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2013 NATIONAL TRAINING WORKSHOP ON CWA 303(d) LISTING & TMDLS

**A LONG-TERM VISION FOR ASSESSMENT, RESTORATION, AND
PROTECTION UNDER THE CWA SECTION 303(d) PROGRAM**

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FINAL PROJECT REPORT & WORKSHOP PROCEEDINGS

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ELI maintains a companion website for this project: our State TMDL Program Resource Center (http://www.eli.org/Program_Areas/state_tmdl_center.cfm).

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I. INTRODUCTION

In early April 2013, the Environmental Law Institute (ELI) convened the *2013 National Training Workshop on CWA 303(d) Listing & TMDLs: A Long-Term Vision for Assessment, Restoration, and Protection under the CWA Section 303(d) Program*. This event, supported through a cooperative agreement with the U.S. Environmental Protection Agency (EPA), brought together Clean Water Act Section 303(d) listing and TMDL officials from 49 states, 2 tribes, Puerto Rico, and the District of Columbia. The assembled participants focused on development, structure, and plan for implementation of the Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program. Participants had an opportunity to share their views with colleagues from other jurisdictions, representatives of EPA headquarters and the ten EPA regions, representatives of the Association of Clean Water Administrators (ACWA), and a representative of the New England Interstate Water Pollution Control Commission (NEIWPCC).

As with similar events of national scope convened in June 2008, May 2009, April 2011, and April 2012, ELI and EPA intended for this training workshop to provide a fresh avenue for program officials to interact with one another; learn about current best practices in listing, TMDL development, and TMDL implementation; and convey their programmatic ideas (and concerns) directly to EPA. To ensure a planning process that would culminate in a workshop attuned to the needs of program implementers at the state, tribal, and territorial level, ELI assembled a Planning Advisory Group (PAG) consisting primarily of state officials. For approximately five months, this group worked through a highly participatory process to develop, shape, and refine: the event objectives and agenda, the structure and focus of workshop sessions, and the course materials.

State, tribal, and territorial participants (including members of the PAG) were typically individuals with substantial responsibility in their respective programs, but who were not far removed from day-to-day program operations. Key to this event, like prior ones, was having the right people in the room.

The three-day workshop, held in a retreat-type setting, was successful by the metrics of sharing useful information, generating new ideas, and building new relationships. Distinct takeaway messages emerged from the gathering; these themes are identified in Part II of the report. The bulk of the report, Part III, contains a detailed, session-by-session summary of event proceedings. Appendices to the report include the event program, a list of participants, a full summary of participant evaluations and comments, and information on ELI's companion website.

ELI continues to build on the momentum and enthusiasm generated by this and the prior years' events through an ELI-administered website for CWA 303(d) programs and through a listserv dedicated to state, tribal, and territorial professionals and designed to increase and enhance interactions among programs.

II. THEMES AND OTHER TAKEAWAYS

From the perspective of ELI staff in attendance, the following are significant themes, points, and observations that emerged over the course of the workshop (although they do not necessarily reflect complete agreement among participants):

The CWA 303(d) program needs a new vision:

- The program is in transition, having completed most of the pace-driven consent decrees and settlement agreements
- Counting the number of TMDLs developed is not the ideal measure of the program's success
- "Credit" should be received for efforts to protect water quality, not just to restore it

The vision does not impose additional requirements on states, tribes, and territories; it does change how the CWA 303(d) program is managed in the context of water quality goals

Implementation of the vision should be flexible to account for jurisdictional differences, but it also must retain program accountability

- New measures must give the public equal or greater confidence in program effectiveness
- Prioritization schemes allow flexibility since each state, tribe, and territory may tailor its priorities to its unique circumstances; many jurisdictions have prioritized the efforts of their programs differently, but few have a formalized prioritization process
- Flexibility in vision implementation allows states, tribes, and territories more opportunities to build upon their existing efforts, as opposed to purely building anew
- Each state, tribe, and territory has a process before it for implementing the vision, and while there will be variation across jurisdictions, the process likely will include developing a vision strategy document, establishing priorities, identifying data gaps, developing plans (TMDLs or alternatives), implementing those plans, and assessing the results

Prioritization should be the cornerstone of the vision

- Prioritization can play a role in the five other goals through identifying waters to be protected as well as restored, focusing water quality assessments, directing where TMDLs and alternatives are to be developed next, and as the purpose for integration and engagement efforts
- Centering the vision on priority waters allows states, tribes, and territories to select the focus of their respective programs, in light of the overall water quality objectives of each, as they meet current statutory and regulatory obligations
- The process that states, tribes, and territories would need to undertake to prioritize waters, and the expectations that those priorities establish, create accountability

The vision should recognize the multiple ways to achieve water quality goals

- A TMDL may not always be the best tool for addressing a water quality impairment
- Alternative approaches can be efficient and effective but must be backed by some form of accountability and rigor
- A decision framework for determining whether to develop a TMDL or use an alternative approach is needed, but will be more effective if it is not prescriptive

Implementing a new vision will be challenging

- Flexibility creates the challenge of coordinating the various approaches employed so they all collectively meet the long-term vision for the program
- Prioritization has consequences; there are winners and losers regardless of the prioritization scheme
- Integration costs time and money, making it important to choose integration efforts wisely
- Retirements and staff reductions are draining some state, tribal, and territorial programs of institutional knowledge and interpersonal connections critical to integration

Data are critical to successful implementation of the vision:

- Effective prioritization depends on good data

- Much of the success of the vision will depend on how well states, tribes, and territories identify and understand their priority areas
- Monitoring is important for protection efforts, both at the outset and over time
- Particularly in tight budgetary times, it is important to maximize use of the data available, from all scales of monitoring and assessment and from other agencies, universities, and volunteer groups

Engagement of stakeholders and integration with other programs are critical to successful implementation of the vision:

- The potential for stakeholder collaboration in implementation is an oft-used factor for determining priority areas. The involvement of local watershed groups, municipalities, and/or sources often is needed for protection and restoration actions to succeed
- Educating potential partners in other programs and agencies about how efforts overlap and can support each other is an important aspect of integration
- The CWA 303(d) program would benefit from rebranding, as well as the development of nationally used terms that better explain the purpose and operation of the program
- Communication will be more effective in plain language than in technical terms
- Program measures should be relatable to the public, legislature, etc., and enhance communication of the program's work
- Greater integration is needed across levels of government (local, state, and federal); with tribal governments; and at state and federal levels between the CWA 303(d) listing and TMDL programs, among all CWA programs, with other EPA programs, and with other agencies to increase efficiencies, improve knowledge, expand the customer base of products, and optimize the use of agency budgets

Technology offers new opportunities for vision implementation:

- Technology has improved and will continue to improve monitoring and assessment capabilities

- Technology is on the cusp of offering more uniform ways of looking at watershed units regardless of how states, tribes, and territories choose to assess pollutants, and some things that historically have been viewed as impediments or problems may not present such a burden
- Technology offers many new ways to engage with partners, stakeholders, and the public

Vision implementation would benefit from further research into what states, tribes, and territories already do and how they do it:

- State, tribal, and territorial programs would benefit from the collection of potential and current approaches for prioritizing waters and the information used in developing prioritization rationales
- There are many alternatives to TMDLs for meeting water quality standards; an inventory of those in practice would be useful for staff considering borrowing ideas
- There are varying examples of efforts to protect water quality across states, tribes, and territories; cataloging these efforts would help convey the concepts and lessons to others seeking to improve their protection of water quality
- For context about protection approaches and rationales, surveys should include how states, tribes, and territories define “protection”

III. WORKSHOP PROCEEDINGS: SESSION-BY-SESSION DISCUSSION

Following is an overview and detailed discussion of the workshop, presented session by session. The full workshop agenda appears in Appendix 1 to this report.

Welcome, Introductions, Updates, and Training Workshop Overview

ELI staff opened the workshop by welcoming the diverse set of participants, which consisted of TMDL and listing staff representing 49 states, 2 tribes, Puerto Rico, and the District of Columbia, along with staff from EPA Headquarters and all 10 EPA Regions, a representative of the New England Interstate Water Pollution Control Commission (NEIWPC), and two representatives of the Association of Clean Water Administrators (ACWA). A complete list of the workshop participants and their affiliations is provided in Appendix 2 of this workshop report.

John Cruden, President of ELI, gave opening remarks. He began by emphasizing the importance of communication and posed a question which many would echo and grapple with over the coming days: how do you explain to your spouse and children (or any member of the general public) what you do, what TMDL means, and what impaired waters are?

Mr. Cruden then discussed the history of TMDLs, which he witnessed firsthand during his time at the U.S. Department of Justice. He described the avalanche of lawsuits caused by CWA mandates on which few were acting. Out of that came consent decrees, which created milestones and priorities. Mr. Cruden explained that he and others could see at the time that the pace metric of the consent decrees was not the best way to run things. But, he added, the vision draft represents a new era, going beyond the metrics of time and number. It is what is next in this process. He applauded those in attendance for their work in developing the vision.

Mr. Cruden challenged participants to better define and communicate the work being done. He noted that even those working on these issues are not always in agreement on program objectives and how to grade progress. And if they cannot agree, explaining these things to others will be nearly impossible. He added that determining and communicating milestones is critical to communicating and achieving goals. In conclusion, Mr. Cruden challenged all participants to capitalize on the opportunity provided by the workshop to make connections and share ideas and successful strategies. He also reminded participants that they are not alone and that there is help, whether in their own agencies, their own governments, other levels of government, colleagues in other jurisdictions, and/or the public. Communication and integration are vital to the success of this new era.

Session 1: The Ten-Year Program Vision

This session featured three presentations. Intended outcomes of the first session included:

- Participants will learn about what the Program vision is, why and how it was developed, and who participated in the process.
- Participants will learn about various categories of measures and their significance in this workshop.

(1) John Goodin, EPA HQ

Mr. Goodin added his welcome and began the session by setting the stage for the conversations that would follow by providing context on how the program reached the point of developing a new vision. He noted that at one time over half of the states were subject to consent decrees or settlement agreements as a result of litigation regarding the CWA 303(d) program. He added that only four states are still under consent decrees. Mr. Goodin explained that the program is exiting a lengthy period in which litigation played a big role in determining which impaired waters received attention through the development of TMDLs.

Another important development, he continued, is that the program now has developed approximately 65,000 TMDLs. He added that those in the program have learned a lot about how to do them and how to do them better. But resources are scarcer now, and often the program must compete for resources with other programs. He noted that as others continue to be interested in the CWA 303(d) program and its products, the program is faced with the challenge of communicating its success.

Mr. Goodin challenged participants to approach the vision as a new lens through which to view the program, rather than as an addition to the list of existing obligations. He said that the program has operated a certain way for the last 10 years, but the vision is an opportunity to look at what is asked of the program in a way that is more meaningful, better for implementation, and will lead to greater success. Important to doing this well, Mr. Goodin elaborated, is engaging the many stakeholders outside of government but involved in this type of work and offering potential partnerships. He added that it is important to recognize that the program is not operating in a static environment. Population and land use changes continue to pose more challenges to meeting water quality standards.

Mr. Goodin highlighted three important themes of the workshop: implementation, accountability, and prioritization. He suggested approaching the vision with a mindset focused on results. He added that he does not think that counting the number of TMDLs developed is the right measure anymore, but that metric cannot be traded for nothing. Hence the focus on accountability with a new metric that must give the public equal or greater confidence that the program is making a difference. Mr. Goodin also stressed that prioritization should permeate all aspects of the program. It is impossible to be everywhere and do everything, requiring hard decisions to be made about where to focus energy and resources.

Mr. Goodin then outlined the two products to come out of the workshop: a detailed implementation plan for each of the six vision goals and a collection of strategies for successful implementation. He explained that the major objective is to determine the tools, resources, and information needed to accomplish the vision goals.

Mr. Goodin concluded his comments by expressing the importance of federal and state, tribal, and territorial coordination in managing the program, the value of sitting in the room together to shape these ideas regarding the future of the program, and a hope that by the end of the week all participants will feel like owners of the products coming out of the workshop.

(2) Alexandra Dunn, ACWA

Ms. Dunn began by praising those at EPA who have focused on the future of the CWA 303(d) program. She noted that there are words and ideas regarding water quality that will challenge this effort. She provided examples such as “‘daily’ means ‘daily’ and nothing else,” as written by the U.S. Court of Appeals for the DC Circuit in *Friends of the Earth v. EPA*, 446 F.3d 140 (D.C. Cir. 2006). Ms. Dunn explained that ACWA has held intense discussions covering a lot of ground before leading to the umbrellas of prioritization, assessment, etc. She added that the discussions resulted in a blueprint of where to go. A letter was then sent to Nancy Stoner, commending her for EPA’s efforts and bringing the states into the conversation.

Ms. Dunn concluded by urging participants to remain dedicated, optimistic, and creative as they move forward. She acknowledged that there will be skeptics and that there are a lot of people to involve. But this, she said, is an opportunity to bring people together and “chart our own destiny.” Ms. Dunn suggested that the vision will be a game changer. She added that the challenge to participants is to think outside the box, and that the program will be effective only if people do so. There will always be naysayers and vulnerability, but Ms. Dunn urged the participants to not let that stop any of them from doing what they know is right for their waters. “Don’t be afraid to give up the good to go for the great.”

(3) Tom Stiles, Kansas

Mr. Stiles began by explaining that this workshop is the culmination of the past four such workshops, but that this one is unique in terms of how lasting of an impact it will have. He said that the three-day block is an opportunity to share ideas with EPA and shape the direction of the program. He likened this workshop to a writer’s workshop and urged everyone to share and contribute.

Mr. Stiles explained that the vision statement is the product of a very democratic process. It is really the second vision for the program, he added, the first having been laid out in 1972 in Section 303(d) of the CWA. But this, he suggested, is part of the problem; terminology from 40 years ago does not properly address 21st century

problems. He added that people now know how to write TMDLs, thus the focus should be on implementation and the choices available in recognition of today's realities, such as fewer staff, challenging politics, sophisticated litigation, and new initiatives.

Important for implementation, Mr. Stiles raised the issue of communicating progress. To whom should efforts be focused and how? He stressed the importance of rebranding, suggesting that the 40-year-old terminology does not work well today. He added that the value of communication also is in what is communicated, highlighting the need to assess waters not only to identify current conditions but also whether conditions have improved.

Mr. Stiles proceeded to outline the goals and their origins. He explained that the vision consists of six goals, each of which is a theme arising out of the last four workshops. He emphasized prioritization. He said that the number one source of angst over the prior four years had been about the pace of TMDL development. The result of the pace metric, he added, is 65,000 TMDLs, but this does not reflect the extent of actions taken to achieve water quality. He also noted that EPA cannot be expected to get rid of pace without something taking its place, and prioritization is the best option given the realities presently facing the program.

Mr. Stiles used a baseball analogy to explain the pace metric: the ultimate measure of success for the TMDL Program has been recorded as runs scored, while the measure for pace is at bats. For runs to be scored, he continued, players sometimes depend on others. But others cannot help if the player strikes out, and that at bat is worthless. Thus, the better measure, he suggested, is on-base-percentage, thereby increasing the chances of a run being scored. Mr. Stiles said that the TMDL Program does not have to hit a home run every time, but it needs to put the ball in play. He continued that each state, tribe, and territory is playing a different kind of baseball, so it is up to EPA to develop national rules.

