process in FY 2010.

EPA is also working with states to structure the permit program to better support comprehensive protection of water quality on a watershed basis and recent increases in the scope of the program arising from court orders and environmental issues. Some key NPDES program efforts include:

- **High Priority Permits:** States and EPA regions are asked to select priority permits based on programmatic and environmental significance and commit to issuing a specific number of those permits during the fiscal year. Beginning in FY 2010, EPA is aligning the priority permit universe selection with the GPRA commitment schedule (see Program Activity Measures WQ-19).
- **Watershed Permits/Trading:** Organizing permits on a watershed basis can improve the effectiveness and efficiency of the program. Permits can also be used as an effective mechanism to facilitate cost-effective pollution reduction through watershed trading (see Program Activity Measure WQ-20). EPA will continue to coordinate with EPA regional offices, states, USDA, and other federal agencies to implement watershed programs.
- **Green Infrastructure:** EPA is collaborating with partner organizations to implement the Green Infrastructure Action Strategy released in January 2008, to help incorporate green infrastructure solutions at the local level to protect water quality from stormwater and CSOs. Green Infrastructure management approaches and technologies infiltrate, evapotranspire, capture and reuse

stormwater to maintain or restore natural hydrology. EPA supports use of 106 funds to provide programmatic support for green infrastructure efforts promote prevention, reduction, and elimination of water pollution.

- **Pesticides:** On January 7, 2009, the 6th Circuit Court of Appeals required EPA and authorized states to issue permits to pesticide applicators that discharge to waters of the U.S. It is likely that EPA and authorized states will be required to collect data, issue permits, and conduct inspections for a vast number of pesticide applications.
- **Vessels:** As a result of a 2006 court ruling, approximately 70,000 vessels that were exempt from permitting must now be covered by an NPDES permit. On December 18, 2008, EPA issued a new NPDES general permit to regulate 26 types of discharges from vessels operating in U.S. waters. In addition, legislation enacted in July 2008 (S.3298), requires EPA to perform a study to characterize certain discharges from fishing and smaller communal vessels. Depending on the results of that study, Congress may determine that EPA consider whether all, or a subset of these vessels require NPDES permits.
- **Stormwater:** In October 2008, The National Academy of Sciences/National Research Council (NRC) found that EPA's stormwater program needs a significant overhaul to improve its effectiveness and the quality of urban streams. EPA is evaluating the NRC recommendations to strengthen the stormwater program. EPA will continue to work with states to assure that industrial, construction, and municipal separate storm sewer system (MS4) facilities are covered by current Phase I and Phase II stormwater permits and to monitor the number of facilities covered by storm water permits (see Program Activity Measure WQ-13).
- **CAFOs:** The revised regulations that address the Second Circuit's 2005 decision in *Waterkeeper Alliance et al. v. EPA*, require EPA and authorized states to issue permits for an expanded universe (from the 1974 regulations) of CAFOs that discharge or propose to discharge to waters of the U.S. In addition to issuing permits that comply with these regulatory requirements, states must revise their state regulations to adopt the provisions of the new regulations. EPA will work with states to monitor the number of facilities covered by CAFO permits (see Program Activity Measure WQ-13).
- **Forest Roads:** As required by the Ninth Circuit Court, EPA will reevaluate if sediment discharges from forest roads which impair water quality should be regulated under the NPDES program.
- **New Dischargers to Impaired Waters (Carlota):** Longstanding EPA regulations prohibit issuance of a permit to a new source or new discharger if the discharge will cause or contribute to a violation of a water quality standard

(WQS) (40 CFR 122.4(i)). The Ninth Circuit recently vacated an NPDES permit that EPA issued to a new discharger, the Carlota Copper Mine, finding that the required showings under 40 CFR 122.4(i) had not been made. This decision has consequences for how permitting authorities impose limits in permits for new dischargers in impaired waterbodies. Water Permits Division is considering a variety of actions to clarify the expectation for new dischargers to impaired waters, in light of this decision, including the issuance of interpretive statements and a rulemaking to revise the regulation.

- **Sanitary Sewer Overflows (SSOs) and Bypasses:** EPA will continue to work with states to resolve longstanding issues related to overflows in separate sanitary sewer systems and bypasses at the treatment plant to ensure that water quality is protected during wet weather events.
- **Current Permits:** EPA will continue to work with states to set targets for the percentage of permits that are considered current, with the goal of assuring that not less than 90% of all permits are current (see Program Activity Measure WQ-12). In addition, EPA is working with states to expedite reviews of permit renewals and modifications for NPDES permits held by Performance Track facilities.
- **Pretreatment:** EPA and states will monitor the percentage of significant industrial facilities that have control mechanisms in place to implement applicable pretreatment requirements prior to discharging to publicly owned treatment works. EPA will also monitor the percentage of categorical industrial facilities in non-pretreatment publicly-owned treatment works (POTWs) that have control mechanisms in place to implement applicable pretreatment requirements (see Program Activity Measure WQ-14).
- **Compliance:** EPA will track and report on key measures of compliance with discharge permits including the percent of major dischargers in Significant Noncompliance (SNC), and the percent of major publicly owned treatment works (POTWs) that comply with their permitted wastewater discharge standards (see Program Activity Measures WQ-15 and WQ-16).

**Section 106 Grant Guidance to States and Interstate Agencies: Permits, Enforcement, and Compliance.** States should continue to implement actions identified under EPA's Permitting for Environmental Results (PER) strategy to assure effective management of the permit program and to adopt efficiencies to improve environmental results. States should also implement recommended actions identified under the EPA/ECOS enforcement and compliance "State Review Framework" process. States should place emphasis on implementing criteria to ensure that priority permits selected are those offering the greatest benefit to improve water quality. In addition, states should work to ensure that 90 percent of all NPDES permits are current. EPA will track program enhancements and states should continue to implement the program enhancements identified in the updated action item lists for their water programs (WQ-11). States are encouraged to seek opportunities to incorporate efficiency tools such as watershed permitting, trading, and linking development of water quality standards, TMDLs, and permits. States are expected to ensure that stormwater permits are reissued on a timely basis and to strengthen the provisions of the MS4 permits as the permits are reissued. States should place emphasis on incorporating green infrastructure in all stormwater permits. States are expected to ensure data availability by fully populating the required Permit Compliance System (PCS) or Integrated Compliance Information System (ICIS- NPDES) data elements Water Enforcement National Data Base (WENDB) or data elements in ICIS- NPDES that are comparable to WENDB in PCS or ICIS (December 28, 2007 memo from Michael Stahl and James Hanlon, "ICIS Addendum to the Appendix of the 1985 Permit Compliance System Policy Statement") as appropriate. In its separate National Program Manager (NPM) Guidance, the Office of Enforcement and Compliance Assurance (OECA) continues to focus on wet weather issues, including combined sewer overflows (CSOs), sanitary sewer overflows (SSOs), storm water, and concentrated animal feeding operations (CAFOs) as national priorities through FY 2010. The final *OECA NPM Guidance* is available with the complete Agency set at: [www.epa.gov/ocfo/npmguidance/index.htm](http://www.epa.gov/ocfo/npmguidance/index.htm).

- e) ***Implement Practices to Reduce Pollution from all Nonpoint Sources:*** Polluted runoff from sources such as agricultural lands, forestry sites, and urban areas is the largest single remaining cause of water pollution. EPA and states are working with local governments, watershed groups, property owners, tribes, and others to implement programs and management practices to control polluted runoff throughout the country.

EPA provides grant funds to states under Section 319 of the Clean Water Act to implement comprehensive programs to control nonpoint pollution, including reduction in runoff of nitrogen, phosphorus, and sediment. EPA will monitor progress in reducing loadings of these key pollutants (see Program Activity Measure WQ-9). In addition, EPA estimates that some 5,967 waterbodies are primarily impaired by nonpoint sources and will track progress in restoring these waters nationwide (see Program Activity Measure WQ-10).

As described in more detail in Section 2 below, EPA is encouraging states to use the 319 program to support a more comprehensive, watershed approach to protecting and restoring water quality. EPA first published in FY 2003 new grant guidelines for the Section 319 program to require the use of at least \$100 million for developing and implementing comprehensive watershed plans. These plans are geared towards restoring impaired waters on a watershed basis while still protecting high quality and threatened waters as necessary. In 2010, EPA will work closely with and support the many efforts of states, interstate agencies, tribes, local governments and communities, watershed groups, and others to develop and implement their local watershed-based plans. State CWSRF funds are also available to support efforts to control pollution from nonpoint sources.

f) ***Support Sustainable Water Infrastructure:*** Much of the dramatic progress in improving water quality is directly attributable to investment in drinking water and wastewater infrastructure, but the job is far from over. Communities are challenged to find the fiscal resources to replace aging infrastructure, meet growing infrastructure demands fueled by population growth, and secure their infrastructure against threats. If these challenges are not met, rising water pollution levels could erase the gains in water quality that the Nation has achieved.

Today's challenges require a multi-faceted approach to managing infrastructure assets. The Nation must embrace a fundamental change in the way we manage, value, and invest in infrastructure. EPA is pursuing a Sustainable Infrastructure Initiative, organized around four principles, or "pillars":

- **Better Management** – work with utilities and communities to promote utility management programs based on attributes of effectively managed utilities and performance measures that will help change the paradigm from managing for compliance to managing for sustainability.
- **Water Efficiency** – promote wise water use by consumers and utilities through market enhancement programs for water efficient products, partnerships, and public education.
  - **Full Cost Pricing** – help utilities and communities recognize the full cost of providing services and implement pricing structures that recover these costs.
  - **The Watershed Approach** – help utilities and other stakeholders use watershed approaches to think holistically about infrastructure planning, including drinking water, source water, wastewater, and stormwater management; and to promote soft path technologies, such as low impact development and green infrastructure solutions to wet weather management.

In pursuing actions under each of these pillars, EPA will be guided by several cross-cutting themes such as innovation, collaboration with partners, use of new technology, and research focused on new tools and techniques. In addition, EPA will pursue innovative, market-based tools to increase and accelerate the amount of capital invested in the Nation's water infrastructure. One focus will be on removing barriers to private investment in public purpose infrastructure.

EPA is developing measures for the Sustainable Infrastructure Initiative for inclusion in the *National Water Program Guidance* for FY 2010, as well as the 2009-2014 Strategic Plan. Under development are two measures:

- *Number of utilities achieving recognition as part of the revised Clean Water Act Awards. (HQ reports)*
- *Number of outreach or training events that promote Asset Management or Environmental Management Systems. (Regions report)*

Also important to the implementation of the Sustainable Infrastructure Strategy are the DWSRFs and CWSRFs that provide low interest loans to help finance drinking water and wastewater treatment facilities, as well as other water quality projects. Recognizing the substantial remaining need for drinking water and wastewater infrastructure, EPA expects to continue to provide significant annual capitalization to the SRFs. EPA will work with states to assure the effective operation of SRFs, including monitoring the fund utilization rate (see Program Activity Measure WQ-17).

In a related effort, EPA will work with other federal agencies to improve access to basic sanitation. The 2002 World Summit in Johannesburg adopted the goal of reducing the number of people lacking access to safe drinking water and basic sanitation by 50% by 2015. EPA will contribute to this work through its support for development of sanitation facilities in Indian country, Alaskan Native villages, and Pacific Island communities using funds set aside from the CWSRF and targeted grants. Other federal agencies, such as the Department of the Interior (DOI), the U.S. Department of Agriculture (USDA), and the Department of Housing and Urban Development, also play key roles in this area and are working with EPA in this effort. EPA is also working to improve access to drinking water and wastewater treatment in the U.S.-Mexico Border area (see Section IV of this *Guidance*).

## **2) Accelerate Watershed Protection**

Strong implementation of core Clean Water Act programs is essential to improving water quality but is not sufficient to accomplish the water quality improvements called for in the Agency's *Strategic Plan*. Today's water quality problems are often caused by many different and diffuse sources resulting in an accumulation of problems in a watershed. Addressing these complex problems demands watershed approaches that use an iterative



planning process to actively seek broad public involvement and focus multi-stakeholder and multi-program efforts within hydrologically-defined boundaries to address priority resource goals.

The National Water Program has successfully used a watershed approach to focus core program activities and to promote and support accelerated efforts in key watersheds. At the largest hydrologic scales, EPA and its partners operate successful programs addressing the Chesapeake Bay, Great Lakes, Gulf of Mexico, and National Estuary Program watersheds. Many states, EPA regions, and their partners have also undertaken important efforts to protect, improve, and restore watersheds at other hydrologic scales. Together, these projects provide strong evidence of the value of a comprehensive approach to assessing water quality, defining problems, integrating management of diverse pollution controls, and defining financing of needed projects.

Over the past decade, EPA has witnessed a groundswell of locally-driven watershed protection and restoration efforts. Watershed stakeholders, such as citizen groups, governments, non-profit organizations, and businesses, have come together and created long-term goals and innovative solutions to clean up their watersheds and promote more sustainable uses of their water resources. Additionally, many of these groups and other volunteer efforts provide water monitoring data that can be used to identify problems and track progress toward water quality goals. EPA estimates that there are approximately 6,000 local watershed groups active nationwide.

For FY 2010, EPA will continue to implement its National Strategy for building the capacity of local government and watershed groups. The Strategy emphasizes three activities to accelerate local watershed protection efforts:

- Target training and tools to areas where existing groups can deliver environmental results;
- Enhance support to local watershed organizations through third party providers (e.g., federal partners, EPA assistance agreement recipients), including support for enhancing volunteer monitoring and EPA and state ability to use volunteer data; and
- Share best watershed approach management practices in locations where EPA is not directly involved.

EPA is also working at the national level to develop partnerships with federal agencies to encourage their participation in watershed protection and to promote delivery of their programs on a watershed basis. For example, EPA will work with USDA to promote coordinated use of federal resources, including grants under the Clean Water Act Section 319 and Farm Bill funds. EPA is also working with the U.S. Forest Service (USFS) to foster efficient strategies to address water quality impairments by maintaining and restoring National Forest System watersheds. EPA and the USFS will work to advance a suite of water quality related actions, including category 4b watershed plans that will build partnerships between agencies and among states.

### 3) Define Waterbody/Watershed Standards Attainment Goals and Strategies

In 2002, states identified some 39,503 specific waterbodies as impaired (i.e., not attaining state water quality standards) on lists required under Section 303(d) of the Clean Water Act. Although core programs, as described above, provide key tools for improving these impaired waters, success in restoring the health of impaired waterbodies often requires a waterbody-specific focus to define the problem and implement specific steps needed to reduce pollution.

Nationally, EPA has adopted a goal of having 3,250 of those waters identified as attaining water quality standards by 2012 (about 5.7% of all impaired waters identified in 2002). Regions have indicated the progress they expect to make toward this goal in FY 2010 (see strategic target SP-10 and the following table).

