

Measures Definitions

The National Water Program evaluates the progress it is making in developing and implementing effective programs to monitor, protect, and improve the waters of the United States. As part of this effort, multiple types of measures have been developed including: [Strategic Measures](#), Mission Measures, [National Program Guidance Measures](#), and [ECOS Results Common Measures](#).¹ This document consolidates the measures definitions for all of these measure types.

How to Use this Document

Use the table to the right to navigate to measure definitions for each measure type within this document. To locate information on a specific measure use the Find function (Ctrl +F) in Adobe and search for the exact measure number or phrase.

FULL MEASURE DEFINITIONS

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¹ Mission Measures definitions are not accessible online.

January 16, 2018

Data Quality Record for Strategic Measures

Strategic Measure Text: By September 30, 2022, increase by \$40 billion the non-federal dollars leveraged by EPA water infrastructure finance programs (CWSRF, DWSRF and WIFIA)

Goal Number/Objective: Goal 1: Core Mission/Objective 1.2: Provide for Clean and Safe Water

NPM Lead: Office of Water (OW)

1a. Purpose of Strategic Measure:

This strategic measure focuses on the top priority for the National Water Program: repairing and modernizing the outdated water infrastructure upon which the American public depends. Combined, the three primary water infrastructure programs, Drinking Water State Revolving Fund, Clean Water State Revolving Fund, and Water Infrastructure Finance and Innovation Act program, represent the largest federal source of funds to address this critical component of our nation's drinking water and clean water infrastructure. A key goal is to increase the amount of non-federal funds leveraged by the programs. This measure will demonstrate the power of EPA's water infrastructure programs to leverage funding from non-federal resources. The metric will focus on how federal assistance will attract non-federal dollars and mobilize states and other eligible borrowers to initiate critical public health and water quality projects, while retaining the opportunity for appropriate federal subsidy.

1b. Performance Measure Term Definitions:

- Non-Federal Dollars: Funding from other than federal dollars used for an infrastructure project. In addition to direct state, local, and private capital investments, non-federal dollars generally include recycled loan repayments, bond proceeds, state match and interest earnings.

1c. Unit of Measure: Dollars of non-federal funds leveraged by the federal EPA investment in water infrastructure projects

2a. Data Source:

- Relevant information system: Clean Water and Drinking Water National Information Management Systems (NIMS)
- Entity that reports data to the system: states and regions
- Frequency of reporting primary data: Annual
- Reference to Quality Assurance Project Plan: General QAPP for the CW and DW NIMS databases

2b. Data needed for interpretation of (calculated) Performance Result:

- Universe: All water infrastructure projects funded by the SRFs and WIFIA.
- Historical Performance:
 - There has been \$106 billion in non-federal dollars leveraged by the CWSRF and DWSRF programs between FY 1987 and FY 2017. Between FY 2013 and FY 2017, these programs leveraged \$32 billion in non-federal dollars (i.e., loans made from recycled loan repayments, bond proceeds, state match, and interest earnings), which is the basis for target setting. The 2022 target of \$40 billion leveraged is a 25% increase over total non-federal dollars leveraged between FY 2013 and FY 2017. [Note: the historical performance data do not include WIFIA leveraged dollars because the program's first loans are anticipated to close in FY 2018.]
- Frequency for Reporting: Annually. The current SRF Information Collection Requests (ICRs) allow EPA to collect the data annually from the states.
- Ongoing: WIFIA data will be reported after loans are executed based on the WIFIA loan agreement.

3. Methodology:

This measure will be calculated as the dollar amount of non-federal funds invested in CWSRF, DWSRF and WIFIA water infrastructure projects.

4. Data Limitations/Qualifications:


- The current SRF ICRs allow EPA to collect the data annually from the states.
- WIFIA data will be available after loans are executed.

5. Technical Contact:

Lynn Stabenfeldt/202-564-0602

6. Certification Statement/Signature

I certify the information in this DQR is complete and accurate.

DAA Signature 

January 16, 2018

Data Quality Record for Strategic Measures

Strategic Measure Text: By September 30, 2022, reduce the number of community water systems out of compliance with health-based standards to 2,700.

Goal Number/Objective: Goal 1: Core Mission/Objective 1.2: Provide for Clean and Safe Water

NPM Lead: Office of Water (OW)

The FY 2022 target of 2,700 systems represents a 25% reduction (from FY 2017 baseline and universe). The federal & state effort will target the 900-high risk and most challenging systems that consistently have co-occurring/multiple health-based (HB) violations including: the Surface Water Treatment Rule, the Stage 1 and/or Stage 2 Disinfection Byproduct Rule(s), Arsenic and the Total Coliform Rules, as well as those systems that fail to satisfy monitoring and reporting requirements as well as the serious single health-based violation group. Annual systems w/HB violations are ~ 3,600 – 3,800 with approximately 300 having some co-occurrence of the aforementioned HB regulations. Actions related to targeted technical assistance and strengthening state capacity to address these non-compliant systems.

1a. Purpose of Strategic Measure:

Community water system non-compliance with health-based measures is important to reflect the protection of the Nation's public health associated with the delivery of safe drinking water (meeting the National Primary Drinking Water Regulations) by the more than 50,000 community water systems.

1b. Performance Measure Term Definitions:

- Community water system (CWS): A public water system that supplies water to the same population year-round.
- Health-based standard: The Maximum Contaminant Levels (MCLs) or treatment technique permissible of an enforceable contaminant in water delivered to users of a public water system.

1c. Unit of Measure: The total number of community water systems out of compliance.

2a. Data Source:

- Relevant information system: Data is derived from the Safe Drinking Water Information System (SDWIS) Federal (Fed) Data Warehouse. The SDWIS Fed Data Warehouse contains compliance information about public water systems and their violations of the NPDWRs as reported to EPA by the primacy agencies.
- Entity that reports data to the system: Data are provided by agencies with primacy (primary enforcement authority) for the Public Water System Supervision (PWSS) program. These agencies are either: States, EPA for non-delegated states or territories, and the Navajo Nation Indian tribe, the only tribe with primacy.
- Frequency of reporting primary data: Primacy agencies collect the data from the community water systems, determine compliance, and report a subset of the data to EPA (a subset of the inventory data and summary violations). Primacy Agencies' submit data quarterly to the data warehouse.
- Reference to Quality Assurance Project Plan: The SDWIS/Fed equivalent of a quality assurance project plan is the Drinking Water Data Quality Improvement Plan. This plan includes implementation of the Data Quality Matrix which, on a quarterly basis, assigns numerical data quality scores to each primacy agency. Additionally, the SDWIS FedRep 3.5 Requirements document ensures that specific types of data quality are adhered to. For example, the SDWIS/FedRep Validation Tool ensures each document conforms to the business rules established for federally reportable drinking water data. Individual business objects that conform to the established business rules are accepted. Those business objects that do not conform are rejected. For each documented validation that the business object fails to conform, a status message is created containing sufficient information for the user to locate and correct the data in the primacy agency's database.

2b. Data needed for interpretation of (calculated) Performance Result:

Measure	Universe	FY 2013 Result	FY 2014 Result	FY 2015 Result	FY 2016 Result	FY 2022 Target
Number of community water systems out of compliance with health-based standards.	See Results (total # of systems)	4,633 (51,145)	4,682 (50,808)	5,050 (50,546)	4,817 (50,366)	2,700

- Universe: The universe is the total number of community water systems, just over 50,000 (fluctuates annually).
- Baseline: The baseline represents the number of community water systems out of compliance in a specified year. The FY 2017 baseline is 3,600 systems out of compliance.
- Frequency of Reporting: Quarterly

3. Methodology:

The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the SDWIS Fed Data Warehouse-FED and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) that overlap any part of the most recent four quarters.

4. Data Limitations/Qualifications:

States report data to EPA from their state databases after making a determination of violation. In some cases, an individual state’s submission can be incomplete due to technical issues in the data transfer or because the state’s violation determination was not loaded into their data system.

5. Technical Contact:

Ryan Albert/202-564-0763; Maria Lopez-Carbo/202-564-4618

6. Certification Statement/Signature

I certify the information in this DQR is complete and accurate.

DAA Signature 

January 16, 2018

Data Quality Record for Strategic Measures

Strategic Measure Text: By September 30, 2022, reduce the number of square miles of watershed with surface water not meeting standards by 37,000 square miles

Goal Number/Objective: Goal 1: Core Mission/Objective 1.2: Provide for Clean and Safe Water

NPM Lead: Office of Water (OW)

1a. Purpose of Strategic Measure:

The purpose of this measure is to track the progress of water quality standards attainment in water previously identified as impaired in the Integrated Report as of October 1, 2018. Progress will be evident by a positive trend in previously impaired waters attaining water quality standards.

1b. Performance Measure Term Definitions:

- Catchment-based indexing:¹ An automated process that corresponds state geospatial information (e.g., streams, lakes, HUCs, basins) with NHDPlus Version 2 catchments. Catchments represent the local drainage area for the individual stream segments of a specific stream network.² The process to correspond the state's geospatial information to catchments varies depending on the type of input file: linear files (representing rivers and streams), area files (representing lakes, ponds, or reservoirs), or boundary files (representing Watershed Boundary Dataset Hydrologic Units). EPA will be responsible for the Catchment Indexing Process (CIP) Tool. For more information about NHDPlus V2 catchments, see <https://www.epa.gov/waterdata/nhdplus-national-hydrography-dataset-plus>.
- Water Quality Standards Attainment means that 1) the impairments have been effectively removed by corrective actions (i.e., restoration efforts) and 2) the waterbody now either fully supports the use or meets the water quality criterion for that particular pollutant or stressor for which it had been impaired.

1c. Unit of Measure: Square miles. The goal is by 2022, reduce the number of square miles with surface water not meeting standards by 37,000 square miles.

2a. Data Source:

- Relevant information system: The Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS) will be the data system of record.
- Entity that reports data to the system: States submit to EPA their Integrated Report on April 1 of every even numbered year. The Integrated Report includes information on the status of the states' waters, which is used to report on this measure.
- Frequency of reporting primary data: In odd years, new information may not be available, so no changes may be seen.
- Reference to Quality Assurance Project Plan: State geospatial data, which is used to calculate these measures, is processed to the NHDPlus using an automated process, and is QA'd following an approved Quality Assurance Project Plan (QAPP). This QAPP is part of the overall ATTAINS task order, and is available upon request.

2b. Data needed for interpretation of (calculated) Performance Result:

- Universe: Area corresponding to the impaired waters (assessment units) identified in the state's most recent Integrated Report (i.e., Categories 4 and 5). The draft universe is 464,020 square miles —based on state Integrated Report data available in ATTAINS as of September 2017. A final universe will be set in

¹ For the Integrated Reporting Georeferencing Pilot Report visit <https://www.epa.gov/waterdata/water-quality-framework>

² EPA is currently working to develop NHDPlus catchments for Alaska.

October 2018 and progress against that universe will be tracked for four years (October 1, 2018 to September 30, 2022).

- Baseline: A baseline for this measure is not applicable
- Frequency of Reporting: Annual. As part of the EPA performance measures reporting process, each fiscal year states are expected to provide a commitment that reflects the assessment units that are expected to be meeting water quality standards by the end of the fiscal year.

3. Methodology:

The measure looks at the assessment unit / pollutant combinations that will be tracked over a 4-year period starting on October 1, 2018 based on the most up-to-date state Integrated Report data available in ATTAINS. The catchment area that is associated with the assessment units will be used to report on the measure.

The process to calculate this measure includes the following steps:

- Step 1: State submits assessment decision data (Integrated Reporting data) to EPA
- Step 2: EPA calculates the universe
- Step 3: State and EPA determine the annual commitments
- Step 4: EPA calculates the end-of-year progress

Additional details about each step are provided below.

Step 1: State submits assessment decision data (Integrated Reporting data) EPA

- On April 1 of every even-numbered year, states are required to submit to EPA their list of assessed and impaired waters, also referred to as the Integrated Report. The Integrated Report assessment decision data (attribute and geospatial data) will be submitted to EPA via the Exchange Network or Cloud Interface.
- EPA will process the state geospatial information through the Catchment Indexing Process (CIP) Tool to select the corresponding NHDPlus V2 catchments. Figure 1 below is a simple graphic showing the relationship of an assessment unit to catchments.
- EPA will conduct an internal QA/QC check of the results from the previous step.
- The catchments, which represent the assessment units, are used solely for the purpose of automating³ the calculation of the measure and providing a consistent geospatial unit of measure that can translate from the disparate geospatial scales that states use to track their assessment units. (See Figure 1).

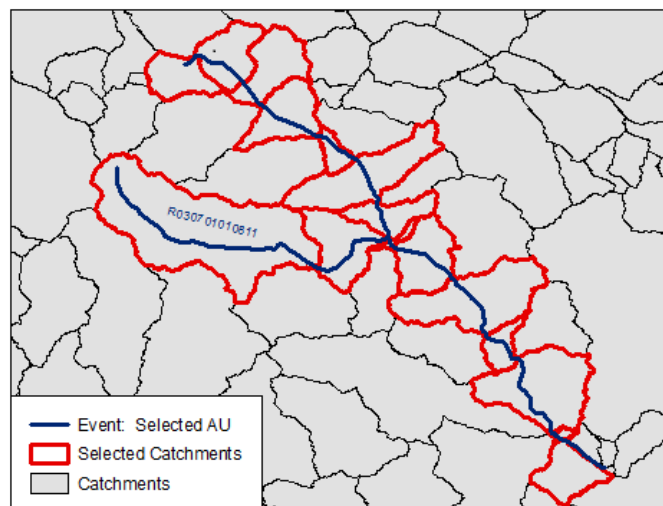


Figure 1: Graphic showing how the Catchment Indexing Process (CIP) Tool relates an assessment unit to catchments as an example to communicate how this process works.

³ Automating refers to the use of technology to run the necessary calculations for the measure. An interactive framework is being developed in the ATTAINS system.

Step 2: EPA calculates the universe

EPA will sum the area of the catchments that correspond to the impaired waters (assessment units) identified in the state's Integrated Report (i.e., Categories 4 and 5). Square miles will be calculated from the catchments.

Step 3: State and EPA determine the annual commitments

Each fiscal year, as part of the EPA performance measures reporting process, states are expected to provide final commitments in September for the assessment unit / pollutant combinations that the state expects to have monitored, assessed, and determined water quality standards attainment during the fiscal year (e.g., FY 2019, FY 2020). Because this measure will apply a weighted approach, EPA will develop a tool similar to the Scenario Builder tool used for the 303(d) and TMDL program measures for EPA Regions and states to interact with and to calculate annual commitments.

How will a weighted approach work? Take for example an assessment unit that has four pollutants and corresponds to a catchment area of 100 acres. If the state monitored and assessed two of the pollutants and determined water quality standards attainment, then the state would report this information in the state's next Integrated Report. The measure would reflect that 50% or 50 acres of the catchment area will contribute to the measure. In most, if not all, instances annual commitments will be based on best professional judgement. And this aspect is not intended to be a burden. EPA encourages continued dialogue with their state counterparts to help navigate this process.

Step 4: EPA calculates the end-of-year progress

EPA will use state assessment decisions submitted as part of their Integrated Report and available in ATTAINS. The assessment decisions (the assessment unit / pollutant combinations) that move from Categories 4 or 5 to Categories 1 or 2) for one or more of the following Water Quality Attainment Reasons:

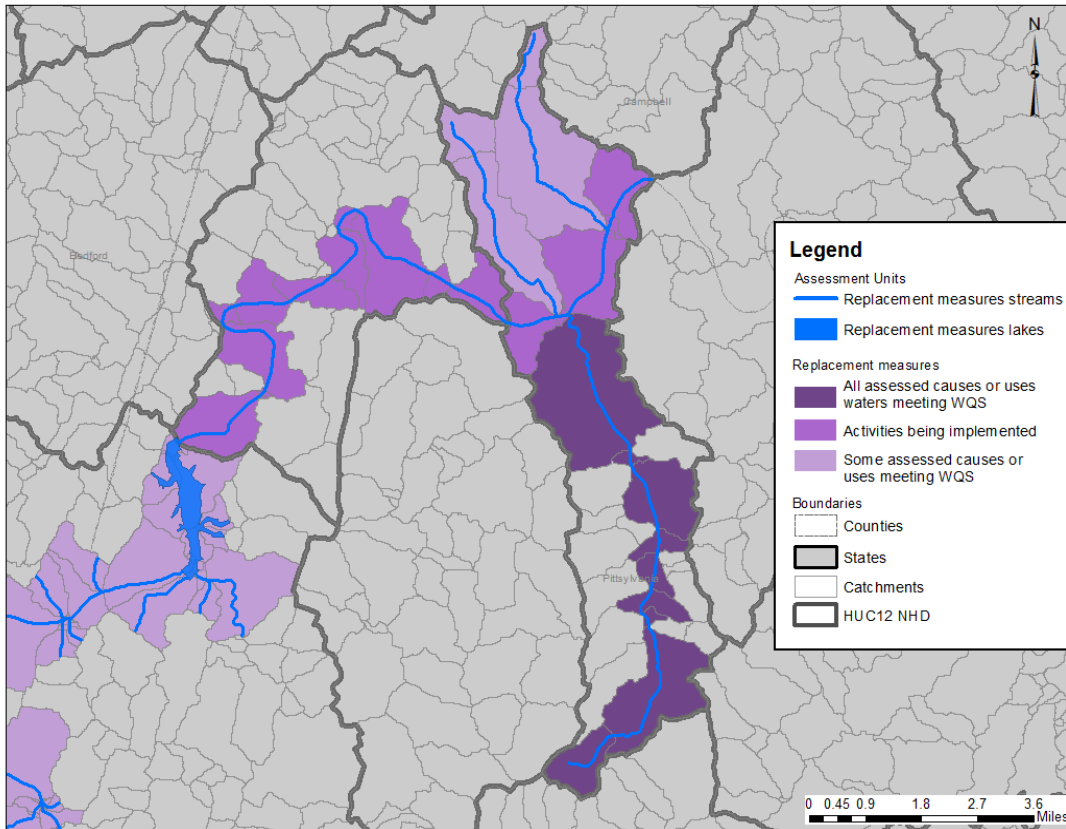
- Applicable WQS attained, according to new assessment method
- Applicable WQS attained, due to change in WQS
- Applicable WQS attained, due to restoration activities
- Applicable WQS attained; original basis for listing was incorrect
- Applicable WQS attained; reason for recovery unspecified
- Applicable WQS attained; threatened water no longer threatened
- Applicable WQS attained; based on new data

EPA will sum the weighted area of the catchments that correspond to each assessment unit / pollutant combination.

How will a weighted approach work? Take for example an assessment unit that has four pollutants and corresponds to a catchment area of 100 acres. If the state monitored and assessed two of the pollutants and determined water quality standards attainment, then the state would report this information in the state's next Integrated Report. The measure would reflect that 50% or 50 acres of the catchment area will contribute to the measure. These results will be reported at the end of each Fiscal Year based on new information reported in a state's Integrated Report and reported to EPA and available in ATTAINS.

Conceptual Display of Progress on Meeting Water Quality Standards in Waters Targeted for Local Action Performance Measure

The groups "all assessed pollutants meeting WQS" and "some assessed pollutants meeting WQS" contribute to this measure.



4. Data Limitations/Qualifications:

The information reported under this performance measure reflects the status of the states' waters as reported in the Integrated Report. This measure tracks at a high-level reasons for WQS attainment (see below). If additional information is needed for any of these reasons, additional research would need to be conducted.

- Applicable WQS attained, according to new assessment method
- Applicable WQS attained, due to change in WQS
- Applicable WQS attained, due to restoration activities
- Applicable WQS attained; original basis for listing was incorrect
- Applicable WQS attained; reason for recovery unspecified
- Applicable WQS attained; threatened water no longer threatened
- Applicable WQS attained; based on new data

This measure does not measure incremental improvement for individual waters as they progress towards meeting water quality standards. For example, if a water is impaired for sediment, and after some restoration activity, the sediment issues are improving, but not yet meeting Water Quality Standards, this would not be counted under this measure until the water actually meets standards for sediment.

5. Technical Contact:

Istanbul Yusuf, 202-564-8811

6. Certification Statement/Signature

I certify the information in this DQR is complete and accurate.

DAA Signature 

Mission Measure Definitions

#	Performance Metric Title	Metric Definition	Methodology	Metric Owner	Data Source	Update
1.0	Community Water Systems out of compliance with Health Based Standards (count)	Count of systems that have a health-based violations of the National Primary Drinking Water Standard.	The count of systems that have a health-based violation of the National Primary Drinking Water Standards. JOP represents number from Strategic Plan. Note - recalculated baseline after Strategic Plan was released is 3,508	OGWDW	Safe Drinking Water Information System (SDWIS) Federal (Fed) Data Warehouse. The SDWIS Fed Data Warehouse contains compliance information about public water systems and their violations of the NPDWRs as reported to EPA by the primacy agencies.	Quarterly
1.1	SUBMEASURE - Systems Out of Compliance Due to Lead and Copper Rule Violations	The LCR is a treatment technique rule, which requires water systems to conduct tap sampling for lead to determine the actions water systems must take to reduce exposure to lead and copper. Under the LCR, water systems collect samples from locations with lead service lines and/or leaded plumbing materials. The LCR established action levels of 0.015 mg/L (15 ppb) for lead, based on the 90th percentile sample level. If the lead action level is exceeded in more than ten percent of tap water samples collected during any monitoring period (i.e., if the 90th percentile level is greater than the action level), a water system must take certain actions. The type of action that is triggered depends upon the size of the system and the actions it has taken previously. The type of actions that public water systems must take include installing corrosion control treatment, public education, and lead service line replacement. The violation occurs when appropriate action is not taken. 100% decrease by 2028	The count of systems that have a violation of the Lead and Copper Rule. JOP represents the data from the starting point.	OGWDW	Safe Drinking Water Information System (SDWIS) Federal (Fed) Data Warehouse. The SDWIS Fed Data Warehouse contains compliance information about public water systems and their violations of the NPDWRs as reported to EPA by the primacy agencies.	Quarterly
1.2	SUBMEASURE - Strengthen the technical, managerial and financial capacity of drinking water systems	Strengthening public drinking water system long-term sustainability and public health protection. The count of engagements with states and water utilities (number of events) including Capacity Development Activities, Reducing Lead in Drinking Water in Schools and Child Care Facilities Events, Region/State Meetings, Asset Management Events, Area-wide Optimization Field Events, Water System Partnership Activities, Lead & Copper Rule - Action Level Exceedence training events, and technical rule compliance assistance events.	Strengthening public drinking water system long-term sustainability and public health protection. The count of engagements with states and water utilities (number of events) including Capacity Development Activities, Reducing Lead in Drinking Water in Schools and Child Care Facilities Events, Region/State Meetings, Area-wide Optimization Field Events, Water System Partnership Activities, Lead & Copper Rule - Action Level Exceedence training events, and technical rule compliance assistance events.	OGWDW	Regions and HQ Monthly inventory of activities	Monthly
2.0	Number of non-federal dollars leveraged by EPA water infrastructure finance programs (CWSRF, DWSRF and WIFIA).	Dollars of non-federal funds leveraged by the federal EPA investment in water infrastructure projects. Non-federal funds include loans made from recycled loan repayments, bond proceeds, state match, and interest earnings. The CW and DW NIMs databases are the source of SRF data as of June 30 each year. The annual SRF data is available in November, following a thorough QA. WIFIA results will be reported as loans close. Leveraging of non-federal dollars will be estimated based on financial details at loan closing.	Total dollar amount of non-federal funds invested in CWSRF, DWSRF and WIFIA water infrastructure projects. JOP is calculated as the average annual amount of funds leveraged over the last five years (\$32 billion/5)	OWM; OGWDW	SRFs: CW NIMS and DW NIMS WIFIA: HQ WIFIA loan agreements	SRFs: Annual WIFIA: monthly

#	Performance Metric Title	Metric Definition	Methodology	Metric Owner	Data Source	Update
2.1	SURROGATE MEASURE Engagements with the water infrastructure community (count)	Count of the number of engagements with the water infrastructure community compasses a wide range of activities across a number of programs and includes meetings, conferences, workshops, information sessions, finance forums, etc.	Count of engagements JOP represents the data from the starting point.	OWM; OGWDW	Headquarters	Monthly
2.2	SURROGATE MEASURE Water infrastructure financing tools, training, and resources provided (count)	Count of the number of tools, training and resources provided that promote innovative financing strategies to federal, state and local stakeholders.	Count of tools, training, and resources provided. JOP represents the data from the starting point.	OWM; OGWDW	Headquarters	Monthly
3.0	Watersheds with surface waters not meeting standards (square miles)	Begins in 2019. Begins with all impaired waters as of October 2018. Ends when waters are removed from the impaired waters list. Unit of measure: Square miles	Sum of square miles not meeting standards. JOP reflects the baseline from the Strategic Plan	OWOW	ATTAINS	Monthly beginning in 2019.
3.1	SURROGATE MEASURE - Electronic submission of state Integrated Reports	Begins with states and territories submitting their Integrated Reports. Ends when all 2016 or 2018 Integrated Reports are submitted electronically into ATTAINS to establish a most current baseline for the breakthrough measure 3.0. Unit of measure: Integrated Reports	Count of electronic Integrated Reports submitted by states into ATTAINS. JOP represents the data from the starting point.	OWOW	ATTAINS	Monthly beginning with April 2018 data.
3.2	SURROGATE MEASURE: Outstanding State submission of 303(d) lists	Begins with all outstanding 303(d) lists due to EPA. Ends once all outstanding state 303(d) lists are submitted. Unit of measure: number of 303(d) lists.	Count of outstanding state 303(d) lists due to be submitted to EPA. JOP represents the number of outstanding lists in April 2018. Lists are due April 1 of every even year. The JOP represents when we began reporting on this measure. It includes outstanding 303(d) lists from 2016 or prior cycles and lists that were due on April 1, 2018.	OWOW	ATTAINS	Monthly beginning with April 2018 data.
4.0	Drinking Water Sanitary Surveys (Percent)	Percent of Community Water Systems that have undergone a sanitary survey within the past 3 years (five years for outstanding performers or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses) - Note: The percent calculation is determined on an annual calendar. The 1/3 required # of annual surveys re-sets each January. By December the percent of surveys completed should be in the 90s increasing annually towards the 2022 goal of 98%. Presumes approximately 1/3 of 3-year total of sanitary surveys are conducted each year. Total percentage re-sets to ~60% each January. 2018 3-yr target =92%, 2019=93%, 2020=94%, 2021=96%, 2022=98%	Percent of Community Water Systems that have undergone a sanitary survey within the past 3 years (five years for outstanding performers or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses). JOP represents the data from the starting point.	OGWDW	Safe Drinking Water Information System (SDWIS) Federal (Fed) Data Warehouse. The SDWIS Fed Data Warehouse contains compliance information about public water systems and their violations of the NPDWRs as reported to EPA by the primacy agencies.	Quarterly
5.0	Reviews of State DWSRF (count)	Count of Reviews from Oct. 1 to Current Reporting Month	Count of Reviews. JOP represents the data from the starting point.	OGWDW	Regional & HQ reporting	Monthly

#	Performance Metric Title	Metric Definition	Methodology	Metric Owner	Data Source	Update
6.0	State PWSS rule primacy applications in backlog	Number of state drinking water rule primacy packages processed that had been awaiting approval. Backlog primacy packages are defined as those awaiting Agency approval for the last five recently promulgated regulations- RTCR, GWR, Stage 2, LT2 and short term revisions to LCR.	Number of state drinking water rule primacy packages processed that had been awaiting approval. Backlog primacy packages are defined as those awaiting Agency approval for the last five recently promulgated regulations- RTCR, GWR, Stage 2, LT2 and short term revisions to LCR.	OGWDW	Regional & HQ reporting	Monthly
7.0	Class I UIC DI Well Permits in Backlog (number)	Pending permit applications older than 6 months	Sum of the number of new permit applications (i.e., those that have not yet been issued or denied) received more than 180 calendar days from the last day of the previous month (e.g., February 28 for the March bowling chart). The clock starts with the initial submittal of an application, not submittal of a full and complete application. Does not include those permits that have been issued.	OGWDW		
8.0	Class II UIC DI Well Permits in Backlog (number)	Pending permit applications older than 6 months	Sum of the number of new permit applications (i.e., those that have not yet been issued or denied) received more than 180 calendar days from the last day of the previous month (e.g., February 28 for the March bowling chart). The clock starts with the initial submittal of an application, not submittal of a full and complete application. Does not include those permits that have been issued.	OGWDW		
9.0	Class III UIC DI Well Permits in Backlog (number)	Pending permit applications older than 6 months	Sum of the number of new permit applications (i.e., those that have not yet been issued or denied) received more than 180 calendar days from the last day of the previous month (e.g., February 28 for the March bowling chart). The clock starts with the initial submittal of an application, not submittal of a full and complete application. Does not include those permits that have been issued.	OGWDW		

#	Performance Metric Title	Metric Definition	Methodology	Metric Owner	Data Source	Update
10.0	Class V UIC DI Well Permits in Backlog (number)	Pending permit applications older than 6 months	Sum of the number of new permit applications (i.e., those that have not yet been issued or denied) received more than 180 calendar days from the last day of the previous month (e.g., February 28 for the March bowling chart). The clock starts with the initial submittal of an application, not submittal of a full and complete application. Does not include those permits that have been issued.	OGWDW		
11.0	Class VI UIC DI Well Permits in Backlog (number)	Pending permit applications older than 6 months	Sum of the number of new permit applications (i.e., those that have not yet been issued or denied) received more than 180 calendar days from the last day of the previous month (e.g., February 28 for the March bowling chart). The clock starts with the initial submittal of an application, not submittal of a full and complete application. Does not include those permits that have been issued.	OGWDW		
12.0	Reviews of State CWSRF (count)	Count of Reviews - during state reviews, EPA Headquarters and the Regions promote national priorities with the state-run programs, including increasing the non-federal dollars leveraged by EPA federal investment in water infrastructure programs.	Count of Reviews. JOP represents the data from the starting point.	OWM	Regional & HQ reporting	Monthly
13.0	Number of WIFIA Letters of Interest Received in Response to a Notice of Funding Availability	EPA will announce a notice of funding availability (NOFA) each year following congressional provision of budget authority for the WIFIA program. Interested borrowers submit an LOI in response to the NOFA. The total number of LOIs received by EPA will be counted and reported.	Count of LOIs received. JOP is the number of LOIs received in July 2017.	OWM	Headquarters	Reporting to occur after NOFA closes, once a year on average.
13.1	SUBMEASURE - Number of Letters of Interest that address lead and other contaminants for drinking water systems	This submeasure will report the number of LOIs received by EPA in response to a WIFIA notice of funding availability (NOFA) for projects that address lead and/or other contaminants in drinking water systems.	Count of LOIs received for projects that address lead and/or other contaminants in drinking water systems.	OWM	Headquarters	Reporting to occur after NOFA closes, once a year on average.
13.2	SUBMEASURE - Number of Letters of Interest that address aging infrastructure	This submeasure will report the number of LOIs received by EPA in response to a WIFIA notice of funding availability (NOFA) for projects that address aging infrastructure.	Count of LOIs received for projects that address aging infrastructure.	OWM	Headquarters	Reporting to occur after NOFA closes, once a year on average.