Mr. Stiles requested that these rules be flexible rather than rigidly uniform. He framed the vision as customized ownership by the states, tribes, and territories. He recognized the realities they each face and the value of customizing the program to what works best for them, embracing iteration and adaptation. Mr. Stiles acknowledged the challenge this flexibility creates for EPA in collating a measure of success. He specifically emphasized the importance of, and burdens on, EPA regions since they will be the point of contact between EPA headquarters and the states and territories. They will be responsible for working with the states and territories and reconciling varying approaches and messages. They also will translate the activities in the states and territories into measures and progress to relay up to EPA headquarters. Furthermore, he noted, EPA regions will be responsible for picking up the slack if the states and territories fail.

Mr. Stiles deemed the vision a call to recognize that CWA 303(d) does not reflect united states, rather 50 states applying a 40-year-old law to 21st century impairments.

He believes that each state, tribe, and territory can find its own way, developing a template for what each wants to accomplish and how to do it. In summary, “We want to be the parent at our kid’s school on career day who says ‘we are repairing this lake’ not ‘we move waters from Category 5 to Category 4.’”

Mr. Stiles ended his remarks with a call to action, to start making the CWA 303(d) program their own again. To select the approaches from the menu that work for them, engage local watershed groups and other agencies, win the hearts and minds of the public, and shine a spotlight on program successes. He also stressed the importance of an outlook that extends beyond the next two years. In conclusion, “we are on the doorstep of the 50th anniversary of the CWA. We need to make a difference. We can only do that through compliance and implementation. We know how to comply with the law. Now let’s make the law matter.”

Session 1 Plenary Discussion

Several participants mentioned in the discussion the necessity but difficulty of EPA encouraging flexibility. An EPA regional participant expressed concern that if every state and territory used different measures, EPA regions would be unable to track all of them, leading to the question of whether the states and territories should filter information they send up the chain, and, if so, how. Another participant attempted to assuage those concerns by noting for comparison purposes that her state has 108 combined sewer overflow communities and tracks all of their long-term control plans. But, she said, in order for this approach to work, EPA must commit to give the states, tribes, and territories the time and opportunity to try this new approach. Another EPA regional participant said that if he were to get six measures from each of his six states, he could handle those 36 measures, and hoped that EPA headquarters could handle getting 36 measures from each region. One participant expressed the need for measures that allow states, tribes, and territories to be compared to one another. She clarified that she is not recommending just one measure, but that there should not be 300 measures either. Another participant suggested a set of options from which states, tribes, and territories can choose.

Many participants reiterated the need to think outside the box. One participant suggested that states, tribes, and territories take what they are doing to the next level, without changing the laws, to rethink what the vocabulary means. Another participant reiterated the need for rebranding, specifically suggesting that the term “we” be more inclusive than listing and TMDL staff, perhaps including standards and permits or reporting staff. Another participant cited a study that showed that the term “TMDL” does not resonate with people, and phrases like “clean water blueprint” are more effective. She also said that the study showed that people were pleased to hear about incremental progress.

Key Points Raised:

- The 40-year-old CWA Section 303(d) does not adequately address 21st century water quality problems
- The terminology of the program, or at least interpretation of it, must change

- The vision is an opportunity to look at what is asked of the CWA 303(d) program in a way that is more meaningful, better for implementation, and will lead to real success
- Counting the number of TMDLs developed is not the right measure of success anymore, but that measure cannot be traded for nothing
- New measures must give the public equal or greater confidence in program effectiveness
- Vision implementation will benefit from thinking outside the box and allowing flexibility in measures among states, tribes, and territories
- Flexibility makes collating a national measure of success difficult
- EPA regions will have the burden of being responsible for coordinating among the states and territories and reconciling varying approaches and messages

Session 2: Prioritization

This session consisted of plenary discussion. Intended outcomes of the second session included:

- Participants will learn about the national implementation plan for the prioritization goal and identify potential refinements.
- Participants will share ideas of how they would implement the prioritization goal.
- Participants will identify and learn about milestones for achieving and tracking progress toward the prioritization goal.

Tom Stiles opened the session by recounting the impacts that the metric of pace has had on Kansas' efforts to meet water quality standards. He offered an anecdote of a western Kansas lake for which a great deal of staff time had been committed to meet EPA expectations for its TMDL. But, he added, that TMDL was done because the lake's listing was old; it will never be implemented and really the lake just needs more water in it. This highlighted what he felt was the futility of pace and why the vision is important. He noted that the program needs a metric that is more meaningful and effective than pace. Mr. Stiles suggested that the states, tribes, and territories be given the ability to select the areas of program focus. He advocated for a robust prioritization schedule, but one that leaves enough flexibility to respond to unforeseen events. Yet, he noted, prioritizing means determining not only "winners" but "losers," the latter of which in particular can be challenging.

Several participants supported a flexible rather than rigid prioritization structure. One participant noted that there are many useful approaches and schemes that should not be foreclosed for the sake of uniformity. Another participant said that different stakeholders and levels of government can have different but equally valid sets of priorities, and it is nearly impossible to simplify those into a common set that is universally applied, hence the need for flexibility. A third participant noted that, in her experience, stakeholders and government are not always on the same page concerning priorities.

The discussion moved to what people are prioritizing and how to decide. Many participants expressed a preference for prioritizing waters with stakeholders interested in participating in implementation, in effect using input from stakeholders to drive prioritization. Even top priorities, one participant said, can sit untouched without someone championing them. Another participant explained that her state's prioritization scheme starts with public nomination of waterbodies, and it applies equally to all waters, not just those failing to meet water quality standards. Nominations occur online or via phone, and it has thus far resulted in roughly 300 nominations. Yet another participant noted that his state began its prioritization process through a comprehensive assessment of waters and detailed watershed reports, but critical to implementation are the user-friendly report summaries that give locals the tools to figure out how to prioritize in ways that make sense for them. Several participants referenced the recovery potential tool, which includes social as well as stressor and ecological factors, as a means of including stakeholder considerations in prioritization.

Other noted approaches to prioritization varied considerably. A participant said that his state is prioritizing nutrient problems in the eastern and central portions of the state using the Nutrient Framework Memo¹ as a guide. Another participant explained that his state also focuses on nutrients but looks statewide at cost-effective strategies. They use a programmatic approach, prioritizing where funding will go in response to requests for funding. Yet another participant explained that in her state, they identified as priorities for TMDL development shell-fishing waters and water supplies not meeting water quality standards, but the challenge has been in implementation, so they seek priorities to leverage resources for implementation. She emphasized her program's need to be flexible regarding implementation, so as to best capitalize on all opportunities. One participant noted that revising old TMDLs could be a valuable aspect of a prioritization scheme. In addition, several participants suggested that "reverse prioritization" (i.e., identifying those waters for which TMDL development is a low priority relative to others) would be useful as well.

One participant explained that his state started identifying priorities on the CWA 303(d) list in the late 1990s, but the focus of prioritization was meeting pace expectations, rather than implementation. Others agreed that this is how their states have been keeping up with pace.

A hand poll showed that roughly ten states have a formal prioritization process to meet water quality standards.

The discussion moved to how priorities are conveyed in formal documentation. A participant proposed developing a "focus on" list, a candidate list, and a new list (effectively a black list that would include those waters lacking a feasible means of restoration) within the CWA 303(d) list. Another participant stressed the importance of accounting for the ongoing growth of the CWA 303(d) list. Several participants

¹ *Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions*, Memorandum from Nancy K. Stoner, Acting Assistant Administrator for Water, USEPA, to Regional Administrators (Mar. 16, 2011).

suggested that listing and prioritization processes be separate. One participant asked where priorities should be expressed if not in the CWA 303(d) list. Responses included nutrient reduction frameworks, Integrated Reports, and state planning processes. One participant noted that even if prioritization is housed elsewhere, states and territories should at least talk about it in their Integrated Reports.

The session concluded with discussion of the draft implementation plan milestones. Several participants reiterated their support of flexibility, and one suggested that it is possible to draw from 50 different approaches and lists a single metric that EPA can track in order to determine progress and success. Another participant noted that data are critical to this process, to know what data are available and what states, tribes, and territories are collecting to show progress. One participant cautioned that this likely will be a slow process. Another participant cautioned about increasing the reporting burden on states, tribes, and territories and suggested thinking about prioritization as a narrative approach. One participant expressed a preference to move up the 2016 timeline, to move more quickly. He also suggested that the most important milestone is hearing from states that have formal prioritization processes so as to learn lessons.

Key Points Raised:

- Prioritization has consequences
- There are many different ways of prioritizing, but few states have a formalized process for doing so. States, tribes, and territories can learn from those that do
- Prioritization as a national expectation should be flexible, allowing for different schemes across jurisdictions
- Prioritization schemes should be resilient, prepared for events foreseen (such as additions to the CWA 303(d) list), and able to adapt to those that are not (such as destruction from a hurricane)
- Prioritization schemes should be opportunistic
- There is a need for local groups that want to help with implementation
- Important secondary considerations include where and how priorities are to be conveyed, particularly what an Integrated Report is to look like
- Data availability and compatibility is critical to the prioritization process

Session 3: Protection

This session consisted of plenary discussion. Intended outcomes of the third session included:

- Participants will learn about the national implementation plan for the protection goal and identify potential refinements.
- Participants will share ideas of how they would implement the protection goal.
- Participants will identify and learn about milestones for achieving and tracking progress toward the protection goal.

Julie Espy of Florida opened the session with the broad question of what is protection, specifically in the CWA 303(d) context. She also discussed the challenges of water quality protection and sought descriptions of the experiences of those attending the workshop. She noted that her state monitors trends in healthy waters, but also that at this time there are no Category 1 waters in Florida due to a lack of data.

The discussion first covered what “protection” means to the participants. One participant suggested that “protection” be framed as “prevention,” such as “preventing further damage” or “preventing new impairments.” Another participant agreed, noting that “protection” is ensuring that additional water bodies do not need TMDLs. Yet another participant added that the concept of protection is most relatable when connected to water use, such as protecting drinking water supplies.

The discussion then turned to participant experiences with protection efforts. One participant shared that in his state they are working on a protection program to classify tier 2 watersheds based on fish and benthic communities. The state identifies sites, makes people aware of their value, and adds monitoring requirements when development occurs. A significant reason for its success has been the outreach program. Another participant shared that the TMDL process in her state begins with a watershed survey. Waters with pollution levels below the applicable standards are protected through rulemaking, stormwater and construction permits, etc. In another state, the TMDL serves as a protection mechanism once it has accomplished its initial objective of rehabilitating waters not meeting water quality standards.

Several participants referenced their antidegradation policies as an integral aspect of their state’s protection efforts. A participant noted that in his state listings under antidegradation were protecting the use but not water quality, and the state has had success in protecting the existing quality of water by developing and applying a more stringent designated use. Another participant noted political backlash from stakeholders regarding antidegradation and certain classifications of waters, pushing back on losing assimilative capacity.

Several participants noted that waters meeting water quality standards are located where human impact is not as significant, suggesting that water quality protection is largely a land use issue. One participant said that her state has a number of waters listed in Category 1, but they are fully contained in wilderness and roadless areas and have no anthropogenic influences. The state views the waters contained within those mini-watersheds to meet natural conditions for water standards, and so places them in Category 1. Another participant explained that healthy waters in his state are those in watersheds with grasslands and forests, not croplands. He added that they are using market-based protections when possible and respond quickly if local watershed groups want to help with protection. A third participant noted that staff in his state are working on a new project under a NASA grant that involves the effects of land use and change on the coastal basin system. It relates remote sensing data to land use data, water quality data, and other information and use models to predict how the land will be developed. They will be using this data to provide better information to towns for planning purposes.

One participant explained that her state has used USFWS fisheries surveys and inventories to map trout waters, which has afforded higher protection (via the state's freshwater wetlands protection program) for any redevelopment or construction projects potentially affecting those areas. Another participant noted that protection in his state benefitted from always modeling expansions for consistent sources. They also reevaluate facilities every 10 years to test the models, particularly since conditions change. In addition, staff monitor trends in key locations and react quickly to problems. A third participant explained that staff in his state are working on a pilot Healthy Watershed Initiative project with The Nature Conservancy and other state agencies, focusing on a watershed with a number of healthy waters and mixed land uses. They have identified unimpaired waters within the watershed and pinpointed key waters to be protected. They also are working with sources and local ordinances to further protection. Yet another participant said that her tribe highlights protection efforts of high quality waters in their reporting to EPA. She added that the work they are doing for protection is as important as identifying the needs for restoration and that this approach can be transferrable to states, tribes, and territories.

Responding to some questions regarding the intent of the goal, a participant from EPA headquarters noted that its purpose was not to make every state, tribe, and territory do protection TMDLs. Rather, he explained, the goal is meant to encourage thinking about protection as a state, tribe, or territory looks at its strategies, and to be conscious of where protection activities could work into the program. He added that the idea behind the vision was not to demand new protection activities be undertaken, but rather to identify and potentially give credit for protection efforts. Another participant noted that this goal offers a significant opportunity for those who are making progress in this area to get credit for it.

The session concluded with discussion of the draft implementation plan milestones. One participant noted that the states, tribes, and territories appear to have significantly varying interpretations of water quality protection and ways to accomplish it. She suggested that the ACWA surveys in the milestones also gather information about how states, tribes, and territories define "protection," so as to have a context for those approaches and rationales. Another participant supported the idea of the surveys, but recommended that they be done with sufficient depth to be fully understood and adopted elsewhere. Several participants noted that the current state of politics and the economy will make protection difficult to prioritize. One said that her attorney general has told them to avoid "informational TMDLs" at all costs.

Key Points Raised:

- There are varying examples of efforts to protect water quality across states, tribes, and territories
- Cataloging these efforts would help in conveying the concepts and lessons to others seeking to improve their protection of water quality

- There are actions already being taken that, if slightly modified, could become more focused on protection. Protection does not have to be thought of as an entirely new issue
- There should be a stronger link between CWA 303(d) and preventing impairments
- This goal may lead to “credit” for efforts to protect water quality, and not only for efforts to restore it
- Monitoring is important for protection efforts, both at the outset and over time
- Education is a common and valuable aspect of water quality protection efforts
- The involvement of local watershed groups, municipalities, and/or sources often is needed for protection actions to succeed

Session 4: Assessment

This session consisted of plenary discussion. Intended outcomes of the fourth session included:

- Participants will learn about the national implementation plan for the assessment goal and identify potential refinements.
- Participants will share ideas of how they would implement the assessment goal.
- Participants will identify and learn about milestones for achieving and tracking progress toward the assessment goal.

Martha Clark Mettler of Indiana opened the session by relating the assessment goal to prioritization and protection. She explained that if a state, tribe, or territory decides to have a new way of prioritizing, it likely will need additional monitoring data and assessment to support it. In addition, a definition of healthy waters beyond non-impaired likely requires changes in monitoring and assessment. Ms. Clark Mettler identified the groundwork for this conversation as how to fit these things together. She added that one of the challenges in moving forward with the vision is the tendency to take funding away from monitoring – the question is not only “do you have all the resources you need,” but also “do you have all of the ones you want.” Thus, she concluded, there is a major need for resources for monitoring in order to accomplish the assessment goal and the vision in its entirety.