**Targets for Attaining Standards in Impaired Waters  
By Region and Nationally (Measure SP-10)**

<b>Region</b>	<b>Total Impaired Waters (2002)</b>	<b>FYs 2002-2008 Waters in Attainment</b>	<b>FY 2009 Commitment (cumulative)</b>	<b>FY 2010 Target (cumulative)</b>
1	6,710	84	84	
2	1,805	87	107	
3	8,998	358	425	
4	5,274	418	418	
5	4,550	528	528	
6	1,407	144	155	
7	2,036	226	230	
8	1,274	222	222	
9	1,041	45	45	
10	6,408	53	58	
<b>Totals</b>	<b>39,503<sup>c</sup></b>	<b>2,165</b>	<b>2,272</b>	<b>2,525</b>

(Note that a previous measure reported 1,980 waters identified as impaired in 1998-2000 to be in attainment by 2002. These estimates are not included in the table above.)

Regional commitments for this measure, to be developed over the summer of 2009 based on the targets in the table below, **should reflect the best effort by EPA regions and states**

<sup>c</sup> 39,503 updated from 39,768 to reflect corrected data.

**to address impaired waters based on redesigning and refocusing program priorities and delivery methods where necessary to meet or exceed this measure's targets.** In the event that an EPA regional office finds that existing program delivery and alignment is not likely to result in a significant contribution to national goals, the EPA region should work with states to rethink and redesign the delivery of clean water programs to more effectively restore waterbodies and watersheds. Regions will also develop targets and commitments for progress under measures related to improvement of impaired waters short of full standards attainment (see measure SP-11) and in small watersheds where one or more waterbody is impaired (see measures SP-12).

States and EPA regions have indicated that the time frame for reaching full attainment in formerly impaired waters can be long and that the significant program efforts to put restoration plans in place need to be better recognized. Recognizing this issue, EPA will work with states to report the number of impaired water segments where restoration planning will be complete in FY 2010 (see Program Activity Measure WQ-21). Completion of planning is an essential, intermediate step toward full restoration of a waterbody and can be documented more quickly than actual waterbody improvement. In general, planning for restoration is complete when each cause of impairment in a waterbody is covered by one or more of the following: an EPA approved TMDL, a watershed restoration plan that is an acceptable substitute for a TMDL, or a statewide mercury reduction program consistent with EPA guidance.

For some impaired waters, the best path to restoration is the prompt implementation of a waterbody-specific TMDL or TMDLs. For many waters, however, the best path to restoration will be as part of a larger, watershed approach that results in completion of TMDLs for multiple waterbodies within a watershed and the development of a single implementation plan for restoring all the impaired waters in that watershed. EPA has identified some 4,800 small watersheds where one or more waterbodies are impaired and the watershed approach is being applied. The goal is to demonstrate how the Watershed Approach is working by showing a measurable improvement in 300 such watersheds by 2014 (see strategic target SP-12).

Today, the National Water Program has good information about the number of impaired waters and the status of TMDLs or watershed plans for the restoration of these waters. Information concerning progress toward implementation of the pollution controls needed to restore designated uses in impaired waters is much less complete. To address this problem, and in response to specific recommendations contained in an Office of Inspector General audit report in 2007 on water performance measures, *Total Maximum Daily Load Program Needs Better Data and Measures to Demonstrate Environmental Results: OIG No. 2007-P-00036*, the Office of Water is conducting a detailed review of options for modifying its data systems to better track implementation of waste load allocations in the permits issued to point source dischargers of pollutants of concern. During 2008, the Office of Water convened a workgroup to identify actions to improve the availability of information across programs. In 2009, the Office of Water will start the detailed review and determine the set of data system modifications.

In 2008, the Office of Water began undertaking a statistically-based survey on a stratified random sample of TMDLs completed through 2007. The sample-based assessment aims to develop sound estimates of TMDL implementation rates and other insights about implementation patterns that, if known, would improve OW understanding of Clean Water Act program effectiveness while providing insights that show how to improve implementation rates. As a first phase in this assessment, OW worked jointly with ORD and Region 5 on a regional scale pilot assessment to deliver a regional report on TMDL implementation rates as well as help inform and refine the national sample assessment. After completing the national, statistical survey of TMDL implementation, the Office of Water will determine the most promising options for improving the tracking of progress towards achieving waterbody restoration goals.

Regions are encouraged to use some or all of the following strategies in marshaling resources to support waterbody and watershed restoration:

- Realign water programs and resources as needed, including proposal of reductions in allocations among core water program implementation as reflected in commitments to annual program activity measure targets;
- Coordinate waterbody restoration efforts with Section 319 funds reserved for development of watershed plans;
- Make effective use of water quality planning funds provided under Section 604(b) of the Clean Water Act;
- Leverage resources available from other federal agencies, including the USDA; and
- Apply funds appropriated by Congress for watershed or related projects.

EPA also recognizes that additional impaired waters are not included on state 303(d) lists because the standards impairments may not require or be most effectively addressed through development and implementation of a TMDL. Many of these waters are identified in Categories 4b and 4c of state Integrated Reports – that is, where the impairment is being addressed through other pollution control requirements (4b), or where the impairment is not caused by a pollutant, per se, but rather by habitat degradation or other factors (4c). EPA and its partners should continue to work together to ensure that restoration efforts are focused on these waters as well as those on the 303(d) list, facilitate integration of activities to incorporate these waters into watershed plans, and identify mechanisms for tracking progress in restoring them.

### **C) *Grant Program Resources***

Key program grants that support this Subobjective are:

- The Clean Water Act Section 106 Water Pollution Control State Program grants;
- The Clean Water Act Section 319 State program grant for nonpoint pollution control, including set-aside for Tribal programs;

- Targeted Watershed Assistance grants;
- Alaska Native Village Water and Wastewater Infrastructure grants;
- CWSRF capitalization grants, including set-asides for planning under Section 604(b) of the Clean Water Act and for grants to tribes for wastewater treatment infrastructure.

For additional information on these grants, see the grant program guidance on the website (<http://www.epa.gov/water/waterplan>).



## 2) *Protect Coastal and Ocean Waters*

- A) ***SUBOBJECTIVE:*** Prevent water pollution and protect coastal and ocean systems to improve national coastal aquatic ecosystem health on the “good/fair/poor” scale of the National Coastal Condition Report. (Rating is a system in which 1 is poor and 5 is good.)

**2009 Baseline: 2.8**  
**2010 Target: 2.8**

**2009 Commitment: 2.4**  
**2014 Target: 2.8**

(NOTE: Additional measures of progress are included in Appendix A.)

### ***B) Key National Strategies***

Estuaries and coastal waters are among the most productive ecosystems on Earth, providing numerous ecological, economic, cultural, and aesthetic benefits and services. They are also among the most threatened ecosystems, largely as a result of rapidly increasing growth and development. About half of the U.S. population now lives in coastal areas and coastal counties are growing three times faster than counties elsewhere in the Nation. The overuse of resources and poor land use practices have resulted in a host of human health and natural resource problems.

For FY 2010, EPA’s national strategy for improving the condition of coastal and ocean waters will include the key elements identified below:

- Improve coastal monitoring and assessment;
- Support state programs for coastal protection;
- Implement the National Estuary Program (NEP); and
- Protect ocean resources.

An important objective of all of these activities is at least maintaining coastal conditions nationally based on the scale in the National Coastal Condition Report (NCCR) series of assessments (i.e., using the 2.8 national score in the 2009 NCCR as the baseline; see measure 2.2.2).

In addition, the NCCRs include assessments of conditions in each major coastal region around the country (i.e., Northeast, Southeast, West Coast, Puerto Rico, Gulf of Mexico, Hawaii, and South Central Alaska; see measures SP-16, 17, 18, and 19, CO-7, CO-8, and Subobjective 4.3.5 in Appendix A). EPA will work with states and others to at least maintain condition ratings in each of these major coastal regions over the next five years.

The national water quality program, as well as the ocean and coastal programs described in this section, contribute to addressing these goals nationally and regionally. EPA is also working with diverse partners to implement region-specific restoration and protection programs. The National Estuary Program, described below, establishes such partnerships in 28 estuaries nationwide. In addition, EPA is working with the states and other partners in the Gulf of Mexico, Chesapeake Bay, New England, and the West Coast. Some of these efforts are described in more detail in Part III of this *Guidance*.

**1) *Coastal Monitoring and Assessment***

EPA has made improved monitoring of water conditions a top priority for coastal as well as inland waters. In FY 2010, the National Water Program will work with states and tribes, as well as the EPA Office of Research and Development, to develop the fifth NCCR describing the health of the major marine eco-regions around the United States. In FY 2010, states will be doing the field sampling for the fifth National Coastal Condition Report. This report will build on past Reports issued in 2001, 2004, and 2008 and will allow for valid trend assessment. These assessments are the basis for the environmental measures of progress used in the EPA *Strategic Plan*.

In FY 2010, EPA will monitor changes in the condition of coastal waters that states have identified as not meeting state water quality standards under the Clean Water Act (see Program Activity Measure CO-1). We will work with NEPs and with state TMDL programs to track progress in restoration of these waters.

**2) *State Coastal Programs***

States play a critical role in protection of coastal waters through the implementation of core Clean Water Act programs, ranging from permit programs to financing of wastewater treatment plants. States also lead the implementation of efforts to assure the high quality of the Nation's swimming beaches; including implementation of the BEACH Act (see the Water Safe for Swimming Subobjective).

In addition, states work with both EPA and the National Oceanic and Atmospheric Administration (NOAA) in the implementation of programs to reduce nonpoint pollution in coastal areas. In FY 2010, EPA will continue work with states to assist in the full approval of coastal nonpoint control programs in all coastal states.

In FY 2010, EPA will continue efforts to work with states to identify coastal areas which might benefit from the adoption of "no discharge zones" to control sewage discharges from vessels. We will track total coastal and noncoastal statutory square miles protected by "no discharge zones" (see Program Activity Measure CO-2).

**3) *Implement the National Estuary Program***

The NEP provides inclusive, community-based planning and action at the watershed level, through a collaborative system of 28 nationally significant estuaries. The NEP is a highly visible program that plays a critical role in conserving the Nation’s most valuable coastal and ocean resources.

During FY 2010, EPA will continue supporting the efforts of all 28 NEP estuaries to implement their Comprehensive Conservation and Management Plans (CCMPs). One measure of NEP success is the number of priority actions in these plans that have been completed. EPA tracks the number of these priority actions completed (see Program Activity Measure CO-3) and will work with NEPs to support continued progress in completion of these key efforts. EPA also tracks the cumulative dollar amount of the resources leveraged by EPA grant funds (see Program Activity Measure CO-4), tracking “primary leveraged resources” obtained by the NEPs, which are defined as cash or in-kind resources that are above and beyond the NEP CWA Section 320 base grants and in which the NEP director and/or staff played the central role in obtaining the resources).

The health of the Nation’s estuarine ecosystems also depends on the maintenance of high-quality habitat. As a result, one of the environmental outcome measures under the Ocean/Coastal Subobjective is protecting or restoring additional habitat acres within the NEP study areas. For FY 2010, EPA has set a goal of protecting or restoring an additional 100,000 acres of habitat within the NEP areas.

### **Estuaries in the National Estuary Program**

Albemarle-Pamlico Sounds, NC	Galveston Bay, TX	New York/New Jersey Harbor, NY/NJ
Barataria-Terrebonne, LA	Indian River Lagoon, FL	Peconic Bay, NY
Barnegat Bay, NJ	Long Island Sound, NY/CT	Puget Sound, WA
Buzzards Bay, MA	Maryland Coastal Bays, MD	San Francisco Bay, CA
Casco Bay, ME	Massachusetts Bay, MA	San Juan Bay, PR
Charlotte Harbor, FL	Mobile Bay, AL	Santa Monica Bay, CA
Coastal Bend Bays & Estuaries, TX	Morro Bay, CA	Sarasota Bay, FL
Lower Columbia River, OR/WA	Narragansett Bay, RI	Tampa Bay, FL
Delaware Estuary, DE/NJ	New Hampshire Estuaries, NH	Tillamook Bay, OR
Delaware Inland Bays, DE		

#### 4) ***Ocean Protection Programs***

Several hundred million cubic yards of sediment are dredged from waterways, ports, and harbors every year to maintain the Nation’s navigation system. All of this sediment must be disposed without causing adverse effects to the marine environment. EPA and the U.S. Army Corps of Engineers (COE) share responsibility for regulating how and where the disposal of dredged sediment occurs.

EPA and COE will focus on improving how disposal of dredged material is managed, including designating and monitoring disposal sites and involving local stakeholders in planning to reduce the need for dredging (see Program Activity Measure CO-5). EPA will use the capability provided by the *OSV Bold* to monitor compliance with environmental



requirements at ocean disposal sites (see Program Activity Measure CO-6). In addition, the *Strategic Plan* includes a measure of the percent of active dredged material disposal sites that have achieved environmentally acceptable conditions (see SP-20).

One of the greatest threats to U.S. ocean waters and ecosystems is the uncontrolled spread of invasive species. Invasive species commonly enter U.S. waters through the discharge of ballast water from ships. In FY 2010, EPA will continue to participate on the Aquatic Nuisance Species Task Force, work with other agencies on ballast water discharge standards or controls, and work with other nations for effective international management of ballast water.

### C) *Grant Program Resources*

Grant resources directly supporting this work include the National Estuary Program grants and coastal nonpoint pollution control grants under the Coastal Nonpoint Pollution Control Program administered jointly by EPA and the NOAA (Section 6217 grant program). In addition, clean water program grants identified under the watershed subobjective support this work. For additional information on these grants, see the grant program guidance on the website (<http://www.epa.gov/water/waterplan>).



## 3) *Protect Wetlands*

### A) ***SUBOBJECTIVE: Working with partners, achieve a net increase of acres of wetlands per year with additional focus on biological and functional measures and assessment of wetland condition.***

**2005 Baseline:** annual net gain of an estimated 32,000 acres per year

**2007 Actual:** estimated 32,000 acres annual net gain

**2008 Actual:** estimated 32,000 acres annual net gain (96,000 cumulative)

**2009 Commitment:** 100,000 per year (500,000 cumulative)

**2010 Target:** 100,000 per year (Continue target rate of 100,000 annually)

(Note: Additional measures of progress are identified in Appendix A.)

### B) *Key National Strategies*

Wetlands are among the Nation's most critical and productive natural resources. They provide a variety of benefits, such as water quality improvements, flood protection, shoreline erosion control, and ground water exchange. Wetlands are the primary habitat for fish, waterfowl, and

wildlife, and as such, provide numerous opportunities for education, recreation, and research. EPA recognizes that the challenges the Nation faces to conserve our wetland heritage are daunting and that many partners must work together in order for this effort to succeed.

Over the years, the United States has lost more than 115 million acres of wetlands to development, agriculture, and other uses. Today, the U.S. may be entering a period of annual net gain of wetlands acres for some wetland classes. Still, many wetlands in the U.S. are in less than pristine condition and many created wetlands, while beneficial, fail to replace the diverse plant and animal communities of wetlands lost.

The 2006 *National Wetlands Inventory Status and Trends Report*, released by the U.S. Fish and Wildlife Service (FWS), reports the quantity and type of wetlands in the conterminous United States. Although the report shows that overall gains in wetland acres exceeded overall losses from 1998 through 2004, this gain is primarily attributable to an increase in un-vegetated freshwater ponds, some of which (such as aquaculture ponds) may not provide wetlands services and others of which may have varying ecosystem value. The report notes the following trends in other wetland categories: freshwater vegetated wetlands declined by 0.5%, a smaller rate of loss than in preceding years; and estuarine vegetated wetlands declined by 0.7%, an increased rate of loss from the preceding years. The report does not assess the quality or condition of wetlands. EPA is working with FWS and other federal agencies to complete a National Wetland Condition Assessment by 2013 to effectively complement the FWS Status and Trends Reports and provide, for the first time, a snapshot of baseline wetland condition for the conterminous U.S.

