



Testing an Alternative Approach to Our National Surface Water Measures

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Current Conditions

- **Currently over 50 surface water measures (Sub-objective 2.2.1)**
- **Human Health (Sub-objective 2.1.2 and 2.1.3)**
- **Coastal (Sub-objective 2.2.2)**
- **Wetlands (Sub-objective 4.3.1)**
- **PAMs do not align with Regional Responsibilities**



Regional Responsibilities

- Technical & program assistance to State/Tribes to ensure that federally mandated programs are consistent with the law (**Program Integrity Measures - ACS**)
- Ensuring that federal and state programs are integrated and effective at achieving measurable environmental results (**Program Effectiveness Measures-Pilot**)
- Directly implementing non-delegated programs (**Not addressed in pilot**)

Aspects to Pilot

- Focuses on Program Effectiveness
- Addresses many Program Integrity issues in an integrated fashion
- Volunteer states align with EPA Strategic Plan
- States commit to achieving specific water quality outcomes in a **subset of watersheds** over a **9 year** planning horizon coincident with EPA's Strategic planning cycles
- Develops tracking tools and reporting processes for new measures that do not place an undue burden on States, Regions or HQ





Goal

- Refine Measures and continue, over time, to reduce the number of program integrity measures to at least partially offset and **support an emphasis on program effectiveness measures.**



Tier 2

- Focus on critical **steps, linkages** and **outcomes** envisioned by the CWA that are needed to achieve **restoration** and/or **protection** of aquatic resources at a watershed level or for a cluster of watersheds¹, and that achieve the Act's ultimate objective of restoring and maintaining the physical, chemical and biological integrity of the Nation's waters.

¹Watershed = 12-digit Hydrologic Unit Code



Aspects of Measures

- Measures developed jointly with volunteer states
- Address both restoration (21) and protection (7)
- Deliberate management allows telling a story of “who” and “how”
- Portfolio concept allows for study of difficult concepts (i.e., urban/rural, physiographic differences, etc.)



Aspects of Tier 2 (Continued)

- **Baseline = most recent integrated report/303(d) list unless otherwise specified (Most shown at 2002 to be consistent with current PAMs)**
- **Adjustments every three years**
- **Annual or biennial targets reflected in 106 or PPA**
- **Test during 2009-2014 Strategic Plan**
- **Lessons Learned report after year 3 will be used to recommend adjustments to 2012-2017 Strategic Plan**
- **No reporting to ACS**



Advantages

- **Volunteering minimizes disruption**
- **Laboratory for States and Agency to make meaningful adjustments to Performance Management System**
- **Better reflects fundamental distinction in Regional responsibilities**
- **Enhance implementation tracking, identified in R5 report as a priority**



Benefits to States Identified in R5 Report

- **Tie results to funding**
- **Generate reports for legislature and public**
- **Cross-program coordination**
- **Better information for permit development and monitoring**
- **Support watershed-based management programs**
- **Facilitate information sharing among feds, states, locals**



Examples of Restoration Measures



Number & Percentage of watersheds with organized local leadership addressing water quality concerns



Number & Percentage of watersheds with watershed- based planning processes enabling implementation at the 12-digit HUC scale



Number & percentage of watersheds with a watershed plan being implemented



Examples of Protection Measures



**Percentage of assessed
river miles or lake/estuary
acres fully meeting water
quality standards from one
assessment cycle to the
next**



Percentage of watersheds with protection measures in place (i.e., protective ordinances/building codes, LID techniques in use, quality growth programs in place, buffer rules in use, etc.) and, showing improvements or no decline in water quality as supported by monitoring



Percentage of watersheds that do not show a decline in rating from Good or Fair to Poor based on a Watershed Integrity Index

P-7

Definitions

THE
DEVIL IS IN
THE DETAILS





Number & Percentage of watersheds with **organized local leadership** addressing **water quality concerns**

The purpose of this measure is to document increases in the number of 12-digit HUC watersheds with local leadership capable of addressing WQ. All HUCs influenced by such leadership will be counted individually. For example, some watershed groups or local governments are addressing water quality concerns for a basin or geographic area that encompasses more than one 12-digit HUC. In this case, each 12-digit HUC would be counted as having “organized local leadership” provided the following criteria are met by the watershed group or local government.

What is “organized local leadership?” It is an organization that:

- ✓Is a 501(c)(3) or local government or equivalent
- ✓Manages grants and perform fund raising
- ✓Monitors for water quality
- ✓Influences changes in local ordinances or policies
- ✓Conducts outreach

Please note that not all functions need to be performed by any one member of the partnership.