The discussion largely focused on the issue of tradeoffs: how to meet the assessment needs of the vision given the realities of current and foreseeable budgets. One participant emphasized that the vision process does not require answers to all questions monitoring should answer; it can be more focused. An EPA headquarters participant noted that the assessment goal originally began as identification of all impaired waters in eight years. He added that despite the fact that some states are on track to meet that objective, the goal was scaled back to just focusing on priority areas.

A few participants explained what have been their tradeoffs to date, deliberate or otherwise, resulting from insufficient monitoring and assessment funds. In one state, waters presumed to be in good condition simply are not assessed. Another state has been

unable to monitor many miles of streams in first, second, and third order watersheds. One participant asked how to balance resources spent monitoring streams for the first time against revisiting previously monitored streams. Some participants simply lamented being “data poor,” and even some in data rich states lamented not having all of the data they want.

The discussion turned to how to maximize monitoring and assessment resources, which started with the topic of technology. One participant noted that GIS and automated surveying have enabled a way of talking about water quality that would not have been possible ten years ago – and offers optimism over what technology will afford in the future. Several other participants referenced technological advancements, including the ability to receive real-time flow data on a smartphone, an intelligent river program started by Clemson University that delivers real-time water quality data, and an automated assessment process that integrates her state’s assessment database into ADB for integrated reporting. One participant suggested holding a conference regarding technologies that can improve monitoring.

The topic of maximizing monitoring and assessment resources also included the sharing of data. One participant noted that staff in her state are developing a new database to provide others greater access to her agency’s data and make it easy for others to share their data. Several participants referenced relationships with universities and other agencies as well as work with watershed groups to produce more usable data.

The discussion also focused on the opportunities for rotational monitoring, assessing every waterbody over the course of four-, six-, or eight-year periods, rather than the expected two-year periods and the presently low levels of total streams assessed. Several participants noted success with this strategy, and others a plan or desire to implement it.

The session featured an extensive discussion on probabilistic monitoring. While some participants shared positive experiences with probabilistic monitoring, and felt it was a valuable component of their programs, others found it to be a poor use of resources. The main concern raised with probabilistic monitoring was that the resulting data are not detailed enough to assess waters for CWA 303(d) listing purposes. Many participants reported that they do not delist waters based on the results of probabilistic monitoring, but that listing is not as difficult as delisting.

A participant from EPA headquarters said that three cycles ago they added to the integrated reporting memo specific language regarding how data collected from probabilistic work could be used. He explained that many states use it in various ways, and that it may not be currently used to its full potential in some states. He added that EPA would like for states, tribes, and territories to use the data resulting from probabilistic monitoring, but he acknowledged that probabilistic monitoring may not lend itself to supporting water quality attainment decisions for specific waters or pollutants.

One participant noted that statewide statistical surveys, a specific type of probabilistic monitoring, have received a lot of press in his state and have driven public policy for the

program's benefit. He also said that his state would not be able to report on wetlands without those surveys. Another participant noted that probabilistic monitoring allows for comparability across states in a way that is not possible with existing, disparate assessment approaches. Another participant added that National Aquatic Resource Surveys (NARS) studies had been suggested as one way to make comparison possible, but that they may not do so to the full extent contemplated. A participant from EPA headquarters suggested that people think about the role of probabilistic monitoring as assessing whether improvements are happening across populations of waters. She clarified that if one wants to delist a waterbody, the data to do so likely will not come from probabilistic monitoring. But those surveys can help identify whether the water quality line is being held across the state. She added that it is a tool, but it does not answer all questions and address all needs; Different types of data are needed for different decisions.

Several participants agreed that there is a role for both site-specific and probabilistic monitoring, including statewide and nationwide statistical surveys. One participant summed up the wide array of assessment methods available by sharing the diversity of activities in his own state, which include trend monitoring, site-specific monitoring, and probabilistic monitoring. This led another participant to wrap up discussion on the topic by suggesting a cataloguing of state, tribal, and territorial assessment methods. She added that such a compilation could reveal that they are accomplishing different things with the same labels.

Several participants suggested refining the wording of the assessment goal to include options in addition to statewide statistical surveys. Other participants suggested simply removing the statewide statistical survey phrase at the end of the goal.

The session concluded with discussion of the draft implementation plan milestones. One participant commented that baseline and effectiveness monitoring, referenced in the final two milestones, is very difficult. He noted that discussions of baseline monitoring in his state have occurred, but it is unclear whether they will amount to anything in practice. Responding to an inquiry regarding the second milestone, a participant from EPA headquarters explained that "facilitate/refine assessment categories 1 and 2" refers to reviewing category distinctions and determining whether they are still useful with respect to tracking impaired waters. Category 1 includes waters for which all uses are met, while category 2 has those for which some are met and the status of the remaining uses is unknown. He stated that this structure has been used for 10 years, but perhaps it creates a lost opportunity for more specific information.

Key Points Raised:

- Much of the success of the vision will depend on how well states, tribes, and territories identify and understand their priority areas, whether geographic, pollutant-based, or otherwise
- Particularly in tight budgetary times, it is important to maximize use of the data available and make strategic decisions about when, where, and how to monitor

- The CWA 303(d) program can benefit from using data resulting from all scales of monitoring and assessment; the assessment goal need not emphasize one or more of these methods
- The program also will benefit from engaging other data sources, such as other agencies, universities, and volunteer groups
- Technology has improved and will continue to improve monitoring and assessment capabilities, and the CWA 303(d) program should capitalize on those opportunities as much as possible

Session 5: Alternatives

This session consisted of plenary discussion. Intended outcomes of the fifth session included:

- Participants will learn about the national implementation plan for the alternatives goal and identify potential refinements.
- Participants will share ideas of how they would implement the alternatives goal.
- Participants will identify and learn about milestones for achieving and tracking progress toward the alternatives goal.

Traci Iott of Connecticut opened the session describing its aim as exploring creative solutions to achieving restoration and protection, satisfying the requirements of the CWA while moving toward meeting water quality standards in the most effective and efficient ways possible. She noted that TMDLs make sense in some cases, but not necessarily in others. Ms. Iott also clarified that the vision does not mandate alternatives, but rather gives states, tribes, and territories more options regarding problem-solving tools. A hand poll asking who was interested in alternatives showed that over two thirds of the participants were.

The session began with a review of alternative approaches presently being used. One participant noted that her state has different plans, e.g., source reduction and nutrient reduction plans, that have made TMDLs for certain waters for certain issues potentially unnecessary. She explained that the waters with such plans have been placed in a Category 4E, denoting ongoing restoration efforts justifying the postponement of a TMDL. The intent of the postponement is that upon reassessment the waterbody will meet water quality standards. If the restoration effort is unsuccessful, a TMDL will be developed. Similarly, an EPA region developed the pilot Category 5R, which recognizes restoration efforts undertaken in advance of TMDL development. Category 5R allows deferment of TMDL development for that waterbody in the near term, and a TMDL would not need to be done at all if water quality standards are subsequently reached.

Several other participants emphasized the value of plans over TMDLs in some cases. One noted the challenges of TMDL implementation in some rural portions of the state where there can be distrust of government and explained his program's solution: to develop local plans with implementation funding by the state, all outside of the TMDL realm. Another participant suggested that special area management plans under the Coastal Zone

Management Act be recognized for the water quality benefits that they often provide. Special area management plans are resource management plans and implementation programs developed to address complex multi-jurisdictional issues in discreet coastal areas.

One participant explained his state's Agricultural Water Quality Certification Program, a pilot program offering farmers assurance that their operations will meet water quality goals and standards if they implement and maintain approved conservation plans. Another participant noted that his state has been working through legislation regarding an agricultural water quality certification program, but this program would supplement a TMDL, requiring farmers to employ certain best management practices and to achieve existing TMDL load allocation in order to receive assurance that their operations will meet water quality goals and standards.

Participants also described their experiences with direct implementation strategies as alternatives to TMDLs. One participant explained that her program has addressed watersheds affected solely by livestock through financial incentives for voluntary strategies such as offstream watering and winter feeding areas. She added that several of the watersheds now meet water quality standards and reside in Category 1, while the rest are in Category 4B. Several participants referenced activities aimed at addressing the water quality impacts of large bird populations, conducted instead of developing a TMDL, or after a very simple one. One participant noted that his agency is criticized for wasting resources developing TMDLs when the perceived solution is just sitting down with stakeholders. Another participant said that his state has billions of dollars of implementation ongoing without associated TMDLs. Yet another participant provided an example of direct implementation being more reasonable than developing TMDLs in his state: chloride impairments, for which the solution is using less salt. He advocated for more options in cases where TMDLs would add less value than alternative actions.

Additional discussion focused on the use of Category 4B in reporting waters undergoing direct implementation. One participant noted that her state uses Category 4B when another regulatory program is addressing the water quality impairment, and the other program has an enforceable mechanism to ensure reductions will occur. If these waters fail to achieve water quality standards through the alternative effort, they are moved back to Category 5. Several participants expressed frustration with the difficulty of listing a waterbody under Category 4B. One participant noted that her state is developing some statewide policies that will make categorizing waters under Category 4B easier.

A few participants noted the value of permits as opposed to TMDLs in certain circumstances. One described his state's permit in lieu of TMDL process. The process has been applied in instances where a single point source is the source of the pollutant causing the impairment. A defensible wasteload allocation must be calculated and an enforceable permit must be finalized. But he added that this approach has not been used in three to four years. Another participant noted that his state proposes NPDES special permit conditions to minimize impairments in the next five years.

One participant requested alternatives for addressing mercury, particularly given high subsistence fish consumption, the fact that her reservation lands have ecological features that methylate mercury efficiently, and much of the mercury does not originate from nearby sources.

Discussion briefly turned to the issue of communicating alternatives. One participant explained that her state introduces the concept of alternatives to stakeholders by explaining that they have control of their own destiny. She added that they still may need a TMDL five years later, but the needed reduction might be 20% rather than 80%. Another participant suggested that alternatives can be effective because of what they are not – top-down approaches, what he referred to as “bringing a bazooka to a fistfight” in the eyes of some rural communities.

The session concluded with discussion of the draft implementation plan milestones. A few participants requested that the decision-making framework noted in the third milestone be focused on each state, tribe, and territory rather than be national. However, an EPA headquarters participant said it would be beneficial to have such a decision-making framework be national so as to bring together the collective knowledge of the states, tribes, and territories. A participant from an EPA regional office suggested that the output of the third milestone be a handbook like the EPA handbook for developing watershed-based plans—*i.e.*, a framework, but one that is not too prescriptive. Another participant suggested a set of principles rather than a framework. Yet another added that regardless of whether the framework is national or more local, EPA, particularly the regions, will need a national metric. He suggested one that incorporates flexibility and goes beyond TMDLs. A different regional participant noted that he is open to alternatives but needs to see something convincing showing that a lot of thought has been put into the chosen approach and that it will yield positive results, even if it may not fully achieve the original goal.

Discussion then turned to the fourth milestone, specifically the meaning of and potential for adaptive management. Several participants offered their definitions of adaptive management. One viewed it as undertaking an activity that likely will get results but may not be the full solution, requiring one to revisit the issue and adjust the activity as needed, given new information and environmental conditions. Several participants agreed, one summarizing adaptive management as committing to continuous learning that is incorporated into subsequent rounds of decision-making. While most participants viewed adaptive management favorably, one participant labeled it an excuse for not doing full implementation.

Several participants expressed concern about legal vulnerability if they are not doing TMDLs, but are undertaking alternative approaches instead. One participant stressed the value of demonstrating water quality improvements through alternative approaches when facing such scrutiny. One participant brought the session to a close stating that he would rather be sued for “righteous action” than for doing nothing.

Key Points Raised:

- There are many alternatives to TMDLs for meeting water quality standards; an inventory of those in practice would be useful
- Successful implementation of this goal will be more likely with a non-prescriptive framework or list of principles for the purpose of determining whether to develop a TMDL or use an alternative approach
- Direct implementation can save time and money over TMDL development in certain circumstances
- Adaptive management can be employed to effectively implement TMDLs or alternative approaches. When there is substantial uncertainty in achieving water quality standards, actions to reduce pollutant loads could be initiated and later continually assessed for progress and needed adjustments to achieve water quality standards
- Some environmental stakeholders may still want TMDLs in all cases
- Alternative approaches, as compared to TMDL development, likely will open programs to legal vulnerability, but demonstrating the effectiveness of actions taken will help deter litigation

Session 6: Integration

This session consisted of plenary discussion. Intended outcomes of the sixth session included:

- Participants will learn about the national implementation plan for the integration goal and identify potential refinements.
- Participants will share ideas of how they would implement the integration goal.
- Participants will identify and learn about milestones for achieving and tracking progress toward the integration goal.

Jeff Berckes of Iowa opened the session by noting that everyone says more integration and collaboration is needed – but there is not as much of it as there should be because it is hard to do. He framed the discussion with consecutive questions: what does integration mean; who should it involve; why it is necessary; and how can it be done?

Participants started by sharing what integration means to them and in their respective states, tribes, and territories. Participants described integration as unifying or at least coordinating missions, together meeting common needs. One participant said that cooperation and collaboration are fairly commonplace, but what separates integration is the notion that both sides are moving in the same direction. Another participant suggested that integration requires the effort of both sides; the effort of one is not enough.

The discussion turned to who should be involved in integration efforts of the CWA 303(d) program. Mr. Berckes asked participants what programs have similar interests, duties, and goals to those of the CWA 303(d) program, and where does integration make sense. He suggested that there are several levels of integration: between the CWA 303(d) listing and TMDL Programs, among all CWA programs, with other EPA programs, and

with other agencies. He also noted the need for integration across different levels of government, particularly state, tribal, and territorial with EPA regions and headquarters. One participant added integration with local conservation districts and county planning agencies, since that is “where the rubber meets the road.” Another participant added watershed districts, county governments, and city government. He also specifically noted state departments of agriculture, water, and health as being important integration objectives when thinking about other state agencies. Yet another participant noted the value of integration with RCRA and CERCLA programs in her state. A fourth participant highlighted the benefits of his state’s integration with the Army Corps of Engineers and U.S. Forest Service.

Participants then discussed why integration is important and the potential benefits to those present. Mr. Berckes asked participants what value would integration add to the TMDL, CWA 303(d) or CWA programs as a whole? One participant noted the challenges resulting from the different missions of agencies/programs, at times resulting in competing and even conflicting efforts. She gave an example of work on nutrient reduction in lakes being hindered by the presence of an endangered species. Participants said that integration can increase efficiencies, improve knowledge, expand the customer base of products, make dollars go further, and ultimately get more done more effectively. One participant suggested that working with other programs can help prioritize TMDL implementation, especially when funding is needed and grant opportunities are available. Another participant noted that the current downsizing of programs creates more incentive to integrate, so as to, among other things, mitigate the loss of institutional knowledge. Several participants said that they did not truly understand the benefit of and need for integration until they saw the consequences of not doing it. In one state this resulted in not knowing about wastewater treatment plant upgrades until after TMDL development was underway.

Then the discussion turned to how to integrate. One participant suggested that integration start at the federal level, leading by example and establishing connections across EPA programs and other agencies at a high level. She added that an important piece of this effort is the education of potential federal partners about how programs overlap and can support one another. Another participant said that TMDLs can be viewed as either influencing the direction of the other programs or complementing those programs by providing them with needed information. In this light, TMDLs can be either the hub of the wheel for purposes of integration, or the tire tread around it. A third participant expressed his preference for the CWA programs to first integrate and then work with other EPA programs and other agencies, as opposed to each CWA program, such as the TMDL Program, integrating with other EPA and agency programs independently.