In a 2009 follow-up report, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, in cooperation with the U.S. Fish and Wildlife Service, analyzed the status and recent trends of wetland acreage in the coastal watersheds of the United States adjacent to the Atlantic Ocean, Gulf of Mexico, and Great Lakes between 1998 and 2004. Results indicate that Gulf of Mexico and Atlantic coast watersheds experienced a net loss in wetland area at an average annual net loss of about 60,000 acres over the 6-year study period. The fact that coastal watersheds were losing wetlands despite the national trend of net gains during the same study period points to the need for more research on the natural and human forces behind these trends and to an expanded effort on conservation of wetlands in these coastal areas. This point was highlighted in a 2008 report on wetland conservation by the Council on Environmental Quality. To that end, EPA, FWS, NOAA's National Marine Fisheries Service and Coastal Resources Center, the Army Corps of Engineers, USDA's Natural Resource Conservation Service, and the Federal Highway Administration have begun working in partnership to determine the specific causes of this coastal wetland loss and to more specifically understand the tools, policies, and practices to successfully address it.

EPA's Wetlands Program combines technical and financial assistance to state, tribal, and local partners with outreach and education, in addition to wetlands regulation under Section 404 of the Clean Water Act for the purpose of restoring, improving and protecting wetlands in the U.S. Objectives of EPA's strategy include helping states and tribes build wetlands protection program capacity and integrating wetlands and watershed protection. Through a collaborative effort with

our many partners culminating in a May 2008 report, EPA's Wetlands Program articulated a set of national strategies in the areas of monitoring, state and tribal capacity, regulatory programs, jurisdictional determinations, and restoration partnerships. These strategies are in part reflected in the following measures.

**1) *No Net Loss:*** EPA contributes to achieving no overall net loss of wetlands through the wetlands regulatory program established under Section 404 of the Clean Water Act (CWA). The U.S. Army Corps of Engineers (COE) and EPA jointly administer the Section 404 program, which regulates the discharge of dredged or fill material into waters of the United States, including wetlands.

EPA will continue to work with COE to ensure application of the Section 404(b)(1) guidelines which require that discharges of dredged or fill material into waters of the U.S. be avoided and minimized to the extent practicable and unavoidable impacts are compensated for. In FY 2010, EPA will track the effectiveness of EPA's environmental review of CWA Section 404 permits (see Program Activity Measure WT-3). Each EPA region will also identify opportunities to partner with the Corps in meeting performance measures for compliance with 404(b)(1) guidelines. At a minimum, these include:

- Environmental review of CWA Section 404 permits to ensure wetland impacts are avoided and minimized;
- Ensure when wetland impacts cannot be avoided under CWA Section 404 permits, that the unavoidable impacts are compensated for;
- Participation in joint impact and mitigation site inspections, and Mitigation Bank Review Team activities;
- Assistance on development of mitigation site performance standards and monitoring protocols; and
- Enhanced coordination on resolution of enforcement cases.

**2) *Net Gain Goal:*** Meeting the "net gain" element of the wetland goal is primarily accomplished by other federal programs (Farm Bill agriculture incentive programs and wetlands acquisition and restoration programs, including those administered by U.S. Fish and Wildlife Service) and non-federal programs. EPA will work to improve levels of wetland protection by states and other federal programs through actions that include:

- Working with and integrating wetlands protection into other EPA programs such as Clean Water Act Section 319, State Revolving Fund, National Estuary Program, and Brownfields;
- Providing grants and technical assistance to state, tribal, or local organizations;
- Developing information, education and outreach tools; and
- Collaboration with USDA, DOI, NOAA, and other federal agencies with wetlands restoration programs to ensure the greatest environmental outcomes.

For FY 2010, EPA expects to track the following key activities for accomplishing its wetland goals:

**Wetlands Restored and Enhanced Through Partnerships:** EPA will track this commitment as a sub-set of the overall net gain goal and will track and report the results separately under Program Activity Measure WT-1. These acres may include those supported by Wetland Five-Star Restoration Grants, the National Estuary Program, Section 319 nonpoint source grants, Brownfield grants, EPA's Great Waterbody Programs, and other EPA programs. This does not include enforcement or mitigation acres. EPA greatly exceeded its target for this Program Activity Measure in 2005 and 2006, mainly due to unexpected accomplishments from National Estuary Program enhancement projects. However, because EPA cannot assume such significant results each year, the target will be at 96,000 cumulative acres for FY 2010.

**State/Tribal Programs:** A key objective of EPA's wetlands program is building the capacity of states and tribes in the following core elements of a wetlands program: wetland monitoring; regulation; voluntary restoration and protection; and water quality standards for wetlands. EPA is enhancing its support for state and tribal wetland programs by providing more directed technical assistance and making refinements to the Wetland Program Development Grants. Program Activity Measure WT-2 reflects EPA's goal of increasing state and tribal capacity in these core wetland management areas. In reporting progress under measure WT-2, EPA will assess the number of states and tribes that have substantially increased their capacity in one or more core elements, as well as track those core elements that states and tribes have developed to a point where they are fully functional. This is an indicator measure.

**Regulatory Program Performance:** EPA and the Corps of Engineers have partnered to develop and refine a Clean Water Act Section 404 permit database (ORM 2.0) that enables more insightful data collection on the performance of the Section 404 regulatory program. Using ORM 2.0 as a data source, Program Activity Measure WT-3 documents the annual percentage of 404 standard permits where EPA coordinated with the permitting authority and that coordination resulted in an environmental improvement in the final permit decision. This measure will remain an indicator until enough data is collected to define a meaningful target.

**Wetland Monitoring:** In March 2003, EPA released guidance to states outlining the Elements of a State Water Monitoring and Assessment Program. The guidance recommended including wetlands as part of that program. This was followed in April of 2006 by release of an "Elements" document specific to wetlands to help EPA and state program managers plan and implement a wetland monitoring and assessment program within their water monitoring and assessment programs. EPA chairs the National Wetlands Monitoring and Assessment Work Group to provide national leadership in implementing state and tribal wetlands monitoring strategies. The Work Group will also play a

prominent role in informing design of the National Wetland Condition Assessment, scheduled for fieldwork in 2011.

EPA will continue to work with states and tribes to build the capability to monitor trends in wetland condition as defined through biological metrics and assessments. By the end of FY 2010, EPA projects at least 19 states will be measuring and reporting baseline wetland condition in the state using condition indicators and assessments (see Program Activity Measure WT-4). States should also have plans to eventually document trends in wetland condition over time. Examples of activities indicating the state is “on track” include, but are not limited to:

- building technical and financial capacity to conduct an “intensification study” as part of the 2011 National Wetland Condition Assessment;
- developing or adapting wetland assessment tools for use in the state;
- monitoring activity is underway for wetland type(s)/watershed(s) stated in strategy or goals; and
- developing a monitoring strategy with one goal of evaluating baseline wetland condition.

Baseline condition may be established using landscape assessment (Tier 1), rapid assessment (Tier 2), or intensive site assessment (Tier 3).

### ***C) Grant Program Resources***

Examples of grant resources supporting this work include the Wetland Program Development Grants, Five Star Restoration Grants, the Clean Water Act Section 319 Grants, the Brownfields grants, and the National Estuary Program Grants. For additional information on these grants, see the grant program guidance on the website (<http://www.epa.gov/water/waterplan>). In addition, some states and tribes have utilized Clean Water Act Section 106 funds for program implementation, including wetlands monitoring and protection projects.

## IV) STRATEGIES TO PROTECT COMMUNITIES AND LARGE AQUATIC ECOSYSTEMS

The core programs of the Clean Water Act and Safe Drinking Water Act are essential for the protection of the Nation's drinking water and fresh waters, coastal waters, and wetlands. At the same time, additional, intergovernmental efforts are sometimes needed to protect and restore communities and large aquatic ecosystems around the country. For many years, EPA has worked with state and local governments, tribes, and others to implement supplemental programs to restore and protect the Great Lakes, the Chesapeake Bay, the Gulf of Mexico, and the waters along the U.S.-Mexico Border. More recently EPA has developed new, cooperative initiatives addressing Long Island Sound, South Florida, Puget Sound, the Columbia River, and the waters of the Pacific Islands.



### 1) *Protect U.S.-Mexico Border Water Quality*

- A) **SUBOBJECTIVE: Sustain and restore the environmental health along the U.S.-Mexico Border through the implementation of the Border 2012 Plan.**

(Note: Additional measures of progress are identified in Appendix A.)

### B) *Key Strategies*

The United States and Mexico have a long-standing commitment to protect the environment and public health for communities in the U.S.-Mexico Border region. The basic approach to improving the environment and public health in the U.S.-Mexico Border region is the *Border 2012 Plan*. Under this Plan, EPA expects to take the following key Actions to improve water quality and protect public health.

- 1) **Core Program Implementation:** EPA will continue to implement core programs under the Clean Water Act and related authorities, ranging from discharge permit issuance, to watershed restoration, to nonpoint pollution control.
- 2) **Drinking Water and Wastewater Treatment Financing:** Federal, state, and local institutions participate in border area efforts to improve water quality through the construction of infrastructure and development of pretreatment programs. Specifically, Mexico's National Water Commission (CONAGUA) and EPA provide funding and technical assistance for project planning and construction of infrastructure.

Congress has provided \$963 million for Border infrastructure from 1994 to 2009. For FY 2009, EPA expects to be able to provide approximately \$10 million for these projects. EPA will continue working with all its partners to leverage available resources to meet priority needs. The FY 2010 target will be achieved through the completion of prioritized Border Environment Infrastructure Fund (BEIF) drinking water and wastewater infrastructure projects. Future progress in meeting this subobjective will be achieved through other border drinking water and wastewater infrastructure projects as well as through the collaborative efforts established through the Border 2012 Water Task Forces.

- 3) ***Build Partnerships:*** Partnerships are critical to the success of efforts to improve the environment and public health in the U.S.-Mexico Border region. Since 1995, the NAFTA-created institutions, the Border Environment Cooperation Commission (BECC) and the North American Development Bank (NADB), have had the primary role in working with communities to develop and construct environmental infrastructure projects. BECC and NADB support efforts to evaluate, plan, and implement financially and operationally sustainable drinking water and wastewater projects. EPA will continue to support these institutions and work collaboratively with CONAGUA.
- 4) ***Improve Measures of Progress:*** During FY 2010, EPA will work with Mexico, states, tribes, and other institutions to improve measures of progress toward water quality and public health goals.

### C) ***Grant Program Resources***

A range of program grants are used by states to implement core programs in the U.S.-Mexico Border region for waters in the U.S. only. Allocations of the funding available for infrastructure projects, funded through the Border Environment Infrastructure Fund (BEIF), are not provided through guidance, but through a collaborative and public prioritization process.



## 2) *Protect Pacific Islands Waters*

### A) ***SUBOBJECTIVE: Sustain and restore the environmental health of the U.S. Pacific Island Territories of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.***

(Note: Additional measures of progress are identified in Appendix A.)

### B) ***Key Program Strategies***

The U.S. island territories of Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands struggle to provide adequate drinking water and sanitation service. For example, the island of Saipan in the Northern Marianas, with a population of about 70,000, may be the only municipality of its size in the United States without 24-hour drinking water. When residents of Saipan do get water (many receive only a few hours per day of water service), it is too salty to drink. In the Pacific Island territories, poor wastewater conveyance and treatment systems threaten to contaminate drinking water wells and surface waters. Island beaches, with important recreational, economic, and cultural significance, are frequently polluted and placed under advisories.

One of the root causes of drinking water and sanitation problems in the U.S. Pacific Island territories is inadequate and crumbling infrastructure. Recent studies estimate that it would take over one billion dollars in capital investments to bring the Pacific territories drinking water and wastewater systems up to U.S. standards. EPA is targeting the use of existing grants, enforcement, and technical assistance to improve the drinking water and wastewater situation in the Pacific Islands. In pursuing these actions, EPA will continue to use the available resources and to work with partners at both the federal and local levels to seek improvements.

- **Use of Existing Grants:** EPA is working in partnership with the U.S. Department of the Interior to optimize federal grants to improve priority water and wastewater systems. EPA grants (about \$1.5M per territory for water and wastewater combined), plus other federal grants have led to significant improvements in the recent past. However, existing grants fall far short of the overall capital needs in the Pacific Islands.
- **Enforcement:** EPA will continue to oversee implementation of judicial and administrative orders to improve drinking water and wastewater systems. For example, as a result of implementation of a 2003 Stipulated Order under the federal district court in Guam, wastewater spills in Guam in the period of 2005-2008 were down by 99% compared to 1999-



2002; and no island-wide boil water notices have been issued in over four years compared to nearly every month in 2002. In 2009, EPA has entered into a comparable Stipulated Order in the CNMI. EPA will continue to assess judicial and administrative enforcement as a tool to improve water and wastewater service.

- **Technical Assistance:** EPA will continue to use technical assistance to improve the operation of drinking water and wastewater systems in the Pacific Islands. In addition to periodic on-site training, EPA will continue to use the IPA (Intergovernmental Personnel Act) to build capacity in the Islands to protect public health and the environment. For example, in recent years, EPA has placed U.S. Public Health Service drinking water engineers in key positions within Pacific island water utilities and within local regulatory agencies.
- **Guam Military Expansion:** EPA will continue to partner with the Department of Defense in its Guam Military Expansion project to improve the environmental infrastructure on Guam. The U.S and Japan have agreed to relocate the Marine Base from Okinawa, Japan to Guam. By 2014, the relocation could result in approximately 17,000 additional troops and dependents and upwards of 45,000 additional people total on Guam (a 25% increase in population) while spending \$10 - \$15 billion on construction. This military expansion is an opportunity to significantly improve the environmental infrastructure on Guam.

### ***C) Grant Program Resources***

A range of grants funds and set-asides from the national State Revolving Fund (SRF) appropriation are available to implement projects to improve water infrastructure in the Pacific Islands. EPA currently provides about \$4.5 million total to the Pacific territories in drinking water and wastewater grants annually through the SRF programs.



### 3) *Protect the Great Lakes*

A) ***SUBOBJECTIVE:*** Improve the overall ecosystem health of the Great Lakes by preventing water pollution and protecting aquatic ecosystem (using the Great Lakes 40-point scale).

<b>2005 Baseline:</b>	<b>21.5 points</b>
<b>2007 Result</b>	<b>21.7</b>
<b>2008 Result:</b>	<b>23.7</b>
<b>2009 Commitment:</b>	<b>22.5</b>
<b>2010 Target:</b>	<b>23</b>
<b>2014 Target:</b>	<b>23.5<sup>d</sup></b>

(Note: Additional measures of progress are identified in Appendix A.)