#	Performance Metric Title	Metric Definition	Methodology	Metric Owner	Data Source	Update
14.0	Administratively Continued (backlogged) Individual NPDES Permits (count)	A total count of all Integrated Compliance Information System (ICIS)-NPDES records, where EPA is the permitting authority, for individual permits expired or administratively continued as of a month prior to the reporting month. Note that in ICIS-NPDES, expired permits are usually considered to actually be administratively continued due to a data quality issue.	Cumulative Count of administratively continued NPDES Permits. JOP represents the data from the starting point.	OWM	ICIS-NPDES	Monthly with a 30-day delay
15.0	Applications for new NPDES individual permits older than 6 months (number)	Pending permit applications older than 6 months	Sum of the number of new permit applications (i.e., those that have not yet been issued or denied) received more than 180 calendar days from the last day of the previous month (e.g., February 28 for the March bowling chart). The clock starts with the initial submittal of an application, not submittal of a full and complete application. Does not include those permits that have been issued.	OWM		
16.0	Requests for Coverage Under General NPDES Permits in Backlog (number)	Pending permit applications older than 6 months	Sum of the number of new permit applications (i.e., those that have not yet been issued or denied) received more than 180 calendar days from the last day of the previous month (e.g., February 28 for the March bowling chart). The clock starts with the initial submittal of an application, not submittal of a full and complete application. Does not include those permits that have been issued.	OWM		
17.0	Water Quality Standards actions in backlog	The number of state and tribal Water Quality Standards (WQS) revision actions that have been submitted to EPA since May 2000 that EPA neither approved nor disapproved within the first 60 days after submittal to EPA, and that have yet to be so acted upon. The Clean Water Act requires EPA to review state and tribal WQS revisions and either approve within 60 days or disapprove within 90 days.	Number of WQS submission actions	OST	Regional files of required state and tribal WQS submissions to EPA; WQS Action Tracking Application (WATA)	Monthly

#	Performance Metric Title	Metric Definition	Methodology	Metric Owner	Data Source	Update
18.0	Progress in putting priority TMDLs, alternative restoration plans and protection approaches in place	This measure looks at the extent of priority area activities leading to a completed TMDL, or alternative restoration approach or protection approach agreed to by EPA. It begins when states submit their Integrated Report and ends once a TMDL, alternative restoration approach or protection approach is in place. Unit: percent. Jop and monthly targets are draft and will likely be adjusted once we calculate those states that have received partial credit for getting plans in place.	Percent of priority waters that have a completed TMDL, alternative restoration plan or protection approach agreed to by EPA. The EPA provides 0.5 credit for priority plans under development and full credit when a plan is approved/accepted. (algorithm: [(priority waters w/ TMDL/Plan in place * 1) + (priority waters w/ TMDL/plan started *0.5) + (Priority waters with no TMDL/Plan started/in place*0)]/(total priority waters) Goal is to have 100% of priority waters to have a TMDL, alternative restoration plan or protection approach in place by 2022. Database transition- JOP is priority waters that have a TMDL, alternative restoration plan or protection approach in place at the time of our first calculation (in April).	OWOW	ATTAINS	Monthly
19.0	Backlog of EPA action on TMDLs	Begins when a state submits a TMDL for EPA action and EPA has not taken action within 30 days. Ends once EPA has acted on the TMDL. Unit: backlog of TMDLs that have taken EPA more than 30 days to take action. JOP is draft.	Count of the number of TMDLs that have been submitted to EPA where EPA has taken longer than 30 days to take action. In FY 2017 the EPA took action on 3,348 TMDLs.	OWOW	ATTAINS	Monthly
19.1	Backlog of EPA action on priority TMDLs	Begins when a state submits a TMDL in one of their priority waters for EPA approval and EPA has not taken action within 30 days. Ends once EPA has acted on the TMDL. Unit: Backlog of TMDLs that have taken EPA more than 30 days to take action. JOP is draft.	Count of the number of TMDLs in vision priority waters that have been submitted to EPA where EPA has taken longer than 30 days to take action. In FY 2017 the EPA took action on 3,348 TMDLs.	OWOW	ATTAINS	Monthly
20.0	Backlog of EPA action on 303(d) Lists	Begins when a state submits a 303(d) list for EPA approval and EPA has not taken action within 30 days. Ends once EPA has acted on the list. Unit: Backlog of lists that have taken EPA more than 30 days to take action. JOP is draft.	Count of the number of 303(d) lists that have been submitted to EPA where EPA has taken longer than 30 days to take action.	OWOW	ATTAINS	Monthly

FY 2016 NWPG Measure Definitions Chesapeake Bay

Measure Code: CB-05.N14



Measure Language: Percent attainment of water quality standards for dissolved oxygen, water clarity/underwater grasses, and chlorophyll a in Chesapeake Bay and tidal tributaries.

Type of Measure: Long-term measure (no annual target); cumulative measure

Measure Contact: Kevin DeBell, Chesapeake Bay Program Office

debell.kevin@epa.gov | (410) 295-1318

Measure Definition

Terms and phrases: Dissolved oxygen (DO) refers to the amount of oxygen that is present in the water. It is measured in units of milligrams per liter (mg/L), or the milligrams of oxygen dissolved in a liter of water. Refer to:

http://www.chesapeakebay.net/indicators/indicator/dissolved_oxygen. Underwater grasses refers to the 16 species found in the Chesapeake Bay. Bay grasses are used as a measure of the Bay's condition because they are not under harvest pressure and their health is closely linked to the overall health of the Bay. Refer to:

http://www.chesapeakebay.net/indicators/indicator/bay_grass_abundance_baywide. Chlorophyll a is used as a measure of phytoplankton (microalgae) biomass. Phytoplankton biomass is controlled by factors such as water temperature and the availability of light and nutrients. Elevated phytoplankton levels can lead to reduced water clarity and decomposing phytoplankton can lead to reduced dissolved oxygen levels.

Methodology for computation of results: The methodology used for the calculation of the indicator considers the achievement or non-achievement of the dissolved oxygen, water clarity/underwater bay grasses, and chlorophyll a water quality standards applicable to a designated use within a segment. This methodology reports when a water quality standard is met for each of the designated uses in that segment. Rather than reporting on the 92 Chesapeake Bay segments used for the establishment and management of the Chesapeake Bay Total Maximum Daily Load (TMDL), this methodology reports on 291 designated-use segments contained within. This indicator uses a surface area-weighted approach, which multiplies the surface area of each of the 92 segments by the number of applicable designated uses and criteria for that segment. This approach accounts for the relative size of each segment, ensuring the best available measure of how much of the Bay tidal waters achieved water quality standards. This approach gives equal weight to achievement of the criteria protective of each designated use and segment. Refer to http://www.chesapeakebay.net/indicators/indicator/achievement_of_chesapeake_bay_water_quality_standards. For a detailed description of the Phase 5.3 Watershed Model, refer to chapter 5.8 of the

TMDL (pages 5–30 through 5–38) available at
http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/CBayFinalTMDLSection5_final.pdf.

Units: Percent of water quality standards attained

Universe: Dissolved oxygen, water clarity/underwater bay grasses, and chlorophyll a water quality standards applicable to a designated use in 291 designated–use segments within the 92 Chesapeake Bay segments used for the establishment and management of the Chesapeake Bay TMDL.

Baseline: Percent attainment at a point in time (FY 2011)

Measure Code: CB-SP35

Measure Language: Percent of goal achieved for implementing nitrogen pollution reduction actions to achieve the final TMDL allocations, as measured through the phase 5.3 watershed model.

Type of Measure: Target measure; cumulative measure

Measure Contact: Kevin DeBell, Chesapeake Bay Program Office

debell.kevin@epa.gov | (410) 295–1318

Measure Definition

Methodology for computation of results: The Chesapeake Bay Program Phase 5.3 Watershed Model is used to simulate pollution loads in any particular year, based on pollution reduction actions that have been implemented, and compare those loads to the Total Maximum Daily Load (TMDL) allocations. The difference in simulated loads between the baseline year and the TMDL is considered the goal. The difference in simulated loads between the baseline year and the most current year is considered the most recent progress. Dividing the progress by the goal provides "percent achievement of goal". For a detailed description of the Phase 5.3 Watershed Model, refer to chapter 5.8 of the TMDL (pages 5–30 through 5–38) available at
http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/CBayFinalTMDLSection5_final.pdf.

Units: Percent of goal achieved.

Universe: Simulated load reductions from FY 2010 (2009 loads scenario) to the Total Maximum Daily Load (TMDL) load allocation. For a description of the 2009 Scenario and the simulated loads for 2009, refer to Appendix J of the TMDL (page J–1 and Tables J–2, J–4 and J–6) available at
http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/AppendixJScenarios_final.pdf. For the TMDL load allocations, refer to the Executive Summary of the TMDL (page E–7, table ES–1) available at

http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/BayTMDLExecutiveSummaryFINAL122910_final.pdf

Baseline: 0% in FY 2010 (based on 2009 Scenario). Percent of goal achieved for implementation of nitrogen reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model. Tracking began in FY 2010 with zero percent of goal achieved. For a description of the 2009 Scenario and the simulated loads for 2009, refer to Appendix J of the TMDL (page J-1 and Tables J-2, J-4 and J-6) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/AppendixJScenarios_final.pdf.



Measure Code: CB-SP36

Measure Language: Percent of goal achieved for implementation of phosphorus pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.

Type of Measure: Target measure; cumulative measure

Measure Contact: Kevin DeBell, Chesapeake Bay Program Office

debell.kevin@epa.gov | (410) 295-1318

Measure Definition

Methodology for computation of results: The Chesapeake Bay Program Phase 5.3 Watershed Model is used to simulate pollution loads in any particular year, based on pollution reduction actions that

have been implemented, and compare those loads to the Total Maximum Daily Load (TMDL) allocations. The difference in simulated loads between the baseline year and the TMDL is considered the goal. The difference in simulated loads between the baseline year and the most current year is considered the most recent progress. Dividing the progress by the goal provides "percent achievement of goal". For a detailed description of the Phase 5.3 Watershed Model, refer to chapter 5.8 of the TMDL (pages 5–30 through 5–38) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/CBayFinalTMDLSection5_final.pdf.

Units: Percent of goal achieved.

Universe: Simulated load reductions from FY 2010 (2009 loads scenario) to the Total Maximum Daily Load (TMDL) load allocation. For a description of the 2009 Scenario and the simulated loads for 2009, refer to Appendix J of the TMDL (page J–1 and Tables J–2, J–4 and J–6) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/AppendixJScenarios_final.pdf. For the TMDL load allocations, refer to the Executive Summary of the TMDL (page E–7, table ES–1) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/BayTMDLExecutiveSummaryFINAL122910_final.pdf

Baseline: 0% in FY 2010 (based on 2009 Scenario). Percent of goal achieved for implementation of phosphorus reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model. Tracking began in FY 2010 with zero percent of goal achieved. For a description of the 2009 Scenario and the simulated loads for 2009, refer to Appendix J of the TMDL (page J–1 and Tables J–2, J–4 and J–6) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/AppendixJScenarios_final.pdf.

Measure Code: CB-SP37

Measure Language: Percent of goal achieved for implementation of sediment pollution reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model.

Type of Measure: Target measure; cumulative measure

Measure Contact: Kevin DeBell, Chesapeake Bay Program Office

debell.kevin@epa.gov | (410) 295–1318

Measure Definition

Methodology for computation of results: The Chesapeake Bay Program Phase 5.3 Watershed Model is used to simulate pollution loads in any particular year, based on pollution reduction actions that have been implemented, and compare those loads to the Total Maximum Daily Load (TMDL) allocations. The difference in simulated loads between the baseline year and the TMDL is considered

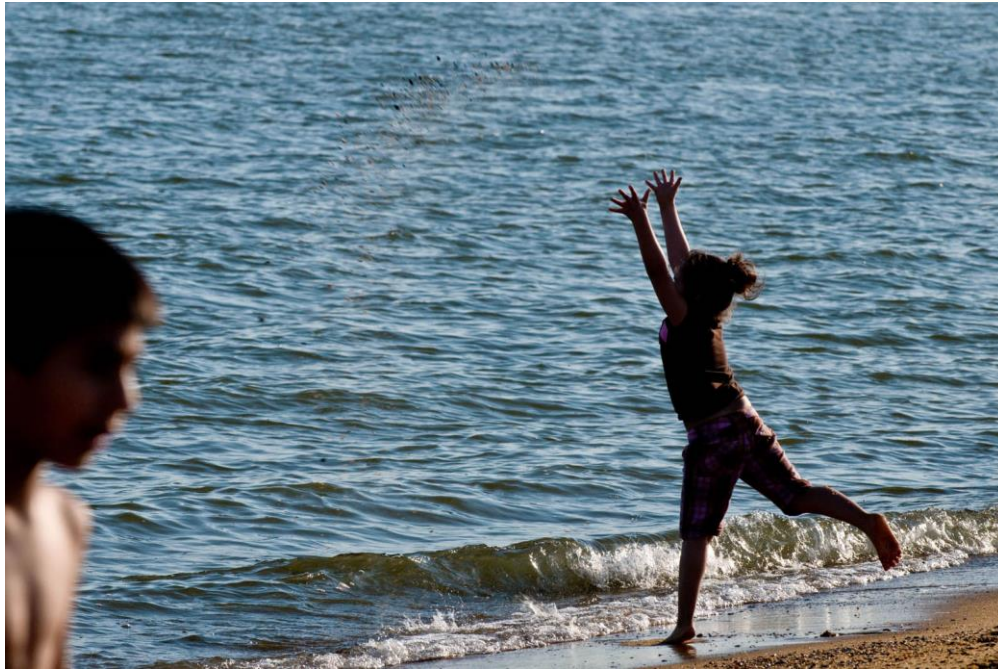
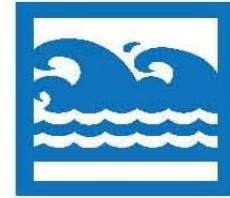
the goal. The difference in simulated loads between the baseline year and the most current year is considered the most recent progress. Dividing the progress by the goal provides "percent achievement of goal". For a detailed description of the Phase 5.3 Watershed Model, refer to chapter 5.8 of the TMDL (pages 5–30 through 5–38) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/CBayFinalTMDLSection5_final.pdf.

Units: Percent of goal achieved

Universe: Simulated load reductions from FY 2010 (2009 loads scenario) to the Total Maximum Daily Load (TMDL) load allocation. For a description of the 2009 Scenario and the simulated loads for 2009, refer to Appendix J of the TMDL (page J-1 and Tables J-2, J-4 and J-6) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/AppendixJScenarios_final.pdf. For the TMDL load allocations, refer to the Executive Summary of the TMDL (page E-7, table ES-1) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/BayTMDLExecutiveSummaryFINAL122910_final.pdf

Baseline: 0% in FY 2010 (based on 2009 Scenario). Percent of goal achieved for implementation of sediment reduction actions to achieve final TMDL allocations, as measured through the phase 5.3 watershed model. Tracking began in FY 2010 with zero percent of goal achieved. For a description of the 2009 Scenario and the simulated loads for 2009, refer to Appendix J of the TMDL (page J-1 and Tables J-2, J-4 and J-6) available at http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/FinalBayTMDL/AppendixJScenarios_final.pdf.

FY 2016 NWPG Coastal and Ocean Measure Definitions



Measure Code: CO-SP20.N11

Measure Language: Percent of active dredged material ocean dumping sites that will have achieved environmentally acceptable conditions (as reflected in each site's management plan and measured through on-site monitoring programs).

Type of Measure: Target measure; annually reported

Measure Contact: Grace Robiou, EPA Office of Wetlands, Oceans, and Watersheds

Robiou.Grace@epa.gov | (202) 566-2975

Measure Definition

Terms and phrases:

- *Active* refers to a dredged material ocean dumping site that has been used in five years, and/or there are foreseeable plans to continue to use the site.

- A *dredged material ocean dumping site* is a precise geographical area within which ocean dumping of wastes is permitted under conditions specified in permits issued under Section 102 and 103 of the Marine Protection, Research and Sanctuaries Act (MPRSA).
- *Environmentally acceptable conditions* are reflected in the ocean dumping site management plan for each individual site based on site specific conditions.
- A *Site Management Plan* is a plan for each dredged material ocean dumping site that was developed with opportunity for stakeholder input, and that includes: a baseline assessment of the site, a consideration of anticipated use, a monitoring program, and site management conditions or practices that are necessary for protection of the environment.

Methodology for computation of results: Each EPA region reports the percentage of their active dredged material ocean dumping sites that have achieved environmentally acceptable conditions. The regional percentages are averaged to produce a national total. When entering data into the EPA's Annual Commitment System (ACS), regions should provide the numerator and denominator used to calculate the percentage in the comment box.

Units: Dredged material ocean dumping sites

Universe: Total number of active dredged material ocean dumping sites in the U.S. The universe is computed at the beginning of the reporting cycle, and adjusted, as necessary, when regions report their mid-year and end-of-year percentages.

Baseline: The number of sites (in FY 2005) is determined by each EPA region, and the regions' numbers are added together to get the total.

Measure Code: CO-02

Measure Language: Total coastal & non-coastal statutory square miles protected from vessel sewage by "no discharge zone(s)."

Type of Measure: Indicator measure; cumulative measure reported annually

Measure Contact: Grace Robiou, EPA Office of Wetlands, Oceans, and Watersheds

Robiou.Grace@epa.gov | (202) 566-2975

Measure Definition

Terms and phrases: *No discharge zones* (NDZs) are areas where sewage discharge from marine sanitation devices (MSDs), commonly known as "boat toilets," is prohibited. The process to establish an NDZ is initiated by a state and is either established under Clean Water Act (CWA) 312(f)(3) when EPA determines that there are adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels or under the rulemaking provisions of CWA 312(f)(4). NDZs reduce human

exposure to pathogens by either direct contact with the water or secondary contact through exposure from contaminated shellfish. NDZs also reduce nitrogen and other pollutants from reaching the environment. Excess nitrogen loadings can cause algal blooms which use up the available oxygen in the aquatic habitat.

Methodology for computation of results: As no discharge zones (NDZs) are established, EPA regions quantify the area in statutory square miles covered by the NDZ and report that area into the EPA Annual Commitment System (ACS). Both inland and coastal no discharge zones (NDZs) are tracked. The "universe" consists of the total area of water eligible to be designated as a NDZ under the current regulations.

Units: Statutory square miles.

Universe: All U.S. coastal waters out to three nautical miles plus any inland interstate rivers and lakes/reservoirs or other impoundments that allow ingress or egress by a boat. This excludes freshwater lakes, freshwater reservoirs, or other freshwater impoundments whose inlets or outlets prevent the ingress or egress of vessel traffic or rivers not capable of navigation by interstate vessel traffic.

Baseline: The baseline is the total area covered by NDZs as of October 1, 2008.

Measure Code: CO-04

Measure Language: Dollar value of "primary" leveraged resources (cash or in-kind) obtained by the NEP Directors and/or staff in millions of dollars rounded to the nearest tenth of a percent.

Type of Measure: Indicator measure; annually reported

Measure Contact: Bernice Smith, EPA Office of Wetlands, Oceans, and Watersheds

smith.bernicel@epa.gov | (202) 566-1244

Measure Definition

Terms and phrases: *Primary leveraged resources* are resources (cash or in-kind) the National Estuary Program (NEP) director and/or staff played the central role in obtaining, above and beyond their Section 320 grants and earmarks. An example of primary leveraged dollars would be those obtained from a grant proposal written by the NEP director and/or staff. Primary leveraged resources would not have been directed toward Comprehensive Conservation and Management Plan (CCMP) implementation without the actions of the NEP Director and staff.

Methodology for computation of results: This will be an import measure in FY 2012. That is, EPA HQ will enter the data into ACS rather than regions. The primary leveraged resources [i.e., resources

obtained by the NEP Director and staff above and beyond the Section 320 grants and earmarks received by the NEP] will be reported into the EPA Annual Commitment System (ACS) in millions of dollars rounded to the nearest tenth of a percent by Headquarters. Regions will have an opportunity to review the end-of-year results before ACS is locked for end-of-year reporting.

Example of reporting: if an NEP's primary leveraged dollars amounted to \$3,500,000, then data will be reported as 3.5 in ACS.

Units: Dollars. Primary leveraged resources are cash or in-kind resources obtained by the NEP Director and/or staff that the NEP Director and/or staff (rather than NEP partners) played the primary role in obtaining (i.e., the resources would not have been obtained without the actions of the NEP Director and/or staff).

Universe: Unknown because the resources available to the NEPs for leveraging changes yearly and no source of data exists that tracks all the potential funding.

Baseline: The primary leveraged resources (cash or in-kind) the NEP director and/or staff played the central role in obtaining, above and beyond their Section 320 grants and earmarks in FY 2005.

Measure Code: CO-06

Measure Language: Number of active dredged material ocean dumping sites that are monitored in the reporting year.

Type of Measure: Indicator measure; annually reported

Measure Contact: Grace Robiou, EPA Office of Wetlands, Oceans, and Watersheds

Grace.Robiou@epa.gov | (202) 566-2975

Measure Definition

Terms and phrases:

- *Active* refers to a Dredged Material Ocean Dumping Site that has been used in five years, and/or there are foreseeable plans to continue to use the site.
- A *dredged material ocean dumping site* is a precise geographical area within which ocean dumping of wastes is permitted under conditions specified in permits issued under section 102 and 103 of the Marine Protection, Research and Sanctuaries Act (MPRSA).&
- *Monitoring* refers to efforts to collect, test, measure, and analyze data on bathymetry, chemical, biological, and physical conditions (e.g., grain size, current speed) at ocean dredged material disposal sites.

Methodology for computation of results: Each EPA region reports the number of their active dredged material ocean dumping sites that have been monitored.

Units: Dredged material ocean dumping sites

Universe: Total number of active dredged material ocean dumping sites in the U.S. The universe is computed at the beginning of the reporting cycle, and adjusted, as necessary, when the EPA regions report their mid-year and end-of-year percentages.

Baseline: n/a. A set baseline is not applicable due to the variability in site monitoring.

Measure Code: CO-432.N11

Measure Language: Working with partners, protect or restore additional acres of habitat within the study areas for the 28 estuaries that are part of the National Estuary Program (NEP).

Type of Measure: Target measure; annually reported

Measure Contact: Bernice Smith, EPA Office of Wetlands, Oceans, and Watersheds

smith.bernicel@epa.gov | (202) 566-1244

Measure Definition

Terms and phrases:

- *Partners* are governmental, non-governmental, and private sector entities that work with the NEPs to help implement their Comprehensive Conservation and Management Plan (CCMP).
- *Protect* refers to preserving areas through acquisition, conservation easements, deed restrictions, etc.
- *Restore* refers to the return of habitat to a close approximation of its prior condition;
- *Habitat* means aquatic and terrestrial areas within the NEP study area.
- An *estuary* is a partially enclosed body of water along the coast where freshwater from rivers and streams meet and mix with salt water from the ocean.

Methodology for computation of results: Each NEP gathers data from their partners and reports it to the respective EPA regional office.

- On or about September 1, the NEPs enter their habitat data into NEPORT. Regions do not enter data into NEPORT.
- Regions complete a QA/QC review of that data within two weeks of NEP data entry. This QA/QC may include comments back to an NEP to redo their submission before the Region "approves" the data.

- After regional approval, HQ conducts a brief examination to conduct a consistency review and approve all the data. Once this data is approved by HQ, it is finalized and may be reported or entered into ACS.
- Regions should ONLY use the final HQ approved data as it appears in NEPORT for reporting in ACS. Data are not finalized by HQ before September 30.

Units: Acres of habitat.

Universe: n/a

Baseline: Acres of habitat that has been protected or restored.

FY 2016 Measure Definitions Columbia River

Measure Code: CR-SP53



Measure Language: Clean up acres of known contaminated sediments (cumulative starting in FY 2005).

Type of Measure: Target measure; cumulative measure

Measure Contact: Joanne LaBaw, EPA Region 10, Columbia River Program

labaw.joanne@epa.gov | (206) 553-2594

Measure Definition

Methodology for computation of results: Cleanup acres are based on activity reports received from EPA and state or other federal agencies. The number of acres is tracked manually by a combination of EPA work efforts and state of OR and WA reporting.

Units: Acres

Universe: Total acres of known highly contaminated sediment in the Columbia River Basin as assessed in FY 2006.

Baseline: Cleanup acres at a point in time (0 from FY 2005).



Measure Code: CR-SP54

Measure Language: Demonstrate a reduction in mean concentration of certain contaminants of concern found in water and fish tissue. (cumulative starting in FY 2006).

Type of Measure: Indicator measure

Measure Contact: Mary Lou Soccia, EPA Region 10, Columbia River Program

soccia.marylou@epa.gov | (503) 326-5873

Measure Definition

Terms and phrases: "Certain contaminants of concern" are Chlorpyrifos and Azinphos methyl in Oregon West Prong, Little Walla Walla River, South of Stateline Road; Chlorpyrifos in Oregon North Fork Deep Creek (Clackamas Sub-basin); DDT in Washington Walla Walla River, RM 14.3 and Yakima River, RM 18-30.

- Washington will be contributing to the target reduction through the implementation of two Water Quality Improvement Projects/Total Maximum Daily Loads (TMDLs), specifically the Yakima River TMDL and Walla Walla River TMDL. More information on the WA Ecology TMDL program can be found at: http://www.ecy.wa.gov/programs/wq/links/wq_assessments.html

- Oregon will be contributing to the target reduction by the implementation of Pesticide Stewardship Partnership (PSP) in the Walla Walla River basin.

The baseline for this strategic target is Table 1 that includes the selected contaminants for monitoring, the location for where baseline data was collected and where subsequent monitoring will occur, the baseline concentration and source of the baseline data as well as the type of sampling (fish tissue, water column, semi permeable membrane devices (SPMDs)) and the responsible party (see link to baseline listed below).

Choosing a contaminant location meant there must be historical data and the expectation of similar sampling data from the same location in the future. Hence, if it is unlikely that a contaminant will be monitored at a given site, that contaminant/location should not be chosen as part of the baseline. The Columbia River Basin includes land that has a variety of uses. Many different pesticides may be used throughout the year. Spraying is more frequent during certain seasons and this may require intense monitoring and poses a challenge to consistently monitoring reduction of contaminant concentrations. Finally, quantitative concentrations for each baseline were chosen. Success in meeting the 10% reduction target will be measured in the average reduction for each contaminant at each location.

Units: Units vary due to the focus of the contaminants of concern.

Universe: n/a

Baseline: please see http://www.epa.gov/region10/pdf/columbia/baseline_document_2009-2014.pdf

Columbia River: Baseline for Pesticide/Toxics Strategic Target

Contaminant Name	Location	Sampling Matrix	Mean Baseline Concentration	Year & Source(s) of Baseline Data	Responsible Party*
Chlorpyrifos	Oregon: West Prong, Little Walla Walla River, South of Stateline Road	Water column	0.21 µg/l ¹ Detection frequency: 0.43	Pesticide Stewardship Partnership documentation	OR DEQ
Azinphos methyl	Oregon: West Prong, Little Walla Walla River, South of Stateline Road	Water column	0.0199 µg/l (2006 average) Detection frequency: 0.29	Pesticide Stewardship Partnership documentation	OR DEQ
Chlorpyrifos	Oregon: North Fork Deep Creek	Water column	0.087 µg/l (3-year average [2005– 2007])	Pesticide Stewardship	OR DEQ

	(Clackamas Subbasin)			Partnership documentation	
DDT	Washington: Walla Walla River, RM 14.3	Water Column (measured with SPMD)	1.3 ppt ²	2002–2003 Walla Walla TMDL Evaluation, Dept. of Ecology publication 04–03–032	WA Ecology
DDT	Washington: Yakima River, RM 18–30	Fish Tissue	92 µg/Kg, wet ³	2006 Yakima River Fish Tissue Study (preliminary data for TMDL report)	WA Ecology

* All Work is dependent on continued availability of funds

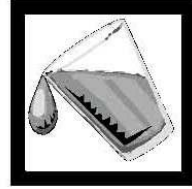
1 Baseline data is from 2006 monitoring results associated with DEQ's Walla Walla Basin Pesticide Stewardship Partnership. The baseline concentrations are median concentrations found from Spring 2006 monitoring in the Basin. The detection frequency baseline is the fraction of sampling events where detections were observed.

2 Baseline data is from the Walla Walla TMDL Evaluation (Technical Report) 04–03–032 (page 47). The sampling location is the lower Walla Walla River Site (RM 14.3) above Columbia River influences. Sampling was done with Semipermeable Membrane Devices (SPMDs). Measurements are in ng/L (ppt) dissolved. The concentration is an annual average (data is from May and June 2002, August and September 2002, November and December 2002, and February and March 2003). DDT is measured as total DDT, the sum of 4,4'-DDT, 4,4'-DDE, and 4,4'-DDD.

3 This preliminary data is from the Dept. of Ecology's Yakima River Fish Tissue study (as of 1/03/07). This study will be part of the Yakima River TMDL report. Samples were collected on 10/11/06 between Benton City (about RM 30) and Horn Rapids Dam (RM 18) in the Lower Yakima River. Each sample is a composite of skin-on fillets from five individual Largescale Suckers. Three samples were averaged to determine the baseline concentration. DDT is measured as total DDT, the sum of 4,4'-DDT, 4,4'-DDE, and 4,4'-DDD.

FY 2016 NWPG Measure Definitions Drinking Water

Measure Code: Subobjective SDW-211



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

Type of Measure: Target measure; annual

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

corr.elizabeth@epa.gov | (202) 564-3798

Measure Definition

Terms and phrases:

- *A community water system (CWS)* is a public water system that supplies water to the same population year-round.
- *Source water* is untreated water from streams, rivers, lakes or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System–Federal (SDWIS–FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) that overlap any part of the most recent four quarters.

Units: Population

Universe: The total population served by community water systems.

Baseline: The percentage of the population served by community water systems that receive drinking water that meets all health based drinking water standards through approaches including effective treatment and source water protection in 2005.

Measure Code: SDW-SP1.N11

Measure Language: Percent of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection.

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

corr.elizabeth@epa.gov | (202) 564-3798

Measure Definition

Terms and phrases:

- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.
- *Source water* is untreated water from streams, rivers, lakes or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System-Federal (SDWIS-FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) that overlap any part of the most recent four quarters.

Units: Community water systems

Universe: The total number of community water systems.

Baseline: The percentage of community water systems that meet all applicable health-based standards through approaches that include effective treatment and source water protection in 2005.

Measure Code: SDW-SP2

Measure Language: Percent of "person months" (i.e., all persons served by community water systems times 12 months) during which community water systems provide drinking water that meets all applicable health-based drinking water standards.

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

corr.elizabeth@epa.gov | (202) 564-3798

Measure Definition

Terms and phrases:

- *Person-months* for each community water system (CWS) is calculated as the number of months in the most recent four quarter period in which health-based violations overlap, multiplied by the retail population served.
- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System-Federal (SDWIS-FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) that overlap any part of the most recent four quarters.

Units: Population

Universe: The total population served by community water systems times a 12 month period.

Baseline: The percent of person months (all persons served by community water systems times 12 months) during which community water systems provide drinking water that meets all applicable health based drinking water standards in 2005.

Measure Code: SDW-SP3.N11

Measure Language: Percent of the population in Indian country served by community water systems that receive drinking water that meets all applicable health-based drinking water standards.

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

corr.elizabeth@epa.gov | (202) 564-3798

Measure Definition

Terms and phrases: A *community water system* (CWS) is a public water system that supplies water to the same population year-round.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information System–Federal (SDWIS–FED) and provides the results to EPA regions. This measure includes federally-regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) in Indian country that overlap any part of the most recent four quarters.

Units: Population in Indian country

Universe: The total population in Indian Country served by community water systems.

Baseline: The percentage of the population in Indian Country served by community water systems that receive drinking water that meets all health based drinking water standards through approaches including effective treatment and source water protection in 2005.