Participants provided various examples of tools for integration, from regular meetings, to memoranda of understanding, to coordinated planning, and beyond. Several participants stressed the importance of institutional knowledge and interpersonal relationships across programs and agencies, both of which are being lost through retirements and insufficient mentorship of junior staff. One participant noted the value that housing all CWA programs in the same section of the same agency has had on integration in his state.

Another participant explained that in his state representatives from state agencies meet on a monthly basis regarding the collaborative management of funds. They develop what is referred to as a placemat, which shows how the roles and responsibilities link together in a cycle and the coordination that happens at the local level. A couple of participants highlighted the value of check boxes on permits and other forms for purposes of integration; while a very mechanical method, it draws another party more tightly into the approval process. Both tribal participants emphasized that there are many opportunities for tribes and states to cooperate and encouraged the other participants to integrate their efforts with those of the tribes whenever possible. Several participants also noted that it took mandates in state law or requests from the governor for agency integration to occur.

The session ended with a very brief discussion of the milestones. Several participants voiced a desire to see state-to-state cooperation added to the milestones, while another suggested state-to-local government integration be added.

Key Points Raised:

- Integration can increase efficiencies, improve knowledge, expand the customer base of products, and make dollars go further
- But integration requires time and money, making it important to choose integration efforts wisely—to get the most “bang for the buck”
- Integration is not unidirectional; it requires effort on both sides
- The power of integration is recognizing the mutual benefit to parties involved; integration is more than collaboration, although that is a means of integrating
- Retirements and staff reductions are draining programs of the institutional knowledge and interpersonal connections critical to integration
- States, tribes, and territories are integrating their own programs and with other levels of government in a variety of ways
- Greater integration is needed across levels of government (local, state, and federal); with tribal governments; and at state and federal levels between the CWA 303(d) listing and TMDL programs, among all CWA programs, with other EPA programs, and with other agencies

Session 7: Vision Goal & Programmatic Measures

This session featured two presentations, followed by plenary discussion. Intended outcomes of the seventh session included:

- Participants will identify and learn about potential measures to be used for implementation of each of the vision goals.
- Participants will identify and learn about how the vision goals may be used as measures for overall program success at the national and state, tribal, and territorial levels.

John Goodin of EPA headquarters began the session by clarifying the context for the discussion and the nomenclature used. Like many of the terms used at the workshop, he explained, the word “measures” has been used to refer to two different aspects of the

work being discussed. This session focuses on the national roll-up measure that would replace pace, as opposed to the individual measures that have been discussed regarding accomplishing each vision goal. He added that some elements of the latter could feed into the former, but they are distinct.

Mr. Goodin also explained the genesis and development of a measure to replace the current program metric of pace for TMDL development. At the 2012 National Training Workshop on CWA 303(d) Listing & TMDLs, participants began to identify characteristics of their ideal program measure. This resulted in roughly a dozen items. In a subsequent EPA program meeting, participants added to those items, yielding 14 aspects of an ideal program. The measures workgroup then formed and has since considered a variety of approaches. The workgroup temporarily suspended their efforts in January, deciding it was better to first work through the details of the vision and goals and to use the workshop for feedback on the various approaches developed. Mr. Goodin explained that the goal of the session is to have a vibrant discussion about the larger overall program measure, and for those in the measures workgroup to get a sense of the pros and cons of each approach in the opinion of those in attendance. He added that he hoped that participants would provide the measures workgroup enough raw material to put together a straw man and have a version for review against the 14 ideal characteristics of a program measure within the next few months.

(1) Tatyana DiMascio, EPA-ORISE: Measures Sideboards

Ms. DiMascio began her presentation by noting that currently two measures are used to track the CWA 303(d) program: WQ-08a, the total number of TMDLs established or approved by EPA, and WQ-08b, the number of TMDLs established by states and approved by EPA. The past measure, WQ-21, (number of segments with complete restoration planning) is no longer reported on. She also provided a list of measures that are not tracked by the CWA 303(d) program but use the CWA 303(d) list of impaired waters information: SP-10, SP-11, SP-12, WQ-09, and WQ-10. She added that pace alone does not tell the whole story of program progress and success, thus the objective is to replace WQ-08.

Ms. DiMascio then described the composition of the measures workgroup, which consists of participants from 15 states, 4 EPA regions, and EPA headquarters. They have held ten meetings over the course of the fall and winter. She added that, as Mr. Goodin explained, the workgroup was interested in aligning the new measure with the implementation of the Vision. Thus the workgroup was concerned that they might be putting the cart before the horse, so they wanted to have a better idea about how the vision would be implemented before recommending a measure for evaluating it. They will be reconvening after this workshop.

Ms. DiMascio presented three possible approaches. The first approach, labeled “straight to measure,” is a measure composed of one or more specific indicators. Possible indicators include the extent of water resources with a TMDL and non-TMDL approach, extent of water resources addressed by TMDL and non-TMDL

approaches with a focus on a specific pollutant, percentage of wasteload allocations and load allocations that have been addressed, impairments now meeting water quality standards, percentage of watershed restoration and protection strategies that are in progress or completed, watersheds showing parameters-specific changes in water quality, and nonpoint source success stories with TMDL and non-TMDL approaches.

The second approach, the “vision strategy approach,” measures the development and implementation of individual state, tribal, and territorial strategies. This approach also is composed of several indicators, each centering on elements of vision implementation—some at the state, tribal, and territorial level and others at the federal level. For example, for the element “vision strategy and implementation document,” state/tribal/territorial accountability would focus on whether the document is incorporated into existing planning documents and the strategy is reviewed and revised every five years. The federal measure would be the number of states, tribes, and territories participating in a TMDL vision planning and implementation process.

The third and final approach Ms. DiMascio presented was a hybrid approach, which measures the percentage of priority waters (1) assessed, (2) with a TMDL or alternative plan, (3) with implementation actions, and (4) with water quality improvement or attainment. She explained that this approach recognizes that the CWA 303(d) program is but one piece of the puzzle and success requires integration with other programs and their measures. She added that state-by-state information can be aggregated on a national level for the national measure.

Ms. DiMascio ended her presentation by noting that WQ-08 will continue to be reported annually while a new measure is developed and refined. She added that WQ-08 may remain “on the books” through FY15 and may overlap with the new approach due to timing of several EPA processes, such as the budget measure, Strategic Plan, and National Water Program Guidance.

(2) **Jeff Risberg, Minnesota:** Tracking Minnesota’s Clean Water Fund Effectiveness

Mr. Risberg set the stage for his presentation by explaining that, in 2008, voters approved the Clean Water, Land, and Legacy Amendment, providing a stable source of funding for outdoor habitat, clean water, parks and trails, and arts and culture for 25 years. He added that the new source of funding came with the charge from the legislature to provide transparency and accountability for the results on the investment. Hence, Mr. Risberg’s program has been faced with the challenge of demonstrating results.

Mr. Risberg explained that the program formed an interagency group consisting of eight agencies, local government representatives, and the University of Minnesota. Through a four-year process, the group developed the first draft of an effectiveness monitoring framework, including the Clean Water Performance Measure Pyramid. He

explained that the pyramid has three tiers, the bottom of which consists of hundreds of measures regarding everyday activities such as monitoring and operations. The middle tier consists of roughly 50 key measures and also is known as the Clean Water Fund Tracking Framework. The top tier consists of 18 measures selected to be reported through the Clean Water Fund Performance Report to help citizens and the legislature understand progress statewide. Because it is not possible to measure and report on everything, Mr. Risberg explained that the top 18 measures had to be selected carefully, to tell as much of the story as possible. The measures also had to address the two critical questions the public wants to know: “is the water getting cleaner?” and “is it safe to drink?” He added that the program faced the challenge of managing expectations; it takes time to see results.

Mr. Risberg noted that the first Clean Water Fund Performance Report was completed in February, 2012, and the next one will be released in January, 2014. The first report looked at 18 measures divided into investments, surface water quality measures, and drinking water protection. He added that there is a placeholder for social measures and stressors. For every measure, Mr. Risberg and his team are trying to create simple, readily understood stories, with most of the profiles being one- to two-page summaries. The group also felt it needed “at a glance” means of conveying the information. They used the stoplight approach, with green meaning “making good progress,” yellow meaning “anticipate difficulty” or that it is too early to assess, and red meaning “progress is slow, not meeting target.” Also, a trend line shows if the measure is improving, on pace, or declining. Two years in, six measures showed improvement, one was declining, and seven were too early to assess.

Mr. Risberg concluded his presentation by noting that they are refining the measures, bringing more measures out of the middle tier and retiring some from the top tier that need to be redone. He said that they also are improving data management and reporting capabilities and continuing to get feedback from the public and from stakeholder groups as they move forward.

Session 7 Plenary Discussion

Discussion began with several participants noting that there likely is no single measure that will satisfy all 14 of the ideal goals, with one participant stating that fewer goals would make it easier to come up with a measure. He suggested that the goals in the list are all important objectives, but that not all of them are necessarily relevant to identifying an ideal measure. In particular, links to value might not be included in the measure. He concluded by saying that the ultimate objective is meeting water quality standards for all waters, but since that will not be happening soon, incremental measures will be important for identifying progress. Another participant agreed, saying that incremental measures must be part of the overall measure; long-term problems require long-term horizons.

Several participants expressed support for the hybrid approach presented by Ms. DiMascio, at least in part because of how it incorporates incremental progress. Other participants expressed support for the vision strategy approach. One participant said that

he liked the idea of the vision strategy approach but felt that it would be difficult for his program to assemble the resources to implement it given the stakeholder involvement necessary. He added that updating his state's nonpoint source management plan took a great deal of time, energy, and money, and this process likely would be more difficult since the CWA 303(d) program does not have the financial incentive of CWA 319, or some other equally valuable hook. Another participant made a similar comment regarding the hybrid approach, suggesting that it is the Cadillac approach and may be more than some states, tribes, and territories can do with their resources. She said that she preferred the vision approach because she felt that it is a bit more realistic.

One participant questioned the timetable for the vision strategy approach, expecting that states, tribes, and territories either would continue doing what they are doing or, more likely, need to step away from day-to-day activities for a period to develop their strategy. If the latter, he added, EPA would need to establish a specific time frame in which states, tribes, and territories would be expected to resume their program activities. Another participant contended that the vision strategy approach was more a continuation of what is already being done, as many states, tribes, and territories already have key aspects of the vision in place, thus a step back is not a required part of the vision strategy process. Yet another participant added that the vision strategy is not a timeout; it is "let's make it ours and create information that helps the state continue to push itself and get outcomes."

One participant suggested that, on the national level, the program measure be a succinct description of water quality and the efforts to protect and restore it. Another participant added that the measure should be designed to enhance communication of the work the program does to the public, legislature, etc., to be relatable. A third participant agreed, pointing out that few people outside of the workshop are familiar with WQ-08, highlighting the need for the new measure to be something useful, visual, and incremental in order to convey the program well to Congress and beyond. Another participant shared that stakeholders in her state are interested in things that translate well to their understanding, such as CWA 319 success stories.

One participant expressed concern over scale consistency (same size watershed) when reporting on the national level. Another participant noted that none of the approaches lower the reporting burden. But a third participant highlighted the opportunities presented by improvements in technology such as GIS. He added that technology is on the cusp of offering more uniform ways of looking at watershed units regardless of how states, tribes, and territories choose to assess pollutants, and some things that historically have been viewed as impediments or problems may not present such a burden.

Mr. Goodin concluded the session with good news and bad news. The good news, he explained, was that the group was having this discussion. He added that last year the discussion was about why the program should move away from pace; this year participants are helping shape what the new measure will look like. Mr. Goodin stated that he wants to think that this process represents where the program as a whole is headed. The bad news, he said, is that this is hard. Changing the program is a difficult thing to do. He added that, regardless of what approach is adopted at the national level,

states, tribes, and territories still may pursue a variety of approaches at that level, to ensure they meet their needs and priorities.

Key Points Raised:

- EPA is seeking to replace the WQ-08 (pace) measure
- The “straight to measure approach” consists of one or more specific indicators, such as the percentage of watershed restoration and protection strategies that are in progress or completed and impairments now meeting water quality standards
- The “vision strategy approach” measures the development and implementation of individual state, tribal, and territorial strategies
- The hybrid approach measures the percentage of priority waters (1) assessed, (2) with a TMDL or alternative plan, (3) with implementation actions, and (4) with water quality improvement or attainment
- Some participants preferred the vision strategy approach, while others preferred the hybrid approach
- Each approach has the potential for a higher reporting burden than current program practices, and at least some participants are concerned about how resource-intensive each approach may be
- The water quality problem often is long-term; developing a measure that includes indication of incremental progress is important
- The measure should be relatable to the public, legislatures, etc., and enhance communication of the program’s work

Session 8: Engagement

This session consisted of plenary discussion. Intended outcomes of the eighth session included:

- Participants will learn about the national implementation plan for the engagement goal and identify potential refinements.
- Participants will share ideas of how they would implement the engagement goal.
- Participants will identify and learn about milestones for achieving and tracking progress toward the engagement goal.

Lee Currey of Maryland opened the session by noting that the subject of engagement had arisen in every session, an important but also challenging issue. He structured the session around three primary questions: what is engagement, who is the audience, and how should one engage.

One participant defined “engagement” as getting stakeholders’ attention and then communicating. Another participant suggested that engagement is more than communication; that it is recruiting partners and stakeholders to carry forward the goals of clean water. He added that “engagement” means winning over hearts and minds, and to do that people need more than information – the goals must be their own. For that to happen, they need to be involved in the process. Another participant defined

“engagement” as talking to someone about what she does, in plain language as opposed to jargon, and listening to what they do to determine if there are mutual goals.

The discussion then turned to the issue of who should be engaged. One participant identified two levels of target audiences: the general public and specific groups and people best positioned to help achieve water quality goals. Several participants supported the notion that at least a portion of engagement efforts be focused on the general public as that can result in political and economic support. As for more targeted efforts, participants suggested engaging fishermen, watershed groups, environmental groups, environmental justice organizations, universities, local governments, farm bureaus, ranchers, treatment plant operators, and contractors whose work disturbs soil. One participant emphasized the importance of engaging non-English speaking communities, particularly those with significant subsistence fishing. Another participant noted that she ultimately works for the tribal members, but that there are steps (from her boss to the tribal water commission, to the board of trustees, then to the tribal members) that influence the engagement opportunities.

Discussion then moved to how to engage these parties. Suggestions ranged from various media outlets to in-person meetings. One participant noted the benefit that he has seen of providing information to reporters. Several participants also stressed the importance of responding to media through means such as press releases and ensuring that accurate information is available to the public before inaccurate reports are. Numerous participants provided examples of engagement efforts outside the mainstream media. One participant referenced cleanwaterpartnership.org, an online platform for civic engagement. Each basin of the state has a full-time facilitator, and it also hosts annual workshops to train public officials on water principles. Many participants explained various aspects of their state’s water quality websites. Another participant highlighted EPA’s How’s My Waterway app, which provides information on the conditions of local waterways via a smartphone, tablet, or computer. A participant added that EPA’s Surf Your Watershed tool and the USGS and EPA websites provide useful information to stakeholders and have the added bonus of reducing the burden on states, tribes, and territories to generate and send data to inquiring stakeholders.

