

National Water Program Guidance

Fiscal Year 2008



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Executive Summary

I) PROGRAM OFFICE: NATIONAL WATER PROGRAM

This *National Water Program Guidance for Fiscal Year (FY) 2008* 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. Within EPA, the Office of Water oversees the delivery of the national water programs and 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 established in the new EPA *Strategic Plan*. These goals include:

- 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;
- Restore and protect 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 Regions, States, and Tribes need flexibility in determining the best allocation of resources for achieving clean water goals at the Regional, State, and Tribal level. From a national perspective, however, EPA, States, and Tribes need to give special attention in FY 2008 to the priority areas identified below:

- Support Sustainable Water Infrastructure;
- Improve Water Security and Emergency Response;
- Contribute to the President's Wetlands Goals;
- Improve Water Monitoring;
- Restore Water Quality on a Watershed Basis; and
- Improve Compliance with Drinking Water Standards.

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 2008 in order to reach the public health and water quality goals related to water that are identified in the EPA *Strategic Plan*. 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 2008.
- **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 (see Appendix A).
- **FY 2008 Targets for Key Program Activities:** For some of the program activities, EPA, States and Tribes will simply report progress accomplished in FY 2008 while for other activities, each EPA Region has defined specific "targets" (see Appendices A/B). These targets are a point of reference for the development of more binding commitments to measurable progress in State and Tribal grant workplans.
- **Grant Assistance:** Each of the subobjective strategies includes a brief discussion of EPA grant assistance that supports the program activities identified in the strategy (see Part V of this *Guidance* for more information).

VJ) MEASURES

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

- Measures of changes in the environment or public health (i.e., “outcome measures”);
- Measures of activities to implement core national water programs; and
- Measures of activities to restore and protect large aquatic ecosystems and implement other water program priorities in each EPA Region.

In the process of developing the new EPA *Strategic Plan*, EPA worked with interested parties to improve and streamline the measures of changes in public health and the environment. As part of this process, new goals and supporting measures were established for improving five additional large aquatic ecosystems that were not addressed in the previous *Strategic Plan* (i.e., Long Island Sound, South Florida, the Columbia River, Puget Sound, the and Pacific Islands).

In addition, in the Fall of 2006, EPA worked with States and Tribes to streamline the number of national water program measures. As a result of this process, EPA has deleted over 30 of the national program measures used in FY 2007 from this FY 2008 *Guidance*.

VI) TRACKING PROGRESS

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

- **National Water Program Performance Reports:** The Office of Water will use data provided by Regions, States, and Tribes to prepare performance reports for the National Water Program at the mid-point and end of each fiscal year.
- **EPA 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 developed by other offices or agencies, including the EPA Inspector General and the Government Accountability Office.

VII) PROGRAM CONTACTS

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

- Michael Shapiro; Deputy Assistant Administrator for Water
- Tim Fontaine; Senior Budget Officer, Office of Water
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This *FY 2008 National Water Program Guidance* and supporting documents are available at <<http://www.epa.gov/water/waterplan>>.

I. Introduction

Clean Water Goals for 2011

In October of 2006, EPA published a new *Strategic Plan* defining specific environmental and public health improvements to be accomplished by 2011. With the help of States, Tribes and other partners, EPA expects to make significant progress toward protecting human health and improving water quality by 2011, including:

- **Protect Public Health**
 - **Water Safe to Drink:** increase the rate of compliance with drinking water standards to 90%;
 - **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 of the beach season that beaches are open and safe for swimming.
- **Restore and Protect Fresh Waters, Coastal Waters, and Wetlands**
 - **Healthy Waters:** restore an increasing number of the approximately 40,000 impaired waters identified by the States in 2002, with the goal of having at least 2,250 of these waters attain water quality standards fully by 2012;
 - **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:** meet the President's goal to achieve an overall increase in the Nation's wetlands, including restoring, improving, and protecting millions of acres of wetlands over the next five years.

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

Implement collaborative programs with other Federal agencies and with States, local governments, and others to improve the health of large aquatic ecosystems, including:

- Mexico Border waters;
- Pacific Island waters;
- the Great Lakes;
- the Chesapeake Bay;
- the Gulf of Mexico;
- Long Island Sound;
- South Florida waters;
- Puget Sound; and
- the Columbia River.

Purpose and Structure of This FY 2008 Guidance

This *National Program Guidance* defines the process for creating an "operational plan" for EPA, State, and Tribal water programs for Fiscal Year (FY) 2008. This *National Program 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 15 subobjectives that define specific environmental or public health results to be accomplished by 2008. This *Guidance* describes, for each subobjective, the increment of environmental progress EPA hopes to make in FY 08 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/performance-track/>); 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 of this *Guidance* includes three types of measures that support the subobjective strategies and are used to manage water programs:

- **“Outcome” Measures:** Measures of environmental or public health changes (i.e., outcomes) are described in the EPA *Strategic Plan* and include long-range targets for FY 2008. These measures are described in the opening section of each of the subobjective plan summaries in this *Guidance*.
- **National Program 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 new Agency *Strategic Plan*. Some of these measures have national and Regional “targets” for FY 2008 that serve as a point of reference as Regions work with States/Tribes to define more formal Regional “commitments” in the Spring/Summer of 2007.
- **Ecosystem Program Measures:** These measures address activities to restore and protect large aquatic ecosystems and implement other water program priorities in each EPA Region.

EPA worked with the Office of Management and Budget to evaluate key water programs using the Program Assessment and 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 2008:

- Step 1 is the development of this *National Water Program Guidance*.
- Step 2 involves consultation among Regions, States, and Tribes, to be conducted during the Spring/Summer 2007, to convert the “targets” in this *Guidance* into Regional “commitments” 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 2008.**

- Step 3 involves work to be done during FY 2008 to assess progress in program implementation and improve program performance.

FY 2008 Program Priorities

The Office of Water recognizes that 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 2008 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 Emergency Response:** 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 by completing deployment of the first pilot, initiating additional pilots, and developing key guidance.
- 3) **Contribute to the President’s Wetlands Goals:** On Earth Day 2004, the President announced a new national goal of achieving an overall increase in the Nation’s wetlands, including restoring, improving, and protecting at least three million acres of wetlands over five years (by 2009). In FY 2008, EPA will play a leadership role in working with other Federal agencies and States to marshal program resources to meet this goal.

EPA has committed to contributing at least 12,000 acres toward the goal by 2009. A key step in meeting this commitment is building the capacity of State and Tribal wetlands programs.

- 4) Improve Monitoring:** Improving monitoring, reporting, and environmental goal setting to keep the Nation's waters clean, safe, and secure remains a top priority. In FY 2008, EPA will support States in implementing monitoring strategies developed over the past several years and participating in national, statistically valid assessments of the condition of lakes and rivers. EPA will work with States to increase progress in submitting State integrated report assessment data using the Assessment Database or a compatible electronic format. This assessment information is critical to measuring progress toward water quality goals.
- 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 2008, 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 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 Compliance with Drinking Water Standards:** The percentage of the population served by community water systems (CWSs) that are in compliance with health-based standards is now just under 90 percent. Water systems have been challenged to meet new regulatory requirements that represent a higher overall level of public health protection. In FY 2008, EPA, States, Tribes and local water systems must 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.

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 2008. 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 (CWSs) that receive drinking water that meets all applicable health-based drinking-water standards through effective treatment and source water protection.

| | | | |
|-----------------------|--------------|-------------------------|--------------|
| 2006 Baseline: | 89.4% | 2007 Commitment: | 89.5% |
| 2008 Target: | 90% | 2011 Target: | 91% |

(Note: Additional measures of progress are identified in Appendices A and B.)

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 52,000 community water systems (CWSs)¹ nationwide that supply drinking water to more than 280 million Americans (approximately 90% 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.

EPA, the States, and CWSs will work to increase the percentage of the population served by CWSs that meet 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. In doing so, drinking water systems of all types and sizes that are currently in compliance will remain in compliance. Systems that are not currently in compliance will achieve compliance, and all systems will prepare to comply with the new regulations.

Making sound decisions to allocate resources among various program areas requires that each Region first work with States to define goals for the program in public health (i.e., “outcome”) terms. Table II on page 6 describes estimates of progress under the key drinking water measure describing the percent of the population served by CWSs that receive water that meets all health-based drinking water standards.

Although Regions should use the national FY 2008 target of the population served by CWSs receiving safe drinking water as a point of reference, Regional commitments to this outcome goal may vary based on differing conditions in each Region.

EPA and States support the efforts of individual water systems by providing a national program framework that includes core programs implemented by EPA Regional offices and States. Core national program

¹ Although the Safe Drinking Water Act applies to 155,710 public water systems nationwide (as of December 2006), 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 December 2006, there were 52,056 CWSs.