Measure Code: SDW-20

Measure Language: Percent of ‘person months’ (i.e., all persons served by community water systems times 12 months) during which community water systems in Indian country provide drinking water that meets all applicable health-based drinking water standards

Type of Measure: Target measure; annually reported

Measure Contact: Elizabeth Corr, EPA Office of Ground Water and Drinking Water

corr.elizabeth@epa.gov | (202) 564-3798

Measure Definition

Terms and phrases:

- *Person-months* for each community water system (CWS) is calculated as the number of months in the most recent four quarter period in which health-based violations overlap, multiplied by the retail population served.
- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) calculates this measure using data reported in the Safe Drinking Water Information

System–Federal (SDWIS–FED) and provides the results to EPA regions. This measure includes federally–regulated contaminants of the following violation types: Maximum Contaminant Level, Maximum Residual Disinfection Limit, and Treatment Technique violations. It includes any violations from currently open and closed community water systems (CWSs) in Indian country that overlap any part of the most recent four quarters.

Units: Population in Indian country

Universe: The total population served by community water systems in Indian country times a 12–month period.

Baseline: The percent of person months (all persons served by community water systems in Indian country times 12 months) during which community water systems in Indian country provide drinking water that meets all applicable health based drinking water standards in 2005.

Measure Code: SDW-SP4 (a,b)

Measure Language: (SDW–SP4a): Percent of community water systems where risk to public health is minimized through source water protection.

(SDW–SP4b): Percent of the population served by community water systems where risk to public health is minimized through source water protection.

Type of Measure: Target measure; annually reported

Measure Contacts: Mike Muse, EPA Office of Ground Water and Drinking Water
muse.mike@epa.gov | (202) 564–3892

Beth Hall, EPA Office of Ground Water and Drinking Water
hall.beth@epa.gov | (202) 564–3883

Measure Definition

Terms and phrases:

- A *community water system* (CWS) is a public water system that supplies water to the same population year–round.
- *Source water* is untreated water from streams, rivers, lakes or underground aquifers that is used to provide public drinking water, as well to supply private wells used for human consumption.

Methodology for computation of results: The percent of community water systems and the percent of population served by community water systems are calculated each year using data reported by the states. States report the number of community water systems with source water protection in place and the population served by community water systems with source water protection in place. A system is considered to have source water protection in place if it meets the state specific definition of substantial implementation of a source water protection. The total number of community water systems and the total population served is taken from the Safe Drinking Water Information System–Federal (SDWIS–FED).

Units: SP4a – Community Water Systems; SP4b – Population

Universe: SP4a – The total number of community water systems. SP4b – The total population served by community water systems (FY 2012).

Baseline: SP4a – The percentage of community water systems where risk to public health is minimized through source water protection in FY 2005. SP4b – The percentage of population served by community water systems where risk to public health is minimized through source water protection.

Measure Code: SDW-18.N11

Measure Language: Number of American Indian and Alaska Native homes provided access to safe drinking water in coordination with other federal agencies.

Type of Measure: Target Measure; annually reported

Measure Contact: Ronald Bergman, EPA Office of Ground Water and Drinking Water

bergman.ronald@epa.gov | (202) 564–3823

Measure Definition

Terms and phrases:

- *Access* is the reduction in the sanitation deficiency level of a tribal home from a 4 or 5 to a 3 or less. The sanitation deficiency levels definitions are described in Appendix E of the "Indian Health Service Sanitation Deficiency System Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities," working draft, May 2003 and may be found online at: <http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf>
- *Sanitation deficiency* is an identified need for new or upgraded sanitation facilities for existing homes of American Indians or Alaska Natives (<http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf>)

Methodology for computation of results: The EPA Office of Ground Water and Drinking Water (headquarters) will use the actual number of homes reported in the Indian Health Service's (IHS) Sanitation Deficiency System (SDS) as provided access to potable water to show progress towards this measure. EPA headquarters will obtain this value from IHS in order to calculate annual performance.

Units: American Indian and Alaska Native Village homes

Universe: The total number of American Indian and Alaska Native homes

Baseline: The number of American Indian and Alaska Native Village homes provided access to safe drinking water between 2003 to 2009

Measure Code: SDW-01 (a,b)

Measure Language: (SDW-1a): Percent of community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses).

(SDW-1b) Number of tribal community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved to provide 4-log treatment of viruses).

Type of Measure: Target measure; annually reported

Measure Contact: Mindy Eisenberg, EPA Office of Ground Water and Drinking Water

eisenberg.mindy@epa.gov | (202) 564-1290

Measure Definition

Terms and phrases:

- A *community water system* (CWS) is a public water system that supplies water to the same population year-round.
- A *primacy agency* is a state, territory or tribal government with primary enforcement authority for the Public Water System Supervision (PWSS) program. EPA is the primacy agency for Wyoming, the District of Columbia and in Indian country, except for the Navajo Nation.
- A *sanitary survey* is an on-site review of the water sources, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of the facilities for producing and distributing safe drinking water.

Methodology for computation of results: The Interim Enhanced Surface Water Treatment Rule (IESWTR) and the Ground Water Rule (GWR) require primacy agencies to conduct sanitary surveys once every three years for CWSs. For CWS determined by the primacy agency to have outstanding performance based on prior sanitary surveys, subsequent sanitary surveys may be conducted no less than every five years per sec. 142.16(b)(3)(ii) and sec. 142.16(o)(2)(iii). In addition, ground water systems approved by the primacy agency to provide 4-log treatment of viruses may have sanitary surveys conducted no less than every five years (per sec. 142.16(o)(2)(iii)).

Units: SDW-01a Community Water Systems, expressed as a percentage; SDW-01b Number of tribal Community Water Systems

Universe: SDW-01a – Total number of community water systems in the U.S.

SDW-01b – Total number of water systems for tribal's community water system source from surface water.

Baseline: SDW-01a – Percent of community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved by the primacy agency to provide 4-log treatment of viruses).

SDW-01b – Number of tribal community water systems (CWSs) that have undergone a sanitary survey within the past three years (five years for outstanding performers or those ground water systems approved to provide 4-log treatment of viruses).

Measure Code: SDW-04

Measure Language: Fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] for the Drinking Water State Revolving Fund (DWSRF).

Type of Measure: Target measure; annually reported

Measure Contacts: Charles Job, EPA Office of Ground Water and Drinking Water
job.charles@epa.gov | (202) 564-3941

Peter Shanaghan, EPA Office of Ground Water and Drinking Water
shanaghan.peter@epa.gov | (202) 564-3848

Measure Definition

Terms and phrases:

- "The *fund utilization rate* shows how many dollars of assistance were provided for each dollar made available for projects. It measures all funds (federal and non-federal) signed into loans against all funds (federal and non-federal) made available for projects," as provided to Office of Management and Budget as a long-term output/efficiency goal Program Assessment Rating Tool (PART) response.
- The *Drinking Water State Revolving Fund* (DWSRF) was established by the Safe Drinking Water Act, as amended in 1996, to make funds available to drinking water systems to finance infrastructure improvements.

Methodology for computation of results: Results are calculated by dividing cumulative assistance provided in the form of executed loans by cumulative funds available for projects. Assistance provided as a percent of Funds Available = 'Cumulative DWSRF Assistance provided' divided by 'Cumulative Funds Available.'

Units: dollars (expressed as a percentage)

Universe: cumulative dollar amount of loan agreements

Baseline: cumulative funds available for projects in FY 2005

Measure Code: SDW-05

Measure Language: Number of Drinking Water State Revolving Fund (DWSRF) projects that have initiated operations. (cumulative)

Type of Measure: Target measure; cumulative measure reported annually

Measure Contacts: Charles Job, EPA Office of Ground Water and Drinking Water
job.charles@epa.gov | (202) 564-3941

Peter Shanaghan, EPA Office of Groundwater and Drinking Water
shanaghan.peter@epa.gov | (202) 564-3848

Measure Definition

Terms and phrases: The *Drinking Water State Revolving Fund* (DWSRF) was established by the Safe Drinking Water Act, as amended in 1996, to make funds available to drinking water systems to finance infrastructure improvements.

Methodology for computation of results: The Drinking Water National Information Management System (DWNIMS) is the information system of record for the Drinking Water State Revolving Loan Fund (DWSRF). All states report data for their DWSRF program to DWNIMS once each year. EPA

develops a national summary of the DWSRF program from this data. Line 183 in DWNIMS reports the number of projects completed each year while line 184 reports the cumulative number of projects completed since program inception. For all practical purposes, projects completed means projects initiating operations.

Units: DWSRF projects

Universe: not applicable

Baseline: projects that have initiated operations (cumulative) in FY 2005.

Measure Code: SDW-7

Measure Language: Percent of Classes I, II and Class III salt solution mining wells that have lost mechanical integrity and are returned to compliance within 180 days thereby reducing the potential to endanger underground sources of drinking water.

Type of Measure: Target measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water

hall.beth@epa.gov | (202) 564-3895

Measure Definition

Terms and phrases:

- An *injection well* is a device that places fluid deep underground into porous rock formations, such as sandstone or limestone, or into or below the shallow soil layer. These fluids may be water, wastewater, brine (salt water), or water mixed with chemicals.
- "*Wells that have lost mechanical integrity*" means that the well does not meet the definition of a well that has maintained mechanical integrity (Citations: 40 CFR 146.8; 40 CFR 144.28(f)(2) for authorized by rule (ABR) wells and 144.51(q) for permitted wells). Wells with MI failure would be considered to be in violation (with the exception of some 1425 programs). However, other MI violations, such as those related to late tests or record keeping, are not reported under this measure.
- A "*well returned to compliance*" is a well that was in violation of Underground Injection Control (UIC) Program requirements, which has had the violation(s) corrected and has had the resolution of the violation(s) verified by the regulating authority.

Methodology for computation of results: The number of wells that lose mechanical integrity and are returned to compliance are reported through the UIC Inventory and Measures Reporting System (IMRS) or through the UIC National Data Base

Units: Class I wells, Class II wells, Class III wells (salt solution mining) as defined by the UIC Data Model Version 8.0 (edited 5/3/10).

Universe: The total number Class I, Class II and Class III (salt solution mining wells). This number changes yearly.

Baseline: not applicable

Measure Code: SDW-08

Measure Language: Number of Class V motor vehicle waste disposal wells (MVWDW) and Large Capacity Cesspools (LCC) that are closed or permitted (cumulative).

Type of Measure: Budget measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water.

hall.beth@epa.gov | (202) 564-3883

Measure Definition

Terms and phrases:

- A *Class V motor vehicle waste disposal well* (MVWDW) is a well used to inject fluids from motor vehicle repair or maintenance activities, such as an auto body repair shop, automotive repair shop, car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any other facility that does vehicle repair work. These wells are classified as 5K as defined by the UIC Data Model Version 8.0 (edited 5/3/10).
- EPA defines *Large-Capacity Cesspools* (LCC) as a well having the capacity to serve 20 persons or more per day and used solely for the subsurface emplacement of sanitary waste. These wells are classified as 5E as defined by the UIC Data Model Version 8.0 (edited 5/2/10). The definition of "large-capacity" may vary from state to state as long as the definition is at least as stringent as the Federal definition. For example, some states define large-capacity cesspools based on the amount of waste or the volume capacity of the cesspool.

Methodology for computation of results: Number of MVWDW and LCC cumulatively permitted and/or closed as reported by primacy programs are reported through the UIC Inventory and Measures Reporting System (IMRS) or through the UIC National Data Base.

Units: Class V wells and LCCs

Universe: The total number of Class V wells and Large-Capacity Cesspools (LCCs)

Baseline: The number of Class V wells and Large-Capacity Cesspools (LCCs) that are closed or permitted in at a point in time.

Measure Code: SDW-11

Measure Language: Percent of DWSRF projects awarded to small PWS serving <500, 501–3,300, and 3,301–10,000 consumers.

Type of Measure: Indicator measure; cumulative measure reported annually

Measure Contact: Howard Rubin, EPA Office of Ground Water and Drinking Water

rubin.howarde@epa.gov | (202) 564-2051

Measure Definition

Terms and phrases: A *public water system* (PWS) is any water system which provides water to at least 25 people for at least 60 days annually. There are more than 170,000 PWSs providing water from wells, rivers and other sources to about 250 million Americans. The others drink water from private wells. There are differing standards for PWSs of different sizes and types.

Methodology for computation of results: The Drinking Water National Information Management System (DWNIMS) is the information system of record for the Drinking Water State Revolving Fund (DWSRF). All states report data for their DWSRF program to DWNIMS once each year. EPA develops a national summary of the DWSRF program from this data.

Units: DWSRF projects

Universe: The total number of DWSRF projects.

Baseline: DWSRF projects awarded to small PWS serving <500, 501–3,300, and 3,301–10,000 consumers from FY 2009.

Measure Code: SDW-15

Measure Language: Number and percent of small CWS and NTNCWS (<500, 501–3,300, 3,301–10,000) with repeat health based Nitrate/Nitrite, Stage 1 D/DBP, SWTR and TCR violations.

Type of Measure: Indicator measure; cumulative measure reported annually

Measure Contact: Ronald Bergman, EPA Office of Ground Water and Drinking Water

bergman.ronald@epa.gov | (202) 564-3823

Measure Definition

Terms and phrases:

- *CWS* are community water systems
- *TNCWS* are transient non-community water systems
- *NTNCWS* are non-transient non-community water systems
- *Repeat violations* are defined as repeats of the same combination of violation code (Eg: 21 - TCR MCL) and contaminant type (Eg: TCR). If a particular combination of violation code and contaminant type occurs at a particular system more than once in a Fiscal Year, this constitutes a repeat violation.

Methodology for computation of results: For the purposes of this analysis, only repeat health-based TCR, Nitrates, and SWTR violations were included. The analysis is based on SDWIS-FED data within the previous 12 months year ending June 30th. Systems must serve fewer than 10,001 people. The same violation code and contaminant type combination must occur more than once in the above 12 month period. TNCWS were excluded from the analysis.

Units: small CWS and NTNCWS

Universe: Total Community Water Systems and Non-Transient Non-Community Water Systems (< 10,000)

Baseline: Community Water Systems and Non-Transient Non-Community Water Systems (< 10,000 with repeat Health-Based violations) in FY 2009

Measure Code: SDW-17

Measure Language: Number and percent of schools and childcare centers that meet all health-based drinking water standards.

Type of Measure: Indicator measure; cumulative measure reported annually

Measure Contact: Ronald Bergman, EPA Office of Ground Water and Drinking Water

bergman.ronald@epa.gov | (202) 564-3823

Measure Definition

Terms and phrases:

- *CWS* are community water systems
- *TNCWS* are transient non-community water systems
- *NTNCWS* are non-transient non-community water systems
- *Schools* are defined as CWS or NTNCWS with a primary service area equal to SC (school) or DC (daycare). Puerto Rico systems were not included. California systems were based on a list of school systems provided by California.

Methodology for computation of results: For the purposes of this analysis, only school systems without reported health-based violations were included. The analysis is based on SDWIS-FED data within the previous 12 months year ending June 30th.

Units: Schools and childcare centers

Universe: schools and child care centers that are their own public water system.

Baseline: schools and child care centers in FY 2009 that meet all health-based drinking water standards

Measure Code: SDW-19a

Measure Language: Volume of CO₂ sequestered through injection as defined by the UIC Rule.

Type of Measure: Indicator Measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water

hall.beth@epa.gov | (202) 563-3883

Measure Definition

Terms and Phrases: Geologic Sequestration (GS) is the process of injecting carbon dioxide (CO₂), captured from an industrial (e.g., steel and cement production) or energy-related source (e.g., a power plant or natural gas processing facility), into deep subsurface rock formations for long-term storage. This is part of a process frequently referred to as "carbon capture and storage" or CCS.

Methodology for computation of results: The volume of CO₂ sequestered through injection is calculated by OGWDW.

Units: Volume, actual on-site injected volume in the current quarter measured in million gallons to 4 significant figures.

Universe: not applicable

Baseline: not applicable

Measure Code: SDW-19ab

Measure Language: Number of permit decisions during the reporting period that result in CO2 sequestered through injection as defined by the UIC Rule.

Type of Measure: Indicator measure; annually reported

Measure Contact: Beth Hall, EPA Office of Ground Water and Drinking Water

hall.beth@epa.gov | (202) 563-3883

Measure Definition

Terms and Phrases: Geologic Sequestration (GS) is the process of injecting carbon dioxide (CO2), captured from an industrial (e.g., steel and cement production) or energy-related source (e.g., a power plant or natural gas processing facility), into deep subsurface rock formations for long-term storage. This is part of a process frequently referred to as "carbon capture and storage" or CCS.

Methodology for computation of results: The number of permit decision is calculated by OGWDW

Units: permit actions defined as permits issued.

Universe: not applicable

Baseline: not applicable

Measure Code: SDW-21

Measure Language: Number of drinking water and wastewater utilities and local, state, and federal officials receiving training and technical assistance to enhance emergency preparedness and resiliency to reduce risk from all hazards including those attributed to climate change impacts.

Type of Measure: target measure; annually reported by OGWDW

Measure Contact: David Travers, EPA Office of Ground Water and Drinking Water

travers.david@epa.gov | (202) 564-4638

Measure Definition

Terms and Phrases: Preparedness is defined as a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. This cycle is one element of a broader National Preparedness System to prevent, respond to, and recover from natural disasters, acts of terrorism, and other disasters.

Methodology for computation of results: The number of drinking water and wastewater utilities and local, state, and federal officials is calculated by OGWDW.

Units: utilities and officials

Universe: not applicable

Baseline: not applicable

FY 2016 NWPG Measure Definitions Fish and Shellfish

Measure Code: FS-SP6.N11



Measure Language: Percent of women of childbearing age having mercury levels in blood above the level of concern.

Type of Measure: Target measure; annually reported (data available biennially)

Measure Contact: Denise Hawkins, EPA Office of Science and Technology

hawkins.denise@epa.gov | (202) 566-1384

Measure Definition

Methodology for computation of results: The Center for Disease Control and Prevention's (CDC) National Center for Health Statistics conducts the National Health and Nutrition Examination Survey (NHANES) in which chemicals or their metabolites are measured in blood and urine samples from a random sample of participants. NHANES is a series of surveys designed to collect data on the health and nutritional status of the U.S. population. CDC reports the NHANES results in the *National Report on Human Exposure to Environmental Chemicals*. The *Second National Report on Human Exposure to Environmental Chemicals* was released in 2003 and presented biomonitoring exposure data for 116 environmental chemicals for the civilian, non-institutionalized U.S. population over the 2-year period 1999–2000. The *Third National Report on Human Exposure to Environmental Chemicals* presents similar exposure data for the U.S. population for 148 environmental chemicals over the period 2001–2002. The Fourth Report, which includes the data from the Second and Third Reports, measures 212 chemicals over the period 2003–2004, and was published in December 2009.

Methods and Assumptions: Biomonitoring measurements for the Report were from samples from participants in NHANES. NHANES collects information about a wide range of health-related behaviors, performs a physical examination and collects samples for laboratory tests. Beginning in 1999, NHANES became a continuous survey, sampling the U.S. population annually and releasing the data in two-year cycles. (Note, however, that the Fourth Report was issued four years after the Third Report.) The sampling plan follows a complex, stratified, multistage, probability-cluster design to select a representative sample of the civilian, noninstitutionalized population in the United States. Additional detailed information on the design and conduct of the NHANES survey is available at <http://www.cdc.gov/nchs/nhanes.htm>. The CDC National Center for Health Statistics (NCHS) provides guidelines for the analysis of NHANES data at http://www.cdc.gov/nchs/data/nhanes/nhanes_general_guidelines_june_04.pdf. Other details about the methodology including statistical methods are reported in the *Fourth National Report on Human Exposure to Environmental Chemicals*.

Units: Women of childbearing age (expressed as a percentage).

Universe: n/a; women of childbearing age.

Baseline: The percent of women of childbearing age having mercury level above the level of concern at a point in time. Data from the Third National Report on Human Exposure to Environmental Chemicals for the sampling period 1999–2002.

Measure Code: FS-1a

Measure Language: Percent of river miles where fish tissue were assessed to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary. (Great Lakes measured separately; Alaska not included) (Report every two years)

Type of Measure: Indicator measure; cumulative measure

Measure Contact: Jeff Bigler, EPA Office of Science and Technology

bigler.jeff@epa.gov | (202) 566–0389

Measure Definition

Terms and phrases: *Consumption advisories* are fish consumption advisories issued by state/territory/tribal or local government entities to the public to protect people from the risks of eating contaminated fish caught in local waters. A consumption advisory may recommend limiting the amount or avoiding eating certain fish from specific waters or from specific water types (like "all lakes").

Methodology for computation of results: This is a cumulative measure of the extent of river lengths that are under a fish consumption advisory, or if not, have been assessed by states/territories/tribes as not needing such an advisory.

As part of its biennial fish advisory program survey, the EPA Office of Science and Technology (Headquarters) uses its National Listing of Fish Advisories database to collect information on fish advisories from states/territories/tribes. For computational purposes, the national percentages are calculated using the total number of river miles (3,547,000 miles) in the National Hydrography Database.

In developing targets, EPA Headquarters starts with the previous year's information on the percent of river miles that are under a fish advisory issued by a state, territory, or tribe. To this number, Headquarters adds 1% for river miles based on the trends from previous years.

Reporting is now every other year, which means that the reporting in even-numbered years will be an estimate based on the previous year report adjusted for any significant change (such as a new state-wide advisory) of which we become aware.

This is an EPA Headquarters computed and reported measure.

Units: River miles

Universe: Total river miles in the National Hydrography Database

Baseline: Percent of river miles from rivers based on state/territory/tribal reported advisories to EPA Headquarters in 2006.

Measure Code: FS-1b

Measure Language: Percent of lake acres where fish tissue were assessed to support waterbody-specific or regional consumption advisories or a determination that no consumption advice is necessary. (Great Lakes measured separately; Alaska not included) (Report every two years)

Type of Measure: Indicator measure; cumulative measure

Measure Contact: Jeff Bigler, EPA Office of Science and Technology

bigler.jeff@epa.gov | (202) 566-0389

Measure Definition

Terms and phrases: *Consumption advisories* fish consumption advisories issued by state/territory/tribal or local government entities to the public to protect people from the risks of eating contaminated fish caught in local waters. A consumption advisory may recommend limiting the amount or avoiding eating certain fish from specific waters or from specific water types (like "all lakes").

Methodology for computation of results: This is a cumulative measure of the extent of lake areas that are under a fish consumption advisory, or if not, have been assessed by states/ territories/ tribes as not needing such an advisory.

As part of its biennial fish advisory program survey, the EPA Office of Science and Technology (Headquarters) uses its National Listing of Fish Advisories database to collect information on fish advisories from states/territories/tribes. For computational purposes, the national percentages are calculated using the total number of lake acres (40,826,000 acres excluding the Great Lakes) in the National Hydrography Database.

In developing targets, EPA Headquarters starts with the previous year's information on the percent of lake acres that are under a fish advisory issued by a state, territory, or tribe. To this number, EPA Headquarters adds 2% for lake based on the trends from previous years. EPA Headquarters does not

include the Great Lakes or their connecting waters in this report. (All of these waters are under fish consumption advisories.)

Reporting is now every other year, which means that the reporting in even-numbered years will be an estimate based on the previous year report adjusted for any significant change (such as a new state-wide advisory) of which we become aware.

This is an EPA Headquarters computed and reported measure.

Units: Lake acres

Universe: The total number of lake acres (excluding the Great Lakes) in the National Hydrography Database.

Baseline: The percent of lake acres in lakes based on state/territory/tribal reported advisories to EPA Headquarters in 2006.

FY 2016 NWPG Great Lakes Measure Definitions



Measure Code: GL-SP31

GLRI Action Plan II Measure 1.1.1

Measure Language: Areas of concern in the Great Lakes where all management actions necessary for delisting have been implemented (cumulative)

Type of Measure: Target Measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office (GLNPO)

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Area of Concern (AOC) de-listing indicates that all management and on the ground actions that need to be taken have been implemented at the AOC to restore all impaired beneficial uses, that monitoring verifies the environmental improvement, and that the respective state's request for de-listing has been approved.

Great Lakes AOCs are severely degraded geographic areas within the Basin. They are defined by the U.S.-Canada Great Lakes Water Quality Agreement (Annex 1 of the 2012 Protocol) as "a geographic area designated by the Parties where significant impairment of beneficial use impairments has occurred as a result of human activities at the local

level." Additional information is available at:
<http://www.epa.gov/glnpo/aoc/index.html>.

Management Actions Necessary for Delisting are the actions identified by stakeholders in the AOC and the states in a Remedial Action Plan (RAP) that outlines the reasonable and realistic management actions that could be taken to remove the relevant BUIs and, hence, delist the AOC. Reasonable and realistic management actions refer to the set of local, state and federal actions that are believed to be necessary to remove the impairment. These actions may not result in the removal of a set of BUIs immediately; however, these actions are expected to remove the contaminant threat that will allow environmental conditions to improve over time which will lead to eventual delisting of the AOC. Implementation of all management actions necessary for delisting is deemed to have occurred at the time those actions have commenced and the work is completed over the life of the project (e.g., a Legacy Act dredging project that takes place over a 6 month period would be considered a completed management action at the end of that 6 month period.).

Task Force Leads are GLNPO staff members who oversee AOC activities, including the tracking of BUIs and completion of management actions.

Methodology for computation of results:

Implementation of all management actions necessary for delisting of an AOC is counted following delivery of either: (i) applicable state documentation to the effect that all the requisite work for all of the management actions at the AOC have been completed or (ii) a memo to the GLNPO Director from the applicable AOC Task Force Lead, through the appropriate EPA manager, verifying the completion of all management actions previously identified by the applicable State as necessary for delisting.

Units: Areas of Concern (AOCs)

Universe: There were once a total of 43 Great Lakes AOCs: 26 located entirely within the United States; 12 located wholly within Canada; and 5 shared by both countries. The Universe is considered to be 31 United States or Binational AOCs.

Baseline: The baseline for GLRI Action Plan II is 7 AOCs where all management actions had been implemented as of October 1, 2014. The baseline for GLRI Action Plan I was 1, as of October 2009.

Measure Code: GL-05

GLRI Action Plan II Measure 1.1.2

Measure Language: Area of Concern Beneficial Use Impairments removed (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

- An *Beneficial Use Impairment (BUI)* is a change in the chemical, physical or biological integrity of the Waters of the Great Lakes sufficient to cause any of the following: Restrictions on fish and wildlife consumption, tainting of fish and wildlife flavor, degradation of fish wildlife populations, fish tumors or other deformities, bird or animal deformities or reproduction problems, degradation of benthos, restrictions on dredging activities, eutrophication or undesirable algae, restrictions on drinking water consumption, or taste and odor problems, beach closings, degradation of aesthetics, added costs to agriculture or industry, degradation of phytoplankton and zooplankton populations, or a loss of fish and wildlife habitat.
- *Great Lakes Areas of Concern (AOC)* are severely degraded geographic areas within the Basin. They are defined by the U.S.-Canada Great Lakes Water Quality Agreement (Annex 1 of the 2012 Protocol) as "a geographic area designated by the Parties where significant impairment of beneficial uses has occurred as a result of human activities at the local level." Additional information is available at: <http://www.epa.gov/glnpo/aoc/index.html>.

Methodology for computation of results:

This measure tracks the cumulative total Beneficial Use Impairments (BUIs) removed within the 26 Areas of Concern (AOC) located entirely within the United States and the 5 AOCs that are shared by both the United States and Canada.

A BUI is determined to be removed when:

- a state or other local stakeholder has established the delisting criteria;
- a state or other local stakeholder has developed the appropriate Remedial Action Plan (RAP);
- all management actions necessary for removal of the BUI (determined by the RAP) have commenced and the delisting targets have been met and monitoring data indicates that the delisting targets have been met and environmental conditions have improved such that the impairment no longer exists; and
- the GLNPO Director transmits a letter approving the BUI removal request..

After all BUIs in an AOC are de-listed, the entire AOC can be de-listed.

Units: Beneficial Use Impairments (BUIs)

Universe: A total of 255 beneficial use impairments was reported in the 21 U.S. or Bi-national Areas of Concern as of the end of FY 2006.

Baseline: A total of 52 beneficial use impairments had been removed as of October 1, 2014.

Measure Code: GL-07

GLRI Action Plan II Measure 2.1.1

Measure Language: Number of GLRI-funded Great Lakes rapid responses or exercises conducted (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Rapid responses means the response takes place in a timely manner before a species becomes widely established. The actual amount of time may vary significantly given the specific species and the ecology of the invasion site. Note: in contrast to chemical emergencies in which response occurs in a matter of days or hours, biological response actions may occur within days or months and, in rare cases, several years after detection. Biological response actions are typically complex and require the consideration of not just the removal of invasive species, but also the protection and/or minimization of damage to the native resources within the invasion site. As a result, natural resource managers spend a significant amount of time planning before mobilization and responding to new invasions. Species with slower growth rates, invasion sites with lower productivity, and/or the initial containment of invasion sites can provide for additional time for planning strategic and efficient response actions.

Exercises are training drills, ranging from "table top" discussions to simulated on-the-ground or on-the-water actions, in which agencies practice responses to a fictional scenario. Exercises provide a cost-effective method for testing response planning and/or field techniques in advance of an actual detection of an invasive species.

Invasive species means non-native species that are not intentionally introduced or managed within the Great Lakes Basin ecosystem.

Methodology for computation of results:

Federal agencies use information from GLRI-funded projects, theirs or their funding recipients', to calculate the number of rapid responses and exercises conducted by GLRI-funded projects. Federal agencies transmit the number of rapid responses and exercises conducted by GLRI-funded projects semi-annually through the Environmental Accomplishments in the Great Lakes information system. Each federal agency is responsible for storing all records and documentation used to support the results it transmits. EPA tabulates the total number of rapid responses and exercises conducted across the GLRI and reports the total annually as the number of rapid responses and exercises conducted per fiscal year.

Units: Number of GLRI-funded rapid responses and exercises.

Universe: NA-The universe represents all rapid response exercises that could be done by GLRI funded agencies. The universe is without limit.

Baseline: 0-This is an annual measure in Action Plan II. The similar Action Plan I Measure was cumulative. Targets were thus not comparable; consequently this measure starts with a baseline of "0".

Measure Code: GL-09

GLRI Action Plan II Measure 2.2.1

Measure Language: Number of aquatic/terrestrial acres controlled by GLRI-funded projects (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Acres includes the total geographic area addressed by a management action, recognizing that most invasive species infestations will vary in their percent coverage. Acreage can be determined through a variety of means, including but not limited to line transects, randomized plot sub-sampling, estimation based on photographic surveys, GPS mapping, and professional judgment.

Controlled means the acreage has received an initial treatment to reduce the populations of invasive species. While the typical goal of control projects is to reduce invasive species to levels as close to zero as possible, there is often a need for retreatment in order to support long-term restoration of the project site. The

retreatment of acres that have already received an initial treatment from GLRI funded activities are not counted.

Aquatic/terrestrial means all habitat types within the Great Lakes basin, whether they are covered in water or not.

Methodology for computation of results:

Federal agencies use information from GLRI-funded projects, theirs or their funding recipients, to calculate the number of aquatic/terrestrial acres controlled by GLRI-funded projects. Methods for calculating acreage include line transects, randomized plot sub-sampling, estimation based on photographic surveys, use of GPS mapping, manual calculations through direct observation, and other methods using professional judgment acceptable to the GLRI funding agency. Each federal agency is responsible for storing all records and documentation used to support the results it transmits. EPA tabulates the total number of aquatic/terrestrial acres controlled across the GLRI and reports the total annually as the cumulative number of aquatic/terrestrial acres controlled by GLRI-funded projects.