One participant suggested that while all of these new technologies are great, not everyone has internet access in rural parts of his state, leaving face-to-face interaction important for engagement. Another participant highlighted the value of conferences and workshops for engaging those with a professional connection to water quality issues and/or those merely with a personal interest. Yet another participant suggested holding events during lunch so as to use food as an enticement and so that attendees can come and then return to work. Other participants referenced project demonstrations, map parties, community potlucks, field tours, networking meetings, and community dialogues as additional successful in-person engagement efforts. One participant reported heightened public engagement and useful monitoring support from placing a real-time turbidity gauge on a bridge; people call in when turbidity is high. Finally, a participant mentioned a new home rebate program which provides financial incentives to communities that drain into impaired waterbodies. She said that contractors trained in education and outreach work with

participating homes, which then have a plaque outside their home explaining that they are participating in the program.

The session also focused on the topic of programmatic branding. One participant said that the term “303(d)” is not helpful for purposes of engaging the general public, suggesting the development of a nationally used term that could be understood by everyone. Another participant suggested that “Clean Water Blueprint” is a better term than TMDL, “blueprint” being the term that was used in the Chesapeake Bay Watershed Implementation Plan communication. He added that better conveying the connection of program efforts to water uses (swimming, fishing, and drinking) is important. A hand poll showed that between two-thirds and three-quarters of participants thought that a common EPA/state/tribal/territorial programmatic message would be useful as an outreach tool. One participant suggested that EPA take the lead on such a tool or rebranding since it would be more efficient than the jurisdictions doing it individually. He added that states, tribes, and territories could choose to use it or not, or modify it as they would like.

Several participants noted the value of professional assistance from communication experts for successful engagement. One person stated that the workshop participants are technical experts and thus the wrong professionals to be looking at social and communications issues, meaning that this discussion requires a broader perspective and knowledge pool. Another participant recounted being on a panel with an anthropologist, who focused on past human behavior, and noted the benefits of engaging with experts in that field. Yet another participant relayed the benefit that she has found from working with a communications professional on her staff.

The session concluded with discussion of the draft implementation plan milestones. Several participants suggested that the first step be the development of common terminology and messaging (which some participants characterized as “branding”). Another participant suggested that engagement efforts be particularly focused on the vision. Yet another participant said that unity of message within a state, tribe, or territory is important, hence a valuable milestone might be making sure that within each department everyone is communicating the same message. A participant expressed support for the milestone asking that states, tribes, and territories share success stories.

Key Points Raised:

- Engagement is important for the success of all vision goals
- Engagement efforts should be focused on the general public and specific groups and people well-positioned to help achieve water quality goals
- Barriers to engagement should be emphasized and addressed
- The CWA 303(d) program needs new terminology for effective communication (or rebranding): nationally used terms that better explain the what and why of the program
- New terms (or rebranding) may need to be the first milestone of the engagement goal
- Technology offers many new opportunities for engagement and should be pursued. That said, in-person communication is still important

- Technical water quality experts should engage communications professionals as needed and work closely with them to develop effective communication strategies
- Communication should be in plain language, not technical terms, for engagement to be successful

Session 9: Draft Implementation Plans & Menu of State Options

This session consisted of plenary discussion. Intended outcomes of the ninth session included:

- Participants will identify and learn about options to be included on a menu for achieving each vision goal.
- Participants will identify and learn about the format for tech transfer and communicating the draft national implementation plans and state, tribal, and territorial actions.
- Participants will review the major conclusions from each of the previous sessions and identify next steps.

Mr. Goodin opened the session with a brief history of the development of a new CWA 303(d) program vision. He said that it began at the 2011 ELI workshop and other discussions that year, as state, tribal, territorial, and federal staff expressed a desire to do something in anticipation of the CWA 303(d) program evolving in the post-consent-decree era. He noted that, at the ACWA meeting in August of 2011, EPA had the opportunity to extend and introduce the concept of developing the new vision in a formal way. Over the course of the next 6 to 8 months, a series of activities took place to reimagine the program from its core to what the states, tribes, territories, and EPA would want it to be in 10 years. ACWA and EPA collected 20 pages of ideas from over half of the states. Mr. Goodin explained how they filtered and discussed the ideas, ultimately distilling them to 7 key points. These 7 points became the 6 goals and the measures objective. Next, ACWA and EPA held a series of conference calls with state and EPA regional staff to discuss each of the 6 goal areas and begin formulating the goals and vision. The vision and goals were released for stakeholder comment in the summer of 2012; specifically, he noted that ACWA and EPA shared them with key stakeholders, including environmental organizations, agriculture interests, other federal agencies, and sister CWA programs. This effort resulted in the August 2012 iteration of the vision, which was presented at the ACWA 2012 meeting. The ACWA board of directors, in a letter to EPA, indicated its support for the vision process and direction. Subsequently, at the February 2013 ACWA meeting, a group of state and federal staff presented preliminary draft implementation plans for two of the vision goals. Since then, the group has developed implementation plans for all the goals of the vision, which was the focus of this workshop.

Mr. Goodin then summarized what he had heard over the prior two days on each of the vision goal statements and their respective draft implementation plans – including the general opinion regarding each goal and plan, suggested changes, additional suggestions

for the menu of options, and other major comments. He discussed these issues and sought additional comments for each goal, beginning with prioritization.

Mr. Goodin said that his sense from the prioritization discussion was there was strong support for this goal. He added that there were several recommendations regarding the draft implementation plan. One recommendation was to have ACWA collect potential as well as current approaches for prioritizing waters. Another suggestion for ACWA was to collect available information used in developing rationales. Regarding the fifth milestone, Mr. Goodin noted a suggestion to move up the date of referencing state and territorial prioritization to the 2014 rather than 2016 Integrated Report, or at least recognize that some states are positioned to move forward with prioritization that soon. He added that one participant recommended modifying the milestones to clarify that state, tribal, and territorial CWA 303(d) program priorities would cascade from their respective, broader water quality priority philosophies.

Mr. Goodin also briefly reviewed what he felt were significant comments during the prioritization session. He mentioned the discussion of resiliency and flexibility and the importance of each in prioritization. He also noted the need to make clear that prioritization by nature means some things rise and others fall. Mr. Goodin recounted that a show of hands revealed ten states with a formal prioritization process in place. Yet, he added, there is a great variety of approaches to priority-setting: most states use a geographic-based approach, but other ways include pollutant-based and source-based. He said that the process must be developed to accommodate different ways of prioritizing waters. He concluded by suggesting that state and territorial priorities be at least referenced, if not housed, in Integrated Reports so that the public can be directly engaged.

Participants then began to add comments and suggest further edits. One participant built upon the point that prioritization means winners and losers, requesting permission for her state to place impairments by certain pollutants, such as legacy pollutants, in a separate category or otherwise distinguish them as low priority given the limited likelihood of recovery. Another participant suggested that prioritization schemes be promoted as means of maximizing return on investment. Yet another participant suggested making more explicit the value of advancing science, particularly for nutrients and sediment. A fourth participant added that standards staff is responsible for deriving criteria, but the CWA 303(d) program must implement what they develop, suggesting the need for a parallel process to understand the science so as to better identify sources. A fifth participant suggested that this issue be incorporated into integration rather than prioritization.

A participant from EPA headquarters noted that the nonpoint source program is asking all states to update their nonpoint source management programs. She added that nearly half of the states have outdated programs and will be updating them this year or next, which creates a good opportunity for the CWA 303(d) program to reach out to colleagues and integrate program priorities as appropriate.

The topic of the session then turned to the second goal covered, protection. Mr. Goodin said that his sense from the protection discussion was that there was support for this goal. He noted the suggestion that protection be more expressly linked to the activities of the CWA 303(d) program, such as adding language about preventing impairments in healthy waters. Regarding the draft implementation plan for the protection goal, he referenced the suggestion that the milestones focus on the collection of information on existing and potential state, tribal, and territorial protection activities, as opposed to just protection planning.

Mr. Goodin also briefly reviewed what he felt were significant comments during the protection session. He noted that not every state, tribe, and territory is expected to develop protection priorities, but that the goal is intended to encourage them to consider protection when setting overall CWA priorities. He also recognized the point that protection often is a significant water quality objective of tribes. In addition, Mr. Goodin referenced comments regarding the value of monitoring for protection efforts, in particular identifying healthy waters and tracking their condition. He also acknowledged the existing practices that aid in protection: antidegradation and downstream effect consideration in water quality standards, permitting new discharges, and state 401 certification programs.

One participant suggested adding the concept of education into the goal, or at least into the implementation plan. Another participant stressed the importance of engagement in protection, especially when nonpoint sources are at issue. A third participant recommended tracking changes in land use and land cover, in addition to water quality monitoring, for purposes of determining protection priorities. Yet another participant highlighted the protection benefits in his state realized by reclassifying waters to a more stringent designated use. A participant also suggested incorporating protection into a larger prioritization scheme by prioritizing aquatic species.

One participant suggested that TMDLs are a good venue for discussing unimpaired waters, particularly when developing a watershed TMDL. But, he added, to date his state has largely focused on impaired waters in such documents, ignoring the unimpaired ones. Another participant noted that she also does watershed TMDLs but includes discussion of unimpaired waters. A third participant asked where existing TMDLs fit in the protection goal, with another participant seconding the notion that existing TMDLs can play an important protection role once water quality standards are met.

One participant questioned how the vision goals may appear to the public if multiple states, tribes, and/or territories are not implementing two of them (protection and alternatives). Another participant did not mind the potential perception. He suggested that what matters more is explaining the decision-making rationale for why certain goals are less important to certain states and how the others are being implemented.

The topic of the session then turned to the third goal covered, assessment. Mr. Goodin noted that it was a lively discussion but that there was support for this goal with some suggested modifications. He explained one suggested amendment as removing from the

goal statement the statewide statistical surveys component and the term “site-specific” before “assessments.” Another suggested amendment added rather than removed content, incorporating language concerning monitoring for threatened waters and trends in waters. Regarding the draft implementation plan, the only suggestion had been to remove the first milestone, the one concerning statewide statistical surveys, if that language is removed from the goal.

Mr. Goodin also briefly summarized comments made during the assessment session. He reiterated the influence that recent technological improvements have had on assessment efforts and communicating that data, noting in particular potential resolutions to long-standing problems with cycle-to-cycle tracking. Mr. Goodin also referenced a comment regarding the importance of effectiveness monitoring in demonstrating the value of TMDLs. On a related note, approaches to assessment should better identify whether listed waters are no longer impaired. He also noted the suggestion that probabilistic monitoring is useful for prioritization, even if the state or territory would prefer not to note probabilistic monitoring in the assessment goal.

One participant suggested two potential edits to the assessment goal noted by Mr. Goodin, saying that one is the option to make the goal broader, by removing the reference to probabilistic monitoring, and the other would make it more comprehensive, by adding language that the goal acknowledges more sweeping assessment with probabilistic monitoring as one example. Most participants supported the former.

One participant raised the issue of delisting, saying that some waters are on her CWA 303(d) list based on assessment methods that are not endorsed today, but she has been unable to remove them since more data are needed to prove that they are not impaired than to prove that they are. Another participant responded by noting that his EPA region expects a delisting decision to be based on the same level of rigor that got the water listed in the first place.

After a few additional questions to clarify the intent of the assessment goal, Mr. Goodin explained that its purpose is to achieve complete assessments of the waters deemed to be most important to the state, tribe, or territory. He clarified that it does not mean that other waters of the state, reservation, or territory are not being assessed, but at a minimum there is 100% coverage in priority areas. He added that the goal began as 100% assessment of state, tribal, and territorial waters, but that states viewed that goal as unrealistic even with a 10-year head start. Thus, the assessment goal is now tied to prioritization. One participant noted that in her state complete assessment even in only the highest priority waters is not possible given the size of the state and program resources, to which Mr. Goodin acknowledged the particular challenge that this poses for a few states. Another participant asked whether land use could be used as part of the assessment. Mr. Goodin recognized that approach as a potential option, particularly relevant for states with large watersheds and a lot of water.

The topic of the session then turned to the fourth goal covered, alternatives. Mr. Goodin indicated that there was support for this goal. He added that there were two

recommendations regarding the draft implementation plan. One recommendation was to add the step of identifying principles for choosing alternatives, either as a precursor to or wrapped up in the third milestone. He also noted the suggestion of evaluating potential legal vulnerabilities of pursuing non-TMDL approaches beyond 8-13 years.

Mr. Goodin also briefly reviewed what he felt were significant comments during the alternatives session. One suggestion was to clarify that alternative approaches are to meet water quality standards, not just to make water quality improvements. He also recounted the point that alternative approaches must be backed by some form of accountability and rigor. He reiterated the point that a framework not be prescriptive, rather simply present issues to consider when choosing whether and what alternatives to pursue. Mr. Goodin conveyed the statement that, for various reasons, a TMDL may not always be the best tool. Also, Category 4B is a challenge for many states, commonly as challenging as a TMDL, and opportunities to address waters in Category 4C may be limited. He also noted the different participant perspectives on the utility of adaptive management and whether adaptive management should be connected to a numeric endpoint.

One participant asked who would serve as the ultimate decision-maker regarding when an alternative is appropriate instead of a TMDL. Mr. Goodin responded that there is not a single answer. He added that the fundamental answer is in the results; an alternative approach that demonstrates success is easier to defend.

One participant expressed concerns regarding the suggestion of assessing legal vulnerabilities. He predicted the result of doing so to be a non-answer and do little more than stifle innovation. Another participant added that he finds great value in having attorneys but that program staff and their decisions should not be managed by them. He said it is possible to take a path with potential liability, at which point it is particularly important to have the lawyers. A third participant suggested that encouraging innovation is imperative, and legal risk cannot be completely avoided, so it is a matter of managing the risk through tools such as a good framework. A participant capped the conversation by saying that for any of this to work, solidarity within and across programs and levels of government will be most critical when a legal challenge arises.

One participant reiterated the need to address mercury impairments through alternatives. She noted that successful actions presently are in place, but much more needs to be done. Another participant added that Category 5m should be noted as an alternative for mercury impaired waters.

The topic of the session then turned to the fifth goal covered, integration. Mr. Goodin said that his sense from the integration discussion was that most participants affirmed this goal as well. Regarding the draft implementation plan, he acknowledged the need to more expressly include coordination with tribes in the plan. He also noted the value of identifying barriers to coordination.

Mr. Goodin also briefly summarized comments made during the integration session. He reiterated the notion that integration is more than just coordination; it is aligning goals for

mutual benefit. He noted that integration may require education of each other's programs and that it may be best framed as getting the most "bang for the buck." Mr. Goodin recognized the concerns regarding integration, from the difficulty of the task to the burden of more work, and the potential consequences of not integrating, notably losing ground. He recounted the need for institutional ways to force integration, through means such as permit check boxes and integration ombudsmen. He also noted that integration is needed at multiple levels: among agencies within a state, state-to-local governments, and state-to-state.