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;
- Community water system financing;
- Water security;
- Source water protection;
- Underground injection control; 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. At the national level, implementation of this approach is expected to result in significant progress toward the public health goals described above. In each of these areas, specific Program Activity Measures indicate progress being made and some measures include “targets” for FY 2008. For these measures with targets, a national target and a target for each Region are provided in Appendix A.

1) Development/Revision of Drinking Water Standards

In FY 2008, EPA is evaluating the contaminants on the second drinking water Contaminant Candidate List (CCL 2) and is preparing a final determination to regulate or not regulate at least five contaminants. For the third Contaminant Candidate List (CCL 3), the Agency is evaluating a broad universe of chemical and microbial agents, identifying the contaminant candidates with a greater likelihood of occurring in drinking water at levels that could affect human health, and preparing a preliminary listing of these contaminants. In conjunction with the CCL, EPA is monitoring contaminant occurrence for more than 20 contaminants, which are not regulated by national primary drinking water regulation, to support future determinations whether to regulate a contaminant in the interest of protecting public health. EPA is assessing data on health effects, occurrence, analytical methods, and treatment technologies for currently regulated contaminants and determining what revisions, if any, are appropriate to drinking water regulations as part of the second six-year National Primary Drinking Water Rule Review required in 2008. EPA has engaged stakeholders to determine the best approach for developing revisions to the Total Coliform Rule (TCR) and is currently addressing TCR issues and public health risks from distribution system contamination.

TABLE II – FY 2007: Targets for Population Served by Systems Meeting Standards

| EPA Region | 2002 Baseline | 2006 Actual | 2007 Commitment | 2008 Target |
|-----------------------|---------------|--------------|-----------------|-------------|
| 1 | 88% | 92.1% | 87% | 88% |
| 2 | 81% | 61% | 75% | 75% |
| 3 | 98% | 93% | 94% | 92% |
| 4 | 96% | 92% | 91% | 89% |
| 5 | 94% | 92.2% | 92% | 91% |
| 6 | 93% | 87.6% | 86% | 87% |
| 7 | 95% | 91.3% | 92.4% | 92% |
| 8 | 97% | 95.7% | 94% | 90% |
| 9 | 99% | 98% | 95% | 95% |
| 10 | 91% | 95.1% | 90% | 90% |
| National Total | 93.6% | 89.4% | 89.5% | 90%* |

*NOTE: Sum of Regional targets = 89%; national target of 90% is a high priority

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:

- **Sanitary Surveys:** Sanitary surveys are on-site reviews of the water sources, facilities, equipment, operation, and maintenance of public water systems. States must conduct sanitary surveys for all CWSs once every three years starting in 2004 (see Program Activity Measure SDW-1). For systems determined by the State 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. This measure applies to surface water systems and ground water under direct influence.
- **Technical Assistance and Training:** Reference materials for new regulations (i.e., ground water rule, surface water treatment rule, and disinfection byproducts rule) will be developed. These materials will include technical guidance, rollout strategies, implementation guidance, and quick reference guides. EPA will also offer training sessions, both in person and through satellite/Webcast, on implementation of new regulations. For the new rules promulgated in January 2006, EPA will oversee early implementation activities and will carry out some aspects directly. 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.
- **Area-wide Optimization Program:** In FY 2020, through 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 can help water systems go beyond compliance to significantly reduce the human health risks associated with turbidity in finished drinking water and disinfection byproducts in distribution systems in FY 2008.
- **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 on their various management challenges, with one focus being increased 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 data verification audits conducted by the Agency. In FY 2008, 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, EPA will also monitor Lead and Copper Rule action-level data for CWSs serving greater than 3,300 people to ensure that they are complete (see Program Activity Measure SDW-3).

- **Coordination with Enforcement:** Finally, 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) Water System Financing

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 conduct other activities that build system capacity. As of the end of FY 2006, EPA has made available \$12.8 billion to finance about 4,985 infrastructure improvement projects nationwide.

EPA will work with States to increase the DWSRF fund utilization rate (cumulative dollar amount of loan agreements divided by cumulative funds available for projects from a 2002 level of 73% to 86% in 2008 (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, in FY 2008, EPA will work in partnership with States, the water utility industry, and other stakeholders to improve sustainability of water and wastewater systems. This initiative is to identify and promote new and better ways of doing business in the water and wastewater industry. EPA will work with the water industry to identify best practices that have helped utilities address issues related to technical, managerial, and financial capacity.

4) Water System Security

EPA will provide tools, training, and technical assistance that protects the Nation's critical water infrastructure from terrorist and other catastrophic events. Reducing risk in the water sector requires a multi-step approach of determining risk through vulnerability assessments, reducing risk through security enhancements, and preparing to respond and recover effectively to 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.

As outlined in HSPD 7, the water sector must be provided tools and information to prevent, detect, and respond to and recover from a terrorist or other intentional attack. EPA will, in FY 2008, 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 2008, EPA will develop surveillance and monitoring systems in select pilot cities. These pilots will provide opportunities to evaluate operational experience of different water systems. EPA also will release interim guidance to the water sector on designing contamination warning systems and developing consequence management plans.

5) Protecting Sources of Drinking Water

EPA will continue to promote the concept of a multiple-barrier approach to drinking water program management and will work with States to track the development and implementation of source water protection strategies. EPA has set a goal of increasing the number of CWSs with minimized risk to public health through development and implementation of protection strategies for source water areas (counted by States at the CWS level) from an estimated baseline of 20% of all areas in FY 2005, to 25% in FY 2007, and approaching 30% in FY 2008 (see measure SP-4).

EPA will continue to work with a broad range of stakeholders through the Agency's participation in a voluntary collaborative of national organizations established in FY 2007 to improve protection of sources of drinking water. EPA will also leverage programs within the Federal government, such as the Clean Water Act and Underground Storage Tank Programs, to increase source water protection efforts in source water areas for community water systems.

6) Underground Injection Control

EPA works with States to monitor the injection of fluids, both hazardous and non-hazardous, to prevent contamination of underground sources of drinking water. In 2008, EPA and States will continue to implement the program for Classes I, II, III, IV, and V wells, including tracking if mechanical integrity is maintained (see Program Activity Measure SDW-7).

EPA and States will also work to address Class V wells identified in violation and to close or permit Class V motor vehicle waste disposal wells (see Program Activity Measure SDW- 6). EPA will also monitor the number and percent of high priority Class V wells identified in source water protection areas that are closed or permitted (see Program Activity Measure SDW-8).

Other underground injection control (UIC) program activities include efforts to address geologic sequestration (GS) of carbon dioxide (CO₂) and Drinking Water Treatment Residuals (DWTRs) disposal through injection wells.

In 2006, EPA initiated the development of a national technical guidance to assist Regional and State UIC programs in permitting pilot-scale CO₂ GS projects, operated by the Department of Energy's Regional Partnerships, as Class V Experimental Technology wells. EPA issued a final guidance document on March 1, 2007, and will turn full attention to developing a management framework for larger scale, commercial CO₂ GS projects through FY 2007 and FY 2008.

Also in 2006, EPA began a report, through its National Technical Workgroup, outlining the background and issues pertaining to the use of injection well technology for managing ever-increasing volumes of wastewater generated by drinking water treatment and desalination plants. The final report will be completed in 2007 and will recommend additional steps for EPA to take in FY 2007 and 2008 if, ultimately, injection wells play a larger role in a management strategy for DWTRs.

7) Protecting Surface Water that is a Source of Drinking Water

In addition to implementing programs authorized by the Safe Drinking Water Act, EPA is encouraging States and communities to expand source water protection to leverage the resources of other programs to protect drinking water supplies, such as water quality standards and watershed restoration under the Clean Water Act and land stewardship authorities of the Forest Service.

State water quality standards set the benchmarks for water surface quality, including that of drinking water sources. In FY 2007, EPA will transmit to the States the results of the evaluation of the extent to which surface water sources of drinking water are designated for public water supply use. EPA expects States to use this information to improve coordination of water quality protection activities between the State Water Quality Standards Program and the State Source Water Protection Program. In addition, EPA will begin to track which of these surface water sources of drinking water are monitored by States (see Program Activity Measure SDW-9) and will track progress in developing and implementing TMDLs for any of these waters that are impaired (see Program Activity Measure SDW-10).

C) Grant Program Resources

EPA has several grant programs 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 Web site <<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 2008. Of the FY 2008 President's Budget request of \$99.1 million, approximately \$64 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 2006, the program as a whole provided over \$11 billion in assistance, and States reserved over \$1.2 billion in set-asides to support key drinking water programs. In FY 2007, the Agency received \$837.5 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 CWSs and improving access through construction of new systems. EPA also administers a grant program for water and wastewater projects in Alaska Native Villages. Additional funding is available from other Federal agencies, including the Indian Health Service.