#### ***B) Key Strategies***

As the largest surface freshwater system on the face of the earth, the Great Lakes ecosystem holds the key to the quality of life and economic prosperity for tens of millions of people. While significant progress has been made to restore the environmental health of the Great Lakes, much work remains to be done.

In May 2004, President Bush signed a Presidential Executive Order recognizing the Great Lakes as a national treasure, calling for the creation of a "Regional Collaboration of National Significance" and a cabinet-level interagency Task Force. The President's May 2004 Executive Order established the EPA Administrator as the chair of a ten-member Great Lakes Interagency Task Force, one purpose of which is to ensure that their programs are funding effective, coordinated, and environmentally sound activities in the Great Lakes system.

Federal, state, local and tribal governments; nongovernmental entities; and private citizens participated in the Great Lakes Regional Collaboration (GLRC) on eight issue-specific Strategy Teams to develop a *Great Lakes Regional Collaboration Strategy to Restore and Protect the Great Lakes*, presented in December 2005. Teams focused on:

- Aquatic Invasive Species
- Habitat/Species
- Coastal Health

<sup>d</sup> The long-term target was changed to 23.5 in the 2007 OMB PART review.

- Areas of Concern/Sediments
- Nonpoint Source
- Toxic Pollutants
- Indicators and Information
- Sustainable Development

EPA and the Interagency Task Force are using the *Strategy* as a guide for Great Lakes protection and restoration. The Administration is implementing near term actions that address issues in all eight of the priority areas identified in the Strategy. Highlights include:

- Continued implementation of the Great Lakes Legacy Act (which was reauthorized and revised pursuant to the Great Lakes Legacy Reauthorization Act of 2008 on October 8, 2008) to remediate contaminated sediments in Great Lakes Areas of Concern.
- Implementation of a communication network among federal agencies to coordinate response to newly identified aquatic invasive species in response to requests for assistance from state or local authorities, including rapid assessment of needed actions and prompt determination of who has the resources and expertise to assist in taking action.
- Establishment of a forum that includes other federal agencies, states, and non-governmental organizations to support the GLRC goal of protecting and restoring 200,000 acres of wetlands by accomplishing three things: enhanced coordination; improved accountability; and accelerated actions. Attendant activities will include work with forum members to update the Great Lakes Habitat Initiative's database of potential habitat restoration projects and funding programs.
- Implementation of pilots by state and local governments using a standardized sanitary survey form for beach assessments.
- Surveillance for emerging chemicals of concern.
- The IATF created the Wetlands Subcommittee and the Aquatic Invasive Species Rapid Response Subcommittee to improve interagency coordination on two high priority areas for the Great Lakes. Both subcommittees are also bringing in non-federal partners through joint projects in cooperation with the Great Lakes Regional Collaboration.

Progress under the *Great Lakes Strategy* is dependent on continued work to implement core Clean Water Act programs. These programs provide a foundation of water pollution control that is critical to the success of efforts to restore and protect the Great Lakes. While the Great Lakes face a range of unique pollution problems (extensive sediment contamination and atmospheric deposition) they also face problems common to most other waterbodies around the country. Effective implementation of core programs, such as discharge permits, nonpoint pollution controls,

wastewater treatment, wetlands protection, and appropriate designation of uses and criteria, must be fully and effectively implemented throughout the Great Lakes Basin.

In addition, for the Great Lakes Basin, EPA will focus on two key measures of core program implementation: improving the quality of major discharge permits and implementing the national Combined Sewer Overflow (CSO) Policy. In the case of discharge permits, EPA has a goal of assuring that by FY 2010, 96% of the major, permitted discharges to the Lakes or major tributaries have permits that reflect water quality standards to implement the Great Lakes Guidance (see Program Activity Measure GL-1). This is a significant increase from the 2002 baseline of 61.6%; however, the measure may need adjustment to appropriately measure progress in reductions of bioaccumulative chemicals of concern. In the case of the CSO Policy, EPA has a long-term goal of 100% of permits with schedules in place in permits or other enforceable mechanisms to implement approved Long Term Control Plans. The FY 2010 target is 93% of permits consistent with the Policy (see Program Activity Measure GL-2).

Making recreational waters of the Great Lakes safe for swimming is a common goal of the EPA *Strategic Plan* and other EPA regional and Great Lakes plans. In FY 2007, EPA worked with states to both improve the state water quality standards for bacteria in recreational waters and to implement the BEACH Act (see *Water Safe for Swimming*, Section 3 of this *Guidance*). EPA has a goal of assuring that 100% of high priority beaches around the Great Lakes continue to be served by water quality monitoring and public notification programs consistent with the BEACH Act guidance (see Program Activity Measure GL-3). EPA's Great Lakes National Program Office will continue to work with EPA regions and states to make and track progress toward a goal of 90% of monitored, high priority Great Lakes beaches meeting bacteria standards more than 95% of the swimming season.

Following intensive ship- and land-based monitoring of Lakes Michigan, Superior, Huron, and Ontario from CY 2005 through CY 2008, EPA will focus on similar cooperative monitoring efforts on Lake Erie in CY 2009 before resuming this rotation with intensive monitoring of Lake Michigan in CY 2010. In FY 2010, EPA plans to begin nearshore chemical and biological monitoring of Lakes Superior and Michigan nearshore waters. Through nearshore monitoring, EPA is thus collecting better information related to the most productive of the Great Lakes waters, intakes, outfalls, and beaches.

### **C) *Grant Program Resources:***

The Great Lakes National Program Office negotiates grants resources with states and tribes, focusing on joint priorities for Lakewide Management Plans and Remedial Action Plans. The Great Lakes National Program Office issues awards for monitoring the environmental condition of the Great Lakes, and also issues solicitations for projects furthering protection and clean up of the Great Lakes ecosystem. Priorities are expected to include Contaminated Sediments; Pollution Prevention and Toxics Reduction; Habitat (Ecological) Protection and Restoration; Invasive Species; Strategic or Emerging Issues, such as the disappearance of *diporeia* at the base of the food web; and specific Lakewide Management Plan or Remedial Action Plan (LaMP/RAP)

Priorities. Additional information concerning these resources is provided in the grant program guidance website (<http://www.epa.gov/glnpo/fund/glf.html>). This website also links to information requesting proposals for monitoring and evaluation of contaminated sediments or for remediation of contaminated sediments, a non-grant program pursuant to the Great Lakes Legacy Act.



#### **4) *Protect and Restore Chesapeake Bay***

##### **A) *SUBJECTIVE: Improve the Health of the Chesapeake Bay Ecosystem.***

(Note: Additional measures of progress are identified in Appendix A.)

##### **B) *Key Strategies***

The Chesapeake Bay Program (CBP) is a unique regional partnership that directs and conducts the restoration of the Chesapeake Bay by bringing together local, state and federal governments, non profit organizations, watershed residents and the region's leading academic institutions in a partnership effort to protect and restore the Bay. The CBP signatories – the state of Maryland; the commonwealths of Pennsylvania and Virginia; the District of Columbia; the U.S. Environmental Protection Agency representing the federal government; and the Chesapeake Bay Commission representing Bay state legislators – have committed to reducing pollution, restoring habitat and sustainably managing fisheries since signing the Chesapeake Bay Agreement of 1983. Subsequent agreements have augmented the original program, and most recently culminated in signing *Chesapeake 2000*, an agreement intended to guide restoration activities throughout the Bay watershed through 2010. *Chesapeake 2000* also provided an opportunity for the headwater states of Delaware, New York and West Virginia to join in regional efforts to improve water quality of the Bay and its tributaries.

In the last 25 years, the CBP partners have achieved important progress:

- Developed the science, monitoring data, models, and measures that are recognized as the best and most extensive in the country and often around the world.
- Adopted the nation's first consistent water quality standards and assessment procedures, prompting major state and local investments in nutrient removal technologies across hundreds of wastewater treatment facilities.
- Placed a moratorium on striped bass harvests, leading to restoration of the stock that supports 90 percent of the Atlantic Coast population.

- Established nutrient management plans on 3.2 million farmland acres.
- Advanced use of conservation tillage is being practiced on more than 2 million acres.
- Planted 5,722 miles of streamside forested buffers.
- Restored 12,532 acres of wetlands.
- Preserved nearly 1 million acres of forests, wetlands, farmland and other natural resources.
- Removed blockages to more than 2,000 miles of spawning grounds to help restore migratory fish.

The new Chesapeake Action Plan (CAP), submitted to Congress in July 2008, enhances the coordination, transparency, accountability and management of the Bay Program.

- The CAP aligns the Bay Program's strategies and actions to the five goals of the Chesapeake 2000 agreement.
- An activity database captures the implementation actions of ten federal agencies, six states, DC, CBC, and others. It identifies over \$1 billion in restoration action in 2007.
- All partners have access which will result in enhanced coordination and synergy.
- Management dashboards show status and projected progress and set the stage for identifying obstacles and needs.
- In 2008, the Government Accountability Office (GAO), at the request of Senator Mikulski, reviewed the Program's progress to improve reporting and to create a comprehensive, coordinated implementation strategy. GAO acknowledged recent positive actions with the development of the Chesapeake Action Plan. The GAO is expected to re-evaluate progress again in 2009.

The CBP has approved a new organization structure to better emphasize the critical goals and priorities of the program.

- The reorganization will begin to change the business model of the Program, clarify roles, and expand contributions of other partners.
- Six Goal Implementation Teams, aligned to the major C2K goals, will coordinate specific actions and strategies to achieve focus and outcome-oriented results.
- Implementation of the new structure is expected by February 2009.

A new independent report released by the Program's Scientific and Technical Advisory Committee (STAC), *Climate Change and the Chesapeake Bay: State-of-the-Science Review and Recommendations*, describes the impacts of climate change during the next century:

- Rising sea levels and increased coastal flooding and submergence of wetlands.
- Elevating water temperatures which will promote growth of harmful algae, loss of underwater bay grasses, and favor warmer water fish and shellfish.
- More erratic climate and weather conditions.

STAC recommends that the Program factor climate change into current and future restoration efforts. Near term actions to restore the Bay can also help address the impacts of climate change.

## **The Year Ahead: Challenges and Opportunities**

Despite 25 years of progress, the health of the Bay and its watershed remains severely degraded, impacted primarily by nutrients (nitrogen and phosphorus) and sediments from agriculture, development, wastewater, and air deposition. The pressures of population growth and development are the greatest challenge to restoring and protecting the Chesapeake Bay and its watershed. Suburban and urban stormwater runoff is the only source where nutrient pollution is increasing in the watershed. Addressing this obstacle to restoration will require working more closely with roughly 1,800 local governments, who have great control over zoning and development.

The Chesapeake Bay Program has undergone intensive scrutiny and evaluation with reports by GAO, EPA's Inspector General (IG), National Academy of Public Administration, and OMB. EPA's Inspector General has completed six evaluations in the last four years on the Chesapeake Bay Program, resulting in nearly 20 recommendations yet to be fulfilled. Among other things, the Program has committed to:

- Enhance and implement the Chesapeake Action Plan.
- Develop an explicit strategy to engage local governments and local watershed groups.

EPA's IG has designated the Bay Program as a "management challenge" under the Federal Managers' Financial Integrity Act indicating that EPA lacks the tools, resources or authorities to be fully successful. The EPA CBPO will be reporting annually to the Deputy Administrator on progress addressing these challenges

EPA is developing the nation's largest and most complex Total Maximum Daily Load (TMDL) for the entire Chesapeake Bay watershed. The Agency has committed to accelerate its completion from May 2011 to December 2010. The TMDL will rely on the latest science to set new nutrient and sediment allocations for each of the states. It is expected that the TMDL will be accompanied with detailed state implementation strategies (e.g., tributary plans) that describe how point and nonpoint source allocations will be achieved.

In November 2008, the Executive Council (EC) adopted a new strategy to speed up the pace of Bay restoration and become more accountable by setting two-year milestones to reduce pollution to the Bay and its rivers. The EC is scheduled to meet in May 2009. Significant emphasis will be on actions to accelerate implementation, management and accountability. The chair of the EC has set the clear expectation that the May meeting will address

- 1) Setting two year milestones of progress to drive action and accountability;
- 2) Devising "contingencies" and "consequences" if milestones are not met; and
- 3) Setting a new "end date" for restoration measures to achieve needed nutrient and sediment reductions to the Bay.

EPA will continue to forge ahead to implement Bay Program efforts to emphasize implementation, and effective management, coordination, and accountability. EPA staff are developing specific

ideas for explicit actions (e.g. two year milestones) and new tools, programs, authorities and resources to accelerate and improve restoration progress, including for example:

- Continue to promote “no runoff development” as an aspirational goal;
- Substantially reduce or suspend (e.g. up to 5 years) the harvest of oysters and menhaden in the bay;
- Revise secondary treatment regulations to require Biological Nutrient Removal (and Enhanced Nutrient Removal for nutrient impaired waters);
- Enhance legal authorities to require all Concentrated Animal Feeding Operations (CAFOs) in the watershed to have National Pollutant Discharge Elimination System (NPDES) permits, regardless of evidence of a discharge. Also clarify that land application areas are part of the CAFO and that nutrient management plans are “public”.
- Create regulatory controls for selected agriculture practices; and
- Develop a Chesapeake Bay Compliance and Enforcement Strategy with emphasis on the four current EPA national enforcement priorities for combined sewer overflows, sanitary sewer overflows, stormwater and concentrated animal feeding operations.

**C) *Grant Program Resources***

Grant resources supporting this goal include the Chesapeake Bay Implementation and Monitoring Grants under Section 117 of the Clean Water Act, as well as a range of program grants to states. A website provides information about grants progress toward meeting environmental results (<http://www.epa.gov/region3/chesapeake/grants/progress.htm>).



**5) *Protect the Gulf of Mexico***

**A) *SUBJECTIVE:* Improve the overall health of coastal waters of the Gulf of Mexico (by 0.2) on the “good/fair/poor” scale of the National Coastal Condition Report (a 5-point system in which 1 is poor and 5 is good):**

<b>2004 Baseline:</b>	<b>2.4</b>
<b>2008 Actual:</b>	<b>2.0</b>
<b>2009 Commitment:</b>	<b>2.5</b>
<b>2010 Target:</b>	<b>2.5</b>
<b>2014 Target:</b>	<b>2.6</b>



(Note: Additional measures of progress are identified in Appendix A.)

**B) Key Strategies**

The Gulf of Mexico basin has been called “America's Watershed.” Its U.S. coastline is 1,630 miles; it is fed by thirty-three major rivers, and it receives drainage from 31 states in addition to a similar drainage area from Mexico. One sixth of the U.S. population now lives in Gulf Coast states, and the region is experiencing remarkably rapid population growth. In addition, the Gulf yields approximately forty percent of the Nation's commercial fishery landings, and Gulf Coast wetlands comprise about half the national total and provide critical habitat for seventy-five percent of the migratory waterfowl traversing the United States.