Units: Acres

Universe: NA-The universe represents all possible acres which could have invasive species removed in the Great Lakes. Data is not available to determine the total universe. Developing such data would be a significant resource commitment beyond the scope of GLRI

Baseline: GLRI Action Plan II identified a baseline of 36,000 acres as the total acreage from GLRI projects as of October 1, 2013. That total had increased to 84,500 as of October 1 2014.

Measure Code: GL-17

GLRI Action Plan II Measure 3.1.1

Measure Language: Projected phosphorus reductions from GLRI-funded projects in targeted watersheds (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Projected total phosphorus reductions from GLRI-funded projects in Great Lakes watersheds are predictions (predicted in average annual total phosphorus lbs. reduced each year) made for reductions at the edge of fields or land parcels and are aggregated over those land units to establish an annual average. This projection is also made for projects that are implemented in stream corridors and act to isolate total phosphorus sequestered from upstream so there is a reduced amount transported downstream via stream flow.

Edge of field/land parcel refers to a land unit where surface and subsurface land and hydrologic processes operate, excluding in-stream and limnological processes.

Stream corridors are land areas impacted by stream and river processes including stream banks and floodplains.

Total Phosphorus is the mass of both dissolved and particulate forms of phosphorus.

Targeted watersheds refers to watersheds in the Great Lakes basin.

Methodology for computation of results:

Federal agencies use an OMB-approved calculation to project average annual phosphorus reductions from the acreage on which best management practices will be implemented through GLRI funded projects. Projections may be made for projects by the GLRI agencies or their funding recipient; the principal agencies providing estimations are expected to be US Department of Agriculture – National Resources Conservation Service, EPA, and US Army Corps of Engineers. Projections are made one time during the reporting period in which the project implementation is sufficiently described and captured within the applicable contract, grant award, or legal agreement. Each federal agency is responsible for storing all records and documentation used to support the results it reports.

Federal agencies transmit the projected phosphorus reductions that are a result of GLRI-funded projects semiannually through the Environmental Accomplishments in the Great Lakes information system. EPA collects projections through its Environmental Accomplishments in the Great Lakes information system and reports the total.

Units: Average pounds projected to be reduced each year

Universe: N/A

Baseline: 0

Measure Code: GL-18

GLRI Action Plan II Measure 3.2.1.

Measure Language: Projected volume of untreated urban runoff captured or treated by GLRI-funded projects (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Untreated urban runoff refers to nonpoint source surface runoff resulting from urbanization that is not captured or treated in any way.

Captured or treated for the purpose of this measure refers to technologies used as a means of reducing volume of urban nonpoint source pollution runoff in an effort to remove pollutants that degrade water quality of tributaries and coasts.

Projected volume refers to the gallons (measured in millions per year) of untreated urban runoff captured or treated due to implementation of GLRI-funded projects in urban areas. These gallons are projected for the reporting period in which they can first be identified for the project.

Urban watersheds are urban and downstream areas, city neighborhoods, suburban municipalities, and unincorporated areas characterized by encroaching urban sprawl.

Methodology for computation of results:

Results for this measure are compiled from three federal agencies: the US Forest Service, EPA, and US Army Corps using the respective calculation methodologies below:

- U.S. Forest Service: The Restore Urban Community Forests program grant funds are used for tree planting. Volume of runoff calculations assume a conversion factor of 59 gallons of rainfall intercepted annually.
- U.S. EPA: The calculation methodology varies depending on the project type and the model type the grantee uses to project the benefits of measure implementation.
- U.S. Army Corps: The Long-Term Hydrologic Impact Assessment Low Impact Development model is used to estimate project benefits.

Projections are made one time during the reporting period in which the volume estimate can first be identified for the project: for U.S. Forest Service and for EPA that will generally be when grants are issued and for U.S. Army Corps that will generally be when the project moves from design to construction. Each federal agency is responsible for storing all records and documentation used to support the results it reports. EPA collects projections annually through its Environmental Accomplishments in the Great Lakes information system and reports the total.

Units: Gallons (measured in millions) projected to be reduced per year.

Universe: N/A

Baseline: 0

Measure Code: GL-19

GLRI Action Plan II Measure 4.1.1.

Measure Language: Number of miles of Great Lakes tributaries reopened by GLRI-funded projects (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Miles of Great Lakes tributaries refers to the number of miles of in-stream habitat including mileage for seasonal and intermittent streams.

Reopened describes tributaries that are available for target species to move into as a result of bypassing or removing a barrier.

Methodology for computation of results:

Federal agencies use information from GLRI-funded projects, theirs or their funding recipients, to calculate stream miles using methods acceptable to the GLRI funding agency, including: walking the stream; Geographic Information System; the USACE stream mile calculator; and manual calculations through direct observation. Progress is counted either as stream miles reopened for projects that sequentially open up miles, or when the project is complete (for example large scale dam removal). Each federal agency is responsible for storing all records and documentation used to support the results it reports. EPA collects projections through its Environmental Accomplishments in the Great Lakes information system, and reports the total.

Units: Measure in miles

Universe: 20,000 miles (In 2005, the Great Lakes Regional Collaboration determined the universe of total possible miles of river reopened for fish passage to be 20,000 miles)

Baseline: 3,475 miles as of October 1, 2014. (GLRI Action Plan II states a baseline value of 1,900 miles as of October 1, 2013. However, an additional 1,575 miles was reported re-opened in FY 2014, for a revised cumulative total from FY2010 to FY2014 of 3,475 miles of Great Lakes tributaries reopened by GLRI-funded projects)

Measure Code: GL-20

GLRI Action Plan II Measure 4.1.2.

Measure Language: Number of miles of Great Lakes shoreline and riparian corridors protected, restored and enhanced by GLRI-funded projects (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Shoreline refers to the aquatic and terrestrial coastal habitats of all of the great lakes.

Riparian corridors are the in-stream and bank habitats of Great Lakes tributaries and rivers.

Protected means that the stress to the ecosystems has been prevented.

Restored means that the ecosystem has recovered from degradation, damage or destruction.

Enhanced means that the value and effectiveness of habitats and species has increased.

Methodology for computation of results:

Federal agencies use information from GLRI-funded projects, theirs or their funding recipients, to calculate stream miles using methods acceptable to the GLRI funding agency, including: walking the stream, the USACE stream mile calculator; and manual calculations through direct observation. Progress is counted towards this measure when the work to protect, restore, or enhance a mile of shoreline and riparian corridor is complete. Each federal agency is responsible for storing all records and documentation used to support the results it reports. EPA collects projections through its Environmental Accomplishments in the Great Lakes information system and reports the total.

Units: Measures in miles

Universe: N/A – There are 10,000 miles of Great Lakes coastline and thousands of miles of tributaries. No comprehensive estimate of restorable shoreline or riparian corridors is available.

Baseline: 0 miles of shoreline and riparian corridors. (Data is not readily available to determine the history of miles of shoreline and riparian corridors protected, restored

and enhanced by past programs prior to October 1, 2014 at the initiation of this effort. Data is not readily available to determine the history of miles of shoreline and riparian corridors protected, restored and enhanced by past programs.)

Measure Code: GL-21

GLRI Action Plan II Measure 4.1.3.

Measure Language: Acres of Great Lakes coastal wetlands protected, restored and enhanced by GLRI-funded projects (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Great Lakes Coastal Wetlands are the historical or existing 375,000 acres of US wetlands with a current, previous, or potential hydrologic connection to a Great Lake or connecting channel via surface or subsurface water such that water levels of the wetland are influenced by Great Lakes water levels. These can be wetlands on a Great Lake, connecting channel, river (if the river is influenced by the Great Lakes), or an isolated wetland (with a subsurface connection to the Great Lakes). Note that funding and results under GLRI only pertain to Great Lakes Coastal Wetlands in the US.

Methodology for computation of results:

Federal agencies use information from GLRI-funded projects, theirs or their funding recipients, to calculate acres of Great Lakes coastal wetlands using methods acceptable to the GLRI funding agency, including: Geographic Information System (GIS), Google Earth-type mapping tools, photographic survey estimates, and GPS mapping. Progress is counted on this measure when work to protect, restore, or enhance the acre of Great Lakes coastal wetland has been completed.

Each federal agency is responsible for storing all records and documentation used to support the results it reports. The GLRI designated RWG agency reports the number of acres of coastal wetlands protected, restored, or enhanced in the current reporting period and cumulatively through the reporting period. EPA collects data in the Great Lakes information system, and reports the total.

Units: Measures in acres.

Universe: 375,000 acres (US) plus additional acreage (unknown) having a previous hydrologic connection to a Great Lake or a connecting channel via surface or subsurface water such that water levels of the wetland are influenced by Great Lakes Wetland Consortium via an updated GIS analysis. Prior to this updated analysis, the Universe value stated in GLRI Action Plan II was 260,000 acres. (In 2005, the Great Lakes Regional Collaboration estimated that the total acres of wetlands and wetland associated uplands that potentially could be protected, restored, or enhanced is 550,000 acres in both the US and Canada.)

Baseline: 0 acres (For the purposes of the GLRI, the baseline of “0 acres of wetlands” defines the status of efforts in September 2014 prior to initiation of this effort. Data is not readily available to determine the history of acres of wetlands restored, protected or enhanced by past projects.)

Measure Code: GL-22

GLRI Action Plan II Measure 4.1.4.

Measure Language: Number of acres of other habitats in the Great Lakes basin protected, restored and enhanced by GLRI-funded projects (cumulative)

Type of Measure: Target measure; annually reported.

Measure Contact: Michael Russ, EPA Great Lakes National Program Office

russ.michael@epa.gov | (312) 886-4013

Measure Definition

Terms and phrases:

Great Lakes Coastal Wetlands in regards to GL-22, Great Lakes Coastal Wetlands refers to the 375,000 acres of wetland with a hydrologic connection to a Great Lake via surface or subsurface water such that water levels of the wetland are influenced by Great Lakes water levels. These can be wetlands on a Great Lake, connecting channel, river (if the river is influenced by the Great Lakes), or an isolated wetland (with a subsurface connection to the Great Lakes).

Other habitats (excluding coastal wetlands as defined above), means all habitats within the Great Lakes basin within the following systems: open water; nearshore waters and connecting channels; coastal shore; rivers and tributaries; inland lakes and wetlands; uplands. This measure is a combination of two measures from Action Plan 1: acres of wetlands and wetland-associated uplands and coastal, upland and island habitats protected, restored and enhanced.

Other Habitats refers to open water, nearshore waters and connecting channels, coastal shore, rivers and tributaries, inland lakes and wetlands, uplands that have been protected, restored or enhanced.

Methodology for computation of results:

Federal agencies use information from GLRI-funded projects, theirs or their funding recipients, to calculate the number of acres of other habitats in the Great Lakes basin protected, restored and enhanced by GLRI-funded projects using methods acceptable to the GLRI funding agency, including; Geographic Information System (GIS), Google Earth-type mapping tools, photographic survey estimation, GPS mapping, and manual calculations through direct observation. Progress is counted as Acres of “other habitats” within the Great Lakes basin, when work to restore, protect, or enhance the acreage has been completed. The same acreage could be counted multiple times (at the completion of individual projects) because individual projects generally protect, restore or enhance only a single problem or a small portion of a geographic area and many projects may be needed to fully protect, restore or enhance a habitat. Each federal agency is responsible for storing all records and documentation used to support the results it reports. EPA collects projections through its Environmental Accomplishments in the Great Lakes information system, and reports the total number of Great Lakes “other habitat” acreage protected, restored, or enhanced.

Units: Measures in acres.

Universe: 1,290,000 acres (In 2005, the Great Lakes Regional Collaboration made a projection that the total acres of other habitats that potentially could be protected, restored, or enhanced; however, no comprehensive projection of restorable “other habitats” is available.)

Baseline: 117,000 acres as of October 1, 2013. (For the purposes of the GLRI, the baseline of “117,000 acres” defines the status of efforts in September 2013 prior to the initiation of this effort.

FY 2015 NWPB Measure Definitions Gulf of Mexico

Measure Code: GM-SP39

Measure Language: Restore, enhance, or protect a cumulative number of acres of important coastal and marine habitats.

Type of Measure: Target measure; cumulative measure

Measure Contact: Lael Butler, EPA Gulf of Mexico Program Office

butler.lael@epa.gov | (228) 688-1576

Measure Definition

Terms and phrases: *Coastal habitat* includes marshes, wetlands, tidal flats, oyster beds, seagrasses, mangroves, dunes and maritime forest ridge areas.

Methodology for computation of results: The Gulf of Mexico Program achieves this target by cooperatively funding restoration projects with federal and state partners. QA/QC procedures include but are not limited to aerial photography, groundtruthing, transect growth monitoring, and digital topographic data. Site visits are conducted to provide verification of acreage restored. Data are subject to a second verification following the completion of the project.

Units: Acres of coastal and marine habitats.

Universe: The total number of acres of coastal and marine habitats in the Gulf of Mexico.

Baseline: acres of coastal and marine habitats (FY 2007) restored, enhanced, or protected at a point in time (FY 2007).

Measure Code: GM-SP40.N11

Measure Language: Reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxia zone in the Gulf of Mexico, as measured by the 5-year running average of the size of the zone.

Type of Measure: Long-term measure (no annual targets) with annual reporting

Measure Contact: Lael Butler, EPA Gulf of Mexico Program Office



butler.lael@epa.gov | (228) 688-1576

Measure Definition

Terms and phrases: The *hypoxia zone* in the Gulf of Mexico is an area where seasonal oxygen levels drop too low to support most life in bottom and near-bottom waters. This hypoxic area is primarily caused by high nutrient levels which stimulate an overgrowth of algae that sinks and decomposes. The decomposition process in turn depletes dissolved oxygen in the water. The hypoxic zone is of particular concern because it threatens valuable commercial and recreational Gulf fisheries.

Methodology for computation of results: Essential components of the environmental monitoring program in the Gulf of Mexico include efforts to document the temporal and spatial extent of shelf hypoxia, and to collect basic hydrographic, chemical, and biological data related to the development of hypoxia over seasonal cycles.

Units: Square kilometers

Universe: Not applicable. Due to the fluctuating size of the hypoxia zone which is the second largest in the world. Population of the Gulf coastal areas predicted to increase by 10% in 2015.

Baseline: the size of the hypoxia zone, 14,128 km², in FY 2005.

Measure Code: GM-01

Measure Language: Improve and/or restore water and habitat quality to meet water quality standards in watersheds throughout the five Gulf States and the Mississippi River Basin.

Type of Measure: Annual

Measure Contact: Lael Butler, EPA Gulf of Mexico Program Office

butler.lael@epa.gov | (228) 688-1576

Measure Definition:

- Terms and phrases: water quality, habitat quality, watersheds, Gulf States, Mississippi River Basin
- Methodology for computation of results: A watershed is counted as having an improvement when there is a five percent or more positive change in at least one water quality parameter. A 12-digit HUC watershed will be used to calculate the targets for reporting. Water quality parameters appropriate to the 12-digit HUC watershed scale include, but are not limited to: dissolved oxygen, temperature, pH, turbidity, total suspended solids, salinity, chlorophyll, flow, oil/grease, floatables, nutrients and invasive species.

Units: Number of HUC 12 Watersheds

Universe: Any 12-digit HUC located within the five Gulf States and the entire MS River Basin (44,148)

Baseline: n/a

Measure Code: GM-02

Measure Language: Promote and support environmental education and outreach to the inhabitants of the Gulf of Mexico watershed.

Type of Measure: Annual

Measure Contact: Lael Butler, EPA Gulf of Mexico Program Office

butler.lael@epa.gov | (228) 688-1576

Measure Definition:

- Terms and phrases: environmental education, environmental outreach, Gulf of Mexico, watershed
- Methodology for computation of results: Any person reached via print media, radio, kiosks, webpages, classroom training, experiential in-the-field events, social media; and conferences, workshops or forums.

Units: number of individuals reached

Universe: Individuals who interact (live, work or visits) within the Gulf of Mexico watershed.

Baseline: n/a

Measure Code: GM-03

Measure Language: Support the assessment, development and implementation of programs, projects and tools which strengthen community resilience.

Type of Measure: Annual

Measure Definition:

- Terms and phrases: community, resilience, resilient programs/projects/tools
- Methodology for computation of results: A community is counted when they implement smart growth practices, develop and apply a resilience index; or implement a resilience practice.

Units: Number of communities

Universe: Any community spanning from coastal to inland areas which implement proven resilience measures or tools.

Baseline: n/a

FY 2016 NWPG Measure Definitions Long Island Sound



Measure Code: LI-SP41

Measure Language: Percent of goal achieved in reducing trade-equalized (TE) point source nitrogen discharges to Long Island Sound from the Long Island Sound 2000 nitrogen TMDL baseline of 59,146 TE lbs/day.

Type of Measure: Target measure; annually reported

Measure Contact: Joe Salata, EPA Long Island Sound Office

salata.joseph@epa.gov | (203) 977-1541

Measure Definition This measure is the annual aggregate reduction from the TMDL-defined baseline point source nitrogen discharge from 106 sewage treatment plants (STPs) in Connecticut and New York discharging to Long Island Sound waters.


Terms and phrases: *Long Island Sound Nitrogen Total Maximum Daily Load (TMDL)* is the TMDL submitted to the EPA in 2000 by Connecticut and New York to attain dissolved oxygen standards in Long Island Sound, an impaired water body consisting of New York and Connecticut waters. The States of Connecticut and New York proposed Long Island Sound as impaired waters for dissolved oxygen under Clean Water Act (CWA) 303(d).

Methodology for computation of results: TMDL baseline is 211,724 lbs/day converted to 59,146 Trade-equalized pounds per day. Annualized aggregate reduction = TMDL baseline minus 2014 target (84,474 lbs/day or 22,774 TE/lbs-day) divided by 15 year TMDL time period = 8,487 lbs/day or 2,425 TE/lbs-day.

States report sewage treatment plants' (STPs) nitrogen discharges through the EPA's Discharge Monitoring Report process. This measure is calculated based on total annual average loads from 106 STPs discharging to Long Island Sound from Connecticut and New York during the calendar year January-December. There is a 60 day lag time in reporting data due to the process established for state Discharge Monitoring Reports. Mid-year reporting is not predictive of nitrogen removal because of seasonal variability to nitrogen removal rates by STP processes.

Units: Average Trade-equalized (TE) pounds per day of nitrogen discharged by STPs over the calendar year.

Universe: There is no universe of point source nitrogen loads. Population increases in the watershed would increase the nitrogen load. However, if considered in the context of the TMDL-defined allocation, the universe of nitrogen reduction would be the difference between the baseline load (211,724 lbs/day or 59,146 TE/lbs-day) and the TMDL 2014 limit (84,474 lbs/day or 22,774 TE/lbs-day), = 127,250 lbs/day or 36,372 TE/lbs-day.

Baseline: Long Island Sound 2000 nitrogen TMDL. Baseline is 211,724 pounds per day of nitrogen or 59,146 TE/lbs-day as calculated in the TMDL. Please see the Long Island Sound Study [Website](#) for more information. 

Measure Code: LI-SP42.N11

Measure Language: Reduce the size (square miles) of observed hypoxia (Dissolved Oxygen <3mg/l) in Long Island Sound.

Type of Measure: Long-term measure (no annual target); annually reported

Measure Contact: Joe Salata, EPA Long Island Sound Office

salata.joseph@epa.gov | (203) 977-1541

Measure Definition: This measure refers to the area in square miles of the maximum area of hypoxia, or lack of dissolved oxygen, in Long Island Sound as measured from water samples taken at given intervals at established monitoring stations in Long Island Sound. The measure refers to bottom water hypoxia measured at <1 meter from the bottom. Hypoxic conditions generally set up sometime in the western Sound basin in late June to early July and may extend to early to late September.

Terms and phrases:

Hypoxia is defined as dissolved oxygen (DO) concentrations less than three milligrams of dissolved oxygen per liter of water.

Dissolved oxygen (DO) refers to the amount of oxygen that is present in the water. It is measured in units of milligrams per liter (mg/L), or the milligrams of oxygen dissolved in a liter of water.

Methodology for computation of results: Dissolved oxygen is calculated for each water sample taken from fixed stations sampled from June to October. The area of hypoxia is estimated based on an interpolation of the maximum area from stations where DO concentrations are less than 3.0 milligrams per liter.

Units: square miles

Universe: The total surface area of Long Island Sound is approximately 1,268 square miles. The potential for the maximum area of hypoxia would be 1,268 square miles.

Baseline: The baseline is defined as the pre-TMDL average conditions based on 1987-1999 data and is 208 square miles

Measure Code: LI-SP43

Measure Language: Restore, protect or enhance acres of coastal habitat from the 2010 baseline of 2,975 acres.

Type of Measure: Target measure; annually reported

Measure Contact: Joe Salata, EPA Long Island Sound Office

salata.joseph@epa.gov | (203) 977-1541

Measure Definition: This measure is the number of acres reported as restored or protected.

Terms and phrases:

Restoration is the intentional alteration of a site to attempt to reestablish the approximate biogeophysical conditions that existed in the pre-disturbance ecosystem or habitat. (Long Island Sound Study Habitat Restoration Technical Manual, Introduction, ii. November 2003).

Protection is the removal of a threat to, or preventing the decline of conditions. Includes mechanisms such as land acquisition, conservation easements, deed restrictions, etc. or other designation to prevent alteration of the site. This term also includes activities commonly associated with the term preservation. Protection/maintenance does not result in a gain of acres or habitat function. (EPA National Estuary Program On-line Reporting Tool User Manual for NEP Staff, August 19, 2011, Appendix D, p. 55).

Methodology for computation of results: States report categorical acres of habitat based on physical projects reported as completed by the implementing or funded partners as of September 1, annually.

Units: acres

Universe: The universe of acres that could be restored or protected is currently not known. Additional research would be needed to identify all areas currently degraded that could be feasibly restored.

Baseline: 2,975 acres restored and protected (FY 2010)

Measure Code: LI-SP44

Measure Language: Reopen miles of river and stream corridors to diadromous fish passage from the 2010 baseline of 177 river miles by removal of dams and barriers or by installation of bypass structures.

Type of Measure: Target measure; annually reported

Measure Contact: Joe Salata, EPA Long Island Sound Office

salata.joseph@epa.gov | (203) 977-1541

Measure Definition: This measure indicates the linear miles of river or stream corridor that is reopened to diadromous fish passage by physical means. The measure includes river/stream reaches above the impairment that is removed or mitigated and the actionable river/stream is a historical diadromous fish habitat.

Terms and phrases: *Diadromous fish* travel between salt and fresh water to spawn.

Methodology for computation of results: This measure is calculated and reported by the states of New York and Connecticut into the EPA's NEPORT reporting system upon physical completion of the project as of September 1 annually. River/stream reach reopened is measured from the physical impairment that is mitigated to the established breeding ground of the species in question.

Units: Linear mile

Universe: There is currently no accepted figure for the universe of historical diadromous fish river/stream reaches. Preliminary estimates are that the historical universe of rivers or stream reaches that may have had diadromous fish runs may have been approximately 562 miles at some past point in time. The universe of potentially restorable river miles is not known.

Baseline: 177 miles (FY 2010). The baseline is the number of river miles reopened to diadromous fish passage by LISS partners from 1998-2010.

FY 2016 NWPG Measure Definitions Pacific Islands



Measure Code: PI-SP26

Measure Language: Percent of population in the U.S. Pacific Island Territories served by community water systems that has access to continuous drinking water meeting all applicable health-based drinking water standards, measured on a four quarter rolling average.

Type of Measure: Target measure; annually reported

Measure Contact: John McCarroll, EPA Region 9, Pacific Islands Office

mccarroll.john@epa.gov | (415) 972-3774 Measure Definition Terms and phrases:

- *U.S. Pacific territories* consist of Guam, Commonwealth of the Northern Mariana Islands, and American Samoa.
- A *community water system* is a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

Methodology for computation of results: Quarterly Safe Drinking Water Information System (SDWIS) data from the three territories is reviewed. The population served by water with any health-based violations is subtracted from the total population in each territory. The result is a one year rolling average and reported as a percentage.

Units: Population, expressed as a percentage.

Universe: Total population served by community water systems, of the U.S. Pacific territories (Guam, Commonwealth of the Northern Mariana Islands, and American Samoa)

Baseline: The population in American Samoa, Commonwealth of the Northern Mariana Islands, and Guam served by community water systems receiving drinking water that meets all applicable health-based drinking water standards throughout the year at a point in time (FY 2005).

FY 2016 NWPG Measure Definitions Puget Sound



Measure Code: PS-SP49.N11

Measure Language: Improve water quality and enable the lifting of harvest restrictions in acres of shellfish bed growing areas impacted by degraded or declining water quality. (cumulative from FY 2006)

Type of Measure: Target measure; cumulative measure

Measure Contact: Michael Rylko, EPA Region 10, Office of Water and Watersheds

rylko.michael@epa.gov | (206) 553-4014

Measure Definition

Terms and phrases: Harvest restrictions are defined through a Growing Area Classification Program described at: <http://www.doh.wa.gov/ehp/sf/grow.htm>

Methodology for computation of results: Acres are based on monitoring and status determinations made by the Washington Department of Health. Results may include acres affected by National Estuary Program or Section 319 Nonpoint Source grants.

Units: Acres

Universe: Total acres of commercial shellfish bed growing areas had harvest restrictions due to water quality impairments in Puget Sound.

Baseline: Acres of approved commercial shellfish bed growing areas at a point in time (FY 2007)



Measure Code: PS-SP 51

Measure Language: Protect and restore acres of tidally- and seasonally-influenced estuarine wetlands. (cumulative starting in FY 2006)

Type of Measure: Target Measure; cumulative measure

Measure Contact: Michael Rylko, EPA Region 10, Office of Water and Watersheds

rylko.michael@epa.gov | (206) 553-4014

Measure Definition

Terms and phrases:

- *Protect* refers to preserving areas through acquisition, conservation easements, deed restrictions, etc.
- *Restore* refers to the return of habitat to a close approximation of its prior condition.

Methodology for computation of results: Acres are based on monitoring and status determinations made by the Puget Sound Partnership. EPA conducts a Quality Assurance/Quality Control (QA/QC) of the data to ensure its accuracy before entering it into the National Estuary On-line Reporting Tool (NEPORT) database. Results may include acres affected by National Estuary Program or Wetlands Program grants. Some of the acres reported under this measure are a subset of those reportable

under Strategic Plan Sub-objective 4.3.2., which encompasses all 28 estuaries in the National Estuary Program.

Units: Acres

Universe: Total acres of intertidal and near shore habitat were identified by state, tribal, and local groups as potential restoration sites in the 2006 Puget Sound Near Shore Restoration Site Inventory Database.

Baseline: Acres of tidally- and seasonally-influenced estuarine wetlands protected and restored at a point in time (FY 2007)

FY 2016 NWPG Measure Definitions Safe for Swimming



Measure Code: SS-SP9.N11

Measure Language: Percent of days of the beach season that coastal and Great Lakes beaches monitored by state beach safety programs are open and safe for swimming

Type of Measure: Target measure; annually reported

Measure Contact: Denise Hawkins, EPA Office of Science and Technology

hawkins.denise@epa.gov | (202) 566-1384

Measure Definition

Terms and phrases: *Beach season days* are calculated to get a better sense of the extent of beach notification action information. To calculate total available beach days we sum the length of each state's and territory's beach season multiplied by the number of beaches in the state or territory.

Methodology for computation of results: The data are an enumeration of the days of beach-specific advisories or closures issued by the reporting state or local governments during the year. Performance against the target is tracked using a simple count of the number of beaches responding to the survey and the days over which the advisory or closure actions were taken. This is compared to the total number of days that every beach could be open.

Units: Beach season days

Universe: The total number of beach season days that are available.

Baseline: The available beach season days were open and not under advisory in CY 2005, reported in FY 2006

Measure Code: SS-1

Measure Language: Number and national percent, using a constant denominator, of Combined Sewer Overflow (CSO) permits with a schedule incorporated into an appropriate enforceable mechanism, including a permit or enforcement order, with specific dates and milestones, including a completion date consistent with Agency guidance, which requires: 1) Implementation of a Long-Term Control Plan (LTCP) which will result in compliance with the technology and water quality-based requirements of the Clean Water Act; or 2) implementation of any other acceptable CSO control measures consistent with the 1994 CSO Control Policy; or 3) completion of separation after the baseline date. (cumulative)

Type of Measure: Target measure; cumulative measure reported annually

Measure Contact: Jackie Clark, EPA Office of Wastewater Management

clark.jackie@epa.gov | (202) 564-6582

Measure Definition

Terms and phrases:

- A combined sewer system (CSS) is a wastewater collection system, owned by a state or municipality (as defined by section 502 (4) of the Clean Water Act) which convey a sanitary wastewaters (domestic, commercial and industrial wastewaters) and storm water through a single-pipe system to a Publicly Owned Treatment Works (POTW) Treatment Plant (as defined in 40 CFR 403.3(p)).
- During precipitation events (e.g. rainfall or snowmelt), the systems are designed to overflow when collection system capacity is exceeded, resulting in a combined sewer overflow (CSO) that discharges directly to surface waters. A CSO is the discharge from a CSS at a point prior to the POTW Treatment Plant
- CSOs are point sources subject to NPDES permit requirements including both technology-based and water quality-based requirements of the CWA. CSOs are not subject to secondary treatment requirements applicable to POTWs
- Enforceable Mechanism is a formal enforcement order with schedules to bring the Combined Sewer Overflow (CSO) permittee into full compliance with the 1994 CSO Control Policy; or a formal enforcement order that includes schedules for development and implementation of an acceptable Long-Term Control Plan (LTCP) or any other CSO control measures consistent with the 1994 CSO Control Policy; or a permit with schedules in place to develop and implement a LTCP or any other CSO control measure consistent with the 1994 CSO Control Policy.

Methodology for computation of results: The results are calculated by taking the total number of CSO permits with a schedule incorporated into an appropriate enforceable mechanism at the close of the reporting period, over the total universe of systems with CSOs.

Units: CSO Permits

Universe: The total number of permits covering systems with CSOs. This includes all of those that have been corrected, those are being corrected, or need correction through permits, enforceable orders and other activities designed to meet Clean Water Act requirements as described by the CSO Policy. The universe should include all known CSO permits as far back as 1992. If more CSOs are identified following the close of the commitment process, they should be added next fiscal year.

Baseline: The 2008 baseline represents the number of CSO permits with a schedule incorporated into an enforceable mechanism at that time.

Measure Code: SS-2

Measure Language: Percent of all Tier I (significant) public beaches that are monitored and managed under the BEACH Act program.

Type of Measure: Target measure; annually reported

Measure Contact: Denise Hawkins, EPA Office of Science and Technology

hawkins.denise@epa.gov | (202) 566-1384

Measure Definition

Terms and phrases: *Significant public beaches* are defined as the beaches that coastal and Great Lakes states and territories identify as Tier 1. These are the beaches that have the highest risk. States and territories must identify their Tier 1 beaches as part of their BEACH Act grant application.

Methodology for computation of results: The percent of Tier 1 beaches monitored by states and territories is identified in their grant applications. EPA Regions should use this information to report to EPA Headquarters the percent of Tier 1 beaches monitored. To compute the target, EPA Regions should start with 100% for every state and territory that has received a BEACH Act implementation grant. If a state or territory does not monitor a Tier 1 beach, the Region should determine if there is a good reason for not monitoring this beach, such as that BEACH Act funds are insufficient to monitor that beach and other Tier 1 beaches.