EPA also awards 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) Subobjective

Reduce the percentage of women of childbearing age having mercury levels in blood above the level of concern of 4.6 percent.

| | | | |
|-----------------------|-------------|-------------------------|-------------|
| 2002 Baseline: | 5.7% | 2007 Commitment: | NA |
| 2008 Target: | 5.5% | 2011 Target: | 4.6% |

(Note: Additional measures of progress are identified in Appendices A and B.)

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 839,000 stream miles and over 14 million lake acres. In addition about 18 percent of the 22 million valuable shellfishing acres managed by States are not open for use. EPA's national approach to meeting safe fish and shellfish goals is described below.

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 8-13 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 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 approved (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 developing comprehensive mercury reduction programs as part of the FY 2008 Section 303(d) lists due to EPA in April 2008.

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 where 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 to be issued in 2007.

EPA is actively monitoring the development of fish consumption advisories and working with States to improve monitoring to support this effort. By 2008, EPA expects that fish tissues will be assessed to support waterbody-specific or regional consumption advisories for at least 28% of lake acres and 40% 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), State shellfish control agencies, National Oceanic and Atmospheric Administration (NOAA), and 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 the shellfish goals 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 the shellfish goal also depends on improving the availability of State shellfish information. EPA, along with NOAA and FDA, are 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 Web site (<http://www.epa.gov/water/waterplan>).

3) Water Safe for Swimming



A) Subobjective

Percentage of days of the beach season that coastal and Great Lakes beaches monitored by State beach safety programs will be open and safe for swimming:

| | | | |
|-----------------------|------------|-------------------------|------------|
| 2006 Baseline: | 97% | 2007 Commitment: | 95% |
| 2008 Target: | 96% | 2011 Target: | 96% |

(Note: Additional measures of progress are included in Appendices A and B.)

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 2008, 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 actively working to develop and begin 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 below).

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 2008 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 75% of the 829 CSO permits will have schedules in place to implement approved LTCPs in FY 2008 (see Program Activity Measure SS-1).

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, including design of decentralized treatment systems. EPA will continue to encourage States to adopt Voluntary Management Guidelines for On-site/Decentralized Wastewater Treatment Systems published by EPA.

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 is working with States to implement the Beaches Environmental Assessment and Coastal Health Act and expects that approaching 100 percent of "significant" public beaches will be monitored in accordance with BEACH Act requirements in FY 2008 (see Program Activity Measures 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 and display State information on beach notifications through the eBeaches 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, non-point 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 Web site (<http://www.epa.gov/water/waterplan>).

III. Strategies To Protect Fresh Waters, Coastal Waters, And Wetlands

An overarching goal of the National Water Program is to protect 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 2008, 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 maintain and improve the integration and implementation of the core national clean water programs throughout the country.
 - **Broaden Use of the Watershed Approach:** EPA will continue to support 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 III of this Guidance.
 - **Water Restoration Goals and Strategies:** EPA will 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.
- ### 1) Implement Core Clean Water Programs to Protect All Waters Nationwide
- In FY 2008, 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 on a watershed basis. Regions have the flexibility to emphasize various parts of core national programs and modify targets to meet Region/State needs and conditions. Key tasks for FY 2008 include:
- Strengthen the water quality standards program;
 - Improve water quality monitoring and assessment;
 - Implement TMDLs and other watershed plans;
 - Implement practices to reduce pollution from all nonpoint sources;
 - Strengthen the National Pollutant Discharge Elimination System (NPDES) permit program; and
 - Support sustainable wastewater infrastructure.

Adapting to a Changing Climate: An Emerging Challenge

In March 2007, the National Water Program established a Water Program Climate Change Workgroup to improve understanding of climate change impacts on water resources. The Workgroup included representatives of Headquarters (HQ) water program offices and EPA Regional water offices as well as representatives of the Office of Air and Radiation and the Office of Research and Development. As part of this effort, the Workgroup will develop a strategy identifying appropriate, effective, and practical actions EPA water program managers can take to adapt program implementation to climate change as well as to support climate change mitigation and research efforts. This *Water Program Climate Change Strategy*, expected later in 2007, is likely to identify activities to be implemented in FY 2008.

Priorities for FY 2008 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. EPA will also continue implementation of the *Strategy for Water Quality Standards and Criteria* (EPA, August 2003), which identifies highest priority actions for strengthening the policy and scientific foundation of State and Tribal water quality programs.

A high priority is to support State and Territory development of 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. EPA will work with States and Territories as they develop and implement mutually agreed upon plans for developing nutrient criteria and will provide technical tools and guidance to assist them (see Program Activity Measure WQ-1).

In a related effort, EPA will 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 and Tribes to ensure the effective operation of the standards program, including working with States in keeping their water quality criteria up to date with the latest scientific information (see Program Activity Measure WQ-3) and working with States and Tribes to facilitate adoption of standards that EPA can approve (see Program Activity Measure WQ-4).

B) Improve Water Quality Monitoring

Over the next five years, EPA will work with States and Tribes in providing information to make good water quality protection and restoration decisions and tracking changes in the Nation's water quality over time.

A top priority for the past several years is State and EPA cooperation on statistically valid assessments of water condition nationwide. In FY 2008, EPA, States, and Tribes will be analyzing data from the lakes survey and collecting samples for the rivers survey. Planning for surveys of streams, coastal waters, and wetland conditions will also occur.

In FY 2008, States will continue implementing their monitoring strategies to keep to established schedules (see Program Activity Measure WQ-5). EPA will stress the importance of using statistical surveys to generate statewide assessments, monitor waters where restoration actions have been implemented, and transmit water quality data to the national STORET warehouse using the new WQX protocol. EPA will also assist Tribes in developing monitoring strategies appropriate to their water quality programs (see Program Activity Measure WQ-6) and encourage Tribes to provide data in a format accessible for storage in EPA data systems.

In a related effort, EPA will work with States and Territories to develop integrated assessments of water conditions, including reports under Section 305(b) of the Clean Water Act and lists of impaired waters under Section 303(d) of the Act by April 1, 2008. In support of this integrated reporting, and to improve State capability to report on environmental progress in a geo-referenced format, EPA is asking all States/Territories to report their data using the Assessment Database or a compatible system in FY 2008 (see Program Activity Measure WQ-7) and to provide these reports in a timely manner.

C) TMDLs and Related Plans

Development and implementation of TMDLs for an impaired waterbody is a critical tool for meeting water 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.

EPA will track the degree to which States develop TMDLs on approved schedules, based on a goal of at least 80% on pace each year to meet State schedules or straight-line rates that ensure that the nation-

al policy of TMDL completion within 8 to 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).

D) Control Nonpoint Source Pollution

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 (see Program Activity Measure WQ-10) nationwide.

As described in more detail in Section 2 on page 16, 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. EPA has a goal of substantially implementing many of these plans by 2008. State Clean Water State Revolving Fund (CWSRF) funds are also available to support efforts to control pollution from nonpoint sources.

E) Strengthen 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.

In FY 2003, EPA worked with States to develop the Permitting for Environmental Results Strategy to address concerns about the backlog in issuing permits and the health of State NPDES programs. The strategy focuses limited resources on the most critical environmental problems and addresses program efficiency and integrity. In FY 2004 and 2005, EPA worked with States to assess NPDES program integrity. In FY 2005 and 2006, EPA developed a commitment and tracking system to ensure that NPDES programs implement follow-up actions resulting from assessments. In FY 2007 and 2008, EPA will continue to emphasize the importance of these follow-up actions (see Program Activity Measure WQ-11).

EPA is also working with States to structure the permit program to better support comprehensive protection of water quality on a watershed basis. Some key elements of this effort (described in more detail in Section 2) include:

- **High-Priority Permits:** permits that can help implement TMDLs, watershed plans, effluent guidelines, or other environmental needs will continue to be identified as high priority (see Program Activity Measure WQ-19);
- **Watershed Trading:** permits are an effective mechanism to facilitate cost-effective pollution reduction through watershed trading (see Program Activity Measure WQ-20).
- **Watershed Permits:** organizing permits on a watershed basis can improve the effectiveness and efficiency of the program.

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 by the end of 2008 (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.

EPA will work with States to assure that industrial, construction, and MS4 facilities are covered by current Phase I and Phase II stormwater permits and to monitor the number of facilities covered by storm water and CAFO permits (see Program Activity Measure WQ-13).

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).

Finally, EPA will track and report on key measures of compliance with discharge permits, including the percent of major dischargers and the percent of major sewage treatment plants (POTWs) in significant noncompliance (see Program Activity Measures WQ-15 and WQ-16).

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:** to help utilities and other stakeholders use watershed approaches to think holistically about infrastructure planning, including drinking water, source water, wastewater, and stormwater management and soft path technologies, such as low impact development.