For FY 2010, EPA is working with states and other partners to support attainment of environmental and health goals that align with the *Gulf of Mexico Governors' Action Plan II* which follows the successes of the first Action Plan. The Gulf States Alliance has now developed a farther-reaching, five-year regional plan that builds on the partnerships established as part of the 2006 Action Plan (see Program Activity Indicator GM-3). The Alliance has identified issues that are regionally significant and can be effectively addressed through increased collaboration at the local, state, and federal levels. These activities fall into six categories:

**1) Water Quality for Healthy Beaches and Shellfish Beds**

The Clean Water Act provides authority and resources that are essential to protecting water quality in the Gulf of Mexico and in the larger Mississippi River Basin that contributes pollution, especially oxygen demanding nutrients, to the Gulf. EPA regions and the Gulf of Mexico Program Office will work with states to continue to maximize the efficiency and utility of water quality monitoring efforts for local managers by coordinating and standardizing state and federal water quality data collection activities in the Gulf region and to assure the continued effective implementation of core clean water programs, ranging from discharge permits, to nonpoint pollution controls, to wastewater treatment, to protection of wetlands.

A central pillar of the strategy to restore the health of the Gulf is restoration of water quality and habitat in 13 priority coastal watersheds. These 13 watersheds include 755 of the impaired segments identified by states around the Gulf and will receive targeted technical and financial assistance to restore impaired waters. The 2010 goal is to fully attain water quality standards in at least 96 of these segments (see Program Activity Measure SP-38).

Harmful algal blooms (HABs) cause public health advisories, halt commercial and recreational shellfish harvesting, limit recreation, exacerbate human respiratory problems, and cause fish kills. EPA is working with Mexico and the Gulf states to implement an advanced detection forecasting capability system to manage harmful algal blooms and for notifying public health managers (see Program Activity Measure GM-1) and expects to expand the system in 2010 to include the additional Mexican State of Tabasco.

The Gulf of Mexico Program Office has a long-standing commitment to develop effective partnerships with other programs within EPA, in other federal agencies, and with other organizations. For example, the Program Office is working with the EPA Office of Research and Development and other federal agencies to develop and implement a coastal monitoring program to better assess the condition of Gulf waters.

## **2) *Habitat Conservation and Restoration***

Another key element of the strategy for improving the water quality in the Gulf is to restore, enhance, or protect a significant number of acres of coastal and marine habitat. The overall wetland loss in the Gulf area is on the order of fifty percent, and protection of the critical habitat that remains is essential to the health of the Gulf aquatic system. EPA has a goal of restoring 23,000 acres of habitat by 2010 (see Program Activity Measure SP-39). EPA is working with the NOAA, environmental organizations, the Gulf of Mexico Foundation, and area universities to identify and restore critical habitat. The Gulf Alliance will enhance cooperative planning and programs across the Gulf states and federal agencies to protect wetland and estuarine habitat.

## **3) *Ecosystems Integration and Assessment***

The Gulf Coast supports a diverse array of coastal, estuarine, nearshore and offshore ecosystems, including seagrass beds, wetlands and marshes, mangroves, barrier islands, sand dunes, coral reefs, maritime forests, bayous, streams, and rivers. These ecosystems provide numerous ecological and economic benefits including water quality, nurseries for fish, wildlife habitat, hurricane and flood buffers, erosion prevention, stabilized shorelines, tourism, jobs, and recreation. The Gulf of Mexico contributes U.S. commercial fish landings estimated annually at more than \$1 billion and as much as 30 percent of U.S. saltwater recreation fishing trips. The ability to evaluate the extent and quality of these habitats is critical to successfully managing them for sustainability, as well as better determining threats from hurricanes and storm surge. The long-term partnership goal for the Alliance is to identify, inventory, and assess the current state of and trends in priority coastal, estuarine, near-shore, and offshore Gulf of Mexico habitats to inform resource management decisions. The Gulf of Mexico Program is working with NOAA, the U.S. Army Corps of Engineers, and the U.S. Geological Survey in support of this goal.

## **4) *Nutrients and Nutrient Impacts***

Healthy estuaries and coastal wetlands depend on a balanced level of nutrients. Excessive nutrient levels can have negative impacts such as reducing the abundance of recreationally and commercially important fishery species. The Alliance has identified excess nutrients as one of the primary problems facing Gulf estuaries and coastal waters. Over the next several years, the Gulf states will be establishing criteria for nutrients in coastal ecosystems that will guide regulatory, land use, and water quality protection decisions. Nutrient criteria could potentially reverse current trends in nutrient pollution to coastal waters and estuaries, but the challenge is to prevent or reduce the man-made sources of nutrients to levels that maintain ecosystem productivity and restore

beneficial uses. In 2010, EPA will support coastal nutrient criteria and standards development with a Gulf state pilot and will develop science and management tools for the characterization of nutrients in coastal ecosystems. Because the five Gulf states face similar nutrient management challenges at both the estuary level and as the receiving water for the entire Mississippi River watershed, the Gulf of Mexico Alliance is an important venue to build and test management tools to reduce nutrients in Gulf waters and achieve healthy and resilient coastal ecosystems.

Any strategy to improve the overall health of the entire Gulf of Mexico must include a focused effort to reduce the size of the zone of hypoxic conditions (i.e., low oxygen in the water) in the northern Gulf. Actions to address this problem must focus on both localized pollutant addition throughout the Basin and on nutrient loadings from the Mississippi River.

EPA, in cooperation with states and other federal agencies, developed the *Gulf Hypoxia Action Plan 2008*. This Action Plan includes as a goal the long-term target to reduce the size of the hypoxic zone from about 14,000 square km to less than 5,000 square km. measured as a five-year running average (see Program Activity Measure SP-40). In working to accomplish this goal, EPA, states, and other federal agencies, such as USDA, will continue implementation of core clean water programs and partnerships and efforts to coordinate allocation of technical assistance and funding to priority areas around the Gulf.

Specifically, in FY 2010, EPA will support efforts to reduce nutrient loadings to watersheds and reduce the size of the hypoxic zone. EPA will increase watershed partnerships to implement best management practices, identify significant nutrient sources, identify opportunities for significant load reductions, and pilot new nutrient reduction technologies. EPA will coordinate resources and research to provide guidance in the development of hypoxia reduction goals and thresholds and contribute to the development and coordination of state nutrient reduction strategies across the Mississippi River Watershed.

#### **5) *Environmental Education***

Education and outreach are essential to accomplish the Gulf of Mexico Alliance's overall goals and are integral to the other five Alliance priority issues. It is critical that Gulf residents and decision makers understand and appreciate the connection between the ecological health of the Gulf of Mexico and its watersheds and coasts, their own health, the economic vitality of their communities, and their overall quality of life. There is a nationwide need for a better understanding of the link between the health of the Gulf of Mexico and the U.S. economy. The long-term Alliance partnership goal is to increase awareness and stewardship of Gulf coastal resources and promote action among Gulf citizens.

#### **6) *Coastal Community Resiliency***

Coastal communities continuously face and adapt to various challenges of living along the Gulf of Mexico. The economic, ecological, and social losses from coastal hazard events have grown as population growth places people in harm's way and as the ecosystems' natural resilience is

compromised by development and pollution. In order to sustain and grow the Gulf region's economic prosperity, individuals, businesses, communities, and ecosystems all need to be more adaptable to change. In 2010, EPA will assist with the development of information, tools, technologies, products, policies, or public decision processes that can be used by coastal communities to increase resilience to coastal natural hazards and sea level rise. The Gulf of Mexico Program is working with NOAA, Sea Grant Programs, and the U.S. Geological Survey in support of this goal.

**C) *Grant Program Resources***

The Gulf of Mexico Program issues an annual competitive Funding Announcement for Gulf of Mexico Alliance Regional Partnership projects that improve the health of the Gulf of Mexico by addressing improved water quality and public health, priority coastal habitat protection/recovery, more effective coastal environmental education, improved habitat identification/characterization data and decision support systems, and strategic nutrient reductions. Projects must actively involve stakeholders and focus on support and implementation of the Gulf of Mexico Alliance Governors' Action Plan for Healthy and Resilient Coasts.

For additional information on these grants, see the grant program guidance on the website (<http://www.epa.gov/gmpo>).



**6) *Protect Long Island Sound***

**A) *SUBJECTIVE: Prevent water pollution, improve water quality, protect aquatic ecosystems, and restore habitat of Long Island Sound.***

(Note: Additional measures of progress are identified in Appendix A.)

**B) *Key Program Strategies***

More than 20 million people live within 50 miles of Long Island Sound's shores and more than one billion gallons per day of treated effluent enter the Sound from 106 treatment plants. In a 1992 study, it was estimated that the Sound generated more than \$5.5 billion to the regional economy from clean water-related activities alone – recreational and commercial fishing and shellfishing, beach-going, and swimming. In 2008 dollars, that value is now \$8.5 billion. The Sound also generates uncounted billions through transportation, ports, harbors, real estate, and other cultural and aesthetic values. The Sound is breeding ground, nursery, feeding ground, and habitat to more

than 170 species of fish and 1,200 invertebrate species that are under increasing stress from development and competing human uses.

The key environmental and ecological outcomes for Long Island Sound include:

- Marine waters that meet prescribed water quality standards;
- Diverse habitats that support healthy, abundant and sustainable populations of diverse aquatic and marine-dependent species; and
- An ambient environment that is free of substances that are potentially harmful to human health or otherwise may adversely affect the food chain.

EPA continues to work with the States of New York and Connecticut and other federal, state, and local Long Island Sound Management Conference partners to implement the Comprehensive Conservation and Management Plan (CCMP) to restore and protect the Sound. Because levels of dissolved oxygen are critical to the health of aquatic life and viable public use of the Sound, a CCMP priority is controlling nitrogen discharges to meet water quality standards.

#### ***1) Reduce Nitrogen Loads***

The Long Island Sound bi-state nitrogen TMDL relies on flexible and innovative approaches, notably “bubble” management zones and exchange ratios that allow sewage treatment plant operators to trade nitrogen reduction obligations with each other. This approach can help attain water quality improvement goals, while allowing communities to save an estimated \$800 million by allocating reductions to those plants where they can be achieved most economically, and plants that have the greatest impact on water quality.

The States of New York and Connecticut will continue to allocate resources toward Sewage Treatment Plant (STP) upgrades to control nitrogen discharges as required in their revised NPDES (SPDES) permits. The States will monitor and report discharges through the Permit Compliance System (PCS). Revisions to the TMDL conducted under the initial review process will incorporate any revised marine water quality standards for dissolved oxygen adopted by the States of Connecticut and New York.

The State of Connecticut will continue its innovative Nitrogen Credit Exchange program instituted in 2002. Reductions in nitrogen discharges at plants that go beyond TMDL requirements create the state’s system of market credits, which will continue to assist in reducing construction costs and more effectively address nitrogen reductions to the Sound. New York City will continue its STP nitrogen upgrades under a 2005 State of New York Consent Order, and will minimize the impact of nitrogen discharges to the Sound as construction proceeds through 2017.

EPA will continue to work with the upper Long Island Sound watershed States of Massachusetts, New Hampshire, and Vermont to develop state plans to identify and control nitrogen discharges to the Connecticut River, the primary fresh water riverine input to the Sound. As sources are

identified and control strategies developed, state discharge permits will need to be modified to incorporate appropriate load allocations.

**2) *Reduce the Area and Duration of Hypoxia***

As nitrogen loads to the Sound decrease, reductions in the size and duration of the hypoxic area may be anticipated. While other factors also affect the timing, duration, and severity of hypoxia, including weather conditions such as rainfall, solar radiation and light, temperature, and winds; continued reductions in nitrogen loads will help to mitigate these uncontrollable factors. As the states continue implementing STP upgrades, the new applied technologies will reduce nitrogen inputs, limiting algal response and interfering with the cycles that promote algal growth, death, decay, and loss of dissolved oxygen.

**3) *Restore and Protect Critical Habitats and Reopen Rivers to Diadromous Fish***

EPA will continue to work with Management Conference partners to restore degraded habitats and reopen rivers and streams to diadromous fish passage. States and EPA will direct efforts at the most vulnerable coastal habitats and key areas for productivity. Projects, using a variety of public and private funding sources, and in cooperation with landowners, will construct fishways, remove dams, or otherwise remove impediments to diadromous fish passage. Where feasible and as funding allows, fish counting devices will provide valuable data on actual numbers of fish entering breeding grounds. Restoration of the diadromous fishery and increasing the higher trophic levels in the Sound are longer-term goals of federal and state managers.

**4) *Implement through Partnerships***

To continue CCMP implementation, New York, Connecticut, and EPA will sign and implement a *Long Island Sound 2009 Agreement*. The *Agreement* builds upon CCMP goals and targets, which were refined and documented in the predecessor *Long Island Sound 2003 Agreement*.

EPA and states will continue to participate in the Long Island Sound Management Conference under CWA Section 320, as implemented through the *Long Island Sound Restoration Act of 2000* as amended, CWA Section 119. The states and EPA will continue to address the highest priority environmental and ecological problems identified in the CCMP – the impact of hypoxia on the ecosystem; the effects of reducing toxic substances, pathogens, and floatable debris; identification, restoration and protection of critical habitats; and managing the populations of living marine and marine-dependent resources that rely on the Sound as their primary habitat. The Management Conference will work to improve riparian buffers in key river reaches and restore submerged aquatic vegetation in key embayments; reduce the impact of toxic substances, pathogens, and floatable debris on the ecology; and improve the stewardship of these critical areas.

EPA and the states will continue to support the Citizens Advisory Committee and the Science and Technical Advisory Committee, which provide technical expertise and public participation and advice to the Management Conference partners in the implementation of the CCMP. An educated

and informed public will more readily recognize problems and understand their role in environmental stewardship.

### **5) *Core EPA Program Support***

The Long Island Sound Study (LISS) supports, and is supported by EPA core environmental management and regulatory control programs. The CCMP, established under CWA Section 320, envisioned a partnership of federal, state and local governments, private industry, academia and the public, to cleanup and restore the Sound. This cooperative environmental partnership relies on existing federal, state and local regulatory frameworks – and funding-- to achieve targets for restoration and protection and apply limited resources to highest priority areas.

EPA and the states use authorities under CWA Section 319 to manage watersheds that are critical to the health of Long Island Sound. State and local TMDLs for harmful substances support the work of the Management Conference in ensuring a clean and safe Long Island Sound.

State Revolving Funds under Section 601 are used to upgrade STPs for nitrogen control, and NPDES permits issued under Section 402 provide enforceable targets to monitor progress in reducing nitrogen and other harmful pollutants to waters entering the Sound. Because of the LISS nitrogen TMDL, both the states of Connecticut and New York revised their ambient water quality standards for dissolved oxygen (DO) to be consistent with EPA's national guidance for DO in marine waters issued in November 2000. Connecticut conducts the LIS ambient water quality monitoring (WQM) program, and has participated with the State of New York in EPA's National Coastal Assessment monitoring program. The data compiled by the LISS WQM program is one of the most robust and extensive datasets on ambient conditions available to scientists, researchers, and managers. The LISS nitrogen TMDL sets firm reduction targets and encourages trading at point sources, and NPDES/SPDES permits have been modified to incorporate TMDL nitrogen limits on a 15 year enforceable schedule. The states of New York and Connecticut recognize the significant investments required to support wastewater infrastructure and have passed state bond act funding to sustain efforts to upgrade facilities to reduce nitrogen loads to the Sound as established in the nitrogen TMDL. These actions are primary support of CWA core programs, and are ongoing and integral to LISS CCMP implementation to restore and protect Long Island Sound.