Units: Tier I beaches

Universe: The total number of Tier I beaches. The universe changes annually because states reidentify their Tier 1 beaches each year as part of the BEACH Act grant application.

Baseline: The total number of Tier 1 beaches in FY 2005.



FY 2016 NWPG Measure Definitions South Florida

Measure Code: SFL-SP45



Measure Language: Achieve "no net loss" of stony coral cover (mean percent stony coral cover) in the Florida Keys National Marine Sanctuary (FKNMS) and in the coastal waters of Dade, Broward, and Palm Beach Counties, Florida, working with all stakeholders (federal, state, regional, tribal, and local).

Type of Measure: Indicator measure; cumulative measure

Measure Contacts: Steve Blackburn, EPA Region 4
blackburn.steven@epa.gov | (404) 562-9397;

Jennifer Derby, EPA Region 4
derby.jennifer@epa.gov | (404) 562-9401

Measure Definition

Terms and Phrases: *Stony corals* (scleractinians) make up the largest order of corals and are the group primarily responsible for laying the foundations of, and building up, reef structures.

Methodology for Computation of Results: The Florida Keys Coral Reef Evaluation and Monitoring Project (CREMP) was initiated in 1995 to provide data on status and trends of coral habitat in the FKNMS. The major criteria for monitoring the coral reefs included determining the sanctuary-wide spatial coverage of the coral communities, repeatedly surveying them, and statistically documenting the status and trends of the coral communities.

Percent cover of live coral is determined annually from high resolution digital photographs taken at each monitoring site. Abutting frames with minimal overlap are extracted from a mosaic and analyzed using a custom software application called Point Count for coral reefs.

The current fiscal year's results will reflect the previous fiscal year's data.

Units: Stony coral cover, expressed as a percentage

Universe: A total of 40 sites are monitored annually to determine percent stony coral cover throughout the FKNMS. The Southeast Coral Reef Evaluation and Monitoring Project was established in 2003 with a total of ten sites to provide data on status and trends of coral habitat in southeast Florida (coastal waters of Dade, Broward, and Palm Beach Counties).

Baseline: The stony coral cover in FKNMS and in SE Florida at a point in time (FY 2005)

Measure Code: SFL-SP46

Measure Language: Annually, maintain the overall health and functionality of seagrass beds in the Florida Keys National Marine Sanctuary (FKNMS) as measured by the long-term seagrass monitoring project that addresses composition and abundance, productivity, and nutrient availability.

Type of Measure: Indicator measure; cumulative measure

Measure Contacts: Steven Blackburn, EPA Region 4

blackburn.steven@epa.gov | (404) 562-9397

Jennifer Derby, EPA Region 4

derby.jennifer@epa.gov | (404) 562-9401

Measure Definition

Terms and Phrases: *Thalassia* is the dominant species of seagrass within the Florida Key National Marine Sanctuary (FKNMS).

Methodology for Computation of Results: The Seagrass Monitoring Project (SMP) for the FKNMS was initiated in 1995 and uses the rapid visual assessment technique known as the Braun-Blanquet method to measure benthic plant community structure. This method is quick, yet robust and highly repeatable, thereby minimizing among-observer differences. A summary metric or species composition indicator (SCI) that assesses the relative importance of slow-growing plants to community composition is computed for the 30 permanent seagrass monitoring sites throughout the FKNMS. The 30 sites are sampled semi-annually. The seagrass indicator is based on species composition of seagrass beds. During the first 10 years of monitoring, the SCI had an average of .48. Any decrease in this SCI is interpreted as a decrease in water quality in the FKNMS. The SMP also assesses seagrass nutrient availability using tissue concentration assays. Elemental content (nitrogen/N and phosphorus/P) of seagrass leaves is determined by cleaning the leaves of all epiphytes, drying the leaves at low temperature, and grinding to a fine powder. Elemental content is then measured using established methods. A summary elemental content indicator measure or elemental indicator (EI), which is the mean absolute deviation of N:P ratio of seagrass tissue from 30:1 is computed for the 30 permanent monitoring sites. The long-term average mean absolute difference in the N:P of *Thalassia* leaves at the 30 monitoring sites 8.3. A decrease in EI from the long-term average will indicate a decrease in water quality.

Success for this measure is achieved if both the species composition indicator and elemental indicator are maintained.

The current fiscal year's results will reflect the previous fiscal year's data.

Units: Both SCI and EI are unit-less measures.

Universe: 30 permanent seagrass monitoring sites throughout the FKNMS.

Baseline The elemental indicator (EI) and species composition indicator (SCI) at a point in time (FY 2005)

Measure Code: SFL-SP47a

Measure Language: At least seventy five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain Chlorophyll a(CHLA) levels at less than or equal to 0.35 ug l⁻¹ and light clarity(Kd)) levels at less than or equal to 0.20 m⁻¹.

Type of Measure: Target measure; annually reported

Measure Contacts: Steven Blackburn, EPA Region 4

blackburn.steven@epa.gov | (404) 562-9397

Jennifer Derby, EPA Region 4

derby.jennifer@epa.gov | (404) 562-9401

Measure Definition

Terms and Phrases:

- *Chlorophyll a* (CHLA) estimates the amount of algae in the water.
- *Light clarity* (Kd) measures the water clarity.

Methodology for Computation of Results: The Water Quality Monitoring Project (WQMP) was initiated in 1995 and samples and data are collected quarterly from 112 stations throughout the FKNMS. The WQMP uses a stratified random design based upon EPA's Environmental Monitoring and Assessment Program (EMAP) and stations are randomly located along near shore to offshore transects. By stratifying the sampling stations according to depth, distance from shore, proximity to tidal passes, and influence of water masses outside the Florida Keys, the project has been able to report on the relative importance of external versus internal factors affecting the ambient water quality within the FKNMS. Numerous (about 18) physical and chemical water quality parameters are tracked by the WQMP. However, for purposes of strategic measures, only four critical water quality metrics are considered. For reef stations, chlorophyll less than or equal to 0.2 micrograms/liter (ug/l) and vertical attenuation coefficient for downward irradiance (Kd, i.e., light attenuation) less than or equal to 0.13 per meter; for all stations in the FKNMS, dissolved inorganic nitrogen less than or equal to 0.75 micromolar and total phosphorus less than or equal to 0.2 micromolar; water quality within these limits is considered essential to promote coral growth and overall health. The "number of samples" exceeding these targets is tracked and reported annually.

The current fiscal year's results will reflect the previous fiscal year's data.

Units: Monitored stations

Universe: The total number of stations throughout the FKNMS.

Baseline: The amount of algae (CHL A measured in ug/L) and water clarity (Kd in m⁻¹) at a point in time (FY 1995–2005).

Measure Code: SFL-SP47b

Measure Language: At least seventy five percent of the monitored stations in the near shore and coastal waters of the Florida Keys National Marine Sanctuary will maintain dissolved inorganic nitrogen (DIN) levels at less than or equal to 0.75 uM and total phosphorus (TP) levels at less than or equal to .25 uM.

Type of Measure: Target measure; annually reported

Measure Contacts: Steven Blackburn, EPA Region 4

blackburn.steven@epa.gov | (404) 562–9397

Jennifer Derby, EPA Region 4

derby.jennifer@epa.gov | (404) 562–9401

Measure Definition

Methodology for Computation of Results: The Water Quality Monitoring Project (WQMP) was initiated in 1995 and samples and data are collected quarterly from 112 stations throughout the FKNMS. The WQMP uses a stratified random design based upon EPA's Environmental Monitoring and Assessment Program (EMAP) and stations are randomly located along near shore to offshore transects. By stratifying the sampling stations according to depth, distance from shore, proximity to tidal passes, and influence of water masses outside the Florida Keys, the project has been able to report on the relative importance of external versus internal factors affecting the ambient water quality within the FKNMS. Numerous (about 18) physical and chemical water quality parameters are tracked by the WQMP. However, for purposes of strategic measures, only four critical water quality metrics are considered. For reef stations, chlorophyll less than or equal to 0.2 micrograms/liter (ug/l) and vertical attenuation coefficient for downward irradiance (Kd, i.e., light attenuation) less than or equal to 0.13 per meter; for all stations in the FKNMS, dissolved inorganic nitrogen less than or equal to 0.75 micromolar and total phosphorus less than or equal to 0.2 micromolar; water quality within these limits is considered essential to promote coral growth and overall health. The "number of samples" exceeding these targets is tracked and reported annually.

The current fiscal year's results will reflect the previous fiscal year's data.

Units: Monitored stations

Universe: The total number of stations throughout the FKNMS.

Baseline: The dissolved inorganic nitrogen (DIN measured in uM) and total phosphorus (TP measured in uM) at a point in time (FY 1995–2005).

Measure Code: SFL-1

Measure Language: Increase percentage of sewage treatment facilities and onsite sewage treatment and disposal systems receiving advanced wastewater treatment or best available technology as recorded by EDUs in Florida Keys two percent (1500 EDUs) annually.

Type of Measure: Indicator measure; annually reported

Measure Contacts: Steven Blackburn, EPA Region 4

blackburn.steven@epa.gov | (404) 562-9397

Measure Definition The septic tanks and cesspits traditionally utilized for wastewater disposal in the nutrient sensitive waters of the Florida Keys provide little to no treatment due to the Keys unique environment of poor or little soil, highly porous limestone and elevated groundwater tables. The nutrients from the poorly treated sewage is contributing to water quality and aquatic life degradation and presents a human health risk from bacteria and viruses. Florida enacted legislation in 1999 requiring all sewage treatment facilities and onsite sewage treatment and disposal systems in the Florida Keys achieve advance wastewater treatment standards or best available technology as determined by Florida Department of Environmental Protection.

Terms and Phrases: *EDU* is equivalent to wastewater effluent from one home -- 167 gallons per day per home

Units: sewage treatment facilities and onsite treatment and disposal systems, expressed as a percentage

Universe: The total number of sewage treatment facilities and onsite treatment and disposal systems.

Baseline: The number of sewage treatment facilities and onsite treatment and disposal systems at a point in time (FY 2009).

Measure Code: SFL-2

Measure Language: The number of Everglades Stormwater Treatment Areas (STAs) with the annual total phosphorus (TP) outflow less than or the same as the five-year annual average TP outflow, working towards the long-term goal of meeting the 10 parts per billion annual geometric mean.

Type of Measure: Target measure; annually reported

Measure Contacts: Dan Scheidt, EPA Region 4

scheidt.dan@epa.gov | (706) 355-8724

Steven Blackburn, EPA Region 4

blackburn.steven@epa.gov | (404) 562-9397

Measure Definition The Everglades has been subjected to phosphorus pollution since the 1960s. Interior Everglades marshes removed from anthropogenic nutrient sources have extremely low total phosphorus (TP) concentrations in surface water, as low as the method detection limit of 2 parts per billion (ppb). Phosphorus loading in stormwater from the Everglades Agricultural Area (EAA) and urban areas has significantly increased phosphorus concentrations in the downstream Everglades (as high as 100 ppb), causing eutrophic impacts to these oligotrophic wetlands. Among the progressive eutrophic impacts are loss of the natural communities of algae and periphyton that are defining characteristics of the Everglades, loss of water column dissolved oxygen, increased soil phosphorus content, conversion of the native wet prairie-sawgrass vegetation mosaic to dense single-species stands of cattail with no open water, and consequent loss of wading bird foraging habitat. These collective changes impact the structure and function of the aquatic ecosystem. By 1990, over 40,000 acres of the public Everglades were estimated to be impacted.

In 2005, Florida adopted and EPA approved a 10 ppb water quality criterion for TP in the Everglades in order to prevent nutrient-induced imbalances in natural populations of aquatic flora or fauna. A phosphorus control program was initiated in the 1990s in order to prevent further loss of Everglades plant communities and wildlife habitat due to phosphorus enrichment. Control is to be achieved by agricultural Best Management Practices along with about 60,000 acres of constructed treatment wetlands within the EAA, referred to as Stormwater Treatment Areas (STAs). This \$1 billion effort to treat large volumes of stormwater down to 10 ppb TP is unprecedented. In 2012, STA NPDES permits and Consent Orders for STAs were issued that include a protective phosphorus Water Quality Based Effluent Limit (WQBEL), about \$900 million of flow equalization basins and STA expansions to store and treat water, a robust monitoring and research plan to confirm that restoration is moving forward, and an enforceable compliance schedule with project completion dates of 2018 to 2025.

The flow-weighted mean is used to report phosphorus at the outflow from the treatment systems. Flow-weighting accounts for varying flow from the treatment systems at the time that the phosphorus concentration is determined and provides an indication of the load of phosphorus being delivered by the treatment system. For each STA, the South Florida Water Management District (SFWMD) calculates weekly flow-weighted TP concentrations at the outflow of each STA, and the annual average flow-weighted TP concentration is calculated from these weekly measurements. These annual averages are reported by the SFWMD in September in the draft annual South Florida Environmental Report (SFER) for the water year that runs from May to April. The STA is determined to meet the measure if the annual average flow-weighted outflow TP concentration for the current year is lower than or the same as the 5-year arithmetic mean of the annual flow-weighted TP concentrations, i.e., is improving.

Terms and Phrases: Stormwater Treatment Areas (STAs) are constructed wetlands, designed and operated to remove phosphorus from water before discharge into the Everglades.

Units: Stormwater Treatment areas (STAs)

Universe: The total number of Stormwater Treatment Areas (STAs)

Baseline: The 5-year baseline takes into account variability due to climatic conditions including extremely wet or dry years which are common in South Florida. For FY 2015, the 5-year baseline, 2010 to 2015, is 36 parts per billion (ppb) for STA-1E, 35 ppb for STA-1W, 21 ppb for STA-2, 17 ppb for STA-3/4, and 54 ppb for STA-5/6.

FY 2016 NWPG Measure Definitions US-Mexico Border

Measure Code: MB-SP23



Measure Language: Loading of biochemical oxygen demand (BOD) removed (cumulative million pounds/year) from the U.S.–Mexico Border area since 2003.

Type of Measure: Target Measure, reported annually, with a cumulative 2012 target.

Measure Contact: Stephanie Vonfeck, Office of Wastewater Management

vonfeck.stephanie@epa.gov | (202) 564–0609

Measure Definition

Terms and phrases: The *U.S.–Mexico Border area* is the area within 100km of the U.S.–Mexico border, in the United States or Mexico.

The measure represents the amount of pollutant (Biochemical Oxygen Demand) from wastewater that is removed as a result of program investments in wastewater infrastructure. Biochemical Oxygen Demand (BOD) can be used as a gauge of the effectiveness of wastewater treatment plants. It is listed as a conventional pollutant in the U.S. Clean Water Act.

Methodology for computation of results: The measure is calculated based on program estimates of flows from new sanitary sewer connections or wastewater treatment plant upgrades resulting from the completion of a Border Environment Infrastructure Fund (BEIF) funded project. Site-specific estimates of influent and effluent concentrations of BOD from the corresponding treatment plants are then multiplied by these flows to estimate the removal of BOD on mass-basis. Projected targets are based on program estimates of annual project completions.

Units: pounds (in millions)

Universe: n/a

Baseline: Pounds of BOD removed as a result of program investments in wastewater infrastructure at a point in time (FY 2003).

Measure Code: MB-SP24.N11

Measure Language: Number of additional homes provided safe drinking water in the U.S.–Mexico Border area that lacked access to safe drinking water in 2003.

Type of Measure: Target measure; Reported annually

Measure Contact: Stephanie Vonfeck, Office of Wastewater Management

vonfeck.stephanie@epa.gov | (202) 564-0609

Measure Definition

Terms and phrases: The U.S.–Mexico Border area is the area within 100km of the U.S.–Mexico border, in the United States and Mexico.

Methodology for computation of results: Measure results are calculated based on project completions that increase the number of households that are provided access to safe drinking water through first-time household connections or treatment improvements that address primary drinking water quality standards violations.

Units: "Connections" – the number of existing households that are provided access (i.e., connected) to safe drinking water as a result of Border Environment Infrastructure Fund (BEIF)–supported projects, and are based on projects completed in a given fiscal year.

Universe: The *known* universe is the number of existing homes in the U.S.–Mexico border area lacking access to safe drinking water in 2003. The known universe was calculated from U.S. Census and the Mexican National Water Commission (CONAGUA) sources.

Baseline: The number of homes (0) lacking access to safe drinking water in 2003 that had received access to safe drinking water as a result of project completions.



Measure Code: MB-SP25.N11

Measure Language: Number of additional homes provided adequate wastewater sanitation in the U.S.–Mexico Border area that lacked access to wastewater sanitation in 2003.

Type of Measure: Target measure; Reported annually

Measure Contact: Stephanie Vonfeck, Office of Wastewater Management

vonfeck.stephanie@epa.gov | (202)564-0609

Measure Definition

Terms and phrases: The U.S.–Mexico Border area is the area within 100km of the U.S.–Mexico border, in the United States and Mexico.

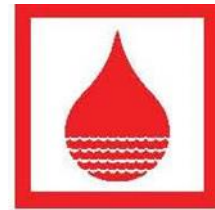
Methodology for computation of results: Measure results are calculated based on project completions that increase the number of existing households that are provided access to adequate wastewater sanitation service through first-time household wastewater connections as a result of wastewater projects completed by the program.

Units: "Connections" – the number of existing households that are provided access (i.e., connected) to adequate wastewater sanitation as a result of Border Environment Infrastructure Fund (BEIF)–supported projects, and are based on projects completed in a given fiscal year.

Universe: The *known* universe is the number of existing homes in the U.S.–Mexico border area lacking access to adequate wastewater sanitation services in 2003. The known universe of unconnected homes was calculated from U.S. Census and the Mexican National Water Commission (CONAGUA) sources.

Baseline: The number of homes (0) lacking access to adequate wastewater sanitation in 2003 that had received access to adequate wastewater sanitation as a result of project completions.

FY 2016 NWPG Water Quality Measure Definitions



Measure Code: WQ–SP10.N11

Measure Language: Number of waterbodies identified in 2002 as not attaining water quality standards where standards are now fully attained. (cumulative)

Type of Measure: Target measure; cumulative measure

Measure Contact: Christopher Zabawa, EPA Office of Wetlands, Oceans, and Watersheds

zabawa.christopher@epa.gov | (202) 566–1222

Measure Definition

Terms and phrases:

- *Waterbody* means a water body (or "segment") as identified in state–submitted section 303(d) lists and section 305(b) reports also referred to as the Integrated Report, for the 2002 reporting cycle. See EPA's guidance for such reporting under "303(d) Listing of Impaired Waters Guidance" at <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/guidance.cfm>.
- *Attaining water quality standards* means that the water body is no longer impaired for any of the causes identified in 2002, as reflected in subsequent Integrated Reports.
- *Impairment* refers to a "cause of impairment" in state– reported data, stored in ATTAINS (Assessment Total Maximum Daily Load (TMDL) Tracking and Implementation System) or its predecessors NTTS (National TMDL Tracking System) or NAD (National Assessment Database). Any water body listed as impaired in these data bases must have an impairment cause entered.

Methodology for computation of results: This measure counts waterbodies (segments). Two impairments removed on the same water body (assuming there were no other impairments on that waterbody) would count as one waterbody for Measure WQ–SP10.N11. (They would count as two impairments removed, however, under measure WQ–SP11; see definition of WQ–SP11.)

This measure is designed to demonstrate cumulative successes of the surface water program in achieving water quality standards in waters formerly assessed as not meeting water quality standards. It holds constant the fixed base of waters known to be impaired in the 2002 reporting cycle and focuses on the cumulative number of those impaired waters that now meet water quality standards. The measure is calculated by comparing the fixed baseline of state– or EPA–listed waters in the 2002 reporting cycle to the current list of impaired waters submitted in state Integrated Reports due on April 1 of every even numbered year (e.g., 2010, 2012, 2014). Waters that are meeting water quality standards in the reporting year for the impairments listed in 2002 will be counted toward meeting this measure in that year. If a water body is impaired by multiple causes, it cannot be counted as meeting this measure until all water quality standards are met, except as noted for mercury.

If a waterbody in the 2002 universe is subsequently re-segmented, it cannot be counted under SP-10 unless all the new segments meet the requirements for counting.

A waterbody in the universe may be counted under this measure when it attains water quality standards for all impairments identified in the 2002 reporting cycle, as reflected in subsequent Integrated Reports. Impairments that are identified in later Integrated Reports are not considered for this measure. States have the additional option of reporting improvements of waters that are not part of the 2002 baseline. Although these improvements will not be counted towards what's being reported for this measure, they will be included in the narrative portion of the report to provide a complete picture of the work that is being done. Waterbodies where mercury is among multiple impairments may be counted toward this target when all impairments but mercury attain standards. Of waters counted under this measure, EPA will continue to identify and track separately those waters still needing restoration for mercury. For purposes of this measure, "mercury" includes all forms of mercury, including methyl mercury.

Waters that are delisted for the following reasons can be counted toward meeting this measure:

Delisting Reason in ATTAINS	Can Removal of Impairment Cause Be Used For Reporting Under SP-10?
Applicable WQS attained; due to restoration activities	YES
Applicable WQS attained; due to change in WQS	YES
Applicable WQS attained; according to new assessment method	YES
Applicable WQS attained; threatened water no longer threatened	YES
Applicable WQS attained; reason for recovery unspecified	YES
Applicable WQS attained; original basis for listing was incorrect	YES
Data and/or information lacking to determine water quality status; original basis for listing was incorrect	YES

Note that measure WQ-SP12.N11 uses a different methodology for determining which reasons can be counted. See definition for measure WQ-SP12.N11.

In Integrated Report terminology, to count toward this measure a waterbody must be placed in Categories 1 or 2 for all the Impairments that were identified in the 2002 reporting cycle as not attaining standards. If any 2002 Impairments belong in Categories 4 or 5, the water cannot be counted. The waterbody also cannot be counted if it is moved to Category 3 for the 2002 Impairment(s). Impairments first identified after the 2002 reporting cycle are not considered in counting waterbodies under this measure; however, as noted above, states have the additional option of reporting on other restored waters that are not part of the baseline. This measure may be met and the waterbody counted even if the waterbody becomes listed again in a later reporting cycle.

EPA's goal is to use the ATTAINS data system as the system of record for documenting assessment decisions for this measure. Until this happens, reporting for this measure will be based on each region's evaluation of state data from all available sources. In a continuing effort to improve the ability of the ATTAINS data system to track measures using the 2002 baseline waters, EPA is working with the states and regions to evaluate alternative approaches for reporting progress for future cycles that will enable better tracking of progress using the ATTAINS data system.

Units: Waterbodies (see above)

Universe: The universe consists of an estimated 39,503 waterbodies identified by states or EPA as not meeting water quality standards in 2002. Thus, 2002 is the baseline year for this measure. This universe is sometimes referred to as the "fixed base" or "WQ-SP10.N11 baseline." The universe includes all waters in categories 5, 4a, 4b, and 4c in 2002. Of these waters, 1,703 are impaired by multiple pollutants including mercury, and 6,501 are impaired by mercury alone (see discussion of mercury in Methodology above). Impairments identified after 2002 are not considered in counting waters under this measure; however, states have the option of reporting for inclusion in the narrative as discussed above.

Baseline: The baseline for this measure was zero water bodies in the baseline year of 2002.

Note that this measure is related to former Measure L in the FY 2003-2008 EPA Strategic Plan: "Percentage of waterbodies identified in 2000 as not attaining standards where water quality standards are fully attained (cumulative)." Measure L was reported in FY 2007 and earlier. The primary difference between the two measures is that Measure WQ-SP10.N11 uses a 2002 baseline year rather than the Measure L baseline year of 2000. In addition, WQ-SP10.N11 includes other refinements such as including category 4 waters in the baseline. EPA estimates that 1,980 waters reported under measure L would not count under the new version, and therefore can be added to WQ-SP10.N11 results if a combined total is desired. This combined total is used in calculating the efficiency measure for the PART review of the Water Pollution Control Grants program.

Measure Code: WQ-SP11

Measure Language: Remove the specific causes of waterbody impairment identified by states in 2002. (cumulative)

Type of Measure: Target measure; cumulative measure

Measure Contact: Christopher Zabawa, EPA Office of Wetlands, Oceans, and Watersheds

zabawa.christopher@epa.gov | (202) 566-1222

Measure Definition

Terms and phrases:

- *Specific cause of waterbody impairment* refers to an "impairment cause" in state-reported data, stored in ATTAINS (Assessment Total Maximum Daily Load (TMDL) Tracking and Implementation System) or its predecessors NTTS (National TMDL Tracking System) and NAD (National Assessment Database). Any waterbody listed as impaired in these data bases must have an impairment cause entered.
- Water body listed as *impaired* means a water body (or "segment") as identified in state-submitted section 303(d) lists and section 305(b) reports also referred to as the Integrated Report. for the 2002 reporting cycle. See EPA's guidance for such reporting under "303(d) Listing of Impaired Waters Guidance" at <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/guidance.cfm>
- *Removal of an impairment cause* means that the original specific impairment cause listed by the state or EPA in 2002 is no longer impairing the water body, as reflected in subsequent Integrated Reports.

Methodology for computation of results: This measure counts impairment causes. This measure is closely related to measure SP10, except that it counts impairments rather than water bodies. Two impairments removed on the same water body would count as two under this measure. See the definition for measure WQ-SP10.N11.

This measure is designed to demonstrate cumulative incremental successes of the surface water program in achieving water quality standards in waters formerly assessed as not meeting water quality standards. It holds constant the fixed base of waters and impairment causes known to be impaired in the 2002 reporting cycle and focuses on the cumulative number of those impairments where the water quality now meets water quality standards associated with those impairments. The measure is calculated by comparing the fixed baseline of impairments in state- or EPA-listed waters in the 2002 reporting cycle to the current list of impaired segments submitted in state Integrated Reports due on April 1 of every even numbered year (e.g., 2010, 2012, 2014).

An impairment in the universe may be counted under this measure when water quality associated with that impairment attains water quality standards as reflected in subsequent Integrated Reports. Impairments that were not identified in the 2002 reporting cycle but are identified in later lists are not considered for this measure. States have the additional option of reporting on impairments attaining water quality standards that are not part of the 2002 baseline. Although these attainments will not be counted towards what is being reported for this measure, they will be included in the narrative portion of the report to provide a complete picture of the work that is being done.

If a water body with an impairment in the 2002 universe is subsequently re-segmented, the impairment cannot be counted under WQ-SP11 unless the impairment has been removed throughout the originally-listed water body (i.e., in each of the new segments).

Impairments that are delisted for the following reasons can be counted towards meeting this measure:

Delisting Reason in ATTAINS	Can Removal of Impairment Cause Be Used For Reporting Under SP-11?
Applicable WQS attained; due to restoration activities	YES
Applicable WQS attained; due to change in WQS	YES
Applicable WQS attained; according to new assessment method	YES
Applicable WQS attained; threatened water no longer threatened	YES
Applicable WQS attained; reason for recovery unspecified	YES
Applicable WQS attained; original basis for listing was incorrect	YES
Data and/or information lacking to determine water quality status; original basis for listing was incorrect	YES

Note that Measure WQ-SP12.N11 uses a different methodology for determining which reasons can be counted.

EPA's goal is to use the ATTAINS data system as the system of record for documenting assessment decisions and tracking TMDL information. Until this happens, reporting for this measure will be based on each region's evaluation of state data from all available sources. EPA is working with the states and regions to evaluate alternative approaches for reporting progress for future cycles that will enable for better tracking of progress using the ATTAINS data system.

Units: Impairment causes for a waterbody (see above)

Universe: The universe consists of an estimated 69,677 waterbody impairments, as identified by states or EPA in the 2002 reporting cycle. Thus, 2002 is the baseline year for this measure. This universe is sometime referred to as the "fixed base" or "WQ-SP11 baseline."

Baseline: The baseline for this measure was zero impairment causes in the baseline year of 2002.

Measure Code: WQ-SP12.N11

Measure Language: Improve water quality conditions in impaired watersheds nationwide using the watershed approach. (cumulative)

Type of Measure: Target measure; cumulative measure

Measure Contacts: Carol Peterson, EPA Office of Wetlands, Oceans, and Watersheds

peterson.carol@epa.gov | (202) 566-1304

Measure Definition

Terms and phrases:

- *Watershed* means (a) a watershed or hydrologic unit at the scale of 12-digit hydrologic unit codes, or HUC-12, as determined by the draft or final Watershed Boundary Dataset (WBD), or (b) a regionally defined hydrologic unit of appropriate scale. Option (b) is provided since some waters, such as coastal and estuary waters, fall outside the WBD, and may or may not be hydrologically definable at a scale comparable to inland HUC-12s. Although watersheds or hydrologic units at the 12-digit scale are technically termed "sub-watersheds" by USGS, the Strategic Plan will use the term "watershed" for simplicity.
- An *impaired watershed* is a watershed containing one or more impaired water bodies.
- *Impaired water bodies* are those identified by states and EPA in the baseline for measure WQ-SP10.N11.
- *Watershed approach* is a coordinating process for focusing on priority water resource problems that:
 - o Is focused on hydrologically defined areas,
 - o Involves key stakeholders,
 - o Uses an iterative planning or adaptive management process to address priority water resource goals, and
 - o Uses an integrated set of tools and programs.

Functionally, the watershed approach is a problem-solving tool for protecting water quality and aquatic resources. It recognizes that factors affecting the health of our nation's waters should be understood within their watershed context. It includes assessment of relevant watershed processes and socioeconomic factors, identification of priority issues and most promising corrective actions, involvement by affected parties throughout the process, and implementation at the required scale. See EPA's website at <http://water.epa.gov/type/watersheds/approach.cfm> for more information. Also, see Demonstrating Use of the Watershed Approach below.

The watershed approach can be applied at any appropriate scale, including scales smaller or larger than the HUC-12 watersheds described above. Thus, for this measure, one watershed effort could result in improvements in one or in many HUC-12 watersheds, depending on its scale. For

consistency, however, all successes under this measure will be reported as numbers of HUC-12 watersheds.

- Improved means either that:
 - One or more of the waterbody/impairment causes identified in 2002 are removed, as reflected in EPA-approved state assessments, for at least 40% of the impaired water bodies or impaired stream miles/lake acres in the watershed (see Option 1 below); OR
 - There is significant watershed-wide improvement, as demonstrated by valid scientific information, in one or more water quality parameters or related indicators associated with the impairments (see Options 2a and 2b below).
- Watersheds of focus are watersheds in which regions and states will be focusing application of the watershed approach to attain this measure. Regions and states have identified an estimated 4,767 watersheds of focus. Regions and states will maintain lists of the watersheds of focus. The watersheds of focus include watersheds that may be amenable to water quality improvement in the near term (five years), as well as watersheds where improvement may take much longer. In many cases, the time frame cannot be predicted without more information gathered for watershed planning. EPA envisions flexibility in identifying the watersheds of focus over time. EPA and the states may add, change, or remove watersheds they are focusing on as new information becomes available or as resources are reallocated. The measure thus envisions "living" lists of watersheds.

Methodology for computation of results: The methodology for Measure WQ-SP12.N11 is described in [Guidance for Reporting Watershed Improvement under Measure SP-12 – FY 2009 \(PDF\)](#). (16 pp, 183K, [About PDF](#))

This methodology provides information needed for states and EPA to implement the measure. For a watershed to be counted under WQ-SP12.N11, the state and region must demonstrate that the watershed approach was applied, and that water quality improved. Either Option 1, Option 2a, or Option 2b described below may be used for demonstrating water quality improvement.

Supporting information must be provided using the appropriate template contained in the above methodology. A separate template is available for each reporting option below (1, 2a, or 2b).

