

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

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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

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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

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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:
 - o 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
 - o 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

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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

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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:

- 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. Result: 105 tribes identified 1,661 stations.
- b. 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

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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: *Tribe* 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 de-listed 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

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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

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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

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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

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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

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Dennis Wagner, EPA Alaska Operations Office

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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.ihs.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

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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