Number & Percentage watersheds with **watershed-based planning processes enabling implementation** at the 12-digit HUC scale

The purpose of this measure is to document increases in the number of watersheds with a watershed-based planning process. Where overlapping groups are engaged in watershed planning, the process most relevant to the selected HUC and most focused on water quality will be counted.

What is “watershed-based planning process?” It is a process that:

- ✓Is iterative, i.e., provides for effective feedback mechanisms on a periodic basis to allow adjustments to the plan as needed to achieve restoration and protection objectives.
- ✓Is inclusive, i.e., involves key interests that are needed to define and/or address the key water quality issues within a watershed through restoration or protection efforts
- ✓Identifies sources of funding to support plan development and implementation
- ✓Conducts planning based on an assessment of conditions
- ✓Will result in the allocation of resources based on priorities identified in the plan
- ✓Will result in on-the-ground actions
- ✓Will require monitoring the results of actions to adjust plan as needed to achieve restoration and protection objectives



Number & percentage of watersheds with a **watershed plan** being **implemented**

The purpose of this measure is to document increases in the number of implementable watershed plans. Possible qualifications for “Watershed Plan being implemented” include:

- ✓ Goals are identified
- ✓ Source Assessment is included
- ✓ Allocations to sources are identified
- ✓ Suite of actions possible to achieve goals are identified
- ✓ Associated load reductions are identified
- ✓ Stakeholders are identified
- ✓ Tasks are assigned
- ✓ Sources of funding (funding plan) to begin implementation are secured
- ✓ Projects have been initiated



Percentage of assessed river miles or lake/estuary acres fully meeting water quality standards from one assessment cycle to the next

The purpose of this measure is to document success in efforts to maintain designated uses. Miles and acres will be reported separately consistent with 305(b) reporting. Where a new assessed segment is added in one cycle, its condition in the following assessment cycle would be captured by this measure and the number and percentage of river miles or lake/estuary acres would be adjusted accordingly. Where variability is introduced by resegmentation, narrative qualifiers should be included to explain the logic behind inclusion or exclusion, as appropriate.



Percentage of watersheds with **protection measures** in place (i.e., protective ordinances/building codes, LID techniques in use, quality growth programs in place, buffer rules in use, etc.) and, showing improvements or no decline in water quality as supported by monitoring

The purpose of this measure is to document increases in the number of watersheds with protection measures implemented through local ordinances and policies. This measure is applicable to the full suite of selected watersheds. Any protection measures can be counted. But, they should be of adequate significance to affect watershed-wide water quality. For instance, a buffer rule requiring 10-foot buffers in a watershed with steep slopes and erodible soils is not adequate. Ordinances applying to a small subdivision in a large watershed may also not be adequate. Counting of “protection measures” should then be supplemented with information on the type, scope and adequacy of each local ordinance or policy.



Percentage of watersheds that do not show a decline in rating from Good or Fair to Poor based on a **Watershed Integrity Index**

The purpose of this measure is to document successes in maintaining watershed-wide water quality. Inclusion of this measure necessitates the development of a Watershed Integrity Index. The Index should be based on robust and statistically defensible assessment information. Regional and national efforts are underway to define such methodology. It is anticipated that the Index will not be available at the outset of this effort. Selected watersheds will be assessed using this methodology once it is available. Documentation of the above measures will inform the process for the development of such an Index.



What Have We learned?



Measure Analysis

- **Why are we measuring this?** Goal? Solution Check? Connections between components?
- **Where are we measuring this?** Universally? State? Priority Watersheds? Selected Watersheds? (NESTING)
- **Do we have statutory, regulatory or funding control over the actions that yield this measure?** Y/N
- **How will we record the data?** Manually? Existing Database? New Tool (Resources)? No way to record?
- **Who will use this information?** Staff? State? Section Chief/Particular Program? WET? HQ? No direct user?
- **What will they do with it?** Change or determine program priorities? Change or determine resource allocation? Use as success story? Necessary for next steps? Nothing?
- **Should we measure this?** Y/N



Advantages & Disadvantages

- **Who is “selected” and who is not**
- **Limited resources lead to implicit or explicit prioritization anyway**
- **Work is still on-going everywhere**
- **Learn how to manage programs in a broader context**
- **Links program and watershed-focused areas**
- **Supports adaptive management**



Issues

- **Scale and “Nesting”**
- **Data Limitations**
- **Geographic Variability**
- **“Segment/AU” Variability**
- **“Priority” Watersheds/Waters**
- **Capacity Variability**
- **Baseline year debate**



Questions/Discussion?