One participant reiterated that EPA should work towards improving harmony with other federal agencies. Another participant suggested regional efforts to connect state and territorial staff with federal staff, whether in person or virtually, regarding integration surrounding implementation of the vision. She also noted that this harkens back to "branding" of the program, which could be done on a regional basis, but probably is more efficient on a national scale.

Participants also noted methods of integration. One participant said that the recovery potential tool not only served as an impetus but as a means for integration. She explained that many state agencies influence water quality but operate in their own silos; the tool allows each agency to prioritize individually but then to connect those priorities. Another participant noted the value of measurement as a tool for integration. Yet another participant relayed that representatives from each state agency and each county in her state meet three times per year to discuss activities, and then each participant shares the information with colleagues. One participant suggested that when cooperation is ineffective, additional efforts at persuasion may be necessary; in reaching water quality standards through integration, interactions may not always be cordial.

The session then turned to the final goal covered, engagement. Mr. Goodin said that his sense from the engagement discussion was that participants affirmed this goal as well. He added that there were two recommendations regarding the draft implementation plan. One recommendation was to include the identification of barriers as part of completing the first milestone. The second was to develop a national program brand for the CWA 303(d) program that can be tailored by states, tribes, and territories before initiating a new engagement initiative.

Mr. Goodin briefly summarized comments during the engagement session. He reiterated the point that strategic engagement may best be aided by consultation with communication experts. He also noted that a program brand should connect to beneficial uses, which ultimately are what matter to people. In addition, non-English speaking stakeholders must be considered in the engagement process. Mr. Goodin also conveyed the comment that, while technology carries a great deal of engagement potential, the in-person, tangible means are still important, particularly in rural communities.

Participants focused their comments on two main points, education and economic valuation. Regarding the latter, one participant noted a watershed in which an economic valuation and TMDL presently are underway. She explained their intention of linking the

economic value of impaired waters to restoration efforts so as to improve engagement with the public. She added that this effort has revealed significant opportunity to involve private stakeholders, as they have demonstrated interest in and financial support for the economic valuation study. Another participant noted that his program contracted with agricultural economists from the university to analyze the economic value of the state's lakes. He said that the analysis helped convince the legislature to support a lake restoration program and that they are trying to do something similar for main stem rivers. A third participant referenced a report on the value of water in the United States which concluded that there is not enough information to determine the true value, but it exceeds the GDP. She added that the study, while inconclusive, does identify where more information is needed.

One participant suggested that educating the public, particularly children, is an important aspect of engagement. She described the outreach unit in her state's nonpoint source program, which educates teachers. Another participant explained that his program is mirroring the recycling movement, educating the next generation. He added that sociologists at the land grant university created "waterrocks.org," an interactive website for children that includes a competitive game where players earn points building a watershed. They also developed music videos and YouTube commercials borrowing from more successful commercial products, *e.g.*, "what's in your water?" A third participant capped the conversation noting that professionals in the field can learn much from those being taught; it is an opportunity for professionals to be reinvigorated and reminded of why they are in the field.

Mr. Goodin then gave a brief overview of the projected timeline for next steps regarding the vision and how state, tribal, and territorial staff can be involved, including ensuring that their respective CWA 303(d) programs are up to speed, engaging their management and sister CWA programs, initiating prioritization discussions with EPA regional staff, reviewing and commenting on draft vision products, participating in national goal efforts, and initiating development of their own potential approaches.

Mr. Stiles elaborated further on the next steps for states, tribes, and territories. He began by noting that to remove the pace metric, there must be an alternative metric that requires accountability. He explained that this is an opportunity for states, tribes, and territories to assert renewed ownership of their respective programs. There are many opportunities for participation as the national metrics and vision implementation plans are refined; via steering groups, through ACWA, etc. He advocated being involved so that what comes next does not keep one's program from accomplishing what staff deems most important.

Mr. Stiles laid out two approaches for states to decide what comes next: step-wise and all-in. He noted that the discussion over the prior two days has focused on a step-wise approach, with sequential milestones for accomplishing each goal, starting with prioritization. Alternatively, a state could go all in right now, pulling together three to six goals and doing them all at once. He added that states, tribes, and territories can inform EPA through integrated reporting cycles, but they need not wait until 2016 to do so.

Mr. Stiles acknowledged that not all states will pursue every vision goal, but at least with prioritization, integration, and assessment, there is something for everyone. He noted that each state, tribe, and territory will need to determine what the vision strategy means for their respective programs. The answers across the country will be different, with various points of emphasis. But he said that is the point: each program needs to tell its story, including where it has been, what it has accomplished, and where it is going, and to commit to those objectives and actions to accomplish them.

Ms. Iott introduced how a vision process might work for each state, tribe, and territory. The first step, she explained, is to develop a state strategy document. This effort would involve agency management, as well as other programs in the agency for purposes of integration. This step is important for formally securing buy-in from necessary parties to see the process through and share in the accomplishments. The second step is establishing priorities. She added that this likely involves reviewing data and environmental goals and picking a set of watersheds, pollutants, or sources to holistically address over the next ten years. Furthermore, all potential partners should be included in this step to build greater buy-in. The third step is identifying data gaps and filling them. The fourth step is developing a plan for moving forward, which might involve TMDL development or an alternative approach. The fifth step is implementing that plan. Important in this step is the role of partners, whether CWA 402 permits, CWA 319 funding, Clean Air Act permitting, and/or others. The sixth step is assessment of results after some implementation. She noted that continued monitoring and assessment of the focal area is vital to the entire process, to know whether progress is being made and eventually whether water quality standards are met. If the objectives are not being achieved, the program knows to make adjustments.

One participant asked how EPA headquarters will make it clear to all regions that they will be seeing information from the states and territories on how they will implement the program vision. Mr. Goodin responded that the vision process was discussed over many months as a precursor to this meeting and EPA headquarters and regional staff also will be meeting for an extra day once this workshop is adjourned to discuss coordination with states and territories.

Another participant encouraged EPA to consider beginning this process for tribal programs as well, noting that there is a large gap. Mr. Goodin mentioned that EPA has begun the process of connecting with tribes even in the absence of Treatment in the Same Manner as a State (TAS) status for tribes. He added that there are potential ways for working on a vision with tribes, with or without TAS.

Key Points Raised:

- Overall, participants supported the vision goals, some with small suggested modifications to the goal statements
- Participants recommended several modifications to the draft implementation plans

- Each vision goal may be implemented in a variety of ways, and states, tribes, and territories have done much that could be used to achieve those goals and inform the strategies of others
- Each state, tribe, and territory has a process before it for implementing the vision, and while there will be variation across jurisdictions, the process likely will include developing a strategy document, establishing priorities, identifying data gaps, developing a plan (TMDL or alternative), implementing that plan, and assessing the results

Session 10: Final Discussion and Workshop Wrap-Up

This final session consisted of two sets of closing remarks.

(1) John Goodin, EPA HQ: Closing Remarks

Mr. Goodin began his closing remarks by noting that prior to the workshop ELI asked participants how challenging or attainable they believed each of the vision goals to be. He said that he would like to think some of these answers have changed as a result of the workshop, with more participants seeing the goals within reach.

Mr. Goodin also asked participants to think about how the opportunity of the 2014 workshop may best be used. He noted that next year's topic will be focused on a more specific subset of issues.

Mr. Goodin concluded with a round of thanks to the planning advisory group, all participants, and ELI.

(2) Tom Stiles, Kansas: Closing Remarks

Mr. Stiles began by suggesting that the states, tribes, and territories do not have to be on the same page regarding how to use the vision, but the pages have to be in the same book. He reiterated that this is an opportunity for each state, tribe, and territory to tell its story, but EPA has the responsibility of collating those stories so as to tell the national tale of the CWA 303(d) program. He encouraged participants to engage EPA so that they know where each state, tribe, and territory is going and why. He noted that pace is not going away, it is just being placed on the back burner; accountability is still paramount.

Mr. Stiles encouraged all participants to go out and be great, tell their stories, but don't forget to write back. He added that EPA needs to help the state, tribal, and territorial programs succeed, and they, in turn, need to help EPA. He concluded by noting that two big things came out of 1972 – the Clean Water Act and the book “I'm OK, You're OK” by Thomas Harris. He said that too often the EPA-state relationship under the Clean Water Act has been seen as one between parent and child, but the

TMDL vision has been the resurrection of what the relationship was intended to be: adult to adult.

APPENDIX 1: WORKSHOP AGENDA



2013 NATIONAL TRAINING WORKSHOP ON CWA 303(d) LISTING & TMDLS

**A LONG-TERM VISION FOR ASSESSMENT, RESTORATION, AND
PROTECTION UNDER THE CWA SECTION 303(d) PROGRAM**

National Conservation Training Center
Shepherdstown, West Virginia
April 2-4, 2013

TRAINING WORKSHOP AGENDA

**This project made possible through a cooperative agreement with the
United States Environmental Protection Agency**



PURPOSE OF THE TRAINING WORKSHOP

To provide an opportunity for state, tribal, and territorial participants from Clean Water Act Section 303(d) Listing and TMDL Programs—along with their federal counterparts—to learn about, discuss, and inform the development, structure, and plan for implementation of the Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program.

WORKSHOP OBJECTIVES

- Advance **mutual understanding** among the states, tribes, territories, and EPA about the expectations of, means of implementing, and challenges to accomplishing the goals of the ten-year vision.
- Present new and adapt existing **strategies and tools** to use in applying the vision in the particular context of a given state, tribe, or territory.
- Learn how to define **success** for each of the vision goals.
- Learn about and refine the **incremental milestones found in the draft national implementation plans** for accomplishing the vision goals.
- Discuss and inform the development of potential **program measures** of success.
- Enhance the **network of listing and TMDL professionals** by expanding and improving communication among the states, tribes, and territories; identifying experts on specific topics; and promoting the sharing of resources and better understanding of experiences.

OUTPUTS

No. 1: A final report summarizing presentations and discussions from the training workshop. The report will include a summary of individual input from workshop participants and will serve as a reference for program personnel refining the draft national implementation plans for each of the vision goal statements.

No. 2: A document presenting a menu of potential strategies for states, tribes, and territories to achieve each vision goal and applicable milestones.

AGENDA

Monday, April 1

Arrival, Check-In, & Registration

- | | |
|-------------------|---|
| 3:00 pm – 8:00 pm | NCTC Check-In and Training Workshop Registration
Main Lobby
Murie Lodge |
| 5:30 pm – 7:00 pm | Dinner
Commons Dining Room |
| 8:00 pm – 9:00 pm | Informal Welcome
Murie Lodge Lounge Area |

Tuesday, April 2

Training Workshop Day 1

6:30 am – 7:45 am Breakfast
Commons Dining Room

8:00 am – 9:00 am **Welcome, Introductions, Updates, and Training Workshop Overview**
Auditorium

Greeting and Introductions

Bruce Myers, ELI

Opening Remarks

John Cruden, ELI

Broader Context of CWA Issues

Tom Wall, EPA

Training Workshop Overview

Adam Schempp, ELI

9:00 am – 10:15 am **Session #1**
A Ten-Year Vision for the CWA 303(d) Program
Auditorium

The Ten-Year Program Vision

John Goodin, EPA

Tom Stiles, KS

Alexandra Dunn, ACWA

Facilitated Discussion

Session #1 Outcomes:

- *Participants will learn about what the Program vision is, why and how it was developed, and who participated in the process.*
- *Participants will learn about various categories of measures and their significance in this workshop.*

Discussion Questions: How will the vision make the CWA 303(d) program different from what it has been? What should the CWA 303(d) program be?

10:15 am – 10:45 am Morning Break

10:45 am – 12:30 pm

Session #2
Prioritization
Auditorium

Goal: For the 2016 integrated reporting cycle and beyond, states review, systematically prioritize, and report watersheds or waters for restoration and protection in their biennial integrated reports to facilitate state strategic planning for achieving water quality goals.

Session Coordinator
Tom Stiles, KS

Facilitated Discussion

Session #2 Outcomes:

- *Participants will learn about the national implementation plan for the prioritization goal and identify potential refinements.*
- *Participants will share ideas of how they would implement the prioritization goal.*
- *Participants will identify and learn about milestones for achieving and tracking progress toward the prioritization goal.*

Discussion Questions: What programmatic practices (policy, procedure, science, etc.) are states, tribes, and territories using to establish priorities for the CWA 303(d) program? How might these existing practices be adapted to accomplish the vision prioritization goal? What is the relationship between prioritization and the integration and protection goals? What should be the milestones for tracking progress toward the prioritization goal? What options should be used for achieving the goal and its milestones? How should success in accomplishing the prioritization goal be defined?

12:30 pm – 1:15 pm

Lunch
Commons Dining Room

1:30 pm – 3:00 pm

Session #3
Protection
Auditorium

Goal: For the 2016 reporting cycle and beyond, in addition to the traditional TMDL development priorities and schedules for waters in need of restoration, states identify protection planning priorities and schedules for healthy waters, in a manner consistent with each state's systematic prioritization.

Session Coordinator
Julie Espy, FL

Facilitated Discussion

Session #3 Outcomes:

- *Participants will learn about the national implementation plan for the protection goal and identify potential refinements.*
- *Participants will share ideas of how they would implement the protection goal.*
- *Participants will identify and learn about milestones for achieving and tracking progress toward the protection goal.*

Discussion Questions: What does “protection” of healthy waters mean to you? Is there better terminology than “healthy waters”? What means of prioritizing protection may accomplish the goal? What tools (e.g., biological condition gradient) do states, tribes, and territories presently use or think would be helpful in implementing the protection goal? Is 2016 a realistic year to begin reporting? Should those who are further ahead be encouraged to report earlier? What are the implications of including healthy waters protection in the IR reporting? What should be the milestones for making progress toward the protection goal? How should success in accomplishing the protection goal be defined?

3:00 pm – 3:30 pm

Afternoon Break

3:30 pm – 5:00 pm

Session #4
Assessment
Auditorium

Goal: By 2020, states identify the extent of impaired and healthy waters in each state’s priority areas through site-specific assessments, which may be supplemented by on-going state-wide statistical surveys that have been initiated by 2014.

Session Coordinator
Martha Clark Mettler, IN

Facilitated Discussion

Session #4 Outcomes:

- *Participants will learn about the national implementation plan for the assessment goal and identify potential refinements.*
- *Participants will share ideas of how they would implement the assessment goal.*
- *Participants will identify and learn about milestones for achieving and tracking progress toward the assessment goal.*

Discussion Questions: For assessment purposes, how do you define “healthy” waters? Considering your potential priority areas, how well does this goal fit with your current monitoring and assessment protocols? Can you accomplish this goal by just doing what you are doing, or are additions or tradeoffs necessary? How well do statistical surveys fit with this goal? What is the role of effectiveness monitoring to assess the change in condition of priority waters? What milestones will show progress toward the assessment goal? How should success in accomplishing the assessment goal be defined?

5:00 pm – 6:00 pm	Open
6:00 pm – 7:00 pm	Dinner Commons Dining Room
7:30 pm – 8:30 pm	Bonfire

Wednesday, April 3

Training Workshop Day 2

6:30 am – 7:45 am Breakfast
Commons Dining Room

8:00 am – 10:00 am **Session #5**
Alternatives
Auditorium

Goal: By 2018, states use alternative approaches, in addition to TMDLs, that incorporate adaptive management and are tailored to specific circumstances where such approaches are better suited to implement priority watershed or water actions that achieve the water quality goals of each state, including identifying and reducing nonpoint sources of pollution.