An individual watershed may be counted only once under this measure. That is, a watershed may be counted only when it initially meets the definition. Subsequent actions, such as having additional impairment causes removed or additional water quality parameters showing watershed-wide improvement, would not enable the watershed to be counted again in a subsequent reporting period.

Under some circumstances, water quality improvements may result in the same watershed being eligible for reporting under both measure WQ-SP12.N11 and measure WQ-10 (nonpoint source waters restored). Consult the detailed definitions for both measures to determine whether a particular watershed is eligible. See additional discussion in the methodology.

Units: Watersheds at 12-digit HUC scale (see Terms and Phrases above).

Universe: Watersheds of focus (see Terms and Phrases above).

Baseline: 0 watersheds in FY 2002

Measure Code: WQ-SP13.N11

Measure Language: Ensure that the condition of the nation's waters does not degrade (i.e., there is no statistically significant increase in the percent of waters rated "poor" and no statistically significant decrease in the percent of waters rated "good").

Type of Measure: Indicator measure

Measure Contact: Susan Holdsworth, EPA Office of Wetlands, Oceans, and Watersheds

holdsworth.susan@epa.gov | (202) 566-1187

Measure Definition Critiques by the U.S. Government Accountability Office (GAO) and other independent organizations found that the Nation and the States do not have all the monitoring data to effectively manage their water programs and make scientifically-defensible statements about the condition of waters across the Nation and to track changes over time. States and EPA are working together to implement national surveys that report on the status and trends of the Nation's water. The data from these surveys are key to allowing the Agency to evaluate effectiveness of water quality protection and restoration efforts. This measure rotates among water body types over a 5 year interval driven by the sampling schedule. This measure will report on changes in the condition of coastal waters in FY15, lakes in FY16, rivers and streams in FY17, and wetlands in FY18.

Terms and phrases:

- *Good, Fair, and Poor* are defined in the methodology below.
- Does not degrade is defined in the methodology below.

Methodology for computation of results: Targets and results will be reported nationally with a confidence interval of plus or minus 5% They are determined by national assessment protocols, comparing conditions in sampled, coastal waters, lakes, rivers/streams, or wetlands (as appropriate) with regionally relevant thresholds for good, fair, or poor biological integrity or condition. "Does not degrade" in this measure means that the following two conditions must be met in comparing results from two different surveys:

- There is no statistically significant increase in the national proportion of waters in the category of Poor compared to the earlier results, AND
- There is no statistically significant decrease in the national proportion of waters in the category of Good compared to the earlier results.

This means that for measure WQ-SP13.N11 to show success for lakes in 2016 compared to the baseline year of 2007 (see baseline below), the 2012 lakes survey will need to find not more than 31.7 percent of lakes (+/-5%) are in Poor condition and not less than 36.4 percent of lakes (+/-5%) are in Good condition based on the macroinvertebrate MMI.

Units: Coastal waters is reported as square miles of estuarine waters and Great Lakes nearshore waters (expressed as a percentage); lakes is based on the number of lakes (expressed as a

percentage); rivers and streams is based on miles (expressed as a percentage) and wetlands are based on acres (expressed as a percentage).

Universe: About 35,400 square miles of marine waters fringing the conterminous US and freshwater coastal waters of the Great Lakes; About 50,000 lakes that are 4 hectare or larger and at least 1 meter; About 1.2 million miles of perennial rivers and streams; and about 62,000,000 acres of wetlands

Baseline: The baseline for coastal waters was 18% poor and 53% good in 1999/2001, for lakes was 32% poor and 36% good in 2007, for rivers and streams was 55% poor and 21% good in 2008/2009, and for wetlands the baseline was 32% poor and 48% good in 2011. Please note, that the baseline may be slightly different than what was reported in earlier reports if changes were made to the target population or to the way the indicator was calculated.

Measure Code: WQ-SP14a.N11

Measure Language: Improve water quality in Indian country at baseline monitoring stations in tribal waters (i.e., show improvement in one or more of seven key parameters: dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, and turbidity). (cumulative)

Type of Measure: Target measure; annually reported

Measure Contact: Susan Holdsworth, EPA Office of Wetlands, Oceans, and Watersheds

Holdsworth.Susan@epa.gov | (202) 566-1187

Measure Definition

Terms and Phrases:

- *Seven key parameters* means seven parameters identified in the EPA's Clean Water Act (CWA) Section 106 Program Guidance for Tribes: dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, and turbidity. For the purpose of this measure, trends can be reported on these parameters or any appropriate sub-components of these parameters. Reporting on the seven parameters would be in accordance with the degree of maturity of the Tribe's monitoring program, consistent with the following table derived from the Guidance.*

For tribes conducting fundamental monitoring programs:

1. Dissolved oxygen
2. pH
3. Water temperature
4. Turbidity

For tribes conducting intermediate monitoring programs: above plus

5. Phosphorus
6. Total nitrogen

* p. 4–11, *Guidance on Awards of Grants to Indian Tribes under Section 106 of the Clean Water Act*, U.S. EPA Office of Water, April 2006, available at http://water.epa.gov/grants_funding/cwf/106tgg07.cfm. See also Federal Register Notice, Tribal Grant Guidance, April 26, 2006, 71 FR 24852. The table at p. 4–11 also includes two parameters for mature monitoring programs that are not included among the seven key parameters for this measure – Macroinvertebrates and Basic habitat information.

For tribes conducting mature monitoring programs: above plus

7. Pathogen indicators

- *Improved* means that (a) at least one of the seven key parameters or parameter sub-components (e.g. total Kjeldahl nitrogen, and orthophosphorus) shows an improvement in quality as described in the guidance below, and (b) there is no evidence of deteriorating trends in related parameters included in reporting for this measure. Further guidance for reporting improvement is provided below.

Methodology for computation of results: To meet the definition of "improved," a water body assessment must demonstrate a positive trend/change in at least one of the parameters or parameter subcomponent – dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, or turbidity – over at least two years. The baseline for the trend or change may be derived from monitoring conducted as far back as 1987. Monitoring must be conducted to show that the trend continues into or near the current reporting period, or the improvement is maintained during such period, allowing for averaging intervals and the time to assemble and analyze the data.

Sampling and analysis must be conducted in accordance with an EPA-approved quality assurance project plan or other appropriately developed Quality Assurance Project Plan (QAPP) (e.g., sampling conducted by a federal agency under their own approved QAPP).

Improvement at a station must be shown using one of the following three processes, as described in path "A", "B", or "C" below.

PATH A

Use statistical procedures to demonstrate that significant improvement has occurred with a 90 percent or greater level of confidence. Where data are limited, a level of confidence of 70 percent or greater may be applied. For purposes of this measure, "statistical procedures" are those procedures capable of showing statistically significant change in the water quality parameter(s) (e.g. seasonal Kendall trend test, Wilcoxon sign rank). Supporting documentation should describe the environmental significance of any reported changes in water quality.

PATH B

Provide at least two lines of evidence to demonstrate improvement. This approach is suggested in situations where there is not enough consistent data to support the rigorous statistical tests in "A" above. Evidence must include each of the following:

1. Evidence of an improving trend in one or more of the water quality parameters identified in the measure based on empirical data which may not be statistically significant (e.g. descriptive statistics) but nevertheless supports improvement.

AND

At least one of the following four lines of evidence: Evidence of an improving trend in water quality based on predictive/modeled data, with field level ground truthing. Evidence of relevant load reductions. Evidence of relevant nonpoint source or point source implementation, or other evidence of watershed implementation actions involving the monitoring waters.

PATH C

Report that a waterbody on which the station is located has been restored to attainment with water quality standards associated with one of the seven key parameters. If the Tribe has EPA-approved Tribal water quality standards, these must be used. If not, the Tribe should use one of the following sets of standards: Tribal standards adopted under Tribal law, draft Tribal standards, adjacent state standards, EPA's national recommended water quality criteria issued under section 304(a), or other scientific benchmarks determined by the Tribe. An assessment methodology documenting how the Tribe determines attainment with the appropriate standard is required under this option.

More than one path may be utilized to evaluate data at a station, but only one may be used for reporting an actual water quality improvement. Different paths may be used for different stations.

For all three paths above, there should be no evidence of deteriorating trends in related parameters included in reporting for this measure (dissolved oxygen, pH, water temperature, total nitrogen, total phosphorus, pathogen indicators, or turbidity).

For all three paths above, where data are available, the analysis should take account of differences in streamflow or other natural events that could produce false "trends."

Supporting documentation for stations where improvement has occurred includes:

- The station name/number and waterbody name.
- Whether method "A", "B", or "C" above was used to assess the data, with a brief explanation why.
- The results of the assessment. The assessment will present the summary data from "A", "B", or "C" above demonstrating improved water quality. The assessment must identify the specific parameters used to assess improvements, and must also describe the efforts made

to locate and analyze any evidence of deteriorating trends in these or related parameters included in reporting for this measure.

- A brief narrative on why the water quality is thought to be improving, including what action(s) took place to account for the improvement, if known.

Acceptable documentation of improvements can be provided to the region in a variety of formats and can be provided by reference where readily accessible information/data exists.

In accordance with EPA's proposed Section 106 Tribal Grant Guidance, data used in the assessment must be provided to EPA in a format accessible for storage in EPA's data system.

Tribes must provide EPA a list of stations in the baseline. No further documentation is required, however, for stations where insufficient information exists to assess whether an improvement has occurred, or where no improvement has occurred.

EPA regions will review the submitted data and assessments, and enter the results in the Agency Commitment System.

Units: Baseline stations located in Indian country

Universe and Baseline: Baseline stations were selected from among stations located in Indian country that are planned for sampling at times during the FY 2006–2012 period. Stations selected were located on waters that have a potential for improvement in one or more of the seven key parameters. To facilitate the selection, tribes were asked to provide:

- The total number of monitoring stations identified by the tribe that are planned for sampling (for one or more of the seven key parameters) at times during the FY 2006 – 2012 period. Result: 105 tribes identified 1,661 stations.
- Of the monitoring stations in (a), how many will be located on waters that have a potential for improvement in one or more of the seven key parameters. "Potential for improvement" means that water quality is or has been depressed, and some restoration activities are underway or planned to improve water quality for those waters. Result: At least 353 stations were identified with depressed water quality. Of these, 185 were identified as having restoration activities underway.

Of the monitoring stations in (b), EPA identified a national target of 50 stations for reporting actual improved water quality as defined in this guidance by 2012.

The following table summarizes the baseline stations in 2005. The baseline is reviewed periodically and will be updated if needed.

Regions	No. of tribes with stations planned	No. stations planned (a)	No. stations with suspected depressed water quality	No. stations with suspected depressed water quality and restoration activities underway (b)	No. stations targeted for improvement by 2012 (c)

Region 1	2	160	Unknown, at least 14	14	4
Region 2	1	14	Unknown	Unknown	0
Region 4	2	37	8-9	2	1
Region 5	32	729	118	44	6
Region 6	8	68	35-41	1	1
Region 7	7	82	4	4	1
Region 8	19	100	Unknown, at least 10	10	10
Region 9	23	203	Unknown, at least 43	43	15
Region 10	11	268	79	67	15
TOTALS	105	1,661	At least 311, not more than 761	185	53

- a. The total number of monitoring stations identified by the tribe that are planned for sampling (for one or more of the seven key parameters) at times during the FY 2006–2012 period.
- b. Of the monitoring stations in (a), the number that will be located on waters that have a potential for improvement in one or more of the seven key parameters. "Potential for improvement" means that water quality is or has been depressed, and some activities have been, are, or will be underway to improve water quality for those waters.
- c. Of the monitoring stations in (b), the estimated number EPA will show as a Target for reporting actual improved water quality as defined in the measure by 2012.

The following factors affected the development of the data in the above table.

- Many tribes have not yet finalized a water quality monitoring strategy, or are revising their strategy. Therefore, the number of planned stations may be revised.
- Some regions were able to obtain information from all of their tribes; others were able to focus only on tribes with mature or intermediate water quality monitoring programs.
- The majority of stations in column (a) will likely not be able to detect improvements in water quality as defined in the measure for several reasons, including:

- Many stations are located at relatively undisturbed sites, where water quality is not known to be depressed relative to the seven key parameters.
- Some tribes have not developed water quality baselines for the stations that could identify problems.
- Some water quality problems (e.g., mercury contamination) are not addressed by the seven key parameters.
- Only a limited number of tribes have implementation funding (319, watershed grants, etc) or other restoration activities underway. Many of those that do are just getting started. As support for restoring additional tribal waters becomes available, tribes will be able to address more of the degraded waters.
- Although many tribal waters are currently in good shape, development, mining and other anthropogenic impacts are threatening to change this. It is very important for tribes to be able to continue their efforts to monitor these waters and to access funds to protect high water quality. A few tribes expressed concern about having waters head in the wrong direction. The work group strongly supports developing a water quality "maintenance" or "prevention" measure or measure component in the future.
- It is often difficult to predict continuity in tribal monitoring programs. Although a growing number of tribes have developed a routine monitoring program, there is often no guarantee of stability in the program due to changes in level of funding, changes in priority activities, or significant turnover in key trained staff.
- A significant portion of the monitoring conducted by many tribes is on waters just outside or near reservation boundaries. In some cases this is a matter of identifying sites with convenient access that can best characterize tribal waters. In other cases tribes are facing discharges or development pressures outside of tribal boundaries that affect or threaten waters upstream from the tribal area. At least some of the monitoring stations identified in the baseline for this measure are located to monitor those upstream activities. In some cases stations are established to monitor waters on nearby ceded lands.
- It should be noted that the number of stations does not necessarily represent the number of water bodies monitored. The number of stations needed to characterize a water body may vary greatly.

Measure Code: WQ-SP14b.N11

Measure Language: Identify monitoring stations on tribal lands that are showing no degradation in water quality (meaning the waters are meeting tribal water quality objectives). (cumulative)

Type of Measure: Indicator measure

Measure Contact: Susan Holdsworth, EPA Office of Wetlands, Oceans, and Watersheds

Holdsworth.Susan@epa.gov | (202) 566-1187

Measure Definition

The objective of the measure is to pilot the identification and tracking of tribal monitoring locations in Indian Country that meet water quality benchmark criteria and show no degradation from the criteria over a period of at least two years.

Terms and phrases:

- *No degradation*, for the purpose of this measure, means that all of the core indicators or indicator sub-components (e.g. ammonia-N as a sub-component for a total Nitrogen core indicator) that are appropriate for assessing the objectives of a tribe's monitoring program meet and continue to meet benchmark water quality criteria over a period of at least two years. This term, "no degradation," and its definition are not related to the term "antidegradation" found in EPA's regulation at 40 CFR Part 131, and nothing in this document alters the existing regulatory requirements regarding antidegradation.
- *Benchmark water quality criteria*: For tribes eligible to be treated in a manner similar to a state (TAS) with EPA-approved water quality standards, the EPA-approved criteria are the benchmark criteria. In all other situations, the tribe may choose benchmark criteria – such as draft tribal standards, tribal standards adopted under tribal law, EPA recommended criteria, or neighboring state water quality standards. Benchmark criteria should be documented within a tribe's Clean Water Act (CWA) sections 106 and 319 QAPP that has been approved by EPA. Benchmark criteria must be at least as protective as EPA's CWA section 304(a) national recommended water quality criteria, where appropriate and when the national recommended criteria exist for the core indicators being monitored. These national recommended water quality criteria may be found on EPA's website: <http://water.epa.gov/scitech/swguidance/standards/current/>.
- *Core indicators* might include, but are not limited to, any of the seven indicators identified in EPA's CWA Section 106 Program Guidance for Tribes. These parameters were intentionally identified in the Guidance due to their applicability in interpreting water quality. Other parameters not on this list, which are being monitored for comparison with applicable water quality criteria and related tribal water quality objectives, are relevant as well.
 1. Dissolved oxygen
 2. pH
 3. Water temperature
 4. Turbidity
 5. Phosphorus
 6. Total nitrogen
 7. Pathogen indicators

Methodology for computation of results

Monitoring and analysis must be conducted to show that monitoring locations are meeting benchmark criteria and/or water quality standards and demonstrating no degradation over a period of two years into the current reporting period, allowing for averaging intervals and the time to

assemble and analyze the data. For example, to be reportable for FY 2012, no degradation would need to be maintained into (or near) FY 2012.

Given natural conditions, varying sampling frequencies, or other factors, a station may exhibit a downward trend in water quality, and still be counted for this measure as long as the station continues to meet benchmark criteria. This consideration is consistent with the measure's definition of 'no degradation.'

A station may be counted for this measure only if all associated tribal objectives set forth within the tribe's QAPP, monitoring strategy, and/or assessment reports, for that particular station, are meeting associated benchmark criteria.

Monitoring stations reported for the first time must have monitoring data and analysis providing evidence of no degradation over a period of two years previous to reporting. From that point forward, monitoring data and analysis must provide evidence that there continues to be no degradation however, constant, yearly monitoring does not have to occur. It is at the tribe's and EPA's discretion to determine how often a site must be monitored and assessed to ensure evidence of no degradation.

Sampling, analysis and assessment methods must be conducted in accordance with an EPA-approved quality assurance project plan or other appropriately developed QAPP (e.g., sampling conducted by a federal agency under their own approved QAPP).

No degradation at a station must be shown using one of the following two processes, as described in path "A" or "B" below.

PATH A

Use statistical procedures to demonstrate that no degradation has occurred, as defined above, with a 90 percent or greater level of confidence. Where data are limited, a level of confidence of 70 percent or greater may be applied. For purposes of this measure, "statistical procedures" are those procedures capable of showing statistically significant maintenance in the water quality indicator(s) (e.g. seasonal Kendall trend test, Wilcoxon sign rank).

PATH B

Demonstrate no degradation, as defined above, in comparison to benchmark criteria chosen by the tribe. This approach is suggested in situations where there is not enough consistent data to support the rigorous statistical tests in "A" above. Evidence must include no degradation in the applicable waterbody use(s) and/or applicable water quality standard¹(s), which means continued attainment of benchmark water quality criteria, which may or may not be statistically significant (e.g. descriptive statistics) but nevertheless supports no degradation.

¹Applicable water quality standards refer to those water quality standards established under Section 303 of the Clean Water Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation.

More than one path may be utilized to evaluate data at a station, but only one may be used for reporting no degradation of water quality. Different paths may be used for different stations. For both paths above, where data are available, the analysis should take into account differences in streamflow or other natural events that could produce false "trends."

Supporting documentation for stations where no degradation has occurred includes:

- The station name/number, waterbody name, water body type (e.g., lake, stream, river), hydrologic unit eight digit code, monitoring Location latitude, monitoring Location longitude, monitoring Location horizontal collection method (e.g., whether GPS used), monitoring Location Horizontal Coordinate Reference system (e.g., NAD 83), and Monitoring Location Source Map scale, (these same data fields are used for EPA WQX submissions).
- Whether method "A" or "B" above was used to assess the data, with a brief explanation why.
- The results of the assessment. The assessment will present the summary data from "A" or "B" above demonstrating no degradation of water quality. The assessment must identify the specific indicators used to assess no degradation, and must also describe the efforts made to locate and analyze any evidence of no degradation in these or related indicators included in reporting for this measure.
- A brief narrative on why the water quality is thought to have no degradation, including what action(s) took place to account for the no degradation, if known.

Acceptable documentation of no degradation can be provided to the region in a variety of formats and can be provided by reference where readily accessible information/data exists.

In accordance with EPA's Section 106 Tribal Grant Guidance, data used in the assessment must be provided to EPA in a format accessible for storage in EPA's data system, the STORET Warehouse. A standard template has been made available through EPA regional offices as tribes have begun to implement this reporting requirement. EPA plans to continue to make additional templates available as tools for data submission to EPA evolve. Please access the following website for more information: <http://www.epa.gov/storet/wqx/index.html>

Units: Monitoring locations.

Universe: The total number of monitoring stations on tribal lands that have been identified by tribes as planned for sampling at times during the FY 2009–2015 period.

Baseline: not available

Measure Code: WQ–24.N11

Measure Language: Number of American Indian and Alaska Native homes provided access to basic sanitation in coordination with other federal agencies.

Type of Measure: Target measure; annually reported

Measure Contact: Kellie Kubena, EPA Office of Wastewater Management

kubena.kellie@epa.gov | (202) 566 0448

Matthew Richardson, EPA Office of Wastewater Management

richardson.matthew@epa.gov | (202) 564-2947

Measure Definition

Terms and phrases:

- *Homes* are the houses on American Indian lands and within Alaskan Native Villages
- *Access* is the reduction in the wastewater sanitation deficiency level of a tribal home from a 4 or 5 to a 3 or less. The sanitation deficiency levels definitions are described in Appendix E of the "Indian Health Service Sanitation Deficiency System Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities," working draft, May 2003 and may be found online at: <http://www.dsfc.ihs.gov/Documents/SDSWorkingDraft2003.pdf>.

[EXIT Disclaimer](#)

- *Sanitation Deficiency* is an identified need for new or upgraded wastewater sanitation facilities for existing homes of on American Indian lands or Alaska Native Villages

Methodology for computation of results: The EPA Office of Water, Office of Wastewater Management (OWM) will use the actual number of homes reported in the Indian Health Service's (IHS) Sanitation Deficiency System (SDS) that lack safe wastewater sanitation services to show progress towards this measure. OWM will obtain this value from IHS in order to calculate annual performance. Housing information is collected annually, typically in November, in order to capture progress over the previous construction season.

Units: Homes on tribal lands and in Alaskan native villages.

Universe: Estimated total number of homes on tribal lands, which is dynamic given that additional homes are constructed. The program uses a baseline based on the total number of homes on tribal lands in 2009.

Baseline: The number of American Indian and Alaska Native Village homes provided access to safe wastewater sanitation services between 2003 and 2009.



Measure Code: WQ-01 (a, d)

Measure Language:

WQ-01a – Number of numeric water quality standards for total nitrogen and for total phosphorus adopted by States and Territories and approved by EPA, or promulgated by EPA, for all waters within the State or Territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries (cumulative, out of a universe of 278).

WQ-01d – Number of numeric water quality standards planned to be adopted within 3 years for total nitrogen and total phosphorus for all waters within the state or territory for each of the following waterbody types: lakes/reservoirs, rivers/streams, and estuaries, based on a full set of performance milestone information supplied annually by states and territories (cumulative, out of a universe of 278).

Type of Measure: Target measure; cumulative measure

Measure Contact: Gregory Stapleton, EPA Office of Science and Technology
stapleton.gregory@epa.gov | (202) 566-1028

Measure Definition

Terms and phrases:

- *Numeric standards for total nitrogen and total phosphorus* – numeric water quality criteria for total nitrogen (TN) and total phosphorus (TP) incorporated into water quality standards for the protection of Clean Water Act section 101(a)(2) goal uses (protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water). Such criteria are for eutrophication endpoints. Criteria for other endpoints, such as ammonia, nitrate, or

elemental phosphorus toxicity, would not count. The "total" forms of nitrogen and phosphorus are generally preferable from a scientific standpoint because they account for both organic and inorganic forms. Other forms of nitrogen or phosphorus would be counted only if justified scientifically.

Numeric translators for TN and TP will be counted in this measure if they are binding upon section 303(d) assessments, TMDLs, and NPDES permits, and have been adopted as water quality standards and approved by EPA under section 303(c) for WQ-01a. Response variables, such as chlorophyll-a, clarity, SAV acreage, or dissolved oxygen, are not considered translators for this purpose.

- *Waterbody type* means one of the following three types of U.S. water bodies:
 - Lakes and reservoirs (excluding the Great Lakes)
 - Rivers and streams
 - Estuaries

Note: The majority of states and territories have all three of these waterbody types, but some states do not. See Universe below.

- *For all waters* – To be counted under this measure, water quality criteria values would need to be established for all waters of the waterbody type (see below). The values for each pollutant could be uniform for all such waters, or could vary as appropriate (e.g., for different subtypes, different watersheds, different seasonal periods), but would count as only one criterion for the purpose of this measure. In other words, states could use site-specific criteria to help meet this measure as long as all waters of the waterbody type are covered by some combination of site-specific and non-site-specific criteria.
- *Adopted and approved* by EPA (in WQ-01a) means the state or territory has adopted the criteria through its rulemaking process and submitted them to EPA for review, and that EPA has approved them under section 303(c).
- *Promulgated* by EPA (in WQ-01a) means EPA has issued a final rule promulgating the criteria as federal water quality standards under section 303(c)(4).
- *Full set of performance milestone information* (in WQ-01d) means target dates for completing the following TN or TP development activities for an entire waterbody type (i.e., lakes/reservoirs, rivers/streams, and estuaries):
 1. Planning for standard development
 2. Collection of information and data
 3. Analysis of information and data
 4. Proposal of standard – This milestone date describes when the standard will be:
 - proposed and published for public comment;
 - formally provided for review to a legislative body, legislative committee, public commission, or similar body as part of a prescribed regulatory process;
 - recommended to a legislature, public commission, or agency responsible for promulgating standards under its own public process; or
 - issued to begin a public process similar to those described above.
 5. Adoption of standard (EPA-approved) – This milestone should assume 60 days for EPA to review and approve the TN or TP standard after the state submits it to EPA. Typically, EPA's approval process takes less than 60 days when states work with EPA during standard development.

For each milestone above, EPA expects the state or territory to provide EPA the following on a regular basis, but not less than annually:

1. a *target* date for completing the activity
2. the *completion* status of the activity, and
3. if necessary, an *explanation* for changes to target date.

Milestones may be provided for waterbody subtypes. For example, the rivers/streams watertype could have two milestone sets – one set for wadeable streams and another for rivers/non-wadeable streams.

Milestone information from states and territories is crucial for management and oversight of nutrient criteria development, *including the annual planning and performance cycle under section 106 and performance partnership agreements*. Additionally, EPA publishes milestone information on its web site (<http://cfpub.epa.gov/wqsits/nnc-development>) to keep the public informed about the status of these important efforts.

- *Planned to be adopted within 3 years* (in WQ-01d) means the *Adoption of standard (EPA-approved)* milestone must be no later than 3 years after the reporting fiscal year. For the FY16 reporting cycle, the *Adoption of standard (EPA-approved)* milestone must be September 30, 2019 or earlier.

Methodology for computation of results:

For WQ-01a: The source of information for this measure is EPA's records of approved state and territorial WQS. The results for a state or territory will be computed by adding the number of numeric nutrient standards for each of the waterbody types in the state or territory that have been approved or promulgated.

For WQ-01d: The source of information for this measure is the full set of milestone information (defined above) provided by each state or territory. EPA requires this information as part of annual work plans and performance partnership agreements with states and territories. Similar to WQ-1a, results will be computed by adding the number of numeric nutrient standards for each waterbody type in the state or territory where milestone information indicates the standards are *planned to be adopted within 3 years*.

Standards counted under WQ-1a do not count under WQ-1d, and vice-versa. Consequently, the sum of both WQ-1a and WQ-1d cannot exceed the universe for the state or territory.

Units: Numeric water quality standards

Universe: 278 standards nationwide. The state or territory's universe can have up to 6 standards: 2 standards (TN or TP) for each state watertype (i.e., lakes/reservoirs, rivers/streams, and estuaries). State/Territory universes range from 2 to 6 standards. There are 55 states and territories with lakes/reservoirs, 54 with rivers/streams, and 30 states/territories with estuaries.

Baseline: The number of numeric TN and TP standards had been adopted by states and territories, and approved by EPA as of December 2008.

Measure Code: WQ-02

Measure Language: Number of tribes that have water quality standards approved by EPA. (cumulative)

Type of Measure: Target measure; cumulative measure

Measure Contact: Gregory Stapleton, EPA Office of Science and Technology
stapleton.gregory@epa.gov | (202) 566-1028

Measure Definition

Terms and phrases: *Tribes* means a federally recognized Indian tribe that meets certain conditions (see methodology below). The water quality standards program refers to a tribe that meets the first condition below as an "authorized tribe."

Methodology for computation of results: A tribe will be counted as having EPA-approved water quality standards (WQS) if all three of the following criteria have been met:

- a. The tribe has been authorized to administer its own water quality standards program (i.e., EPA has found it eligible for treatment in the same manner as a state, TAS); and
- b. The tribe has adopted and submitted an initial set of water quality standards to EPA; and,
- c. EPA has approved the initial standards.

Additionally, tribes having EPA-promulgated federal standards will count under this measure.

Units: Tribes

Universe: All federally recognized tribes who have applied to become eligible for "treatment in the same manner as a state" (TAS) to administer the water quality standards program (as of the end of the preceding fiscal year).

Baseline: The baseline comprises the 25 TAS-eligible tribes that had adopted EPA-approved water quality standards by September 30, 2005, plus one tribe (Colville Reservation) for which EPA promulgated federal water quality standards in 1989.

Measure Code: WQ-03 (a,b)

Measure Language: (WQ-03a): Number, and national percent, of states and territories that within the preceding three year period, submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards.

(WQ-03b): Number, and national percent, of tribes that within the preceding three year period, submitted new or revised water quality criteria acceptable to EPA that reflect new scientific information from EPA or other sources not considered in the previous standards. NOTE: WQ-03a is a PART annual output measure for the Water Pollution Control Grants (Section 106) program.

WQ-3a and WQ-3b are reported separately in the EPA Annual Commitment System (ACS).

Type of Measure: Target measure; annually reported

Measure Contact: Gregory Stapleton, EPA Office of Science and Technology
stapleton.gregory@epa.gov | (202) 566-1028

Measure Definition

Terms and phrases:

- *Acceptable* to EPA means that EPA has approved the new or revised criteria for that state, territory, or tribe as of September 30, 2016.
- *Three year period* means May 1, 2013 through April 30, 2016 to allow at least 5 months for EPA-approval.
- *New scientific information* from EPA includes, but is not limited to, draft or final water quality criteria documents, and updated information posted on <http://water.epa.gov/scitech/swguidance/waterquality/standards/criteria/>. It could also include revised criteria implementation guidance, and scientific information provided by EPA regions or other EPA Offices to assist state, territorial, or tribal adoption of statewide or local criteria.

Methodology for computation of results: Reporting of results for this measure will be generated from the Water Quality Standards (WQS) Actions Tracking Application (WATA) and submitted to the Annual Commitment System after confirmation with Regional WQS Coordinators. Regions will identify in WATA any submissions or submission parts that include one or more new water quality criteria or revised criteria acceptable to EPA that reflect new scientific information not considered in the previous criteria. Adoption and EPA approval of initial tribal standards that include water quality criteria will enable an authorized tribe to be counted under this measure.

The WATA system will be used to identify all submissions received from May 1, 2013, through April 30, 2016 that meet the above criteria and can therefore be reported as meeting the measure.

If a state, territory, or tribe has not adopted any such criteria, the entity can nevertheless be counted under this measure if:

- a. EPA has not issued any new or revised water quality criteria applicable to that entity's waters, including revisions to the published table of EPA recommended criteria at <http://water.epa.gov/scitech/swguidance/waterquality/standards/criteria/> that would trigger this measure. For toxic pollutants, "applicable to that state's water" includes pollutants that are reasonably expected to interfere with designated uses; OR
- b. The entity completed a defensible scientific review of the new scientific information EPA has issued and has determined that no changes are needed to their existing water quality criteria. This would be counted for FY 2016 if the associated public review and comment occurred between October 1, 2013, and September 30, 2016; OR
- c. For an authorized tribe, EPA approved the tribe's initial water quality standards (including water quality criteria) between October 1, 2013, and September 30, 2016.

Note the overlap in time periods: a state that made such a submittal, in, say, July 2014, could get counted in FY 2014, 2015, and 2016 . Conversely, a state that last submitted such criteria, say, in November 2012, would get counted in FY 2015 but not in FY 2016.