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.

Also important to the implementation of the Sustainable Infrastructure Strategy are the CWSRFs that provide low interest loans to help finance wastewater treatment facilities and other water quality projects. Recognizing the substantial remaining need for wastewater infrastructure, EPA expects to continue to provide significant annual capitalization to CWSRFs through 2011. EPA will work with States to assure the effective operation of SRFs, including monitoring the fund utilization rate (see Program Activity Measure WQ-17). EPA will also work with States to monitor progress in the restoration and protection of waters (see Program Activity Measure WQ-18).

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 Mexico Border area (see Section 7 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. EPA estimates that there are approximately 6,000 local watershed groups active nationwide.

For FY 2008, 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; 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 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 Restoration Goals and Strategies

In 2002, States identified some 39,798 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 contribute to 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 restoring 2,250 of those waters identified as impaired by 2012 (about 5.6% of all impaired waters identified in 2002), and Regions have indicated the progress they expect to make toward this goal in FY 2008 (see table on the next page).

Regional commitments for waterbody restoration, to be developed over the Summer of 2007 based on the targets in the table below, **should be the best effort by the Regions and States to restore impaired waters based on an affirmative effort to redesign and refocus program priorities and delivery methods where this is necessary to meet or exceed water restoration targets.** In the event that a Region finds that existing program delivery and alignment is not likely to result in a significant contribution to national goals, the 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 restoration (see measure SP-11) and in small watersheds where one or more waterbody is impaired (see measures SP-12).

States and Regions have indicated that the time frame for full restoration of impaired waters can be long and that the significant program efforts to put plans in place to restore waters 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 2008 (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 is 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 mercury reduction program consistent with EPA guidance.

Impaired Waters Restoration Targets By Region and Nationally (Measure SP-10)

| Region | Total Impaired Waters (2002) | FY 2002-2006 Waters Restored | FY 2007 Commitment (cumulative/ FY 2007 annual) | FY 2008 Target (cumulative/ FY 2008 annual) | FY 2012 Target (cumulative) |
|---------------|------------------------------|------------------------------|---|---|-----------------------------|
| 1 | 6,710 | 47 | 86/39 | 78/0 | 129 |
| 2 | 1,805 | 6 | 6/0 | 25/19 | 101 |
| 3 | 8,998 | 224 | 256/32 | 275/19 | 375 |
| 4 | 5,274 | 72 | 136/64 | 150/14 | 496 |
| 5 | 4,550 | 241 | 241/0 | 309/68 | 397 |
| 6 | 1,407 | 73 | 111/38 | 120/9 | 240 |
| 7 | 2,036 | 196 | 210/14 | 219/9 | 250 |
| 8 | 1,274 | 51 | 69/18 | 96/27 | 133 |
| 9 | 1,041 | 8 | 43/35 | 46/3 | 24 |
| 10 | 6,408 | 6 | 8/2 | 50/42 | 100 |
| Totals | 39,503** | 924 | 1,166/242 | 1,368/210 | 2,250* |

* Rounded from 2245; ** 39,503 updated from 39,768 to reflect corrected data.

(Note that between 2000 and 2002, States reported 1,876 waters restored or otherwise no longer considered impaired.)

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 process 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 waterbody is impaired and the watershed approach is being applied. Our goal is to demonstrate how the watershed approach is working by showing a measurable improvement in 250 such watersheds by 2012.

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;
- Make effective use of Regional Geographic Initiative Funds in the Region;
- Leverage resources available from other Federal agencies, including the U.S. Department of Agriculture; and
- Apply funds appropriated by Congress for watershed or related projects.

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 Web site (<http://www.epa.gov/water/waterplan>).

2) Protect Coastal and Ocean Waters



A) Subobjective

Improve national coastal aquatic ecosystem health on the “good/fair/poor” scale of the *National Coastal Condition Report (NCCR)*. (Rating is a system in which 1 is poor and 5 is good.)

| | | | |
|-----------------------|------------|-------------------------|-------------|
| 2004 Baseline: | 2.3 | 2007 Commitment: | 2.3 |
| 2008 Target: | 2.4 | 2011 Target: | 2.5* |

(NOTE: Additional measures of progress are included in Appendices A and B. *2011 Target in the Agency *Strategic Plan* developed prior to more recent estimates of progress.)

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 2008, 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 the improvement of coastal conditions nationally by at least 0.2 points on the scale in the NCCR series of assessments (i.e., from 2.3 national score in the 2004 NCCR to 2.5 in 2011; 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, and the Gulf of Mexico; see measures SP-16, 17, 18, and 19 and Subobjective 4.3.5 in the Appendices). 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 NEP, 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 2008, the National Water Program will work with the EPA Office of Research and Development to develop the third NCCR describing the health of the major marine eco-regions around the United States. This report will build on past reports issued in 2001 and 2004 and will allow for valid trend assessment. These assessments are the basis for the environmental measures of progress used in the EPA *Strategic Plan*.

Starting in FY 2007 and continuing in FY 2008, 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). States have identified over 8,000 impaired waterbodies (i.e., waters not meeting State water quality standards) within coastal watersheds. Just over 4,000 of these impaired waters are located within the 28 estuaries covered by the NEP. EPA will work with NEPs and with State TMDL programs to track efforts to restore these impaired waters.

EPA’s new Ocean Survey Vessel (OSV), the *OSV Bold*, is larger and more versatile than its predecessor the *OSV Peter W. Anderson*, and has greatly increased the diversity of monitoring and assessment activities that EPA will undertake.

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 2008, EPA will continue work with States to assist in the full approval of coastal nonpoint control programs in all coastal States.

In FY 2008, 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 and will track the number of miles of shoreline protected by “no discharge zones” (see Program Activity Measure CO-2).

3) Implement the NEP

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 2008, 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).

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 (see Section A on page 19) is protecting or restoring additional habitat acres within the NEP study areas. For FY 2008, EPA has set a goal of protecting or restoring an additional 50,000 acres of habitat within the NEP areas.

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 of 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 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

Estuaries in the National Estuary Program

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

through the discharge of ballast water from ships. In FY 2008, EPA will continue to participate in the Aquatic Invasive Species Council, work with other agencies on ballast water discharge standards or controls, and work with other nations for effective international management of ballast.

C) Grant Program Resources

Grant resources directly supporting this work include the NEP grants and coastal nonpoint pollution control grants under the Coastal Nonpoint Pollution Control Program administered jointly by EPA and NOAA (Section 6217 grant program). In addition, clean water program grants identified under the watershed sub-objective support this work. For additional information on these grants, see the grant program guidance on the Web site (<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.

2002 Baseline: annual net loss of an estimated 58,500 acres per year

2004 Actual: 32,000 acres annual net gain

2006 Commitment: 200,000 (cumulative)

2007 Target: 100,000 per year (300,000 cumulative)

2008 Target: 100,000 per year (400,000 cumulative)

(Note: Additional measures of progress are identified in Appendices A and B.)

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 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 Nation 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 function as wetlands and others of which may have varying functional 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 will work with FWS and other Federal agencies to refine the methodology used in preparing future reports to assess the status and trends of both the quantity and quality of the Nation's wetlands.

The President's Earth Day 2004 Wetlands Initiative announced a performance-based goal to restore, enhance, and protect at least three million wetland acres over the next five years. In support of this goal, EPA and other Federal agencies will continue to work closely with Federal, State, Tribal, local, and private entities to implement a coordinated program to protect wetlands.

EPA's Wetlands Program combines technical and financial assistance to State, Tribal and local partners with outreach and education and 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. EPA's Wetlands Program is currently undertaking a national collaborative program planning effort to devise national strategies in the areas of monitoring, state and tribal capacity, regulatory program, jurisdictional determinations, and restoration partnerships. This planning effort will move forward within the context of the strategic goals and program measures outlined in this *Guidance*.

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. The USACE 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 USACE to ensure application of the 404(b)(1) guidelines which require that discharges of dredged or fill material into waters of the United States be avoided and minimized to the extent practicable and unavoidable impacts are compensated. Starting in FY 2008, EPA will track the effectiveness of EPA's environmental review of Section 404 permits and have added a new Program Activity Measure described below (WT-3). Each 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 Section 404 permits to ensure wetlands impacts are avoided and minimized;
- Ensure when wetlands impacts cannot be avoided under 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 wetlands goal is primarily accomplished by other Federal programs (Farm Bill agriculture incentive programs and wetlands acquisition and restoration programs, including those administered by FWS) and non-Federal programs. EPA will work to improve levels of wetlands 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, SRF, NEP, 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 2008, EPA expects to track the following key activities for accomplishing its wetlands goals:

President's Initiative: Among the several federal agencies working to meet the President's wetlands goal, EPA's commitment is to achieve an increase of at least 6,000 acres of restored wetlands and 6,000 acres of enhanced wetlands over the five-year period (1,200 acres per year in each category). 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 the Wetland Five-Star Restoration Grants, NEP, Section 319 non-point source grants, Brownfield grants, or 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 NEP enhancement projects. However, because EPA cannot assume such significant results each year, the target will remain the same for 2008.