Session Coordinator
Traci Iott, CT

Facilitated Discussion

Session #5 Outcomes:

- *Participants will learn about the national implementation plan for the alternatives goal and identify potential refinements.*
- *Participants will share ideas of how they would implement the alternatives goal.*
- *Participants will identify and learn about milestones for achieving and tracking progress toward the alternatives goal.*

Discussion Questions: What does “alternative to a TMDL” approach mean to you? What programmatic practices or policies support the use of TMDL alternatives? Should similar emphasis be placed on exploring and promoting approaches that address waters assigned to Category 4c? How can the reporting method provide flexibility in tracking non-TMDL approaches and still be consistent with the CWA 303(d) regulations that call for listing of impaired waters in Category 5 until a TMDL is developed? What are the key intersections of this alternatives goal with those regarding prioritization, protection, and integration? What should be the milestones for making progress toward the alternatives goal? Is it important to engage non-EPA and non-state technical and resource groups and other federal agencies to achieve this goal? How should success in accomplishing the alternatives goal be defined?

10:00 am – 10:30 am Morning Break

10:30 am – 12:00 pm

Session #6
Integration
Auditorium

Goal: By 2016, EPA and the states identify and coordinate implementation of key point source and nonpoint source control actions that foster effective integration across CWA programs, other statutory programs (e.g., CERCLA, RCRA, SDWA, CAA), and the water quality efforts of other Federal departments and agencies (e.g., Agriculture, Interior, Commerce) to achieve the water quality goals of each state

Session Coordinator
Jeff Berckes, IA

Facilitated Discussion

Session #6 Outcomes:

- *Participants will learn about the national implementation plan for the integration goal and identify potential refinements.*
- *Participants will share ideas of how they would implement the integration goal.*
- *Participants will identify and learn about milestones for achieving and tracking progress toward the integration goal.*

Discussion Questions: Should states, tribes, and territories and EPA integrate CWA programs first before integrating the CWA 303(d) program with other EPA programs and other agencies, or should they occur simultaneously? By what means could CWA 303(d) programs coordinate integration across CWA programs, other programs, and the water quality efforts of other federal agencies? What should be the milestones for making progress toward the integration goal? What options are there for achieving the goal and the milestones? How should success in accomplishing the integration goal be defined?

12:00 pm – 12:45 pm

Lunch
Commons Dining Room

1:00 pm – 2:30 pm

Session #7
Vision Goal & Programmatic Measures
Auditorium

Session Coordinator
Jeff Risberg, MN

(1) Measures Sideboards

Tatyana DiMascio, EPA-ORISE

(1) Tracking Minnesota’s Clean Water Fund Effectiveness

Jeff Risberg, MN

Facilitated Discussion

Session #7 Outcomes:

- *Participants will identify and learn about potential measures to be used for implementation of each of the vision goals.*
- *Participants will identify and learn about how the vision goals may be used as measures for overall program success at the national and state, tribal, and territorial levels.*

Discussion Questions: What is the audience for vision goal measures, the public or just EPA, and how easy should the measures be to convey? What measures should be used for implementation of the vision goals? What pieces of vision goal statements (and their measures) could be used as measures for overall state, tribal, and territorial program success? What would a national measure for the long-term success of the CWA 303(d) program look like?

2:30 pm – 3:00 pm

Afternoon Break

3:00 pm – 4:30 pm

Session #8
Engagement
Auditorium

Goal: By 2014, EPA and the states actively engage the public and other stakeholders to improve and protect water quality, as demonstrated by documented, inclusive, transparent, and consistent communication; requesting and sharing feedback on proposed approaches; and enhanced understanding of program objectives

Session Coordinator
Lee Currey, MD

Facilitated Discussion

Session #8 Outcomes:

- *Participants will learn about the national implementation plan for the engagement goal and identify potential refinements.*
- *Participants will share ideas of how they would implement the engagement goal.*
- *Participants will identify and learn about milestones for achieving and tracking progress toward the engagement goal.*

Discussion Questions: What does “engagement” mean to you? Should EPA and states, tribes, and territories together develop a *common* programmatic message (e.g., “brand”) on what the CWA 303(d) program is doing or can do? How can states, tribes, and territories manage expectations of the public and stakeholders on what the CWA 303(d) program can or cannot accomplish? What are the tools or methods that you use to engage the public and stakeholders, and at what level – from staff up to elected officials? What are the costs or trade-offs resulting from engaging others (e.g., time and resource requirements)? What milestones are needed to help states, tribes, and territories achieve the engagement goal? How should success in accomplishing the engagement goal be defined? How could success be measured?

4:30 pm – 6:00 pm	Open
6:00 pm – 7:00 pm	Dinner Commons Dining Room
7:00 pm – 8:00 pm	Informal Evening Gathering Murie Lodge Lounge Area

Thursday, April 4

Training Workshop Day 3

6:30 am – 7:45 am Breakfast
Commons Dining Room

8:00 am – 10:00 am **Session #9**
Draft Implementation Plans & Menu of State Options
Auditorium

Session Coordinators
Tom Stiles, KS
Traci Iott, CT
John Goodin, EPA

Facilitated Discussion

Session #9 Outcomes:

- Participants will identify and learn about options to be included on a menu for achieving each vision goal.
- Participants will identify and learn about the format for tech transfer and communicating the draft national implementation plans and state, tribal, and territorial actions.

Discussion Questions: What refinements could be made to the draft implementation plans for the vision goals? What options should be included on a menu for achieving each goal and workplan milestones?

10:00 am – 10:30 am Morning Break

10:30 am – 12:00 pm **Final Discussion and Training Workshop Wrap-Up**
Auditorium

Plenary Discussion

EPA Remarks

John Goodin, EPA

Final Discussion Outcomes:

- *Participants will review the major conclusions from each of the previous sessions and identify next steps.*

12:00 pm – 12:45 pm Lunch
Commons Dining Room

NCTC Check-Out & Departure

1:00 pm

Departure of Shuttle Bus for Dulles Airport
Murie Lodge

APPENDIX 2: PARTICIPANT LIST

2013 NATIONAL TRAINING WORKSHOP ON CWA 303(d) LISTING & TMDLS A LONG-TERM VISION FOR ASSESSMENT, RESTORATION, AND PROTECTION UNDER THE CWA SECTION 303(d) PROGRAM

National Conservation Training Center
Shepherdstown, West Virginia
April 2-4, 2013

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APPENDIX 3: SUMMARY OF WORKSHOP PARTICIPANT EVALUATIONS

Forty-one workshop participants completed an anonymous Participant Evaluation Form (provided in the resource binder materials). The combined numerical results from the evaluations indicate an overall event rating of “Very Good-to-Excellent,” across all categories. In addition to the numerical responses, we received many written comments, which are reproduced here.

Participant Evaluation Form: Compilation

Scale: 5 = Excellent, 4 = Very Good, 3 = Satisfactory, 2 = Fair, 1 = Poor

A. The Workshop—Overall

Information Presented	5 (19) 4 (23) 3 (0) 2 (0) 1 (0)	AVG: 4.45
Workshop Materials	5 (20) 4 (20) 3 (2) 2 (0) 1 (0)	AVG: 4.43
Workshop Organization	5 (30) 4 (11) 3 (1) 2 (0) 1 (0)	AVG: 4.69
Group Interaction	5 (32) 4 (8) 3 (2) 2 (0) 1 (0)	AVG: 4.71
Session Facilitation	5 (31) 4 (10) 3 (1) 2 (0) 1 (0)	AVG: 4.71
Conference Facility (NCTC)	5 (40) 4 (2) 3 (0) 2 (0) 1 (0)	AVG: 4.95

Comments:

- Very effective presentation. There could have been a little more explanation of the process up front. John’s remarks on the last morning would have been good upfront.
- Very inspiring.
- Thank you!
- These workshops are by far some of the very best! The interaction among participants is great and the facility and facilitation foster that interaction.
- ELI did a great job. Binder handout was great.

- ELI did a great job facilitating. Include emergency evacuation information during introduction – starts to change culture (some of what we are all about). Did not need the blue sheets – maybe number the pages. Could have used one more microphone.
- A lot of effort went into workshop materials. Thank you.
- Wonderful mix of discussions. Moving forward in a coherent direction. Final wrap-up was an excellent way to get grounded on next steps.
- Number points, e.g., milestones, instead of simply using bullets to make it easier to reference. Include who and where you are representing on name tags, i.e., what state you are from.
- Outstanding job in all regards.
- It was great to have a free discussion between all the participants. However, it would have been nice to have a more focused discussion on where we are heading. This seemed to take place more on the second day.
- Great workshop. Super discussions. Excellent facility. Thanks go to all planners, EPA, ELI staff; Tom Stiles. Thank you!!
- I thought the facilitation was very good and elicited very useful discussion and thoughtful insights. The 90-120 minute sessions should be divided into open-ended discussion alternated with a proactive, focused close-ended discussion to elicit ideas and answers specific to key questions. Looking for more practical answers and that may help.
- ELI did a terrific job!!!
- Another great ELI States/EPA CWA TMDL meeting. This is the best and most useful meeting I attend, hands down. The networking, think tank and camaraderie in sharing and working to resolve TMDL related issues is always useful and thought-provoking. It gives many the will and inspiration to keep up the good fight and move forward.
- This was absolutely outstanding. I have not been able to participate in any of the surveys, workgroups, calls leading up to this event. I am appreciative of the recognition on the part of the EPA that we need to think differently about the TMDL program.
- This was a terrific meeting, one of the best I have attended in a long time! The organization was excellent and the management of discussion of such a large group was quite good. Great job!
- ELI performs exceptionally well in conducting the workshop.
- The auditorium set up was difficult for a “conversation.” A roundtable would be better but I understand there were a lot of people to accommodate. I received information by just eating with different people.
- Difficult to process and absorb all the background material “on the fly.”
- I didn’t have a lot of prior knowledge about these topics so more of an introduction might have been helpful. There are a lot of documents included in the binder, too many to look at during the workshop or that were referred to beyond the brief introduction at the beginning.
- Overall, the workshop was excellent. The content and information shared was very timely given the direction of my state’s TMDL and 319 programs. NCTC was a great facility for hosting this workshop.
- Considering the subject matter, a 4 is excellent. There could have been a bit more upfront background information at the start of the sessions. Some of the buzzwords and acronyms

left me behind for a while, but overall the sessions were good. It was a good mix of EPA, ELI and state representatives facilitating the sessions.

- This program was an opportunity for many states to share ideas and experience and develop working relationships that we can build on for future progress in CWA programs.
- Information presented is still a work in progress.
- I went into this meeting really having very little idea what this was all about, but felt like I came out with a good understanding of a lot of ideas. I see considerable room for improvement in our TMDL program and think this is a good framework for moving forward.
- This was a great location, and the atmosphere created by ELI was very conducive to sharing ideas and experiences with other states.
- This workshop is a highlight of my professional year. The relationships I've developed with my state counterparts are very important in my effectiveness as a program manager. I've been inspired to try new approaches and gained confidence in my abilities to lead my state's watershed program in large measure due to these relationships.

B. Goals and Outcomes

How effective was the workshop in satisfying the stated goals and intended session outcomes?

5 (12) 4 (24) 3 (3) 2 (0) 1 (0) AVG: 4.23

How successfully did the workshop meet your own expectations?

5 (18) 4 (19) 3 (2) 2 (0) 1 (0) AVG: 4.41

In your personal opinion, how challenging or achievable are each of the vision goals?

	Very Challenging	Challenging	Attainable	Very Attainable	Unsure
Prioritization Goal (by 2016)	2	13	13	12	0
Assessment Goal (by 2020)	8	14	9	7	1
Protection Goal (by 2016)	17	13	9	1	1
Alternatives Goal (by 2018)	6	15	13	5	0
Engagement Goal (by 2014)	4	8	17	10	1
Integration Goal (by 2016)	8	18	10	4	1

How have your responses changed since completing the workshop?

- I think the integration role is challenging in the context of other agencies but is very attainable amongst other CWA programs. This workshop has helped my understanding of what is occurring. I think this workshop made me feel that goals are more attainable.
- About the same. I am worried about the ability to effectively define the extent of healthy waters, even in priority areas, due to resource concerns.
- Yes, staff perspective is very different than the TMDL manager and 303(d) manager's who participated in the program planning call. Prioritization by states need not be as complicated as upper management will make it.
- Some seem more attainable after understanding better and hearing from other states.
- My views have shifted towards attainable after listening to workshop discussions.
- Good ideas on alternatives. Will likely investigate further.
- Yes, more seem attainable, but many things seem out of all states' hands.
- I have great ideas for integration – all above my pay-grade. I really think alternatives are a great option – but 4B watersheds show how many hurdles HQ and legal places in the way of alternatives. I really would like to see more assessment. Unfortunately not a priority. How do we get more funding for this?
- No.
- Yes. Alternatives and engagement now seem challenging as opposed to attainable.
- Understanding a great range of options has made it seem challenging, but I actually feel that the discussion has led to more clarity on the details.
- More positive – better understanding, more examples of how to accomplish some goals.
- Yes.
- Good to learn that some individual concerns and ideas I have are shared by others in states and/or EPA.
- The original response was due to a slight misunderstanding.
- Dramatically.
- Not much.
- Yes. This will be challenging, but I am more assured that we can do this now.
- More challenging, but I am ready for the challenge. This is a good path to take and it will take hard work and lots of integrating and engagement. I will have to deal with the politics as well.
- Yes, I limited my answers to the TMDL, but when the question is asked what is my state doing, I look at the whole state to get the big picture.
- Don't recall for sure, but generally I think they have been downgraded.
- Haven't changed.
- Yes, they have. Although some aspects of the vision are still challenging, they are necessary hurdles to overcome to achieve improvements in WQ. Protection and engagement remain challenging, given the statutes and political climate in my state.
- I need to digest this and talk to my co-workers before I can know for sure.
- Better understand what each means.
- Did not change.
- Yes, in certain respects.
- Prioritization seems more attainable, achievable.

- Yes, somewhat.
- New ideas on some of the challenges to achieving integrating and protection goals were brought up during the workshop.
- They haven't changed with respect to which goals will be the most challenging, they will remain a challenge due to the nature of partner agencies who have other priorities and responsibilities. What has changed is my level of confidence in attaining these goals. In other words, despite these challenges I now have more concrete ideas on how to achieve them.

Comments:

- Indicators are something I've passionately hated for many years. I prefer measures wherever possible.
- Good to have some inspiring kick-off talks.
- A lot of progress towards deliverables. Thursday's summary spreadsheet was extremely helpful.
- We should continue to push for details, putting on paper for people to modify and review. Remind folks of the overarching theme of "incremental progress."
- The economic downturn is forcing states and EPA to work smarter. This vision is a good step towards making that happen.
- "Think outside the box" was stated several times and then when the meat and potatoes were discussed, everyone went from CWA back down to TMDLs.
- Developing a formal state vision strategy and reporting against it would likely take much more resources commitment than we can muster. We have an informal vision for our program and a strategy for how to implement it and track progress, but if we were to formalize it, it would require a lot of engagement with our stakeholders that is beyond our capacity to commit resources. Plus, we may throw this party and find that no one shows up. Alternatively, it could get bogged down by disagreements among competing stakeholder interests.
- Please keep in mind that most states and tribes are operating on a lower budget with less staff so if folks are in compliance with current status quo and pace, they should be given a choice to make changes.
- Alternatives goal still needs further discussion and clarification.
- Workshop has given me more perspective on how I view TMDLs, within the context of the CWA and attaining water quality objectives. Glad to know there will be flexibility in achieving vision goals.
- Engagement goal – a little unclear as to what we should be doing that is different. This became evident when you look at the list of activities that are going on.
- Thanks for getting us out of the office and able to focus on our future. I feel enabled to assume control of future workload by addressing and stating my priorities.
- The time invested is long – it would be worth considering a shorter time.
- It is great to hear what other states are doing to achieve these goals, but what works for them doesn't necessarily work for us, whether based on citizen perception or on the

regional perception. We will need guidance from EPA to move forward with any changes.