Note that the measure allows EPA from 5 to 41 months to approve the criteria, depending on the date of submission during the three-year period specified above.

Units: States and territories (WQ-3a) or tribes (WQ-3b)

Universe: WQ-03a: 50 states, the District of Columbia, and territories of Puerto Rico, Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands (56 entities). WQ-03b: This universe is

the number of authorized tribes with EPA-approved water quality standards at the end of FY 2015, excluding any tribes whose standards are completely promulgated by EPA (currently only the Confederated Tribes of the Colville Reservation).

Baseline: WQ-03a: States and territories that submitted new or revised WQ criteria acceptable to EPA for the first year reporting under this definition (FY 2005). WQ-03b: Tribes that submitted new or revised WQ criteria acceptable to EPA for the first year reporting under this definition (FY 2005).

Measure Code: WQ-04a

Measure Language: Percentage of submissions of new or revised water quality standards from states and territories that are approved by EPA.

Type of Measure: Indicator measure; annually reported

Measure Contact: Gregory Stapleton, EPA Office of Science and Technology

stapleton.gregory@epa.gov | (202) 566-1028

Measure Definition

Terms and phrases:

- *Submission* means a single package of new or revised water quality standards duly transmitted to EPA in accordance with 40 CFR parts 131 or 132. Typically the submission would be the set of documents transmitted by one letter from a state, territorial, or tribal official, including a certification from the Attorney General or equivalent. A submission can include triennial reviews, statewide WQS revisions, use attainability analyses or site-specific criteria for individual waters, general policies, anti-degradation policies or procedures, and variances. In short, anything duly submitted to EPA pursuant to 131.20 that EPA must act review and approve or disapprove.
- *Partial approvals receive fractional credit* means that partial approvals count proportionally. The proportion is determined by the number of provisions approved compared to the total number of provisions in a submission. For example, a submission would receive a credit of 0.85 submission if the region approved 17 of the 20 provisions in the submission. EPA uses a default of 0.50 submission for a partial approval if the number of provisions in a submission cannot be readily estimated.
- **Methodology for computation of results:** The purpose of this measure is to provide insight into the "approvability" of state submissions. A disapproval or a "no action" does not count toward meeting this measure.
- As described under Universe below, the basis for the percentage calculation is the number of new or revised submissions during May 1, 2015, through April 30, 2016. The percentage approved is calculated as the number of submissions (or fractions thereof) that EPA has approved by September 30, 2016, divided by the universe of submissions for FY 2016. Note that this measure allows from 5 to 17 months for an approval to occur, depending on the date of submission.

- This measure will be computed using information in the WQS Actions Tracking Application (WATA) system.

Reporting of results for this measure will be generated from WATA and submitted to the Annual Commitment System after confirmation with Regional WQS Coordinators.

Units: WQS submissions from states and territories (expressed as a percentage)

Universe: The universe changes annually based on the number of submissions EPA receives from states and territories. The WATA system will count the number of such submissions or fractions of submissions that EPA approved through September 30.

Baseline: For states and territories, the baseline was 85.6% for the first year reporting under this definition (FY 2007).

Measure Code: WQ-06 (a,)

Measure Language: (WQ-06a): Number of tribes that currently receive funding under Section 106 of the Clean Water Act that have developed and begun implementing monitoring strategies that are appropriate to their water quality program consistent with EPA Guidance.

Type of Measure: Target measure; cumulative measure

Measure Contact: Susan Holdsworth, EPA Office of Wetlands, Oceans, and Watersheds

holdsworth.susan@epa.gov | (202) 566-1187

Measure Definition: In October 2006, EPA issued *Final Guidance on Awards of Grants to Indian Tribes under Section 106 of the Clean Water Act* that requires tribes to develop monitoring strategies appropriate to their capabilities and needs, and provide reports on water quality to EPA. The tribal guidance outlines reporting requirements and data expectations for all tribal programs receiving section 106 funds. These requirements will help tribes to collect critical data and information for effective management of their water quality programs. The requirements will also help EPA measure environmental results of the section 106 Tribal Program and comply with the Government Performance and Results Act (GPRA) and other federal requirements.

Terms and phrases:

WQ-06a is a cumulative measure that counts tribes that have developed, submitted to the region, and begun implementing water monitoring strategies that are consistent with the EPA 106 Tribal Guidance. Regions should count all tribes that have submitted and begun implementing (may include planning implementation) strategies, even those that have not yet been accepted by the region. These strategies are developed in partnership with regional staff and deemed appropriate for the level (fundamental, intermediate or advanced) of any particular tribe as considered by the regional office.

Methodology for computation of results: Regional monitoring and tribal 106 coordinators work with tribes to make determinations on progress as annual workplans for use of monitoring funds are developed. A standard template has been made available through EPA regional offices as tribes have begun to implement this reporting requirement. EPA plans to continue to make additional templates available as tools for data submission to EPA evolve.

Units: Tribes

Universe: The total number of tribes eligible to receive Clean Water Act Section 106 funds. This number could change as new tribes become eligible.

Baseline: The FY 2005 baseline for WQ-06a is 0 tribes.

Measure Code: WQ-09 (a,b,c)

Measure Language: (WQ-09a): Estimated annual reduction in million pounds of nitrogen from nonpoint sources to waterbodies (Section 319 funded projects only).

(WQ-09b): Estimated annual reduction in million pounds of phosphorus from nonpoint sources to waterbodies (Section 319 funded projects only).

(WQ-09c): Estimated annual reduction in tons of sediment from nonpoint sources to waterbodies (Section 319 funded projects only).

Type of Measure: Target measure; annually reported

Measure Contact: Lynda Hall, EPA Office of Wetlands, Oceans, and Watersheds

hall.Lynda@epa.gov | (202) 566-1210

Measure Definition

Terms and phrases: Nonpoint sources are diffuse pollution sources (i.e. without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common non-point sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.

Under [Clean Water Act Section 319\(h\)](#), EPA awards grants for implementation of state NPS management programs. State grant recipients are required to report annually to EPA their progress in meeting milestones, including implementation of NPS pollution control practices and associated reductions of NPS pollutant loadings to waterbodies.

Methodology for computation of results: EPA collects this information in its [Grants Reporting and Tracking System](#) (GRTS) for Section 319-funded on-the-ground implementation projects where one or more of these three pollutants (nitrogen, phosphorus, or sediment) are addressed by the project. States are not required to enter this information into GRTS until the best management practices (BMPs) have actually been implemented. Therefore, load reduction data entered into GRTS in a particular year usually reflects the results of projects funded by one or more prior grant appropriations. Results are reported in GRTS by mid-February for the previous year of implementation work. The numbers represent new load reduction estimates that were achieved by any active non-point source (NPS) project that implemented new BMPs. Load reductions for each new BMP are only counted for the first year of implementation rather than for the service life of each particular BMP (reductions are not cumulative). Load estimates may be calculated using EPA-supported STEPL or Region 5 models, or any other model which can sufficiently estimate load reductions (specific models used to calculate estimated load reductions must also be reported in GRTS). The Office of Wetlands, Oceans, and Watersheds (OWOW) provides one national number for

each of the three pollutants based on the data entered by states in GRTS. No regional breakdown of load reductions is provided.

Units: Millions of pounds of nitrogen (WQ-09a) and phosphorus (WQ-09b) and tons of sediment (WQ-09c)

Universe: n/a – not historically available for nonpoint sources 2009

Baseline: The reduction (pounds and tons) at a point in time

Measure Code: WQ-10

Measure Language: Number of waterbodies identified by States (in 2000 or subsequent years) as being primarily nonpoint source (NPS)-impaired that are partially or fully restored. (cumulative)

Type of Measure: Target measure; cumulative measure

Measure Contact: Lynda Hall, EPA Office of Wetlands, Oceans, and Watersheds

hall.lynda@epa.gov | (202) 566-1210

Measure Definition

Terms and phrases:

- By *fully restored*, EPA means that all designated uses are now being met.
- By *partially restored*, EPA means either of the following two conditions are being met:
 - a. A waterbody that has a use that is initially impaired by more than one pollutant, but after restoration efforts meets the criteria for one or more (but not all) of those pollutants, or
 - b. A waterbody that initially has more than one use that is less than fully supported, but after restoration efforts one or more (but not all) of those uses becomes fully supported.

Methodology for computation of results: Since the main referent for this measure will be State 303(d) or Integrated Reports, States which did not submit 2000 303(d) lists may substitute the 1998 list for their base year. "Waterbodies" therefore refer to 303(d)-listed segments or category 4 or 5 waters on the Integrated Report. **The measure includes all primarily NPS-impaired waterbodies that a state fully or partially restores, regardless of funding source.** Waters listed **after** 1998/2000 which are then delisted from the 303(d) list (for some or all pollutants) or which move from categories 4 (which includes waters impaired by "pollution") or 5 to category 1 or 2 may also be counted against this measure. In other words, although 1998/2000 is the base year, the 303(d) lists for those years need not be the only referent lists.

On an ad hoc basis, EPA may approve counting a waterbody against this measure that has been partially or fully restored, but not yet removed from the 303(d) list. This will only occur if the water has actually been restored (i.e. meeting water quality standards); EPA will not count cases where the State merely believes the water will be restored by the time of their next 303(d) listing.

Please note that a waterbody cannot be counted simply because it has been de-listed from a state 303(d) list, or moves from categories 4 or 5 to 1 or 2, for reasons other than actual restoration (e.g., it is determined that it was inappropriately listed in the first place, it has a TMDL done for it, etc.).

There may be times when a waterbody does not actually change categories, but a use has been restored. Take the following situation: a waterbody is listed under both categories 2 and 5 in one reporting year, and then under these same categories the next reporting year, even though one of the water's uses has gone from not supported to fully supported. For example, if a waterbody has three uses, and in the first reporting year has one use fully supported and two uses not supported, it might be listed under both categories 2 and 5. If in the next reporting year, one of the two uses that was previously not supported becomes fully supported, then the waterbody would still be listed under categories 2 and 5 – but a use will have been restored (i.e. the waterbody meets the criterion for "partially restored" designation). If a use has actually been restored, then this waterbody may be counted against this measure, regardless of whether or not the categorization of the waterbody stays static.

In addition, a waterbody will not be counted towards this measure if no specific management activities have been taken (by any party) within the watershed to improve water quality. Furthermore, a waterbody cannot be counted twice under this measure (e.g. movement from impaired to partially restored, then from partially restored to fully restored). Any given waterbody may only be counted once under this measure. For a waterbody to be counted as "partially or fully restored," it must be described by a story on EPA's NPS Success Story Website (<http://www.epa.gov/owow/nps/Success319/>). On the Success Stories website, the heading "Stories about partially or fully restored water bodies" is the section that refers to this measure. Without such a story, the water will not be counted against this measure.

Success stories submitted for states or tribes should be 2 pages or less (approximately 1,000 words) and include the following elements:

- Title
- Waterbody Improved/Removed Status (was the waterbody removed from the 303(d) list)
- Problem
- Project Highlights (description of restoration efforts that led to delisting)
- Results (monitoring data or a narrative description of improvements, consistent with state 303(d) listing and delisting methodologies)
- Partners and funding
- Photos and/or Table/graph/chart showing water quality data (where applicable and available)
- GRTS project number(s) (where applicable)
- Year waterbody listed or de-listed (or proposed to be de-listed) from 303(d) list
- Contact information

For detailed information in developing Success Stories (including information on the above elements), refer to the [Format and Content for Section 319 Success Stories](#) guidance document, (11

pp, 285K, [About PDF](#)) In addition to using this guidance document as a reference, States may also submit the [Success Story Builder](#) tool (2.9MB) to assist in the development of their success story narrative. The tool contains all information necessary to construct a complete document.

A story may include more than one waterbody, where appropriate.

As for determining whether or not a waterbody is "primarily" NPS-impaired, this will be left to the best professional judgment of the States. EPA does not expect that the State should do a detailed analysis when making a judgment on whether a given waterbody is "primarily" NPS-impaired, when a precise determination would be exceedingly difficult (such as, for example, when a single listed water moves through both permitted MS4 areas as well as through non-permitted areas).

WQ-SP12.N11 measure connection: Under some circumstances, a WQ-10 waterbody may be included within a 12 digit watershed for reporting under WQ-SP12.N11 (watershed improvement). Consult the detailed definitions for both measures to determine whether a particular waterbody is eligible under both measures.

Units: Waterbodies (partially and fully restored)

Universe: There is no universe of NPS-impaired waterbodies for this measure. Although the base year began with the 2000 303(d) list or Integrated Report, the universe of NPS-impaired waterbody segments shifts with each new 303(d) list or Integrated Report, since this measure allows inclusion of listed segments beyond the 2000 impairment lists.

Baseline: The base year (FY 2005) in which the first Success Stories were posted to the website.

Measure Code: WQ-11

Measure Language: Number, and national percent, of follow-up actions that are completed by assessed NPDES (National Pollutant Discharge Elimination System) programs. (cumulative)

Type of Measure: Indicator measure; cumulative measure

Measure Contact: Jackie Clark, EPA Office of Wastewater Management

clark.jackie@epa.gov | (202) 564-6582

Measure Definition: Assessed NPDES programs include 46 authorized states, 4 unauthorized states (MA, NH, NM, ID), 1 authorized territory (VI), 3 unauthorized territories (DC, PR, Pacific Island Territories), and 10 regions (total of 64 programs) assessed through the Permitting for Environmental Results (PER) program and Permit Quality Reviews (PQRs).

Terms and phrases:

- *Follow-up actions* – Otherwise referred to by EPA as "action items." OWM tracks the status and completion dates of all action items in a separate database. OWM coordinates with regions at mid-year and end-of-year to update status and provides the region's Annual Commitment System (ACS) contact with the number of cumulative completed action items since 2004. The regions are responsible for putting this number into ACS.
- *National Pollutant Discharge Elimination System (NPDES)* – A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special

permit is issued by EPA, a state, or, where delegated, a tribal government on an Indian reservation.

Methodology for computation of results: The results are calculated by adding the total number of new action items completed by the end of the fiscal year to the cumulative number of action items completed to date.

Units: Action items

Universe: All follow-up actions for which a schedule has been established to date. The universe increases as additional action items are identified by the regions and through OWM program review.

Baseline: The number of action items that were completed at a point in time (FY 2005).

Measure Code: WQ-12 (a,b)

Measure Language: (WQ-12a): Percent of non-tribal facilities covered by NPDES permits that are considered current.

(WQ-12b): Percent of tribal facilities covered by NPDES permits that are considered current.

Type of Measure: Target measure; cumulative measure

Measure Contact: Jackie Clark, EPA Office of Wastewater Management

clark.jackie@epa.gov | (202) 564-6582

Measure Definition

Terms and phrases: *National Pollutant Discharge Elimination System (NPDES)* – A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or, where authorized, a tribal government on an Indian reservation.

The Clean Water Act specifies that NPDES permits may not be issued for longer than five year terms. Permittees that wish to continue discharging beyond the five-year term must submit an application for permit renewal. If the permitting authority receives a complete application, but does not reissue the permit prior to the expiration date, the existing permit is generally "administratively continued." A "backlogged" permit is an active permit that has been expired for more than 180 days (including those administratively continued permits) or an application for a new permit that has not yet been issued 365 days after receipt of the application, where information is available. A permit is considered current if it has not reached its expiration date or has not been expired more than 180 days.

Methodology for computation of results: Results are determined by calculating the percent of facilities that are covered by permits considered current (i.e., not "backlogged") out of the universe of facilities covered by NPDES individual and non-stormwater general permits.

Units: Facilities (WQ-12a non-tribal, WQ-12b tribal)

Universe: The number of facilities covered under all major individual, non-stormwater minor individual, and non-stormwater general NPDES permits.

Baseline: The national percent of facilities covered under all major individual, non-stormwater minor individual, and non-stormwater general NPDES permits that were considered current at a point in time (FY 2005).

Measure Code: WQ-13 (a,b,c,d)

Measure Language: (WQ-13a): Number of MS4s covered under either an individual or general permit.

(WQ-13b): Number of facilities covered under either an individual or general industrial storm water permit.

(WQ-13c): Number of sites covered under either an individual or general construction storm water site permit.

(WQ-13d): Number of facilities covered under either an individual or general CAFO permit.

Type of Measure: Indicator measures; cumulative measures

Measure Contact: Jackie Clark, EPA Office of Wastewater Management

clark.jackie@epa.gov | (202) 564-6582

Measure Definition

Terms and phrases:

- An *MS4* is a conveyance or system of conveyances that is: owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.; designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.); not a combined sewer; and not part of a Publicly Owned Treatment Works (sewage treatment plant).
- *Concentrated Animal Feeding Operations (CAFOs)* are point sources, as defined by the CWA [Section 502(14)]. To be considered a CAFO, a facility must first be defined as an Animal Feeding Operation (AFO). AFOs are agricultural operations where animals are kept and raised in confined situations.

The largest AFOs are defined as CAFOs based solely on the number of animals confined; smaller AFOs can be defined as CAFOs based both on size and type of discharge.

Methodology for computation of results: For measure (a), report the actual number of MS4s covered under an existing MS4 permit. For measure (b) report the number of dischargers covered under an industrial stormwater permit, and (c), report the number of construction site operators obtaining coverage under a construction stormwater permits. For measure (d) report all CAFOs covered by an NPDES permit.

- WQ-13a: The number of MS4s of all sizes covered under an existing MS4 individual or general permit at the close of the reporting period. Each co-permittee should be counted individually.
- WQ-13b: The number of facilities covered under an industrial stormwater permit at the close of the reporting period.
- WQ-13c: The number of construction sites obtaining authorization to be covered under a construction stormwater general permit during the reporting period.

- WQ-13d: The number of facilities covered under a CAFO permit at the close of the reporting period.

Units: (WQ-13a) MS-4s; (WQ-13b,c,d) facilities

Universe: WQ-13a,b,c: n/a. WQ-13d: The total number of facilities covered under either stormwater or CAFO NPDES permits.

Baseline: WQ-13a,b,c: The known number of facilities in FY 2007. WQ-13d: The known number of facilities covered under either stormwater or CAFO NPDES permits at that time.

Measure Code: WQ-14 (a,b)

Measure Language: (WQ-14a): Number, and national percent, of Significant Industrial Users (SIUs) that are discharging to POTWs with Pretreatment Programs that have control mechanisms in place that implement applicable pretreatment standards and requirements.

(WQ-14b): Number, and national percent, of Categorical Industrial Users (CIUs) that are discharging to POTWs without Pretreatment Programs that have control mechanisms in place that implement applicable pretreatment standards and requirements.

Type of Measure: WQ-14a – Target measure; WQ-14b – Indicator measure; both cumulative measures

Measure Contact: Jackie Clark, EPA Office of Wastewater Management

clark.jackie@epa.gov | (202) 564-6582

Measure Definition

Terms and phrases:

- *Categorical Industrial Users (CIUs)* – An industrial user subject to National Categorical Pretreatment Standards.
- *Control Mechanisms* – Permit, order, or similar means to regulate the contribution to the POTW by each Industrial User and to ensure compliance with applicable Pretreatment Standards and requirements.
- *POTWs with Pretreatment Programs* – 40 CFR 403.8(a). Certain POTWs receiving from Industrial Users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards are required to establish POTW Pretreatment Programs to address their issues.
- *POTWs without Pretreatment Programs* – Any POTW not required to develop a pretreatment program.
- *Pretreatment Requirements* – 40 CFR 403.3(t). Any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User.
- *Pretreatment Standards* – 40 CFR 403.3(l). Any regulation containing pollutant discharge limits promulgated by EPA in accordance with section 307 (b) and (c) of the Act, which

applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to § 403.5.

- *Significant Industrial Users (SIUs)* – 40 CFR 403.3(v)(1)(i)&(ii). All Industrial Users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Methodology for computation of results:

For WQ-14a, the region reports the number of SIUs that are discharging to POTWs with pretreatment programs that have control mechanisms in place in the main data field of the EPA Annual Commitment System (ACS). In the comments section of ACS, the regions should also report the universe of SIUs and the percent of SIUs that are discharging to POTWs with pretreatment programs that have control mechanisms in place. The results are calculated by dividing the number of SIUs that have control mechanisms by the universe of SIUs to determine the percent of SIUs that are discharging to POTWs with pretreatment programs that have control mechanisms in place. For targets and commitments, states and regions will commit to both a number and a percentage, but will be held to the percentage commitment.

For WQ-14b, the region reports the number of CIUs that are discharging to POTWs without Pretreatment Programs and have control mechanisms in place. In the comments section of ACS, the regions should also report the universe of CIUs discharging to POTWs without Pretreatment Programs and the percent of CIUs that are discharging to POTWs without Pretreatment Programs that have control mechanisms in place. The results are calculated by dividing the number of CIUs that have control mechanisms by the universe of CIUs to determine the percent of CIUs that are discharging to POTWs without pretreatment programs that have control mechanisms in place.

Where EPA is the Approval Authority and the state does not have CIU permitting authority, a control mechanism may consist of notification to CIUs of reporting requirements and tracking by EPA.

Units: SIUs (WQ-14a); CIUs (WQ-14b)

Universe: The universe represents the total number of SIUs and CIUs at the beginning of the most current fiscal year.

Baseline: The number and percentage of SIUs and CIUs with control mechanisms in place at a point in time (FY 2007).

Measure Code: WQ-17

Measure Language: Fund utilization rate (cumulative loan agreement dollars to the cumulative funds available for projects) for the Clean Water State Revolving Fund (CWSRF).

Type of Measure: Target Measure; cumulative measure

Measure Contact: Mark Mylin, EPA Office of Wastewater Management

mylin.mark@epa.gov | (202) 564-0607

Measure Definition

Terms and phrases:

- *Loan agreements* are the dollar amount of loans provided by the State Clean Water State Revolving Fund (CWSRF) to eligible borrowers.
- *Funds available* for projects are the dollar amount of monies in the CWSRF over time that are available to fund projects. Such monies include federal capitalization grants, state matching contributions, bond proceeds, loan repayments, and interest earnings.

Methodology for computation of results: The measure is calculated by dividing cumulative loan agreement dollars into the cumulative funds available for projects.

Units: Dollars (expressed as a percentage)

Universe: The universe is the total cumulative amount of funds available for projects since the program's inception in 1988. Data are collected annually from all 51 state CWSRF programs (50 states and Puerto Rico).

Baseline: The fund utilization rate using data collected annually from all 51 state CWSRF programs (50 states and Puerto Rico) in FY 2005.

Measure Code: WQ-19 (a,b)

Measure Language: (WQ-19a): Number and national percent of high priority state NPDES permits that are issued in the fiscal year.

(WQ-19b): Number and national percent of high priority state and EPA (including tribal) NPDES permits that are issued in the fiscal year.

Type of Measure: Target measure; annually reported

Measure Contact: Jackie Clark, EPA Office of Wastewater Management

clark.jackie@epa.gov | (202) 564-6582

Measure Definition

Terms and phrases: *National Pollutant Discharge Elimination System* (NPDES) – A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or, where authorized, a tribal government on an Indian reservation.

Each year, state and regional authorities are provided with a list of permits eligible for selection as priority permits. This "candidate list" is comprised of all permits expired for greater than two years. From this candidate list, states and regions are asked to select at least 20% as "priority permits," meaning that those permits are a high priority for issuance based on programmatic and environmental criteria. States and regions then commit to issuing a certain number of these permits

during the fiscal year. Permits that are expired as of the beginning of the fiscal year and those permits that will expire during the subject fiscal year can also be added to the list of priority permits after 20% of the permits expired greater than two years have been selected.

Methodology for computation of results: Results are determined by dividing the number of priority permits issued during the subject fiscal year by the number of permits selected as priority for the subject fiscal year. For example, if out of 100 candidates, 20 permits were selected as priority and a state or region commits to issuing 16 of those 20 during the fiscal year, if 18 are issued, results will be calculated as $18/20=90\%$, not $18/16=112.5\%$.

Units: Permits

Universe: The universe will be calculated just prior to the start of the fiscal year when candidate permit lists are developed and states and regions select priority permits. The candidate lists are created close to the start of the fiscal year in order to have a more accurate list of permits expired greater than two years, taking into account as much of the prior year's permit issuance as possible.

Baseline: n/a

Measure Code: WQ-23

Measure Language: Percent of serviceable rural Alaska homes with access to drinking water supply and wastewater disposal

Type of Measure: Target measure; annually reported

Measure Contact: Matthew Richardson, Office of Wastewater Management

richardson.matthew@epa.gov | (202) 564-2947

Dennis Wagner, EPA Alaska Operations Office

wagner.dennisx@epa.gov | (202) 564-0691

Measure Definition

Terms and phrases:

- *Homes* are the houses within Alaskan Native Villages
- *Serviceable* means homes that can be provided with drinking water and/or wastewater service that meets public health standards. Homes that cannot be serviced are those homes such as: seasonal homes, structurally unsound or are cost prohibitive to serve. It is estimated that approximately 6% of the total homes in rural Alaska are not serviceable.
- *Access* means the reduction in the sanitation deficiency level of a tribal home from a 4 or 5 to a 3 or less. The sanitation deficiency levels definitions are described in Appendix E of the "Indian Health Service Sanitation Deficiency System Guide for Reporting Sanitation Deficiencies for Indian Homes and Communities," working draft, May 2003 and may be found online at: <http://www.dsfc.ihc.gov/Documents/SDSWorkingDraft2003.pdf>

 EXIT Disclaimer

- *Sanitation deficiency* is an identified need for new or upgraded sanitation facilities for existing homes of American Indians or Alaska Natives

Methodology for computation of results: Housing information is collected annually, typically in March, in order to capture progress over the previous construction season. For example, housing information collected in March 2011 reflects progress through 2010. Analysis and data reviews are conducted in roughly April of each year, and the results available in approximately in May of each year.

The housing information is based on annual housing surveys that include homes served and also homes that have been funded to be served. This allows for the program to account for the progress made through granted funds before the homes are actually served. The annual housing survey also allows for the program to track the construction of new homes that are not served in rural Alaska.

Units: Serviceable rural Alaska homes

Universe: Dynamic since new homes are constructed

Baseline: Serviceable rural Alaska homes at a point in time (FY 2010)

Measure Code: WQ-25 (a,b)

Measure Language: (WQ-25a) Number of urban water projects initiated addressing water quality issues in the community.

(WQ-25b) Number of urban water projects completed addressing water quality issues in the community. (cumulative)

Type of Measure: Target measures; annual measure (WQ-25a); cumulative measure (WQ-25b)

Measure Contact: Surabhi Shah, EPA Office of Water

shah.surabhi@epa.gov | (202) 564-3833

Measure Definition

Terms and phrases: Please note, the definitions below are pending further discussion with stakeholders.

- *Project initiation* refers to the point in time when an award of the grant or cooperative agreement was made.
- *Project completion* refers to the point in time when an approval of the project's final report was made.
- *Urban Waters Small Grants* focus on research, studies, training, and demonstration projects that will advance the restoration of urban waters by improving water quality through activities that also support community revitalization and local priorities.

Methodology for computation of results

Units: Urban water projects

Universe: n/a

Baseline: The number of projects initiated or completed at a point in time (FY 2012 for WQ-25a and FY 2013 for WQ-25b)

Measure Code: WQ-27 (under development)

Measure Language: Extent of priority areas identified by each state that are addressed by EPA-approved TMDLs or alternative restoration approaches for impaired waters that will achieve water quality standards. These areas may also include protection approaches for unimpaired waters to maintain water quality standards.

The CWA 303(d) TMDL and Listing Program is addressing comments received on the draft computational guidance. We anticipate that this effort will be concluded in late summer 2015, at which time the computational guidance will be available for use for FY 2016. Should you have any questions as your state begins to discuss these measures for FY 2016, please contact Shera Reems at reems.shera@epa.gov.

Measure Code: WQ-28 (under development)

Measure Language: State-wide extent of activities leading to completed TMDLs or alternative restoration approaches for impaired waters, or protection approaches for unimpaired waters.

The CWA 303(d) TMDL and Listing Program is addressing comments received on the draft computational guidance. We anticipate that this effort will be concluded in late summer 2015, at which time the computational guidance will be available for use for FY 2016. Should you have any questions as your state begins to discuss these measures for FY 2016, please contact Shera Reems at reems.shera@epa.gov.

Measure Code: WQ-29

Measure Language: Number of states protecting or improving water quality conditions, as demonstrated by state-scale statistical surveys:

- On average, water quality is improving or at least not degrading (there is no statistically significant decrease in mean water quality);
- The percentage of waters in good condition is increasing or remaining constant; and,
- The percentage of waters in poor condition is decreasing or remaining constant.

Objective: Use water quality monitoring results from state statistically–representative surveys to track statewide changes in water quality conditions for specific water body types (e.g., rivers, streams, lakes, coastal waters and wetlands). This measure differs from existing measures, in that it captures incremental success in protecting and improving water quality across a state by answering the following questions:

- Are waters in good condition being protected? (i.e., no decrease in percent of waters in good condition);
- Are waters not getting worse? (i.e., no increase in percentage of waters in poor condition); and,
- How is overall water quality changing (i.e., the mean value is shifting in a positive, improving direction).

This measure is a complement to existing measures that track:

- waterbodies listed as impaired in 2002 that are fully attaining water quality standards (SP–10)
- waterbodies that are partially restored because specific causes of impairment have been removed (SP–11)
- watersheds with impaired waters demonstrating incremental improvements in water quality using the watershed approach (SP–12).

Background: Following the *Elements of a State Monitoring and Reporting Program, (EPA 2003)* and the *2008 Guidelines for the Award of Monitoring Initiative Funds under Section 106 Grants to States, Interstate Agencies, and Tribes*, states began implementing statewide statistical surveys to address the gap in reporting on the condition of waters state wide. Statewide statistical surveys are water quality assessments designed to yield unbiased estimates of the condition of a resource class (such as *all* lakes greater than 4 hectares) based on monitoring a representative sample of those waters. States use statewide statistical surveys to describe how widespread water quality problems are in the state by providing a statewide characterization of the extent of waters in different condition categories, with documented confidence. The survey results complement site–specific, targeted monitoring activities which provide detailed information about individual waters.

Over time surveys can be used to track changes in water condition across the state scale or sub–state scale depending on design. Reporting on this measure will be supported by data from the statewide statistical surveys that states have adopted as part of their state monitoring programs either independently or in conjunction with the National Aquatic Resource Surveys. It is important to recognize that this is a long term measure with most states rotating through each water body type (e.g., river, stream, lakes, wetlands, etc) on a 5 year rotating cycle. Each year a different water body type may be reported, but it will take decades to document significant changes in condition for each of those water body types.

Type of Measure: Indicator

Measure Definitions

a) **Terms and phrases:**

Improved: The results of successive statewide statistically valid surveys for a specific waterbody type and core indicator demonstrate that:

- There is no decrease in the percent of waters in good condition;
- There is no increase in the percentage of waters in poor condition; and,
- The mean value for water quality condition is shifting in a positive direction.

State-wide statistically valid survey: A state-scale survey that meets the criteria set out in the *2008 Guidelines for the Award of Monitoring Initiative Funds under Section 106 Grants to States, Interstate Agencies, and Tribes* (<http://www.epa.gov/fedrgstr/EPA-WATER/2008/July/Day-17/w16385.pdf>)

Core indicators: Indicators or chemical/ physical parameters selected by the state and reported consistently to track water quality (e.g., biology, habitat, total suspended solids, total nitrogen and phosphorus). Refer to the elements of a state monitoring program and the national aquatic resource surveys for examples of appropriate core indicators.