State/Tribal Programs: A key activity is building the capacity of States and Tribes in wetlands monitoring, regulation, restoration, water quality standards, mitigation compliance, and partnership building. Program Activity Measure WT-2 is meant to reflect EPA's goal of increasing State and Tribal capacity in wetlands protection. In reporting progress under the measure, EPA will be looking for substantial progress toward the State or Tribe's wetlands program development in three of the six elements of the measure (i.e. monitoring, regulation, restoration, water quality standards, mitigation compliance, and partnership building) during the last three years.

The Wetland Demonstration Pilot is a three-year (FY 2005-FY 2007) trial to assess the programmatic and environmental outcomes States/Tribes can achieve when wetlands grants are targeted at program implementation. Special dispensation was given for this three-year demonstration for Clean Water Act 104(b)(3) funds to support implementation activities. Programmatic and environmental outcomes from the 23 projects in the pilot will be evaluated in FY 2008.

Regulatory Program Performance: In 2006 and 2007, EPA and USACE 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, this FY 2008 *Guidance* introduces a new measure detailed below (WT-3). This measure documents the annual percentage of Section 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 are collected to define a meaningful target.

Wetlands 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 wetlands monitoring and assessment program within their water monitoring and assessment programs. Also, in 2006 EPA re-initiated 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 the 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 wetlands condition as defined through biological metrics and assessments and has the goal of at least 14 states using these methods by the end of 2008. Program Activity Measure WT-4 tracks state progress toward this goal and the target is that by 2008 at least 14 States will have measured and reported on the trend in wetlands condition in their state using biological metrics and assessments. States are counted as meeting this measure where they have generated baseline wetlands condition, ideally for at least 20% of the state, and are on track to resurvey and report any change in that condition by 2008. Baseline condition may be established using landscape assessment (Tier I), 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, Clean Water Act Section 319 Grants, Brownfields grants, and NEP Grants. For additional information concerning these grants, see the grant guidance Web site <<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 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 large aquatic ecosystems around the country. For many years, EPA has worked with State and local governments 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 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 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 Appendices A and B.)

B) Key Strategies

The United States and Mexico have a long-standing commitment to protect the environment and public health 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) **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 (CNA)

and EPA provide funding and technical assistance for project planning and construction of infrastructure.

Congress has provided \$883 million for Border infrastructure from 1994 to 2006. For FY 2008, 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 2008 target will be achieved through the completion of prioritized BEIF wastewater infrastructure projects. Future progress in meeting this subobjective will be achieved through other border 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 Border Region. Since 1995, institutions created under the North American Free Trade Agreement (NAFTA), 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 infrastructure projects. BECC and NADB support efforts to evaluate, plan, and implement financially and operationally sustainable water and wastewater projects. EPA will continue to support these institutions.
- 4) **Improve Measures of Progress:** During FY 2008, 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. Allocations of the funding available for infrastructure projects 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 Appendices A and B.)

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 one or two 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 water and sanitation problems in the U.S. Pacific Island territories is inadequate and crumbling infrastructure. A recent study estimated it would take over \$600 million in capital investments to bring the Pacific territories water and wastewater systems up to U.S. standards. EPA is targeting innovative infrastructure financing, enforcement, and technical assistance to improve the 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.

- **Innovative Financing:** EPA is working in partnership with the U.S. Department of the Interior to create a U.S. Territories Bond Bank for the Pacific territories and the U.S. Virgin Islands. The bond bank would make it easier and less expensive for the territories to secure bonds that could address large-scale infrastructure needs.
- **Enforcement:** EPA will continue to oversee implementation of judicial and administrative orders to improve 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 2006 were down by 90% compared to 2002; and no island-wide boil water notices were issued in 2005 or 2006 compared to nearly every month in 2002. 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 water and wastewater systems in the Pacific Islands. In addition to periodic on-site training, EPA will continue to use the Intergovernmental Personnel Act (IPA) to build capacity in the Islands to protect public health and the environment. For example, in 2006 and 2007, EPA placed U.S. Public Health Service drinking water engineers in key positions within Pacific island water utilities and within local regulatory agencies.

C) Grant Program Resources

A range of grants funds and set-asides from the national SRF appropriation are available to implement projects to improve water infrastructure in the Pacific Islands. EPA currently provides about \$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

Prevent water pollution and improve the overall aquatic ecosystem health of the Great Lakes using the Great Lakes 40-point scale.

| | |
|-------------------------|------------------|
| 2002 Baseline: | 20 points |
| 2005 Result | 21.9 |
| 2006 Result: | 21 |
| 2007 Commitment: | 21 |
| 2008 Target: | 22 |
| 2011 Target: | 23 |

(Note: Additional measures of progress are identified in Appendices A and B.)

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 10-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.

More than 1,500 people representing Federal, State, local and tribal governments; non-governmental 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
- 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 has committed to begin implementing 48 near-term activities that address issues in all eight of the priority areas identified in the Strategy (see Program Activity Measure GL-5). Highlights from among those activities include:

- Fully implementing the Great Lakes Legacy Act to remediate contaminated sediments in Great Lakes Areas of Concern;
- Establishing 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;

- Developing a system to track and report on the GLRC wetlands goal to enhance and protect 200,000 acres of wetlands in the Great Lakes basin (including activities such as developing an inventory of potential restoration sites, developing performance measures for prioritizing actions, applying the performance measures to the actions in an inventory, and identifying existing programs that could potentially implement the actions);
- Developing a standardized sanitary survey form for use by State and local governments, including support for implementation pilots using the new survey form in FY 2007;
- Surveillance for emerging chemicals of concern; and
- Work with the U.S. Army Corps of Engineers to expedite the processing and review of permits for projects to restore wetlands and other aquatic habitat.

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 CSO Policy. In the case of discharge permits, EPA has a goal of assuring that by 2008, 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. This is a significant increase from the 2002 baseline of 61.6%. 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. In

2007, the measure for this goal was re-defined to be consistent among the Great Lakes Regions and States. The FY 2008 target is 75% 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 will work with States to both improve the State water quality standards for bacteria in recreational waters and to implement the BEACH Act (see 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 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.

C) Grant Program Resources

The Great Lakes National Program Office negotiates grant 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 (<http://www.epa.gov/glipo/fund>). Additional information concerning these resources is provided in the grant program guidance Web site <<http://www.epa.gov/glipo/fund/qlf.html>>.

4) Protect and Restore Chesapeake Bay



A) Subobjective

Prevent water pollution and protect aquatic systems so that the overall aquatic system health of the Chesapeake Bay is improved.

(Note: Additional measures of progress are identified in Appendices A and B.)

B) Key Strategies

EPA's Chesapeake Bay work is based on a unique regional partnership formed to direct and conduct restoration of the Bay and its tidal tributaries. Partners include Delaware; the District of Columbia; Maryland; New York; Pennsylvania; Virginia; West Virginia; the Chesapeake Bay Commission, a tri-state legislative body; EPA, which represents the Federal government; and participating citizen advisory groups. Chesapeake 2000, a comprehensive and far-reaching agreement, guides restoration and protection efforts through 2010, and focuses on improving water quality. The challenge is to reduce pollution and restore aquatic habitat to the extent that the Bay's waters can be removed from the Clean Water Act "impaired waters" list.

The Chesapeake Bay Program (CBP) has shown how Federal agencies and States can work together collaboratively. The greatest success in the last five years has been the water quality initiative, which has resulted in:

- New water quality standards for the Bay and its tidal tributaries that protect living resources and are both more attainable and more valid scientifically, incorporating innovative features such as habitat zoning and adoption of area-specific submerged aquatic vegetation acreage targets;
- Adoption of nutrient and sediment allocations for all parts of the watershed to meet the new standards, which reflect a consensus of all six basin States, the District of Columbia, and EPA;
- Tributary-specific pollution reduction and habitat restoration plans ("tributary strategies") which spell out the treatment technologies, best management practices (BMPs), and restoration goals for riparian forest buffers and wetlands that must be employed to achieve the allocations; and
- A common NPDES permitting approach for all significant wastewater treatment facilities that unites both upstream and downstream States in the enforcement of the new water quality standards and allocations, including implementation of watershed permitting and nutrient trading.