### **C) *Grant Program Resources***

EPA grant resources supporting this goal include the Long Island Sound CCMP implementation grants authorized under Section 119(d) of the Clean Water Act as amended. These include the Long Island Sound Futures Fund Large and Small grant programs administered by the National Fish and Wildlife Foundation, the Long Island Sound CCMP Enhancements Grant program administered by the New England Interstate Water Pollution Control Commission, and the Long Island Sound Research Grant program administered by the New York and Connecticut Sea Grant programs. The LISS web page provides grant information and progress toward meeting environmental results at: (<http://www.longislandsoundstudy.net/grants/index.htm>).



## 7) *South Florida Ecosystem*

### A) ***SUBOBJECTIVE: Protect and restore the South Florida ecosystem, including the Everglades and coral reef ecosystems.***

(Note: Additional measures of progress are identified in Appendix A.)

### B) ***Key Program Strategies***

The South Florida ecosystem encompasses three national parks, more than ten national wildlife refuges, a national preserve and a national marine sanctuary. It is home to two Native American nations, and it supports the largest wilderness area east of the Mississippi River, the only living coral barrier reef adjacent to the United States, and the largest commercial and sport fisheries in Florida. But rapid population growth is threatening the health of this vital ecosystem. South Florida is home to about 8 million people, more than the populations of 39 individual states. Another 2 million people are expected to settle in the area over the next 10 to 20 years. Fifty percent of the region's wetlands have been lost to suburban and agricultural development, and the altered hydrology and water management throughout the region have had a major impact on the ecosystem.

EPA is working in partnership with numerous local, regional, state, and federal agencies and tribes to ensure the long-term sustainability of the region's varied natural resources while providing for extensive agricultural operations and a continually expanding population. EPA's South Florida Geographic Initiative (SFGI) is designed to protect and restore communities and ecosystems affected by environmental problems. SFGI efforts include activities related to the Section 404 wetlands protection program; the Comprehensive Everglades Restoration Program (CERP); the Water Quality Protection Program for the Florida Keys National Marine Sanctuary; the Southeast Florida Coral Reef Initiative, directed by the U.S. Coral Reef Task Force; the Brownfields Program; and a number of other waste management programs.

#### 1) ***Accelerate Watershed Protection***

Strong execution of core clean water programs is essential but not adequate for accelerating progress toward maintaining and restoring water quality and the associated biological resources in South Florida. Water quality degradation is often caused by many different and diffuse sources. To address the complex causes of water quality impairment, we are using an approach grounded in science, innovation, stakeholder involvement, and adaptive management – *the watershed approach*. In addition to implementing core clean water programs, we will continue to work to:



- Support and expand local watershed protection efforts through innovative approaches to build local capacity; and
- Initiate or strengthen through direct support watershed protection and restoration for critical watersheds and water bodies.

## **2) *Conduct Congressionally-mandated Responsibilities***

The Florida Keys National Marine Sanctuary (FKNMS) and Protection Act of 1990 directed EPA and the State of Florida, in consultation with the National Oceanic and Atmospheric Administration (NOAA), to develop a Water Quality Protection Program (WQPP) for the Sanctuary. The purpose of the WQPP is to recommend priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution in the Florida Keys ecosystem. In addition, the Act also required development of a comprehensive water quality monitoring program and provision of opportunities for public participation. In FY 2010, EPA will continue to implement the WQPP for the FKNMS, including the comprehensive monitoring projects (coral reef, seagrass, and water quality), special studies, data management, and public education and outreach activities. EPA will also continue to support implementation of wastewater and storm water master plans for the Florida Keys to upgrade inadequate wastewater and storm water infrastructure. In addition, we will continue to assist with implementing the comprehensive plan for eliminating sewage discharges from boats and other vessels.

## **3) *Support the Actions of the U.S. Coral Reef Task Force***

In October 2002, the U.S. Coral Reef Task Force passed a resolution to improve implementation of the National Action Plan to Conserve Coral Reefs. Among other things, the resolution recommended development of local action strategies (LAS) to improve coordinated implementation of coral reef conservation. In 2004 and 2005, EPA Region 4 staff worked with the Southeast Florida Coral Reef Initiative (SEFCRI) to develop a LAS for southeast Florida calling for reducing “land-based sources of pollution” and increasing the awareness and appreciation of coral habitat. Key goals of the LAS are:

- Characterize the existing condition of the coral reef ecosystem;
- Quantify, characterize and prioritize the land-based sources of pollution that need to be addressed based on identified impacts to the reefs;
- Identify how pollution affects the southeast Florida coral reef habitat;
- Reduce the impacts of land-based sources of pollution; and
- Work in close cooperation with the awareness and appreciation focus team.

Detailed action strategies or projects for each goal have been developed. For example, one priority action strategy/project is to assimilate existing data to quantify and characterize the sources of pollution and identify the relative contributions of point and nonpoint sources.

#### 4) *Other Priority Activities for FY 2010*

- Support development of TMDLs for various south Florida waters including the watershed for Lake Okeechobee, the primary or secondary source of drinking water for large portions of south Florida.
- Assist the State of Florida and South Florida Water Management District in evaluating the appropriateness of aquifer storage and recovery (ASR) technology as a key element of the overall restoration strategy for south Florida. Region 4 will continue to work with the COE to evaluate proposed ASR projects.
- Continue implementation of the South Florida Wetlands Conservation Strategy, including protecting and restoring critical wetland habitats in the face of tremendous growth and development.
- Continue to work closely with the Jacksonville District U.S. Army Corps of Engineers and the State of Florida to facilitate expedited review of National Environmental Policy Act (NEPA) and regulatory permit actions associated with the ongoing implementation of CERP. Several large water storage impoundments will be under construction during the next few years.
- Continue to implement the Everglades Ecosystem Assessment Program, an EMAP-based monitoring program to assess the health of the Everglades and the effectiveness of ongoing restoration and regulatory strategies. Scientific publications will be completed during FY 2010.
- Continue to work with the State of Florida and federal agencies to implement appropriate phosphorus control programs that will attain water quality standards within the Everglades.

#### C) *Grant Program Resources*

The South Florida Program Office uses available resources to fund priority programs and projects that support the restoration and maintenance of the south Florida ecosystem, including the Everglades and coral reef habitat. These programs and projects include monitoring (water quality, seagrass, and coral reef), special studies, and public education and outreach activities. Federal assistance agreements for projects supporting the activities of the SFGI are awarded under the authority of Section 104(b)(3) of the CWA. Region 4 issues announcements of opportunity for federal funding and “requests for proposals” in accordance with EPA Order 5700.5 (Policy for Competition in Assistance Agreements).



## 8) *Puget Sound Basin*

### A) ***SUBOBJECTIVE: Improve water quality, improve air quality, and minimize adverse impacts of rapid development in the Puget Sound Basin.***

(Note: Additional measures of progress are identified in Appendix A.)

### B) ***Key Program Strategies***

The Puget Sound Basin is the largest population and commercial center in the Pacific Northwest, supporting a vital system of international ports, transportation systems, and defense installations. The ecosystem encompasses roughly 20 rivers and 2,800 square miles of sheltered inland waters that provide habitat to hundreds of species of marine mammals, fish, and sea birds. Puget Sound salmon landings average more than 19 million pounds per year and support an average of 578,000 sport-fishing trips each year, as well as subsistence harvests to many tribal communities. However, continued declines in wild salmon and other key species indicate that additional watershed protection and restoration efforts are needed to reverse these trends.

Although Puget Sound currently leads U.S. waterways in shellfish production, 30,000 acres of shellfish beds have been closed to harvest since 1980. These closures affect local economies and cultural and subsistence needs for these traditional resources. In addition, excess nutrients have created hypoxic zones that further impair shellfish and finfish populations. Recent monitoring assessments indicate that marine species in the Puget Sound have high levels of toxic contamination. Almost 5,700 acres of submerged land (about 9 square miles) are currently classified as contaminated with toxics and another 24,000 as at least partially contaminated. Additional pollutants are still being released: approximately 1 million pounds of toxics are released into the water, with stormwater identified as a major source, and 5 million pounds into the air each year, with many of these pollutants also finding their way into Puget Sound and its food web.

There is growing recognition that protecting the Puget Sound ecosystem would require increased capacity and sharper focus. In 2006, a broad partnership of civic leaders, scientists, business and environmental representatives, representative agency directors and tribal leadership was asked to propose a new state approach to restoring and protecting the Puget Sound Basin and its component watersheds. This challenge resulted in the creation of the Puget Sound Partnership in 2008, a new state agency, and an updated and more integrated comprehensive management plan in 2009, the “2020 Action Agenda”, for protecting and restoring the Puget Sound ecosystem.

Key program strategies for FY 2010 include:

***Improving Water Quality and Restoring Shellfish Beds and Wild Salmon Populations through Local Watershed Protection***

- EPA will continue to work with state and local agencies and tribal governments to build local capacity for protecting and restoring local watersheds. This will help focus and maintain coordinated protection and corrective actions to improve water quality specifically in those areas where shellfish bed closures or harvest area downgrades are occurring or where key salmon recovery efforts are being focused.

***Addressing Stormwater Issues through Local Watershed Protection Plans***

- EPA will work with state and local agencies and the tribes using local watershed protection approaches to reduce stormwater impacts to local aquatic resources in urbanizing areas currently outside of NPDES Phase I and II permit authority. Of particular concern are the sensitive and high value estuarine waters such as Hood Canal, the northern Straits, and south Puget Sound.
- EPA will also work with the state to increase support to local and tribal governments and the development community to promote smart growth and low impact development approaches in the Puget Sound Basin.
- Watershed focused projects are being implemented with West Coast Estuaries Watershed Grants awarded in FYs 2008 and 2009. As of January 2009, eight large watershed protection grants have been awarded and initiated through the leadership of local and tribal governments. Most of the projects supported by these and another round of grants awarded in 2009 will be ongoing in 2010.
- Improvements in water quality and local beneficial uses will be quantified, documented and evaluated as these local watershed protection and restoration plans are implemented.
- EPA will work with states to help support development of a comprehensive storm water monitoring program for the Puget Sound basin so that information gathered can be used to adaptively manage the next round of permits and implementation actions.

***Reducing Sources of Toxics and Nutrients***

- Priority toxic contaminants from terrestrial, atmospheric, and marine discharge sources will be quantified and source control actions prioritized and initiated.
- A mass balance model of nutrient sources, reservoirs, pathways, and risk to local ecosystems in Puget Sound will be refined and specific nutrient reduction strategies will be established within priority areas, including both Hood Canal and South Puget Sound.

***Restoring and Protecting Nearshore Aquatic Habitats***

- Through the Puget Sound Nearshore Restoration Partnership, high profile habitat restoration projects will continue to be initiated and others completed in priority estuaries, including the Skagit, Nisqually, Hood Canal, Elwha, and South Puget Sound.
- Protection programs, restoration strategies, project lists, and outcomes will be evaluated against current conditions and ongoing habitat loss to determine net changes in extent and function of estuary habitats.

### ***Improving Ecosystem Monitoring and the Application of Science***

- A new Integrated Science Plan for Puget Sound will be developed including enhanced monitoring, modeling, assessment and research capacity. The emerging science agenda will be focused on improving the effectiveness of both local management activities and broader policy initiatives.
- A comprehensive watershed monitoring program will be implemented to better understand the impacts of stormwater runoff on aquatic resources and the effectiveness of different management practices and policies.
- EPA will work with other science communication initiatives and programs to ensure that data and information is more available and relevant to citizens, local jurisdictions, watershed management forums, and resource managers.

### ***Ensuring Focused and Productive Transboundary Coordination***

- EPA Region 10 has committed to work with Environment Canada, Pacific Yukon Region to implement the 2008-2010 Statement of Cooperation Action Plan - Initiatives for the Salish Sea. Work will be directed toward three focus areas: 1) working with the tribes and other levels of government to improve the effectiveness of transboundary governance and ecosystem management; 2) sharing knowledge and information across borders; and 3) initiating transboundary demonstration projects that contribute to improved air quality, water quality and habitat and species health.

### ***C) Grant Program Resources***

EPA grant resources directly supporting this goal have usually been limited to the National Estuary Program Grants under Section 320 of the Clean Water Act (approx. \$500 K annually in recent years). The FY 2008 appropriations bill included close to \$20 million for development and implementation of the 2020 Action Agenda for Puget Sound. FY 2009 and 2010 appropriations will be applied to implementation of priority actions aimed at pollution source control, watershed protection, and the science capacity needed to help focus, monitor and assess the effectiveness of actions. A range of other water program grants also support many activities that assist in the achievement of this subobjective. These include grants supporting Washington State and Tribal water quality programs, infrastructure loan programs, and competitive grants such as the West Coast Estuaries Watershed Grants.



## 9) *Columbia River Basin*

- A) ***SUBJECTIVE:* Prevent water pollution and improve and protect water quality and ecosystems in the Columbia River Basin to reduce risks to human health and the environment.**

(Note: Additional measures of progress are identified in Appendix A.)

### ***B) Key Program Strategies***

The Columbia River Basin covers a major portion of the landscape of North America, including parts of seven U.S. states and British Columbia. The basin provides drainage through an area of more than 260,000 square miles into a river over 1,200 miles in length. The Columbia River Basin has been and will continue to provide an important North American backdrop for urban settlement and development, agriculture, transportation, recreation, fisheries and hydropower.

The Columbia River Basin also serves as a unique and special ecosystem, home to many important plants and animals. Columbia River salmon and steelhead runs were once the largest runs in the world. The tribal people of the Columbia River have depended on these salmon for thousands of years for human, spiritual, and cultural sustenance.

### ***Challenges***

The Columbia River Basin provides great environmental, economic, and social benefit to many public and private interests. The Basin is a dynamic economic engine driving many industries vital to the Pacific Northwest, including sport and commercial fisheries, agriculture, transportation, recreation and, with many hydropower dams, electrical power generation. However, hydro-electric power generation, agriculture, and other human activities have disrupted natural processes and impaired water quality in some areas to the point where human health is at risk and historic salmon stocks are threatened or extinct. Many Columbia River tributaries, the mainstem, and the estuary are declared 'impaired' under Section 303(d) of the Clean Water Act.

In 1992, EPA funded the Columbia River Inter-Tribal Fish Commission to conduct a fish consumption survey which was then followed by an EPA and tribal study of contaminant levels in fish caught at traditional tribal fishing sites. The consumption survey showed that tribal members were eating six to eleven times more fish than EPA's estimated national average at the time of 6.5 grams per day, which was used to calculate permit limits. The fish contaminant study showed the

presence of 92 contaminants in fish consumed by CRITFC tribal members and other people in the Columbia River Basin. Contaminants measured in Columbia River fish included PCBs, dioxins, furans, arsenic, dieldrin, DDE (a breakdown product of DDT), and mercury. EPA decided that leadership was needed in the Columbia River Basin to coordinate ongoing toxic reduction efforts, increase understanding of toxics contamination, and increase toxics reduction actions. EPA created the Columbia River Toxics Reduction Strategy to coordinate entities and work efforts in the Columbia River.