Condition categories: Categories are defined by the state (e.g., excellent, good, fair, poor) and used to describe gradations of water quality in general groupings. They may be defined based by state implementation methodologies for interpreting biological data to reflect aquatic life use characteristic of applications of the reference condition approach and the biological condition gradient approach. For purposes of this measure, “higher” (or the “highest”) condition categories are those with better (or the best) water quality conditions.

Good condition and poor condition: EPA recognizes that states use different terminology and gradients to classify water quality condition. For purposes of this measure, “good condition” means the state-defined condition category (or categories) with the higher water quality conditions. In general, waters in good condition meet water quality standards. “Poor condition” means the state-defined condition category (or categories) with the lowest water quality conditions.

Mean value for water quality condition: The mean value of a water quality parameter or indicator for the set population. For example, the mean score for the population of waters surveyed for biological condition using the states’ Index for Biotic Integrity for benthic macroinvertebrates is shifting in an improving direction, usually a higher score is better for IBI. For stressors like nutrients, a lower concentration is better, the improving direction would be a lower mean concentration of nutrients across the population of waters surveyed.

b) Methodology for computation of results:

The data used to report on this measure should be derived from state-scale statistically-valid surveys that meet the criteria contained in the *2008 Guidelines for the Award of Monitoring Initiative Funds under Section 106 Grants to States, Interstate Agencies, and Tribes* (2008 Guidelines). This may include, but is not limited to data collected through participation in the national aquatic resource surveys. State-scale statistical surveys are conducted for specific waterbody types and results are reported as the percentage and amount of waters within each state-defined condition category by core indicator. For example, “Stream Condition Index scores showed that 10% of

streams are in excellent condition, 20% are in good condition, 50% are in fair condition and 20% are in poor condition.”

A baseline for this measure begins with the first report of state-scale survey results. Measure results indicating states are protecting or improving water quality across the state cannot be reported until a state has completed at least two statewide statistical surveys for a specific waterbody type, which EPA recognizes may not happen for several years. The surveys being compared across time must include core indicators that are interpreted consistently across the surveys (i.e., the parameters, collection and analytical methods, and interpretation thresholds).

The measure is intended to track positive shifts or improvements across the water quality spectrum (i.e., low to high quality) while ensuring there is no degradation in water quality.

States will estimate the percentage and amount of waters in each state-defined condition category and compare these results to successive statewide statistical surveys for a specific waterbody type and core indicator. For example, a state has completed a state-scale statistically-valid survey for lakes and the results indicate that for biological condition, 10% of the state's lakes are in excellent condition, while 50% are in good condition, 20% are in fair condition, and 20% are in poor condition. Five years later, the state completes a second statewide statistical survey of lakes and the biological condition scores show 10% of the state's lakes are in excellent condition, while 60% are in good condition, 25% are in fair condition, and 5% are in poor condition. In this case, 15% of lakes showed incremental improvements in water quality (i.e., 10% increase in lakes in good condition plus a 5% increase in lakes in fair condition).

States also estimate the mean value of the population for each core indicator, which can then be compared among successive surveys to track changes over time in average water quality condition. As data sets grow in size and power, states may also estimate trend slope to determine the rate of change over time and whether water quality conditions are improving or declining.

States can take credit for improvement if there is a shift in mean value in the indicator that reflects better water quality or a net shift in the percentage of waters moving from a lower condition category to a high condition category, as long as there is no degradation in the water quality condition for the specific waterbody type being surveyed. No degradation means that, in comparing results from different surveys, there is no statistically significant increase in the proportion of waters rated in lowest condition category compared to the earlier results, and there is no statistically significant decrease in the proportion of waters in the state's highest condition category compared to earlier results.

States may choose which core indicators to report on for this measure, but must include a biological indicator and at least one physical/chemical parameters. The core indicators must be the same (i.e., parameters, collection and analytical methods and confidence intervals are comparable) from cycle to cycle. EPA recommends that the core indicators selected represent applicable designated uses consistent with the *2008 Guidelines and Elements of a State Water Monitoring and Assessment Program* guidance (refer to Table 1).

In addition to biological condition (required), states are requested to report on the following:

- Habitat assessment
- Nutrients (Nitrogen and/or Phosphorus) or Chlorophyll a
- Trophic status (lakes/estuaries)
- Human health indicator such as fish tissue contaminants, pathogen indicator or algal toxin indicator

Baseline: The baseline for the indicator measure will be established as states report the results of state-scale statistical surveys as part of their Integrated Report, consistent with the *2008 Guidelines*. The agency would like to work with states to evaluate and refine the reporting template so the IR electronic reporting tool can be used to support this measure as well. States that have completed more than one survey cycle may begin to report change under this measure at any time.

Reporting Requirements: Documentation of the state's statistical survey design and assessment methods should be contained within the state's monitoring strategies and associated quality assurance project plans or quality management plans. States using NARS data may refer to the national QAPP for the individual NARS surveys.

In the Integrated Reporting Memorandum, EPA recommends that States report their state-wide statistical survey findings as part of the Integrated Reporting (IR) for Clean Water Act Sections 303(d), 305(b), and 314. To assist states with reporting statewide statistical survey data as part of the IR, EPA is developing a template for states to complete and submit to EPA. An early version of this template was provided in Appendix 1 of the March 21, 2011 Integrated Reporting Memorandum. EPA intends for states to be able to use this template to submit information for reporting on this measure. EPA HQ will use the information in the template to report in the Agency Commitment System (ACS) the number of states that reported a baseline and in subsequent years the number of states that were able to document incremental improvements in water quality for at least one core parameter.

Frequency: Each 2-year IR reporting cycle should include an update for one or more water body types as they rotate through water body types over time. The specific timing and frequency with which a state reports on a particular waterbody type will depend on the state's schedule for completing statistically valid surveys.

Units: Number for states.

Universe: 50 states

Baseline: 12 states reported baseline survey results as of 2014 IR

Start: 2014 Integrated Report

Measure Code: WQ-30

Measure Language: Number of WaterSense partners working to improve water use efficiency

Type of Measure: Indicator

Measure Contact: Veronica Blette, 202-564-4094

Measure Definition: Refers to the number of organizations that have partnered with the WaterSense program

Terms and Phrases: “WaterSense partners” are manufacturers, retailers and distributors, local and state governments, utilities, water districts, trade associations, nonprofits, professional certifying organizations, licensed certification providers, and builders. “Improve water use efficiency” is broad – we do not require partners to commit to and/or report specific actions other than those outlined in their partnership agreement. Becoming a partner reflects their commitment to water efficiency and the program assumes they are carrying out activities to improve water use efficiency.

Methodology for computation of results: Partners sign a partnership agreement and the program tracks the number of partners. A list of partners is made available on the WaterSense website.

Unit: Partner

Universe: Cumulative measure, there is no defined universe

Baseline: 1,582 partners (2014)

Measure Code: WQ-31

Measure Language: Number of water and wastewater utilities that use the EnergyStar Portfolio Manager to manage energy.

Type of Measure: Cumulative measure (no target)

Measure Definition:

Terms and phrases: Portfolio Manager is a web based energy tracking and benchmarking tool sponsored by US EPA. It is free to the public and is intended to serve and promote energy efficiency. The tool does not diagnose or model energy consumption and conservation measures, rather it tracks and benchmarks energy, allows the user to set reduction goals, and allows all such data to be shared with other users within Portfolio Manager.

Methodology for computation of results: Unique utilities that enter at least 12 months of energy data within the previous two years (from the time of reporting) will be counted. Thus utilities counted in a particular year might be dropped from the count in future years if they do not remain active in their entry of energy data. Since the data is not **deleted, unless the user does so, this methodology may be revisited as we learn more.**

Units: Count

Universe: The universe consists of the roughly 16,000 wastewater utilities in the US, of which 98% are publicly owned, and the roughly 170,000 public drinking water systems, of which 54,000 are community owned. Both wastewater and drinking water utilities may span the full size range from less than 1 MGD to the largest. Utilities do not have to be a participant in any EPA program nor have any formal relationship with EPA to be counted.

Baseline: As of CY 2014, 2,177 cumulative drinking water and wastewater utilities that provided benchmark energy use data to the EnergyStar Portfolio Manager.

Measure Code: WQ-32

TBA

Measure Code: WQ-33

Measure Language: Number of CWSRFs/DWSRFs that used financial incentives to promote climate resilience projects in the last year

Type of Measure: Indicator

Measure Contact: Emily Nicasio, 202-564-9920

Measure definition: Evaluates the extent to which CWSRF programs are encouraging utilities to become more resilient to climate events.

Terms and Phrases: “Financial incentives” include offering interest rate breaks, creating reserves for resiliency projects, and providing additional subsidization (i.e., principal forgiveness, grants, and negative interest rates). A “climate resilience project” is an infrastructure project that is designed to improve/secure a utility or system’s continuity of service ability to withstand and respond to changes resulting from climatic factors (e.g., increased risk of flooding, reduced availability of water supplies, drinking water quality impacts, increased intensity of storm events) or to recover from climate-related events.

Methodology for computation of results: Data will be gathered during annual reviews of the CWSRF programs conducted by the EPA Regions. The SRF annual review checklist includes a section on

climate change, and question 4.2.3 is closely related to this measure. To answer question 4.2.3, EPA Regions will specifically ask States about the use of any financial incentives to encourage climate resilience projects during the previous fiscal year. For example, during FY16 reviews, EPA Regions will ask the states about financial incentive programs developed/implemented in FY15. The Region will include this information in the annual review checklist, which is then provided to EPA Headquarters.

Unit: CWSRF program

Universe: 51 (50 states and Puerto Rico)

Baseline: baseline will be the FY16 EOY result

FY 2016 NWPG Wetlands Measure Definitions



Measure Code: WT-SP22

Measure Language: In partnership with the U.S. Army Corps of Engineers, states, and tribes, achieve "no net loss" of wetlands each year under the Clean Water Act Section 404 regulatory program. ("No net loss" of wetlands is based on requirements for mitigation in CWA 404 permits and not the actual mitigation attained.)

Type of Measure: Target measure; annually reported

Measure Contact: Mindy Eisenberg, EPA Office of Wetlands, Oceans, and Watersheds

Eisenberg.Mindy@epa.gov | (202) 566-1290

Measure Definition

Terms and phrases: The *Clean Water Action Section 404 Regulatory Program* was established as a regulatory program for the disposal of dredged or fill materials in the waters and wetlands of the United States. This section is regulated by the U.S. Army Corps of Engineers with EPA oversight.

Methodology for computation of results: Since 1989, the goal of the Clean Water Act (CWA) Section 404 program has been no net loss of wetlands. Historically, the U.S. Army Corps of Engineers has collected limited data on wetlands losses and gains in its Regulatory Analysis and Management System (RAMS) permit tracking database. The EPA and the Corps have acknowledged the need for improved 404 tracking. Between 2003–2007, the Corps, with assistance from the EPA, developed a new nationally standardized permit tracking database called ORM2 (Operation and maintenance business information link, Regulatory Module) to replace its existing database (RAMS). By 2008, ORM2 was deployed in all of the Corps' 38 districts.

ORM2 is designed to provide improved tracking regarding: type of impacts (i.e., work type); type, quantity and location of aquatic resources impacted; type, quantity and location of aquatic resource mitigation; type and quantity of mitigation by method (i.e., restoration, creation, enhancement, or preservation) or number of credits purchased at mitigation bank or in-lieu fee mitigation program.

The EPA will track and report on this measure each fiscal year by comparing the total acres of wetland impacts to the total acres or credits of compensatory mitigation. Mitigation may occur as one of three types: 1) acre for acre replacement; 2) functional replacement; and 3) use of a mitigation bank or in-lieu fee program. Beginning with the FY 2009 data, reporting on this measure will proceed as follows: we will have data at end-of-year for the preceding fiscal year, i.e., results for FY 2010 in FY 2011. The Corps begins compiling the data after the close of the fiscal year.

Units: Wetland acres

Universe: n/a; The measure is based on results from CWA Section 404 permits for new projects and it is not possible to reasonably project the number of new projects.

Baseline: n/a; The measure is based on results from CWA Section 404 permits for new projects and it is not possible to reasonably project the number of new projects.

Measure Code: WT-01

Measure Language: Number of acres restored and improved, under the 5–Star, NEP, 319, and great waterbody programs (cumulative).

Type of Measure: Target measure; cumulative measure reported annually

Measure Contact: Mindy Eisenberg, EPA Office of Wetlands, Oceans, and Watersheds

Eisenberg.Mindy@epa.gov | (202) 566–1290

Measure Definition

Terms and phrases: This measure tracks wetland acres restored (established and re–established) and improved (enhanced and rehabilitated) through EPA programs.

Methodology for computation of results: These acres may include those supported by the Wetland Five Star Restoration Grants, the National Estuary Program, Section 319 Nonpoint Source (NPS) Grants, Brownfield grants, or the EPA's Great Waterbody Programs. This does not include enforcement or mitigation acres. This measure is shared with other offices including: EPA Office of Wetlands, Oceans, and Watersheds Divisions, EPA Office of Solid Waste and Emergency Response (OSWER) Brownfields Office, EPA Gulf of Mexico Program Office, EPA Great Lakes National Program Office, and Chesapeake Bay Program Office. Results are reported at a national level and are cumulative.

For the 5–Star Program: The National Fish and Wildlife Foundation (NFWF), the 5–Star grantee, maintains a subgrant outcome tracking system that tracks the acres of wetlands enhanced, established, or re–established, miles of riparian buffer restored, and other information such as number of volunteers engaged in restoration activities. NFWF provides to EPA annual documentation of wetland acreage enhanced, established, or re–established and stream miles buffered and/or restored during the life of the cooperative agreement in accordance with OWOW requirements. For this measure acreage from wetland projects are added together.

For NEPs Program: the EPA has an on–line reporting system the National Estuary Program On–line Reporting Tool (NEPORT) that makes it possible for NEPs and EPA to track habitat projects. The EPA annually aggregates the data provided by each NEP to arrive at a national total for all 28 estuaries in the NEP. For this measure the EPA combines acreage totals from each NEP for all wetlands types for

all projects that are described as establishment, re-establishment, enhancement, and rehabilitation (excluding dune replenishment).

For Section 319 Grants: The Grants Reporting and Tracking System (GRTS) is used by grant recipients (state agencies) to supply information about State NPS Management Programs and annual Section 319 funded work programs, which include wetlands and stream restoration and improvement projects. For this measure the EPA combines acreage totals from each project that either indicates they are restoring or improving wetland acreage and are not predominately considered storm water measures.

The Brownfields Office and Great Waterbody Programs provided minimal acreage at the beginning of the first report for this measure in 2004 and a decision was made to not to include acreage from these programs in subsequent years.

Units: Acres of wetlands restored and improved

Universe: n/a; There is no methodology for determining the potential number of acres that would become available for protection and restoration.

Baseline: Acres of wetland restored and improved through the Five Star Restoration Grants, the National Estuary Program, Section 319 Nonpoint Source Grants, Brownfield Grants, and EPA Great Waterbody Programs in FY 2006.



Measure Code: WT-02 (a)

Measure Language: Number of states/tribes that have substantially built or increased capacity in wetland regulation, monitoring and assessment, water quality standards, and/or restoration and protection.

Type of Measure: Indicator measures; annually reported

Measure Contact: Mindy Eisenberg, EPA Office of Wetlands, Oceans, and Watersheds

Eisenberg.Mindy@epa.gov | (202) 566-1290

Measure Definition

Regions will work with states/tribes (S/T) to identify wetland program goals and assist them in the development and improvement of program capacity in one or more core wetland program area (Core Elements or CE's): regulation, monitoring and assessment, water quality standards, and/or restoration and protection.

Regions will verify and report annually on the substantial progress states/tribes have made toward developing or improving these CE's. Substantially built or increased capacity will be measured by looking at the Core Elements Framework tables which can be found at: <http://water.epa.gov/type/wetlands/estp.cfm>. Substantially built or increased capacity is defined as completing two or more of the actions found in these tables. All the regions have agreed to these measures.

Headquarters is creating a template for ACS that will allow HQ to insert which state/tribe has undertaken capacity/improvement and in which CE area.

Units: states and tribes

Universe: Total number of states and tribes. Regions will track and report on yearly efforts of states and tribes in their region; it is expected that this number will vary from year to year as it is not cumulative.

Baseline: The baseline of states and tribes will be reset to 0 every year as the EPA is measuring efforts in a given calendar year and not measuring cumulative efforts. The EPA will look to this measure to see if nationally states/tribes are continuing to build/improve program capacity from year to year.

Measure Code: WT-03

Measure Language: Percent of Clean Water Act Section 404 standard permits, upon which EPA coordinated with the permitting authority (i.e., Corps or State), where a final permit decision in the current fiscal year documents requirements for greater environmental protection* than originally proposed.

Type of Measure: Indicator measure; annually reported

Measure Contact: Mindy Eisenberg, EPA Office of Wetlands, Oceans, and Watersheds

Eisenberg.Mindy@epa.gov | (202) 566-1290

Measure Definition Terms and phrases:

- *ORM 2.0:* OMBIL (Operation & maintenance business information link) Regulatory Module. Database used by the U.S. Army Corps of Engineer to track permitting activities under the CWA Section 404 regulatory program.
- *DARTER:* Data & Aquatic Resource Tracking for Effective Regulation. EPA interface for accessing records and commenting on proposed permits in the ORM 2.0 database

Methodology for computation of results:Data for reporting under this measure is available in the U.S. Army Corps of Engineers ORM 2.0 Database. EPA regions should use the EPA interface (DARTER) for ORM 2.0 to access this data.

* For purposes of this measure, "requirements for greater environmental protection" are counted under this measure when EPA can document that its recommendations for improvement provided in one or more of the following issue areas were incorporated into the final permit decision:

1. Demonstration of adequate impact avoidance, including:
 - a. Determination of water dependency
 - b. Characterization of basic project purpose
 - c. Determination of range of practicable alternatives
 - d. Evaluation of direct, secondary and cumulative impacts for practicable alternatives
 - e. Identification of LEDPA (Least Environmentally Damaging Practicable Alternative)
 - f. Compliance with WQS (Water Quality Standards), MPRSA (Marine Protection, Research, and Sanctuaries Act), ESA (Endangered Species Act) and/or toxic effluent standards
 - g. Evaluation of potential for significant degradation;
2. Demonstration of adequate impact minimization;

3. Determination of adequate compensation.

Units: Final permit decisions with documented environmental improvements, as defined above.

Universe: All final CWA (Clean Water Act) section 404 standard permits in current fiscal year where EPA coordinated with the permitting authority.

Baseline: n/a; CWA Section 404 permits and those permits that the EPA reviews changes each year.

ECOS Results**About the Common Measures**

Tasked with selecting indicators of environmental progress, the ECOS Measures Workgroup decided on the common measures based on the following set of criteria:

- Measure is understandable and meaningful to the public
- Measure is associated with:
 - protection of the environment
 - protection of public health
 - economic impacts
- Data:
 - is readily accessible at the state level
 - is validated by the state
- Bonus:
 - Allows for trend analysis
 - Routinely submitted/reported to federal agency
 - Comparable across states (data is collected similarly across all states)

The Common Measures are available [here \(https://www.ecosresults.org/wp-content/uploads/2018/03/ECOS-Results-Common-Measures-October-2017.pdf\)](https://www.ecosresults.org/wp-content/uploads/2018/03/ECOS-Results-Common-Measures-October-2017.pdf), and described in detail below.

Air Healthy to Breathe

Ambient Air Pollution

Ambient Concentrations of Pollutants Relative to the National Ambient Air Quality Standard Over Time

- Source: [U.S. EPA's Report on the Environment \(https://cfpub.epa.gov/roe/chapter/air/outdoorair.cfm\)](https://cfpub.epa.gov/roe/chapter/air/outdoorair.cfm).
- Definitions:
 - **NAAQS** – National Ambient Air Quality Standards
 - NAAQS include six principal pollutants, including carbon monoxide, lead, nitrogen dioxide, ozone, particle pollution, and sulfur dioxide.
 - More information about the NAAQS and Pollutants can be found at the [U.S. EPA's page on NAAQS Table \(https://www.epa.gov/criteria-air-pollutants/naaqs-table\)](https://www.epa.gov/criteria-air-pollutants/naaqs-table).

Point Source Emissions

Point Source Emissions of PM10 and 2.5, CO, NOx, SO2, and VOCs Over Time

- Source: [U.S. Environmental Protection Agency's \(U.S. EPA\) Emissions Inventory System \(https://www.epa.gov/air-emissions-inventories/emissions-inventory-system-eis-gateway\)](https://www.epa.gov/air-emissions-inventories/emissions-inventory-system-eis-gateway), using available data from the National Emissions Inventory (NEI)
- Definitions:

- **Point Source: NEI point sources** include emissions estimates for larger sources that are located at a fixed, stationary location. Point sources in the NEI include large industrial facilities and electric power plants, airports, and smaller industrial, non-industrial and commercial facilities. A small number of portable sources such as some asphalt or rock crushing operations are also included. Some states voluntarily also provide facilities such as dry cleaners, gas stations, and livestock facilities, which are otherwise included in the NEI as nonpoint sources.
- **Definitions of each pollutant** can be found at the [U.S. EPA's Air Topics page \(https://www.epa.gov/environmental-topics/air-topics\)](https://www.epa.gov/environmental-topics/air-topics).

Healthy and Thriving Communities

Economic Indicators

Comparison of Economic Indicators Versus Emissions of Common Pollutants

- Sources:
 - [U.S. Bureau of Economic Analysis \(BEA\) \(https://www.bea.gov/\)](https://www.bea.gov/)
 - [U.S. Department of Transportation Federal Highway Administration's Office of Highway Policy Information \(https://www.fhwa.dot.gov/policyinformation/quickfinddata/qftravel.cfm\)](https://www.fhwa.dot.gov/policyinformation/quickfinddata/qftravel.cfm)
 - [U.S. Census Bureau's State Population Tables: 2000-2016 \(https://www.census.gov/data/tables/2016/demo/pepest/state-total.html\)](https://www.census.gov/data/tables/2016/demo/pepest/state-total.html)
 - [U.S. EPA's Air Pollutant Emissions Trends Data \(https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data\)](https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data)
- Definitions:
 - **GDP:** BEA's featured measure of U.S. production. GDP is the market value of the goods, services, and structures produced by the nation's economy in a particular period less the value of the goods and services used up in production. GDP is calculated as the sum of personal consumption expenditures, gross private domestic investment, net exports of goods and services, and government consumption expenditures and gross investment. GDP is also equal to the sum of value added by industry across all industries.
 - **VMT:** Vehicle Miles Traveled in a given year from all vehicles.
 - **Common Pollutants:** U.S. EPA has set national air quality standards for six common air pollutants (also called the criteria pollutants). More information can be found at the [U.S. EPA's page on Air Emissions Sources \(https://www.epa.gov/air-emissions-inventories/air-emissions-sources\)](https://www.epa.gov/air-emissions-inventories/air-emissions-sources).

Brownfields

Returning Contaminated Land to Productive Use

- Source: [U.S. EPA's ACRES and State Cleanup Programs \(https://cfext.epa.gov/acres/index.cfm?fuseaction=reports.par_main https://www.epa.gov/brownfields\)](https://cfext.epa.gov/acres/index.cfm?fuseaction=reports.par_main)
- Definitions:
 - **Brownfield:** A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Less and Properly Managed Waste

Resource Conservation and Recovery Act (RCRA)

RCRA (<https://www.epa.gov/rcra>) is the public law that creates the framework for the proper management of hazardous and non-hazardous solid waste. The law describes the waste management program mandated by Congress that gave U.S. EPA authority to develop the RCRA program. The term RCRA is often used interchangeably to refer to the law, regulations and U.S. EPA policy and guidance.

RCRA Subtitle I Compliance – Percent Underground Storage Tank (UST) Facilities in Significant Operational Compliance Over Time

- Source: *U.S. EPA's UST Performance Measures* (<https://www.epa.gov/ust/ust-performance-measures>).
- Definitions:
 - **UST Facility** definitions (PDF) can be *found here* (<https://www.epa.gov/sites/production/files/2015-03/documents/pmdefinitions.pdf>).
 - **Significant Operational Compliance:** U.S. EPA and its state partners developed a uniform method for measuring certain aspects of UST system operational compliance with release detection and prevention requirements. *More info can be found here* (<https://www.epa.gov/ust/significant-operational-compliance-soc-performance-measures>).

RCRA Subtitle C Compliance – Percent of RCRA Facility Inspections Where No Significant Non-Compliance is Found

- Source: *U.S. EPA's Enforcement and History Online State Hazardous Waste Dashboard* (<https://echo.epa.gov/trends/comparative-maps-dashboards/state-hazardous-waste-dashboard?state=National&view=performance>).
- Definitions:
 - **Significant Non-Compliance:** *SNC* (*this term is used in the Clean Water Act and Resource Conservation and Recovery Act programs*), *HPV* (*this term is used in the Clean Air Act program*), or *Serious Violator* (*in the Safe Drinking Water Act program*). (https://echo.epa.gov/resources/general-info/echo-faq#in_snc) is the most serious level of violation noted in U.S. EPA databases. This designation provides an indication of whether violations or noncompliance events at a given facility may pose a more severe level of concern for the environment or program integrity.

Percent of RCRA Facilities in Corrective Action with Human Exposure under Control

- Source: *U.S. EPA's RCRAInfo* (<https://www3.epa.gov/enviro/facts/rcrainfo/search.html>).
- Definitions:
 - **Corrective Action:** A requirement under *RCRA* (<https://www.epa.gov/rcra>) that facilities that treat, store or dispose of hazardous wastes, investigate and clean up hazardous releases into soil, ground water, surface water and air.
 - **Human Exposure:** One of the priorities for both the NPL and RCRA Cleanup Baseline sites is safeguarding against human exposures to site contamination. U.S. EPA and state officials determine whether there is a reasonable expectation that humans could be exposed to site contamination and if interim actions are needed to reduce or eliminate all current human exposure in excess of health-based standards.

Leaking Underground Storage Tank (LUST) Cleanups

Number of LUST Cleanups Completed that Meet Cleanup Standards

- Source: *U.S. EPA's UST Performance Measures* (<https://www.epa.gov/ust/ust-performance-measures>).
- Definitions:
 - **LUST:** A typical LUST scenario involves the release of a fuel product from an UST that can contaminate surrounding soil, groundwater, or surface waters, or affect indoor air spaces. Early detection of an UST release is important, as is determining the source of the release, the type of fuel released, the occurrence of imminently threatened receptors, and the appropriate initial response. The primary objective of the initial response is to determine the nature and extent of a release as soon as possible.

Water Clean and Available for All Uses

Drinking Water

Percent of State Population Served by Compliant Community Water Systems (CWS) and Percent of Community Water Systems Meeting All Applicable Health-Based Standards

- Source: *U.S. EPA's Clean Water State Revolving Fund (CWSRF)* (<https://www.epa.gov/cwsrf>).
- Definitions:
 - **Community Water System:** CWSs are public water systems that supply water to the same population year-round
 - **Health Based Standards** include Maximum Contaminant Levels (MCLs), Maximum Residual Disinfection Levels (MRDLs), and Treatment Techniques (TTs). An MCL is the highest level of a contaminant that is allowed in drinking water. An MRDL is the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. A TT is a required treatment process (such as filtration) intended to reduce the level of a contaminant in drinking water (U.S. EPA, 2017b).

Waterbodies

Percent Waterbodies Monitored and Waters Meeting Designated Uses

- Source: *U.S. EPA ATTAINS* (<https://www.epa.gov/waterdata/assessment-and-total-maximum-daily-load-tracking-and-implementation-system-attains>).
- Definitions:
 - **The Assessment, TMDL Tracking, and Implementation System (ATTAINS)** contains information on water quality assessments, impaired waters, and total maximum daily loads (TMDLs), through data submitted by states under Clean Water Act sections 303(d) and 305(b).
 - **The Clean Water Act** requires states, territories and authorized tribes (states for brevity) to monitor water pollution and report to U.S. EPA every two years on the waters they have evaluated. This process is called assessment. Part of this process is deciding which waters do not meet water quality standards because they are too polluted. These degraded waters are called impaired (polluted enough to require action) and are placed on a State list for future actions to reduce pollution.

Point Source Pollution

Total Pounds of Nitrogen and Phosphorus Discharged from Major National Pollutant Discharge Elimination System (NPDES) Facilities

- Source: [DMR Loading Tool \(https://cfpub.epa.gov/dmr/everyday_searches.cfm\)](https://cfpub.epa.gov/dmr/everyday_searches.cfm)
- Definitions:
 - **Major NPDES Facilities:** NPDES is a provision of the Clean Water Act that prohibits discharge of pollutants into waters of the U.S. unless a special permit is issued by the U.S. EPA or a delegated state or tribal government. States may choose to enact restrictions that go beyond U.S. EPA requirements and offer additional protections.

Percent of Major Wastewater Dischargers without Significant Non-Compliance

- Source: [U.S. EPA's Enforcement and Compliance History Online \(https://echo.epa.gov/\)](https://echo.epa.gov/)
- Definitions:
 - **Major:** "Major" municipal dischargers include all facilities with design flows of greater than one million gallons per day and facilities with U.S. EPA/state or local government approved industrial pretreatment programs. Major industrial facilities are determined based on specific ratings criteria developed by U.S. EPA or are classified as such by U.S. EPA in conjunction with the state.
 - **Significant Noncompliance:** [SNC \(this term is used in the Clean Water Act and Resource Conservation and Recovery Act programs\), HPV \(this term is used in the Clean Air Act program\), or Serious Violator \(in the Safe Drinking Water Act program\) \(https://echo.epa.gov/resources/general-info/echo-faq#in_snc\)](https://echo.epa.gov/resources/general-info/echo-faq#in_snc) is the most serious level of violation noted in U.S. EPA databases. This designation provides an indication of whether violations or noncompliance events at a given facility may pose a more severe level of concern for the environment or program integrity.

Reduction in Nonpoint Source Pollutants

Estimated Annual Reduction in Million Pounds of Nitrogen and Phosphorus, and Tons of Sediment from Nonpoint Sources to Waterbodies (Section 319 Funded Projects Only)

- Source: [U.S. EPA's Grants Reporting and Tracking System \(GRTS\) \(https://www.epa.gov/nps/grants-reporting-and-tracking-system-grts\)](https://www.epa.gov/nps/grants-reporting-and-tracking-system-grts)
- Definitions:
 - **Section 319:** Under Section 319 of the Clean Water Act, states, territories and tribes receive grant money that supports a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring to assess the success of specific nonpoint source implementation projects.
 - **Nonpoint Sources:** Nonpoint sources are diffuse pollution sources (i.e. without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common nonpoint sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.
 - **Nonpoint Source Pollution (<https://www.epa.gov/nps/what-nonpoint-source>)** can come in the form of Nitrogen, Phosphorus, and Sediment. Sources may include:
 - Excess fertilizers, herbicides and insecticides from agricultural lands and residential areas
 - Oil, grease and toxic chemicals from urban runoff and energy production

- Sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks
- Salt from irrigation practices and acid drainage from abandoned mines
- Bacteria and nutrients from livestock, pet wastes and faulty septic systems
- Atmospheric deposition and hydromodification

Investments in Water Infrastructure

Investments in Water Infrastructure

- Source: U.S. EPA's CWSRF (<https://www.epa.gov/cwsrf/clean-water-state-revolving-fund-cwsrf-national-information-management-system-reports>)



E C O S

The Environmental Council of the States (ECOS) is the national nonprofit, nonpartisan association of state and territorial environmental agency leaders.

Learn more at [ECOS.org](http://ecos.org) (<http://ecos.org>).