Progress on Bay restoration must be accelerated substantially as the restoration goal of 2010 approaches. EPA remains firmly committed to the 2010 goal and will continue working with other Bay Program partners to identify additional opportunities to accelerate

progress and ensure that water quality objectives are achieved as soon as possible. The water quality standards and permitting approach, which applies to over 450 facilities basin wide, will speed up nutrient reductions from wastewater facilities. The cost of implementing pollution control and habitat restoration strategies necessary to achieve water quality standards is an estimated \$28 billion, with only a fraction of the funds being currently available from all partners combined. This lack of adequate funding places a premium on improving access to available assistance programs and targeting them to measures that yield the greatest water quality benefit for the expenditure as well as using innovative approaches such as nutrient trading and watershed permitting programs.

CBP partners are emphasizing implementation of the most cost-effective BMPs, using the Program's analytical capability. Priorities for funding restoration efforts were established by CBP leaders in 2005 to help focus available resources. EPA and its partners are also funding watershed projects to test the effectiveness of key nonpoint source BMPs and spur innovations such as better technology and market incentives. In order to accelerate the pace of water quality and aquatic habitat restoration, EPA and Bay area States are taking a number of steps to make the most cost-effective use of available regulatory, incentive, and partnership tools, including the following key actions for FY 2008:

- Fully implement base clean water programs in the Bay;
- Support implementation of watershed permitting and nutrient trading programs;
- Accelerate Bay cleanup by focusing on the most cost-effective nutrient-sediment control and key habitat restoration strategies;
- Enhance use of monitoring, modeling and demonstration projects to target and assess the effectiveness of restoration actions;
- Strengthen accountability for implementation of restoration measures; and
- Use the CBP federal partnership for cooperative conservation to improve access to available financial and technical assistance programs, and link federal programs to CBP's strategic priorities.

1) Core Programs

Core Clean Water Act programs provide a foundation of water pollution control and wetlands protection that is critical to protecting and restoring Chesapeake Bay tidal waters. Clean Air Act regulations controlling

emissions of nitrogen compounds also contribute substantially to Bay restoration.

A 2005 study identified ways to use EPA's regulatory authorities more effectively to advance Bay restoration, and these recommendations are being implemented. EPA and watershed States will set stronger nutrient limits for wastewater facilities under the Chesapeake Bay permitting approach, increasing use of SRF low interest loans for financing municipal wastewater treatment improvements. New NPDES CAFO permit requirements will be put in place. To curb urban/suburban storm water loads and damage to the watershed's carrying capacity from rapidly-increasing impervious surface acreage and loss of riparian buffers, EPA will cooperate with partners to strengthen implementation of NPDES MS4 and construction permit requirements.

2) Cost-effective Nutrient and Sediment Reduction

Wastewater Treatment: CBP partners have already taken steps to increase the cost-effectiveness of nutrient controls in wastewater treatment by supporting demonstrations of biological nitrogen removal and justifying use of annual load limits in NPDES permits. States will accelerate new NPDES requirements by watershed permits (and nutrient trading) in at least two jurisdictions.

Agriculture: The States' pollution control and habitat restoration strategies (tributary strategies) define specific, localized approaches for reducing nutrient and sediment loads from agricultural operations, the largest category of sources. They emphasize agricultural BMPs such as nutrient management, low/no-till cultivation, cover crops, and forest buffer restoration, which are among the most cost-effective of all measures for controlling nutrient-sediment pollution loads. EPA and State partners will integrate tributary strategy implementation with Farm Bill programs.

CBP's animal manure management strategy emphasizes innovative measures such as animal feed adjustment, and encourages markets for manure-based products, such as soil amendment on Federal and State lands. Watershed projects, such as the Corsica River, will be supported to demonstrate effectiveness of combined BMPs. Streamside forest buffers (see Program Activity Measure CB-2) will be expanded to achieve 60% of the forest buffer planting goal in FY 2008. Additional information concerning this measure is available on the Internet <<http://chesapeakebay.net/status.cfm?sid=83>>.

Urban/suburban lands: The 2004 CBP Blue Ribbon

Finance Panel stressed that storm water pollution prevention, coupled with preservation of riparian forest buffers and wetlands, was by far the most cost-effective approach to controlling pollution from urban/suburban development, and the CEC agreed that EPA and State partners should strengthen these efforts. The 2007-2008 goal is to establish and implement a basin-wide consensus on fully protective principles and standards for regulating new development and redevelopment, linking Federal, State and local programs and emphasizing “low impact development,” preservation of natural streamside buffers, increased urban tree canopy and wetlands restoration, with watershed approaches including trading and restoration banking.

3) Better Assessment and Targeting

EPA is upgrading its watershed modeling capability, to improve tributary strategy planning and assessment. In FY 2008, the Chesapeake Bay Phase 5 Watershed Model will be calibrated and verified for management application. EPA and USACE are upgrading the Chesapeake Bay water quality model and are cooperating with the U.S. Geological Survey (USGS), NOAA, and USDA to organize an assessment of regional sediment management. In 2004, EPA, USGS, and the Bay States adopted a basin-wide non-tidal monitoring network, integrated with USGS gages and State Clean Water monitoring, but tailored to monitoring results of measures to reduce nutrient-sediment loads to tidal Bay waters. In 2007-2008, the network will be expanded under an interagency initiative to improve assessment and geographic targeting of BMPs. EPA and its partners will also increase collaborative assessment of watershed projects, including several new projects funded with targeted watershed funds.

4) Strengthened Accountability and Reporting

In 2006 and 2007, the CBP substantially revised its indicators and reporting for Chesapeake Bay health and restoration, both to improve accountability and to respond to recommendations from the General Accountability Office. Working with the scientific community through CBP’s Scientific and Technical Advisory Committee, the new indicators will be evaluated and expanded in 2008 to include tributary health and restoration reporting. In 2008, EPA, NOAA, and the States will collaborate on improved integration of water quality and fisheries monitoring and reporting under the CEC’s precedent-setting agreement in 2005 to establish ecosystem-based fisheries management for the Chesapeake Bay.

5) Federal Partnership Agreement for Chesapeake Bay Restoration

EPA and the Bay States need to strengthen partnerships with complementary Federal agency programs that fund agricultural conservation and ecosystem restoration, manage lands and fisheries, and contribute to Bay scientific understanding. A key step was taken in October 2005, when CBP goals and tributary strategy funding priorities were presented to the first high-level Federal meeting on Chesapeake Bay restoration since 1998. EPA and 16 other Federal agencies agreed to strengthen shared programs to achieve the 10 “keystone commitments” of *Chesapeake 2000*, to hold an annual high-level meeting to review progress and renew cooperation, and to improve access to Federal financial and technical assistance for Bay restoration measures through cooperation with the Chesapeake Bay Watershed Assistance Network. In FY 2008, this Federal partnership agreement will be in its third year of implementation.

C) Grant Program Resources

Grant resources supporting this goal include the Chesapeake Bay Implementation Grants under Section 117 of the Clean Water Act, Chesapeake Bay Small Watershed Grants, and a range of program grants to States. A Web site 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) Subobjective

Prevent water pollution and improve the overall aquatic ecosystem 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:

| | |
|-------------------------|------------|
| 2005 Actual: | 2.4 |
| 2006 Actual: | 2.4 |
| 2007 Commitment: | 2.4 |
| 2008 Target: | 2.5 |
| 2011 Target: | 2.6 |

(Note: Additional measures of progress are identified in Appendices A and B.)

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 33 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 40% 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 2008, EPA is working with States and other partners to define key activities to support attainment of environmental and health goals that align with the *Gulf of Mexico Governors’ Action Plan* developed by the Gulf States Alliance, a partnership of the five Gulf states. (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 five 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 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 812 of the impaired segments identified by States around the Gulf and will receive targeted technical and financial assistance to restore impaired waters. The 2008 goal is to fully attain water quality standards in at least 8% 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 HABs and for notifying public health managers (see Program Activity Measure GM-1) and expects to expand the system in 2008.

Another priority for the Gulf of Mexico Program Office is to work with States and other Federal agencies to reduce the rate of shellfish-borne *Vibrio vulnificus* illnesses caused by consumption of commercially harvested oysters (see Program Activity Measure GM-2). Over a recent 10-year period, the Centers for Disease Control identified over 200 serious illnesses from *Vibrio* resulting in 105 deaths. EPA will support efforts to improve education about proper cooking of oysters and the dangers of eating raw oysters. EPA will also support work to identify economically viable post-harvest treatment technologies. EPA has a goal of reducing the rate of illness from .303 per million consumers to 0.08 per million by 2008.

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 EPA’s 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) Wetland and Coastal 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 wetlands loss in the Gulf area is on the order of 50%, and protection of the critical habitat that remains is essential to the health of the Gulf aquatic system. EPA has a goal of restoring 20,000 acres of habitat by 2008 (see Program Activity Measure SP-39). EPA is working with 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 wetlands and estuarine habitat.