EPA Region 10 is working closely with the States of Oregon, Washington, Idaho, Columbia Basin tribal governments, the Lower Columbia River Estuary Partnership, local governments, citizen groups, industry, and other federal agencies to develop and implement a collaborative strategy to assess and reduce toxics in fish and water in the Columbia River Basin and to restore and protect habitat.

The Lower Columbia River Estuary Partnership, one of EPA's National Estuary Programs, also plays a key role in addressing toxics and restoration of critical wetlands in the Lower Columbia River estuary. Since 1996, EPA has provided significant financial support to the Lower Columbia River Estuary Partnership (LCREP). LCREP developed a management plan in 1999 that has served as a blueprint for estuary recovery efforts. The Lower Columbia River and estuary monitoring program, developed and overseen by LCREP, is critical for better understanding the lower river and estuary, including toxics and habitat characterization, information that is essential for Columbia River salmon restoration. EPA has also provided supplemental funding to the LCREP program through EPA's Targeted Watershed Grant program.

Working with state and local governments, EPA has established several goals for improving environmental conditions in the Columbia River basin by 2014:

- Protect, enhance, or restore 19,000 acres of wetland and upland habitat in the Lower Columbia River watershed;
- Clean up 85 acres of known highly contaminated sediments; and
- Demonstrate a 10 percent reduction in mean concentration of certain contaminants of concern found in water and fish tissue.

### ***Priorities and Future Directions***

Oregon, Washington, Idaho, Montana, Columbia Basin tribal governments, the Lower Columbia River Estuary Partnership, local governments, citizen groups, industry, and other federal agencies are actively engaged in efforts to remove contaminated sediments, bring back native anadromous fish, restore water quality, and preserve, protect, and restore habitat. To achieve this daunting task, EPA Region 10 is leading the Columbia River Toxics Reduction Strategy, a collaborative effort with many partners, to achieve these three goals and other actions to better understand and reduce toxics in the Columbia River Basin. The goal is to protect public health and the environment by reducing toxics in fish, water, and sediment of the Columbia River Basin and by developing and implementing a multi-agency monitoring and research strategy to understand toxic loads, emerging

contaminants, and overall ecosystem health, and increase and expand toxic reduction actions, which include:

- Developing regulations to better protect human and aquatic health;
- Implementing total maximum daily loads through sediment reductions and riparian restoration;
- Working locally with agriculture producers to reduce pesticide use through Pesticide Stewardship Partnerships;
- Providing opportunities throughout the Basin to collect banned toxics, pesticides, mercury, and pharmaceuticals;
- Cleaning up Columbia River Basin Superfund sites;
- Restoring Lower Columbia Estuary wetlands through the Lower Columbia River Estuary Partnership;
- Implementing aggressive stormwater controls to reduce toxic loads;
- Developing long term monitoring and source assessment to better characterize toxic loads and system for sharing information;
- Increased public education and outreach including work with local governments and watershed councils to reduce toxics at the community level; and
- Remediation and restoration of the Upper Clark Fork River basin in Montana from 130+ years of hard rock mining resulting in heavy metals contamination.

### *Accomplishments*

- The Columbia River Toxics Reduction Working Group has been convened as a collaborative watershed based group consisting of local communities, non-profits, tribal, state, and federal government agencies to develop and implement an action plan for reducing toxics in the Columbia River Basin.
- EPA, with the Columbia River Toxics Reduction Working Group, completed a Columbia River Basin State of the River Report for Toxics, in January 2009. This report is a first attempt to understand and describe the current status and trends of toxics pollution and serve as a catalyst for a public dialogue on enhancing and accelerating actions to reduce toxics in the Columbia River Basin. The report contains an action agenda that identifies actions to help restore this magnificent ecosystem.
- Federal and state governments are cleaning up contamination at Portland Harbor, Hanford, Upper Columbia/Lake Roosevelt, Bradford Island, Vancouver Alcoa' and other sites.
- States and tribes are reducing toxics with regulatory tools: Water Quality Standards; water quality improvement plans (total maximum daily loads (TMDLs); and National Pollutant Discharge Elimination System (NPDES) permits
- States, tribes, and local partners are improving farming practices
  - Yakima River Valley farming improvements reduced DDT concentrations in fish by 30-85%
  - Walla Walla River Pesticide Stewardship Partnership reduced levels of several pesticides



- State and local governments are removing toxics from communities, including a Washington State 2007 PBDE ban and mercury reduction strategies by Oregon and Nevada, to help communities reduce toxic chemical use and ensure proper disposal.

**C) *Grant Program Resources***

EPA grant resources directly supporting this goal are limited to the National Estuary Program Grants under Section 320 of the Clean Water Act (approx. \$500 K annually in recent years) which funds work only in the lower part of the Columbia River, less than 1/5th of the Columbia River Basin. A range of other water program grants also support many activities that assist in the achievement of this subobjective. These include grants supporting Oregon, Idaho, and Washington state and tribal water quality programs.

## V) WATER PROGRAM AND GRANT MANAGEMENT SYSTEM

This *National Water Program Guidance* document describes the general approaches that EPA, in consultation with states and tribes, expects to be most effective in attaining the environmental and public health improvements identified in the EPA 2006-2011 *Strategic Plan* and the proposed 2009-2014 *Strategic Plan*. This *Guidance*, however, is part of a larger, three part management process.

- **Part 1: Complete *National Water Program Guidance*:** During the fall of 2008, EPA reviewed program measures and made improvements to many measures. These measures are included in this Draft *Guidance*. After the stakeholder review and comment process in the spring of 2009, EPA will finalize the *Guidance* with a complete set of performance measures and applicable targets.
- **Part 2: EPA Region/State/Tribe Consultation/Planning:** EPA Regions will work with states and tribes to develop FY 2010 Performance Partnership Agreements or other grant workplans, including commitments to reporting key activities and, in some cases, commitments to specific FY 2010 program accomplishments (April through October of 2009).
- **Part 3: Program Evaluation and Adaptive Management:** The National Water Program will evaluate program progress in 2010 and adapt water program management and priorities based on this assessment information (FY 2010).

EPA is working with states to reduce reporting burden. An online attachment to this *Guidance*, *Reporting Burden Reduction Opportunities for States*, shows states' recommendations that EPA has adopted partially or in full. To ensure national consistency, implementation of these burden reduction opportunities across the regions is encouraged to the greatest extent possible. The balance of the recommendations is in the process of being evaluated in order to make final implementation decisions. This attachment is posted with this *Guidance* on the Internet at (<http://www.epa.gov/water/waterplan/>).

Parts 2 and 3 of this program management system are discussed below. Key aspects of water program grant management are also addressed.

### A) EPA Region/State/Tribe Consultation/Planning (Step 2)

EPA regional offices will work with states and tribes beginning in April of 2009 to develop agreements concerning program priorities and commitments for FY 2010 in the form of Performance Partnership Agreements or individual grant workplans. The *National Water Program Guidance for FY 2010*, including program strategies and FY 2010 targets, forms a foundation for

this effort.

The *National Water Program Guidance for FY 2010* includes a minimum number of measures that address the critical program activities that are expected to contribute to attainment of long-term goals. Between FYs 2007 and 2008, the total number of water measures has been reduced and EPA has focused reporting on existing data systems where possible. Some of these Program Activity Measures track activities carried out by EPA while others address activities carried out by states and tribes (see Appendix A). In addition, some of these measures include annual national “targets” while others are intended to simply indicate change over time.

During the Spring/Summer of 2009, EPA regions will work with states and tribes to agree on reporting for all the measures in the *FY 2010 Guidance*, including both target and indicator measures. For the target measures, EPA regional offices will develop FY 2010 regional “commitments” based on their discussions with states and tribes and using the “targets” in the *FY 2010 Guidance* as a point of reference. Draft regional “commitments” are due July 10 and, after review and comment by National Program Managers, EPA regions are to finalize regional commitments by September 25. These final regional “commitments” are then summed to make the national commitment, and both the regional and national commitments are entered into the Agency’s Annual Commitment System (ACS) prior to the October 1<sup>st</sup> start of FY 2010.

A key part of this process is discussion among EPA regions, states, and tribes of regional “commitments” and the development of binding performance partnership agreements or other grant workplan documents that establish reporting and performance agreements. The goal of this joint effort is to allocate available resources to those program activities that are likely to result in the best progress toward accomplishing water quality and public health goals for that state/tribe (e.g., improved compliance with drinking water standards and improved water quality on a watershed basis). This process is intended to provide the flexibility for EPA regions to adjust their commitments based on relative needs, priorities, and resources of states and tribes in the EPA region. Recognizing that rural communities face significant challenges in ensuring safe drinking water and protecting water quality, the National Water Program will focus on addressing rural communities’ needs in discussions with states and work more collaboratively with rural communities and rural technical providers in 2010 in planning program activities for FY 2011.

**The tailored program “commitments” that result from this process define, in an operational sense, the “strategy” for the National Water Program for FY 2010.**

As EPA regional offices work with states and tribes to develop FY 2010 commitments, there should also be discussion of initial expectations for progress under key measures in FY 2011. The Agency begins developing the FY 2011 budget in the spring of 2009 and is required to provide initial estimates of FY 2011 progress for measures included in the budget in August of 2009. These estimates can be adjusted during the fall before they go into the final FY 2011 President’s budget in January 2010. The Office of Water will consult with EPA regions in developing the initial FY 2011 budget measure targets in August 2009, and regions will be better able to comment on proposed initial targets if they have had preliminary discussions of FY 2011 progress with states and tribes. Regions should assume stable funding for the purposes of these discussions.

For a subset of the measures for which FY 2010 targets and commitments are established, EPA is asking that states and EPA regions provide National Program Managers with state specific results data at the end of FY 2010. These measures, referred to as “State Grant” measures are associated with some of the larger water program grants. EPA has been directed by the Office of Management and Budget to identify key measures related to key state grant programs. The grant programs and the FY 2010 “State Grant” measures supporting the grant are:

- 1) **Water Pollution Control State and Interstate Program Support (106 Grants).** FY 2010 State Grant Measures: SP-10; WQ-1a/b; WQ-3a; WQ-5; WQ-8b; WQ-14a; WQ-15a; WQ-19a.
- 2) **Public Water System Supervision (PWSS Grants).** FY 2010 State Grant Measures: 2.1.1; SP-1; and SDW-1a.
- 3) **State Underground Water Source Protection (UIC Grants).** FY 2010 Measures: SDW-6 and SDW-7a/b/c.
- 4) **Beach Monitoring and Notification Program Implementation Grants.** FY 2010 Measures: SP-9 and SS-2.
- 5) **Nonpoint Source Grants (319 Grants).** FY 2010 Measure: WQ-10.

For these grants, states will need to provide end of year results data for FY 2010 on a state-specific basis for identified measures.

EPA, states, territories, and tribes are working together to develop the National Environmental Information Exchange Network, a secure, Internet- and standards-based way to support electronic data reporting, sharing, and integration of both regulatory and non-regulatory environmental data. Where data exchange using the Exchange Network is available, states, tribes and territories exchanging data with each other or with EPA should make the Exchange Network and EPA's connection to it, the Central Data Exchange (CDX), the standard way they exchange data and should phase out any legacy methods they have been using. More information on the Exchange Network is available at ([www.exchangenetwork.net](http://www.exchangenetwork.net)).

In addition to this *National Water Program Guidance*, supporting technical guidance is available in grant-specific guidance documents. The grant guidance documents will be available by April 2009 in most cases. For most grants, guidance for FY 2010 is being carried forward unchanged to FY 2010. Grant guidance documents can be found on the Internet at (<http://www.epa.gov/water/waterplan/>). More information about grant management and reporting requirements is provided at the end of this section.

New for FY 2010, the grant guidance for the Water Pollution Control Grants from Section 106 of the Clean Water Act (Section 106 grants) is incorporated into this draft *National Water Program*

*Guidance.* This is a pilot effort to gain efficiency in the issuance of the Section 106 Grant Guidance within the FY 2010 *National Water Program Guidance*. Text boxes with specific Section 106 guidance are incorporated within Section III, 1, B, 1 of this draft *Guidance*. Appendix D has additional information for states and the interstate agencies. The Tribal Program, Monitoring Initiative, and Water Pollution Enforcement Activities are not included in this pilot, and grantees should follow the specific, separate guidances for these programs. This is a pilot and the Office of Water welcomes comments on this approach.

## **B) Program Evaluation and Adaptive Management (Step 3)**

As the strategies and programs described in this *Guidance* are implemented during FY 2010, EPA, states, and tribes will evaluate progress toward water goals and work to improve program performance by refining strategic approaches or adjusting program emphases.

The National Water Program will evaluate progress using four key tools:

### **1) National Water Program Best Practice and Mid-Year and End of Year Performance Reports**

The Office of Water will prepare a performance report for the National Water Program at the mid-point in each fiscal year and the end of each fiscal year based on data provided by EPA headquarters program offices, EPA regions, states, and tribes. These reports will give program managers an integrated analysis of:

- Progress *at the national level* with respect to program activities and expected environmental and public health goals identified in the *Strategic Plan*;
- Progress *in each EPA region* with respect to the *Strategic Plan* and program activity measures (including state/region specific data);

The reports will include performance highlights, management challenges, and best practices. In addition, the Office of Water will maintain program performance records and identify long-term trends in program performance.

### **2) Senior Management Measures and EPA Quarterly Reports (EQR)**

The Office of Water reports to the Deputy Administrator the results on a subset of the *National Water Program Guidance* measures on a quarterly basis. This information is displayed and tracked on the Agency EQR website. In addition, headquarters and regional senior managers are held accountable for a select group of the *Guidance* measures in their annual performance assessments.

### **3) HQ/Regional Dialogues**

Each year, the Office of Water will visit three EPA regional offices and great waterbody offices to conduct dialogues on program management and performance. These visits will include assessment of performance in the EPA regional office against objectives and subobjectives in the *Strategic Plan* and annual state/tribal Program Activity Measure commitments.

In addition, a key topic for the HQ/regional dialogues will be identification of program innovations or “best practices” developed by the EPA region, states, tribes, watershed organizations, and others. By highlighting best practices identified in HQ/region dialogues, these practices can be described in water program performance reports and more widely adopted throughout the country.

#### **4) Program-Specific Evaluations**

In addition to looking at the performance of the National Water Program at the national level and performance in each EPA regional office, individual water programs will be evaluated periodically by EPA and by external parties.

EPA program evaluations include projects undertaken by the evaluation staff in the Office of Water and the continuing oversight and evaluation of state/tribal program implementation in key program areas (e.g., NPDES program). The Office of Water is currently developing an annual program evaluation plan to determine evaluation projects in FY 2010. A key evaluation project planned by the Office of Water in FY 2009 and FY 2010 includes an Evaluation of the Total Coliform (TCR) Implementation.

In addition, the Office of Water expects that external parties will evaluate water programs, including projects conducted by the EPA Inspector General (IG), the Congressional Government Accountability Office (GAO), the National Academy of Public Administrators (NAPS), and projects by the National Academy of Sciences (NAS).

One of the most important external program-specific evaluations of the National Water Program over the past five years has been the Program Assessment Rating Tool (PART) reviews conducted by the Office of Management and Budget (OMB). The Water Program has received an adequate (10) or moderately effective (3) rating for the 13 PART reviews completed to date. As in the past, water program managers will continue to incorporate the findings and follow-up actions from the PART reviews in their programmatic and resource decisions.