3) Identification and Characterization of Gulf Habitats

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

tems 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, USACE, and the USGS in support of this goal.

4) Reductions in Nutrient Inputs to Coastal Ecosystems

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. 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. 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 an *Action Plan for Reducing, Mitigating and Controlling Hypoxia in the Northern Gulf of Mexico* (2001). This Action Plan includes as a goal the long-term target to reduce the size of the hypoxic zone from about 14,000 square kilometers (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 2008, EPA will support implementation of nutrient-focused hypoxia reduction measures through multi-year funding strategies; support collaborative monitoring and assessment frameworks to measure and calibrate the performance of nitrogen reduction efforts and track progress; support the update of information on flow, nutrient concentrations, and loadings at the mouths of each major sub-basin in partnership with USGS and Sub-Basin Committees; support evaluation of modeling of the hypoxic zone; support cooperative implementation of industry-led nonpoint source nutrient reduction strategies through effective sub-basin team partnerships; and support EPA's partnership component of the five-year science and management reassessment of nutrient load reductions achieved and the response of the hypoxic zone, water quality throughout the Basin, and economic and social effects of Gulf of Mexico hypoxia.

5) Environmental Education

Education and outreach are essential to accomplish the Gulf of Mexico Alliance's overall goals and are integral to the other four 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.

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 Web site <<http://www.epa.gov/water/waterplan>>.

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 Appendices A and B.)

B) Key Program Strategies

More than 20 million people live within 50 miles of the Long Island Sound's shores, and more than one billion gallons per day of treated effluent enter the Sound from 104 treatment plants. The Sound generates more than \$8.25 billion to the regional economy from clean water-related activities alone—recreational and commercial fishing and shellfishing, beach-going, and swimming. The Sound also generates uncounted billions through transportation, ports, harbors, real estate, and other cultural and aesthetic values. The Sound is a 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 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, the CCMP focuses on 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” TMDL management zones and exchange ratios that allow sewage treatment plant operators to trade nitrogen reduction obligations with each other. This approach meets 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.

New York and Connecticut will continue to allocate resources toward Scalable Test Platform (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 5-year review process will incorporate any revised marine water quality standards for dissolved oxygen adopted by the States of Connecticut and New York.

Connecticut will continue its innovative Nitrogen Credit Exchange program; which was instituted in 2002. Increased reductions in nitrogen discharges at plants that went 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 the Consent Order and will minimize the impact of nitrogen discharges to the Sound as construction proceeds through 2014.

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, 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 and effect the timing, duration, and severity of hypoxia, such as weather, rainfall, solar radiation and light, temperature, winds, and the natural hydrogeology of the Sound that favors stratification, continued reductions in nitrogen loads will help to mitigate these other uncontrollable factors. As 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 Diandromous Fish

EPA will continue to work with Management Conference partners to restore degraded habitats and reopen rivers and streams to diandromous fish passage. The States and EPA will direct efforts at the most vulnerable coastal habitats and key areas for productivity. The States, using a variety of public and private funding sources, and in cooperation with landowners, will construct fishways, remove dams, or otherwise remove impediments to diandromous 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 diandromous 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 convene to review and develop a successor *Long Island Sound Agreement* for 2008. The *Agreement* will build upon CCMP goals and targets, which were refined and documented in the *Long Island Sound 2003 Agreement*. The 2008 *Agreement* will be submitted for endorsement by the Long Island Sound Policy Committee and for signature by the governor of New York and Connecticut in 2008.

EPA and States will continue to participate in the Long Island Sound Management Conference under Clean Water Act Section 320, as implemented through the *Long Island Sound Restoration Act of 2000* as amended, Clean Water Act 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; effects of reducing toxic sub-

stances, pathogens, and floatable debris; identification, restoration and protection of critical habitats; and management of 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 supports and is supported by EPA core environmental management and regulatory control programs. The CCMP, established under Clean Water Act Section 320, envisioned a partnership of Federal, State, and local governments; private industry; academia and the public; to clean up 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 Clean Water Act 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.

The Sound is an Estuary of National Significance, as so recognized under Clean Water Act Section 320, and those funds help support implementation of the CCMP. 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.

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 EPA. A new Web site page provides grant information and progress toward meeting environmental results <<http://www.longislandsoundstudy.net/grants/index.htm>>.

7) Protect the South Florida Ecosystem



A) Subjective

Protect and restore the South Florida ecosystem, including the Everglades and coral reef ecosystems.

(Note: Additional measures of progress are identified in Appendices A and B.)

B) Key Program Strategies

The South Florida ecosystem encompasses three national parks, more than 10 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. In addition, 50% 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 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, an approach grounded in science, innovation, stakeholder involvement, and adaptive management is being used—the *watershed approach*. In addition to implementing core clean water programs, work will continue 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 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. Work 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. Implementation of wastewater and storm water master plans for the Florida Keys will also continue, which will upgrade inadequate wastewater and storm water infrastructure. In addition, implementation will continue on 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 2008

- Support development of TMDLs for the Lake Okeechobee watershed, 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. In FY 2008, Region 4 will work with the COE to evaluate two ASR pilot projects that are scheduled to come online in FY 2007;

- 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 USACE 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 FY 2008.
- 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. A project report on the extensive 2005 sampling effort will be completed in FY 2007.
- 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 Clean Water Act. 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) Protect the 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 Appendices A and B.)

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.

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 nine 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 and 5 million pounds into the air each year, with many pollutants finding their way into Puget Sound.

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 developed an agenda to ensure sustainability of the basin ecosystem by 2020. This challenge has invigorated both estuary and watershed-based restoration and protection efforts at all levels. By mid 2008, this partnership to protect Puget Sound will have established an updated and more integrated comprehensive management plan for

protecting and restoring the Puget Sound ecosystem and its component habitats and species.

Key program strategies for FY 2008 include:

Improving Local Water Quality and Restoring Shellfish Beds

- EPA will work with State and local agencies and the Tribes to help focus and maintain coordinated corrective actions to improve water quality in areas where shellfish bed closures or harvest area downgrades are occurring.

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, such as salmon and shellfish, 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 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 region.
- Water quality and habitat improvements will be quantified, documented, and evaluated as local watershed protection and restoration plans are implemented.
- EPA will help support development of a comprehensive storm water monitoring program for the Puget Sound Basin so that information is gathered that 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 undertaken—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 be initiated or others completed in priority estuaries—including the Skagit, Nisqually, Hood Canal, South Puget Sound—and areas along the northern straits.
- 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.
- A Puget Sound Chapter of the Corporate Wetlands Restoration Program will be established to help fund local habitat protection and restoration projects.

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 are more available and relevant to citizens, local jurisdictions, watershed management forums, and resource managers.

C) Grant Program Resources

EPA grant resources directly supporting this goal are limited to the NEP Grants under Section 320 of the Clean Water Act (approx. \$500K annually in recent years). 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 Regional Geographic Initiative grants.

9) Protect the Columbia River Basin



A) Subobjective

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 Appendices A and B.)

B) Key Program Strategies

More than 1,200 miles long, the Columbia River spans portions of Oregon, Washington, Idaho, Wyoming, Nevada, Utah, Montana, and a substantial portion of British Columbia. The 260,000 square mile Columbia River Basin comprises ecosystems that are home to a variety of biologically significant plants and animals and supports industries vital to the Pacific Northwest, including sport and commercial fisheries, agriculture, transportation, recreation, and electrical power generation.

Many Columbia River tributaries, the mainstem, and the estuary are declared 'impaired' under Section 303(d) of the Clean Water Act. EPA has a long historical commitment to restoring the water quality and ecosystems in the Columbia River Basin, focusing on public health and salmon restoration. EPA studies, and other Federal and State monitoring programs, have found significant levels of toxins in fish and the waters they inhabit, including dichlorodiphenyl-trichloroethane (DDT), polychlorinated biphenyls (PCBs), and dieldrin. Approximately 13 years ago, EPA funded the Columbia River Inter-Tribal Fish Commission to survey Tribal members' fish consumption rates. This survey found Columbia River Tribal people eat significantly greater amounts of fish than the general population. A follow-up 2002 EPA fish contaminant study found significant levels of toxins in fish that Tribal people eat.

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 coordinated strategy to 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 NEPs, 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 2011:

- Protect, enhance, or restore 13,000 acres of wetlands habitat and 3,000 acres of upland habitat in the Lower Columbia River watershed;
- Clean up 150 acres of known highly contaminated sediments; and
- Demonstrate a 10 percent reduction in mean concentration of contaminants of concern found in water and fish tissue.

Key activities in FY 2008 to accomplish these goals include:

Toxics Reduction

- Continue contaminated sediment removals under Superfund and State Resource Conservation and Recovery Act (RCRA) activities, including Portland Harbor & Bradford Island sites.
- Implement existing and legacy pesticide reductions, including pesticide stewardship partnerships; targeted pesticide/toxics collections; and precision agriculture.
- Implement TMDLs addressing sediment loading reduction, including Washington State TMDL implementation in the Okanogan, Yakima, Walla Walla, Wenatchee, Spokane, and Similkameen tributaries.
- Other key activities will include ongoing Superfund investigation work at the Hanford Nuclear Reservation and Lake Roosevelt.

Habitat

- Continue restoration of wetland and upland habitat areas through LCREP.

Monitoring

- Systematically expand key monitoring activities in fish, water, and sediment.
- Through the Lower Columbia NEP, identify contaminants of concern; identify data bases that can provide baseline data; establish new monitoring efforts to fill data gaps; and identify and implement management practices to reduce contaminants of concern.
- Build on the monitoring work done in the Lower Columbia River and develop and implement, collaboratively with other partners, a long-term monitoring effort above Bonneville Dam for fish, water, and sediment to further understand and characterize toxics in the river.

Reporting

- A *State of the Columbia River Report*, is scheduled to be released in the fall of 2008 to assess and characterize toxics in the Columbia River.

C) Grant Program Resources

EPA grant resources directly supporting this goal are limited to the NEP Grants under Section 320 of the Clean Water Act (approx. \$500,000 annually in recent years). A range of other water program grants also support many activities that assist in the achievement of this subobjective. These include grants supporting Oregon and Washington State and Tribal water quality programs, nonpoint source programs, infrastructure loan programs, and competitive grants such as the Regional Geographic Initiative grants.

V. Water Program And Grant Management System

This *National 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 new EPA *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 2006, EPA reviewed program measures and reduced the number of measures. Draft *Guidance* was published in February of 2007 and comments were due to EPA in early April. EPA reviewed the comments and made changes and clarifications to the measures and the text of the *Guidance*. A summary of comments and a brief explanation of how the comments were addressed are provided on the Office of Water Strategic Plan Web site <<http://www.epa.gov/water/waterplan>>. EPA Regions also provided Regional targets and, after discussions among HQ and Regions, national targets for FY 2008 were revised to reflect Regional input.
- **Part 2: EPA Region/State/Tribe Consultation/Planning:** EPA Regions will work with States and Tribes to develop FY 2008 Performance Partnership Agreements or other grant workplans, including commitments to reporting key activities and, in some cases, commitments to specific FY 2008 program accomplishments (April through October of 2007).
- **Part 3: Program Evaluation and Adaptive Management:** The National Water Program will evaluate program progress in 2008 and adapt water program management and priorities based on this assessment information (FY 2008).

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 Regions will work with States and Tribes beginning in April of 2007 to develop agreements concerning program priorities and commitments for FY 2008 in the form of Performance Partnership Agreements or individual grant workplans. The *National Water Program Guidance for FY 2008*, including program strategies and FY 2008 targets, forms a foundation for this effort.

The *National Water Program Guidance for FY 2008* includes a minimum number of measures that address the critical program activities that are expected to contribute to attainment of long-term goals. Between FY 2007 and FY 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 Appendices A/B). 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 2007, EPA Regions will work with States and Tribes to agree on reporting for all the measures in the *FY 2008 Guidance*, including both target and indicator measures. For the target measures, Regions will develop FY 2008 Regional “commitments” based on their discussions with States and Tribes and using the “targets” in the *FY 2008 Guidance* as a point of reference. Draft Regional “commitments” are due July 1 and, after review and comment by National Program Managers, Regions are to finalize regional commitments by September 1. 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 start of FY 2008.

A key part of this process is discussion among EPA Regions and 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 Regions to adjust their commitments based on relative needs, priorities, and resources of States and Tribes in the Region. **The tailored program “commitments” that result from this process define, in an operational sense, the “strategy” for the National Water Program for FY 2008.**

As Regions work with States and Tribes to develop FY 2008 commitments, there should also be discussion of initial expectations for progress under key measures in FY 2009. The Agency begins developing the FY 2009 budget in the Spring of 2007 and is required to provide initial estimates of FY 2009 progress for measures included in the budget in August of 2007. These estimates can be adjusted during the Fall before they go into the final FY 2009 President’s budget in January 2008. The Office of Water will consult with Regions in developing the initial FY 2009 targets in August, and Regions will be better able to comment on proposed initial targets if they have had preliminary discussions of FY 2009 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 2008 targets and commitments are established, EPA is asking that States and Regions provide National Program Managers with State specific results data at the end of FY 2008. These measures, referred to as “State Grant Template” 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 2008 “State Grant Template” measures supporting the grant are:

- 1) **Water Pollution Control State and Interstate Program Support (106 Grants):** FY 2008 Measures: SP-10, WQ-1a/b, WQ-3a, WQ-5, WQ-8b, WQ-12a, WQ-13a/b/c/d, WQ-14a, WQ-15a, WQ-19a, WQ-20, and SS-2;
- 2) **Public Water System Supervision (PWSS Grants):** FY 2008 Measures: 2.1.1, SP-1, SP-4a/b, SDW-1a;
- 3) **State Underground Water Source Protection (UIC Grants):** FY 2008 Measures: 2.1.1, SDW-6, SDW-7a/b/c;

- 4) **Beach Monitoring and Notification Program Implementation Grants;** FY 2008 Measures: SP-9, SS-1, SS-2; and
- 5) **Nonpoint Source Grants (319 Grants):** FY 2008 Measure: WQ-10.

For these grants, States will need to provide end of year results data for FY 2008 on a state-specific basis for identified measures. States will not be asked to provide FY 2008 “commitments” as part of this “State Grant Template” process. In addition, in FY 2008, the Office of Environmental Information (OEI) is initiating an effort to leverage the Exchange Network (see <<http://www.exchangenetwork.net>>) for environmental reporting and data exchange under grant programs to States, Tribes, and Territories. Additional information concerning “State Grant Template” reporting and the OEI initiative will be provided at a later date.

In addition to this *National Program Guidance*, supporting technical guidance is available in grant-specific guidance documents. The grant guidance documents will be available by April 2007 in most cases. For most grants, guidance for FY 2007 is being carried forward unchanged to FY 2008. 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.

B) Program Evaluation and Adaptive Management (Step 3)

As the strategies and programs described in this *Guidance* are implemented during FY 2008, 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 three key tools:

1) HQ/Regional Dialogues

Each year, the Office of Water will visit three to four EPA Regional Offices and Great Waterbody Offices to conduct dialogues on program management and performance. These visits will include assessment of performance in the Region against the:

- Objectives and subobjectives in the *Strategic Plan*;

- Regional water issues identified in the Regional 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 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.

2) Program-Specific Evaluations

In addition to looking at the performance of the National Water Program at the national level and the performance in each EPA Region, 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). Major program evaluation projects planned by the Office of Water in FY 2007 and FY 2008 include:

- Assessment of the Public Water System logic model (FY 2007);
- Evaluation of water quality trading; improving opportunities for innovation (FY 2007);
- Assessment of wetlands program development grants to States (FY 2007);
- Evaluation of Targeted Watershed Action grants (FY 2007);
- Evaluation of the NEP (FY 2007-2008);
- Review of State on-site/decentralized sewage treatment programs (FY 2008);
- Assessment of the Tribal Section 106 program grant guidance (FY 2008);
- Evaluation of Section 319 nonpoint pollution grants to States (FY 2008); and
- Review of BEACHES grants to States (FY 2008).

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 PART reviews conducted by OMB. The Water Program has received an adequate (11) or moderately effective (2) 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. In 2007, OMB plans to conduct an assessment of the Great Lakes National Program and a reassessment of the Tribal Grant Assistance Program.

3) National Water Program 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 HQ 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* and Regional plans;
- Progress **in each EPA Region** with respect to the EPA *Strategic Plan*, Program Activity Measures, and the Regional Plan (including State/Region specific data);
- Insights from recent **HQ/Regional dialogues**, including “best practices” identified from the work of the Regions, States, or Tribes; and
- Insights from recent **program-specific evaluations**, including internal and external evaluations.

The reports will include conclusions and recommended actions to improve program performance. In addition, the Office of Water will maintain program performance records and identify long-term trends in program performance.

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 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, 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 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 2008” section on the next page), regardless of whether the program specific guidance document addresses the requirement.

National Water Program Grants Management for FY 2008

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 Regions 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 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 Web site 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 basic monitoring for every award. EPA Order 5700.6A1, revised on January 8, 2004, streamlines post-award management of assistance agreements and helps ensure effective 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.

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 Assessing Grants Management Performance under the 2007 Performance Appraisal and Recognition System (PARS)* on January 17, 2007, to be used for 2007 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.