Finally, improved program performance requires a commitment to both sustained program evaluation and to using program performance information to revise program management approaches. Some of the approaches the Office of Water will take to improve the linkage between program assessment and program management include:

- 1) **Communicate Performance Information to Program Managers:** The Office of Water will use performance information to provide mid-year and annual program briefings to the Deputy Assistant Administrator and senior HQ water program managers.
- 2) **Communicate Performance Information to Congress and the Public:** The Office of Water will use performance assessment reports and findings to communicate program progress to other federal agencies, the Office of Management and Budget (OMB), the Congress, and the public.
- 3) **Link to Budget and Workforce Plans:** The Office of Water will use performance assessment information in formulation of the annual budget and in development of workforce plans.
- 4) **Promote Wide Dissemination of Best Practices:** The Office of Water will actively promote the wide application of best practices and related program management innovations identified as part of program assessments.
- 5) **Expand Regional Office Participation in Program Assessment:** The Office of Water will promote expanded involvement of EPA regional offices in program assessments and implementation of the assessment process. This effort will include expanded participation of the Lead Region in program assessment processes.
- 6) **Strengthen Program Performance Assessment in Personnel Evaluations:** The Office of Water will include in EPA staff performance standards specific references that link the evaluation of staff, especially the Senior Executive Service Corps, to success in improving program performance.
- 7) **Recognize Successes:** In cases where program performance assessments have contributed to improved performance in environmental or program activity terms, the Office of Water will recognize these successes. By explaining and promoting cases of improved program performance, the organization builds confidence in the assessment process and reinforces the concept that improvements are attainable.
- 8) **Strengthen Development of Future Strategic Plans:** The Office of Water will use program assessments to improve future strategic plans and program measures.
- 9) **Promote Effective Grants Management:** The Office of Water will continue to actively promote effective grants management to improve program performance. The Agency has issued directives, policies, and guidance to help improve grants management. It is the policy of the Office of Water that all grants are to comply with applicable grants requirements (described in greater detail in the “National Water Program Grants Management for FY 2010” section), regardless of whether the program specific guidance document addresses the requirement.

- 10) **Follow-up action plan for measure and program impairment:** The Office of Water will develop an end of year action plan to address challenges in implementing progress and meeting measure commitments.

## **National Water Program Grants Management for FY 2010**

The Office of Water places a high priority on effective grants management. The key areas to be emphasized as grant programs are implemented are:

- Promoting competition to the maximum extent practicable;
- Monitoring assistance agreements and ensuring compliance with post-award management standards;
- Assuring that project officers and their supervisors adequately address grants management responsibilities; and
- Linking grants performance to the achievement of environmental results as laid out in the Agency's *Strategic Plan* and this *National Water Program Guidance*.

### **1) Policy for Competition of Assistance Agreements**

The Office of Water strongly supports the Agency policy to promote competition to the maximum extent practicable in the award of assistance agreements. Project officers must comply with Agency policy concerning competition in the award of grants and cooperative agreements and ensure that the competitive process is fair and impartial, that all applicants are evaluated only on the criteria stated in the announcement, and that no applicant receives an unfair advantage.

The Policy for Competition of Assistance Agreements, EPA Order 5700.5A1, effective January 15, 2005, applies to competitive announcements issued, released, or posted after January 14, 2005; assistance agreement competitions, awards, and disputes based on competitive announcements issued, released, or posted after January 14, 2005; non-competitive awards resulting from non-competitive funding recommendations submitted to a Grants Management Office after January 14, 2005; and assistance agreement amendments issued after January 14, 2005.

If program offices and regional offices choose to conduct competitions for awards under programs that are exempt from the Competition Order, they must comply with the Order and any applicable guidance issued by the Grants Competition Advocate (GCA). This includes complying with the Office of Management and Budget (OMB) standard formatting requirements for federal agency announcements of funding opportunities.



As of October 1, 2006, per OMB Directive, all federal agency funding opportunity announcements for open competitions must provide applicants with the opportunity to submit applications electronically through (<http://www.grants.gov>). It is the official federal government website where applicants can find and apply to funding opportunities from all 26 federal grant-making agencies.

On December 1, 2006 the Office of Grants and Debarment issued a memorandum describing the approval process for using State and Tribal Assistance Grants (STAG) funds to make non-competitive awards to state co-regulator organizations using the co-regulator exception in the Competition Order. The memorandum states that it is EPA policy to ensure that the head of the affected state agency or department (e.g., the State Environmental Commissioner or the head of the state public health or agricultural agency) is involved in this approval process. Accordingly, effective December 1, 2006, before redirecting STAG funds from a State Continuing Environmental Program (CEP) grant allotment for a non-competitive award to a state co-regulator organization, EPA must request and obtain the consent of the head of the affected state agency or department.

## **2) Policy on Compliance Review and Monitoring**

The Office of Water is required to develop and carry out a post-award monitoring plan and conduct baseline monitoring for every award. EPA Order 5700.6, *Policy on Compliance, Review and Monitoring*, effective January 1, 2008 helps to ensure effective post-award oversight of recipient performance and management. The Order encompasses both the administrative and programmatic aspects of the Agency's financial assistance programs. From the programmatic standpoint, this monitoring should ensure satisfaction of five core areas:

- Compliance with all programmatic terms and conditions;
- Correlation of the recipient's work plan/application and actual progress under the award;
- Availability of funds to complete the project;
- Proper management of and accounting for equipment purchased under the award; and
- Compliance with all statutory and regulatory requirements of the program.

If during monitoring it is determined that there is reason to believe that the grantee has committed or commits fraud, waste and/or abuse, then the project officer must contact the Office of the Inspector General. Advanced monitoring activities must be documented in the official grant file and the Grantee Compliance Database. Baseline monitoring activities must be documented in the Post-Award Database in the Integrated Grants Management System (IGMS).

## **3) Performance Standards for Grants Management**

Project officers of assistance agreements participate in a wide range of pre-and post-award activities. OGD issued *Guidance for Addressing Grants Management and the Management of Interagency Agreements under the Performance Appraisal and Recognition System (PARS)* on January 17, 2008 to be used for 2008 PARS performance agreements/appraisals of project officers who are managing at least one active grant during the rating period and their supervisors/managers. The Office of Water supports the requirement that project officers and their supervisors/managers address grants management responsibilities through the Agency's PARS process.

#### **4) Environmental Results Under EPA Assistance Agreements**

EPA Order 5700.7, which went into effect in 2005, states that it is EPA policy to:

- Link proposed assistance agreements to the Agency's *Strategic Plan*;
- Ensure that outputs and outcomes are appropriately addressed in assistance agreement competitive funding announcements, work plans, and performance reports; and
- Consider how the results from completed assistance agreement projects contribute to the Agency's programmatic goals and responsibilities.

The Order applies to all non-competitive funding packages/funding recommendations submitted to Grants Management Offices after January 1, 2005, all competitive assistance agreements resulting from competitive funding announcements issued after January 1, 2005, and competitive funding announcements issued after January 1, 2005. Project officers must include in the Funding Recommendation a description of how the project fits within the Agency's *Strategic Plan*. The description must identify all applicable EPA strategic goal(s), objectives, and where available, subobjective(s), consistent with the appropriate Program Results Code(s).

In addition, project officers must:

- Consider how the results from completed assistance agreement projects contribute to the Agency's programmatic goals and objectives;
- Ensure that well-defined outputs and outcomes are appropriately addressed in assistance agreement work plans, solicitations, and performance reports; and
- Certify/assure that they have reviewed the assistance agreement work plan and that the work plan contains outputs and outcomes.

## **VI) Water Program and Environmental Justice**

In 2001, the EPA Environmental Justice Executive Steering Committee (comprised of the Deputy Assistant Administrators and Deputy Regional Administrators) directed each headquarters program office and EPA regional office to develop Environmental Justice (EJ) Action Plans. In 2005, EPA identified eight (8) specific national environmental justice priorities as critical issues of nation-wide concern and addressed in the Agency's FY 2006 - 2011 Strategic Plan.

The EJ Action Plans are prospective planning tools that identify measurable commitments to address key environmental justice priorities. EPA is currently working to align the development of the EJ Action Plans with the development of the NPM Guidances. The development or identification of activities for the EJ Action Plans is occurring concurrently with the development of the priorities and strategies of the National Program Manager Guidances.

### Environmental Justice in the EPA National Water Program

The Office of Water places emphasis on achieving results in areas with potential environmental justice concerns through Water Safe to Drink (Sub-objective 2.1.1) and Fish and Shellfish Safe to Eat (Sub-objective 2.1.2), two of the eight national EJ priorities. In addition, the National Water Program places emphasis on other EJ Water Related Elements: 1) Sustain and Restore the U.S.-Mexico Border Environmental Health (Subobjective 4.2.4); 2) Sustain and Restore Pacific Island Territories (Subobjective 4.2.5); and 3) Alaska Native Villages Program. This focus will result in improved environmental quality for all people, especially for those living in areas with potential disproportionately high and adverse human health conditions. In order to advance environmental quality for communities with EJ concerns, the Office of Water will address the EJ considerations in infrastructure improvements to small and disadvantaged communities and reducing risk to exposure in contaminants in fish. Finally, the Office of Water also places emphasis on Community Action for a Renewed Environment (CARE) communities/projects that assess and address sources of water pollution.

### Environmental Justice Priority: Water Safe to Drink

The Office of Water will promote infrastructure improvements to small and disadvantaged communities through the Drinking Water State Revolving Fund (DWSRF) that reduce public exposure to contaminants through compliance with rules and supports the reliable delivery of safe water in small and disadvantaged communities, Tribal and territorial public water systems, schools, and child-care centers.

To support better management of water systems on tribal lands, EPA will implement a Tribal operator certification program to provide Tribal water utility staff with drinking water operator certification opportunities. EPA will work with its federal partners to improve access to safe drinking water for persons living on tribal lands.

To maintain and improve water quality in rural America, EPA will continue its efforts to promote better management of water utilities through support of state capacity development and operator certification programs, and through initiatives on asset management, operator recruitment and retention, and water efficiency.

EPA will continue to encourage states to refer drinking water systems to third party assistance providers, when needed. Third party assistance is provided through existing contractual agreements or by other state, federal, or non-profit entities.

On October 10, 2007, EPA published the latest changes to the Lead and Copper Rule (LCR) which included significant improvements to the Public Education (PE) requirements. Drinking water systems must conduct PE when they have a lead action level exceedance. EPA made significant modifications to the content of the written public education materials (message content) and added a new set of delivery requirements. These revisions are intended to better ensure that at risk and under represented populations receive information quickly and are able to act to reduce their exposure.

The Energy Independence and Security Act of 2007 includes a provision which provides new authority for EPA, in consultation with other federal agencies, to conduct a range of activities to promote healthy school environments. The Act requires EPA, in consultation with DoEd, DHHS, and other relevant agencies, to issue voluntary guidelines for states to use in developing and implementing an environmental health program for schools. The guidelines are to encompass a broad range of specific issues including lead in drinking water.

#### Environmental Justice Priority: Fish and Shellfish Safe to Eat

EJ Consideration: Fish Consumption Monitoring and Advisories - Reducing Risk to Exposure in Contaminants in Fish.

The Office of Water promotes contaminant monitoring, as well as risk communication to minority populations who may consume large amounts of fish and shellfish taken from polluted waters. Integration of public health advisory activities into the Water Quality Standards Program promotes environmental justice by allowing that advisories and minority population health risks are known when states make water quality standards attainment decisions, developing Total Maximum Daily Loads for impaired waters, and developing permits to control sources of pollution.

The Office of Water will focus on activities encouraging states to assess fish and shellfish tissue contaminant information in waters used for fishing by minority populations and tribes, particularly those that catch fish for subsistence. Such populations may include women of child bearing age, children, African Americans, Asian Pacific Islanders, Hispanics, Native Americans, Native Hawaiians, and Alaska Natives.

The Office of Water reaches these populations by disseminating information in multiple languages to doctors, nurses, nurse practitioners, and midwives about reducing the risks of exposure to contaminants in fish and shellfish. The Office of Water maintains the National Fish Advisory Website that includes the National Listing of Fish Advisories (includes both fish and shellfish advisories) and provides information to health professionals and the public on health advice for eating fish and shellfish, and how to prepare fish caught for recreation and subsistence.

### Environmental Justice Water Related Elements

The Community Action for a Renewed Environment (CARE) program is a community-based, multi-media collaborative Agency program designed to help local communities address the cumulative risk of pollutant exposure. Through the CARE program, EPA programs work together to provide technical and financial assistance to communities. This support helps them build partnerships and use collaborative processes to select and implement actions to improve community health and the environment. Much of the risk reduction comes through the application of EPA partnership programs. CARE helps communities choose from the range of programs designed to address community concerns and improve their effectiveness by working to integrate the programs to better meet the needs of communities. CARE benefits many communities, some of which are experiencing disproportionate adverse health and environmental impacts.

The Office of Water will work with CARE communities/projects to assess and address sources of water pollution, including the use of voluntary water pollution reduction programs in their communities, particularly those communities suffering disproportionately from environmental burdens. Regions will use cross-media teams to manage and implement CARE cooperative agreements in order to protect human health and protect and restore the environment at the local level. More program information is available at [www.epa.gov/CARE](http://www.epa.gov/CARE).

In addition, EPA will continue to work with unserved and underserved communities in the U.S.-Mexico Border region and Pacific Islands to improve water infrastructure to increase access to safe drinking water and sanitation.

The Office of Water will promote the protection of public health through the improvement of sanitation conditions in Alaska Native Villages and other small and disadvantaged rural Alaska communities. EPA's Alaska Native Village Infrastructure program funds the development and construction of drinking water and wastewater infrastructure. As projects are completed, public exposure to contaminants is greatly reduced through the reliable delivery of safe drinking water in compliance with public health standards and the treatment of wastewater to meet environmental regulations.

### Achieving Results in the Environmental Justice Priorities

The Office of Water will track these activities through the EJ Action Plan, Goal 2 Clean and Safe Water, Subobjective 2.1.1 (Water Safe to Drink) and Subobjective 2.1.2 (Fish

and Shellfish Safe to Eat). For the EJ water related elements, the Office of Water will track activities through the EJ Action Plan, Subobjective 4.2.4 (Sustain and Restore the U.S.-Mexico Border Environmental Health), Subobjective 4.2.5 (Sustain and Restore Pacific Island Territories), and performance measures from the budget and PART review of the Alaska Native Villages Program.

In order to begin documenting the environmental and human health improvements achieved in areas with potential environmental justice concerns, the Office of Water will begin developing specific performance measures for activities identified in its EJ Action Plan. These performance measures will assist managers on how to better integrate environmental justice principles into policies, programs, and activities.

# APPENDICES

- A) FY 2010 National Water Program Guidance Measures Appendix
- B) FY 2010 Water State Grant Measures Appendix
- C) Explanation of Key Changes Summary
- D) Additional Guidance for Section 106 State and Interstate Grant Recipients
- E) A Strategic Response to a Changing Climate