- None other than please continue to hold these workshops. There is no other venue for us to share ideas and interact with EPA staff as important as this one. Thanks to ELI for making it happen!

C. Specific Sessions

If you would like to comment on individual sessions, please use the space below:

Session #1: A Ten-Year vision for the CWA 303(d) Program

- Alex Dunn was a very diplomatic speaker – good reminder about some program absurdities.
- Good! Flexible. Need to get the word out to EPA regional staff.
- More context and explanation on different goals (how intertwined they are) may have helped the discussion.
- Note part of this effort is to get credit for what is already being done, perhaps a step-by-step visual of linkages?
- Need to have a consistent framework and focus on using the same language and words to describe what we do.
- Good idea, but let's focus more on improving water than on getting the process absolutely top-notch. Flexibility for state solutions.
- EPA should consider their role/responsibilities in supporting tribal programs; approach/guidance for tribal delegations or supporting tribal participation in state-initiated 303(d) actions. Policies and practices should be defined; this is a major gap in the program and vision.
- The vision needs to be cafeteria style and states pick and choose the plate that serves them best for reporting measures. Good session. Streamline the run-on sentence vision statement. Too fluffy.
- This sounds good and looks good on paper, but implementation is going to be challenging. States will need guidance from EPA. We will need some impetus for us to move towards these goals.
- This is doable.
- Very informative.

Session #2: Prioritization

- Decentralization where possible, important to localize, use geographic tools and trend tools.
- Very interested in “where” this is housed. Talked with some regions and states that update CPPs and WOMPs yearly or frequently...not seeing that in our region...CPPs not updated in over 5 years and no real targets – just general feel-good language. How do we get to a better plan? Seems these would provide a good plan of action for all parties to grade whether new measure approaches are working or not.

- Clarity of this prioritization – its purpose for listing may have helped other discussions on their goals stay on track. This (prioritization) is a building block, and is particularly challenging.
- Should identify if state has a prioritization approach that counts.
- Flexibility and put focus on outcome.
- Once we get beyond 303(d) list priority vs. restoration priority semantically, then we can move the understanding level forward. That helps states set achievable priorities and even narrow their monitoring/assessment. Good session.
- Higher priorities in my state will be greatly driven by “areas where there is stakeholder interest in addressing problem.” Without this interest, TMDL/watershed plans will be a waste of time.
- I think prioritization is inherent in our processes, but taking it a step further, our prioritization is not EPA’s prioritization, which causes inherent problems with how we proceed and the additional resources associated with this type of prioritization.
- We are moving forward with prioritization being implementation-based. If there is no hope for implementing improvements, a listing will be a low priority for TMDL development. Those with permit concerns, active stakeholders, or ongoing improvements will rate high for prioritization. The flexibility discussed is important in allowing states to develop their own schemes.
- This is different for each state, and modify as necessary and work with EPA.
- This is the session I enjoyed the most. The issues were clearer.
- This session really gave me a lot of ideas for how to more effectively prioritize TMDL development and implementation – closely linked to the engagement and integration goals. I appreciate the focus on flexibility.
- Prioritization will continue to be important but unique to each state. Internal politics within each state may have an impact on how waters are prioritized. Finding a solid systematic method of prioritization is important to us to allow upper management and stakeholders time to prepare for and support TMDL development or a TMDL alternative.

Session #3: Protection

- This will be challenging due to resource limitations.
- Good dialogue of ideas.
- Hard to do, expensive, sometimes it is easy and can avoid burdens on staff and industry when meets a value of local community.
- What wasn’t discussed is the EPA legal position regarding authority to approve a “protection” plan. How does EPA help the states get credit/measure these plans? What jeopardy does that place EPA in legally if associated/helping/prioritize these plans?
- More discussion on clarification of terms e.g., “healthy” vs. “unimpaired” would have been valuable – had not anticipated interjection of special waters e.g., OSRW into this goal. Where do designated uses fit?
- Like the focus on how some states will have this goal, but others won’t.
- Flexibility and put focus on outcome.
- It seemed this session highlighted the need to have WQ standards folks as part of the invited audience/participants.

- Protection of high quality waters is significantly cheaper and easier than restoration of impaired waters. This goal should be elevated and incentivized through policies and funding.
- This is the most nebulous goal for me. Other programs deal with protection: 319 has a component for this, anti-degradation and permit programs. I have trouble seeing how 303(d) fits in. Our TMDLs general do point out the least impaired areas within TMDL waterbodies, and a TMDL does protect these areas further.
- Most states aren't doing any protection/prevention. There is [nothing] to prevent water quality impairment by and large because nonpoint is voluntary...
- This may be difficult due to the political climate. They don't want more TMDLs or 303(d) listed streams.
- In terms of "TMDL world," the most important part here is protecting our investment on repaired waters and outside of the box thinking would include Category 1 waters, which often times can't be addressed due to funding limitations.
- This goal will have value to only a limited number of states.
- We barely have the resources to do the bare minimum as it is; this element of protection holds the hand with assessment, thus monitoring resources and resources for restoration, complicated by differing opinions of the states and EPA priorities.
- Although state statutes prohibit TMDL development on non-303(d) list waters, my state is exploring how to protect waters. We are currently revising our NPS 5-year plan to incorporate protection activities, which will allow 319 grants for protection purposes.
- Still needs further discussions in my opinion, but a lot was covered. Of concern is how "protection" linked to 303(d) and water quality standards and goals.
- Discussion here gave me ideas for how we can better leverage things we are already doing to better protect healthy waters. At the same time, limited and diminishing resources make this very challenging.
- Protection through section 303(d) of the CWA sounded confusing during the session. I understand why EPA would look to TMDLs for protection, but real protection comes from a strong case, as Angus from NY mentioned. Having strong stormwater rules and protection of the riparian buffer set in place before development comes would seem to be most effective in protecting good water quality.

Session #4: Assessment

- Fear of probabilistic data is overblown. States are required to do probabilistic monitoring in their 106 grants. Why not use that data, as appropriate, to supplement assessments?
- Would have been helpful if map used something other than color – need numbers or shading (in black and white – hard to read). Not sure this session was as useful. Even Florida would have a hard time reaching what others might assume the words say, and they are data rich.
- Key tool. One of the back-to-basics message goals. Do it well, and then we can prioritize and protect effectively.
- How do we change national focus to monitoring and assessment? Very important to monitor/put plans in place/monitor to show success. Many times follow-up can't occur due to reduced funding. Have seen great wetlands programs divert impaired waters

through wetlands and then rejoin within the same stream. But no monitoring to see if water exiting wetlands is cleaner than that entering it.

- We got sidetracked on statistical monitoring but led to a good discussion.
- Argh! Again, clarity on context – 303(d) would have helped. More time on cycle-to-cycle issues.
- One way to directly measure progress towards TMDL goals is to compare baseline loads to current loads. Eg: baseline = 10,000 lbs a day. Goal = 2,000 lbs a day. Current load = 5,000 lbs a day. So you've accomplished 5/8 of goal. States could do this as part of the 303(d) program.
- Clarify that probabilistic-based approach is an option.
- Flexibility and put focus on outcome.
- For my state, the reality is we've monitored and assessed approximately 15% of all the stream miles out of the 90,000+ miles. We continue to add many waterbodies and segments each 305(b) cycle to the 303(d) list. The unfortunate fact is it will be a long time before 100% of all streams have been monitored and assessed.
- Our status/trend program covers indigenous wildlife and aquatic life very well. But not chemical or bacterial parameters. These will be difficult and expensive for our state to assess.
- Goal statement gives too much deference to probabilistic monitoring. Rotational sampling targeted and site-specific sample is most effective. This was not a very useful session for goal setting. States with unassessed waters need money to tackle this. States do need plans to develop their targeted monitoring. Baseline for pre-implementation in targeted priority watershed is important; post-implementation effectiveness or follow-up monitoring is key to show improvement. Category 1 and 2 are fine as is. Leave alone. You can generate reports through ADB that shows what moves from one category to another.
- Please consider land use assessment as a tool for achieving 100% assessment in priority areas.
- The thousands of “unnamed” creeks with poor access and little to no use will not be assessed anytime soon when the very public waterbodies need to continually be assessed.
- This goal needs a significant rewrite.
- Some of the suggested interim metrics may actually measure success of the nonpoint source program, not the TMDL program.
- States should be working on this anyway. So much of past sampling has been focused on identifying impairments, shifting the thinking may be difficult. I question the value of probabilistic monitoring in assessments as resources might not be available to monitor that area again.
- If the national surveys and probabilistic monitoring arrive at different conclusions, then 305(b) program assessments why continue with them? They seem to provide conflicting conclusions. I see the need for them all, but how to make it clear to those that use the results (decision makers/Congress) is important. The surveys and probabilistic monitoring are huge resource commitments for us; if they don't complement 303(d) it is a “skunk” to integration.
- Suggest removing the word “priority” in the goal. Or at least say “priority and other.” The vision should be broad with many current and new activities falling under them.

- Is very recommended to talk about the use of statistical survey for assessment in terms of 305(b) and 303(d) report.
- This goal would be very challenging to meet and will become even more so as my state works towards expanding the universe of waters in one state to which water quality standards apply. If anything, the discussion in this session left me feeling pessimistic. I did come away, though, with a sense of needing to be creative in how we proceed.

Session #5: Alternatives

- Good opportunity for listening to what other states are doing.
- Innovation is key, risk management, focus on pragmatic implementation of even TMDL avoidance, if water quality goals benefit.
- Would be great to use alternatives more but what wasn't discussed is the EPA Regulatory hurdles (i.e. like the 4B watershed plans). Would be wonderful to give credit for creative solutions. Lots of good ideas out there, but what part is EPA playing in allowing/countering these alternatives.
- Regional buy-in is key so very glad funds spent to get regional representatives to the meeting.
- I like the discussion that this is a good reflection of "innovation" and moving forward and having states be "incubators of innovation."
- Flexibility and put focus on outcome. Plus, keep as an available tool but don't make them a requirement.
- Sounds legally "iffy" to me. Especially with areas that are currently all NPS, but a NPDES facility may move in someday. Then you may end up doing an alternative TMDL first, and a real one later. Good session and gave me other ideas to promote instead of 4b, which is far too confounding.
- Deadlines for alternatives to meet was? At what point is a TMDL necessary? Monitoring component? Add achievable milestones as part of adaptive management plan. New category (national or state) for alternatives?
- EPA should fast-track alternative approaches for mercury impairments. This is a national (and international) problem that disproportionately affects tribes and other subsistence populations.
- This will definitely need a top down document from EPA, without this, I am very hesitant to proceed. How long would an alternative be allowed to make a positive change in waters before a TMDL would have to be completed?
- We are exploring the use of alternatives to traditional TMDLs. While they are effective in some cases, the NPS issues in my state are not well suited for this approach. Our goal is to develop plans/reports that will lead to improvements in water quality.
- All alternatives discussed are other mechanisms to help improve the TMDL process.
- This will require a lot more work in terms of making the states understand the risks and how to work around them – or better still how to manage those risks.
- Lots of interesting ideas, but don't really see how most TMDL alternatives are very effective, efficient or would be approvable by EPA.
- We are planning to offer 4b to MS4 areas in lieu of the traditional TMDL. We think, maybe, municipalities will be more receptive to the 4b approach, where they can take

ownership of restoring water quality, rather than having it slowly addressed through their permit.

Session #6: Integration

- Integration is a large and difficult problem. To be successful, programs should tackle and focus on small issues first. Having success at these can build momentum.
- I thought the issues brought up gave EPA good food for thought. Hopefully taken to heart.
- Consider inclusion of EPA's Integrated Planning Framework to leverage faster implementation coincidental or in advance of traditional Implementation Plan Development or even TMDL development.
- Could we lead by example, start at the EPA HQ—One EPA is our motto. Could HQ start/integrate all CWA programs (or even some) so that they are working collaboratively. Regions would reorganize and follow suite. In these lean times with fewer resources, would this make sense? One overall manager with CWA as goal, multiple sub-chiefs, integrative meetings focusing on key problem issues. Reevaluate our CWA programs and reorganize into a leaner and more efficient process.
- Overlap with engagement makes it a challenge to understand level of focus intended. Perhaps a pyramid could help illustrate?
- Flexibility and put focus on outcome.
- Though 319 and 303(d) programs are in the same building and floor, we still have internal communication issues. I feel we need help or “pressure” from the EPA to integrate.
- Other federal agencies need to integrate more with EPA on CWA goals. Superfund needs to integrate with TMDLs. I've heard more than once that CWA doesn't apply; but SF has more money than any other program and EPA shouldn't get off the hook unless they pay for the UAA, variance to WQS or site-specific water quality standard analysis and rulemaking process. We have reasonably good integration, but like all states, have room to improve.
- Tools and science needs to have a more prominent role. New technology allows for sharing information. Access to information is the key.
- Integration must come from the top down when it comes to getting federal agencies (NRCS) to play with us.
- This is key to successfully implementing the vision.
- This would be excellent if it could be accomplished, my state has just begun to work with the EPA so this would be very challenging to us.
- Integrating with external agencies is difficult if not impossible, but coordination is important. We have integrated our CWA programs (319 and TMDLs specifically) and will continue to expand that effort.
- Liked the session a lot. The presenter did a good job with simple concepts. I was disappointed to not get a truffle.
- This is the place to communicate and discuss all the CWA programs on issues that deal with TMDL development process.

- The issue was discussed adequately, however because of how different systems are set up, and what their respective goals are, this will be tough to deal with will require a lot of effort.
- We agree that there needs to be in place some institutional way to force integration within CWA programs and also with federal and state agencies.
- A key issue. Made me realize that we are doing a lot right here.

Session #7: Vision Goals & Programmatic Measures

- Wish we had all the money Minnesota does.
- Great that we are considering more progressive measures to better evaluate our programs! Great that states are getting involved with creating something useful to them. Caution! Communication needs to be clear to both states and regions on what HQ feels is the actual target. Would prefer not to have the states think to target one thing and HQ telling regions we need to target something else. Placing regions in a middle man position of being the bad guy.
- Excellent examples – Tatyana could have used more time, but her slides were great. Clarity on focus on WQ – 08 helpful.
- Example from Minnesota interesting but not accessible to our program (*i.e.*, don't have the resources they have, but good for them for having it!). Again, flexibility and put focus on outcome.
- To replace “*measures*” (in title) with WQ-8. Too many guiding principles (14). We rarely “get to the end.” We understand the need to update the TMDL measure. Outcome oriented is great but could be 25-50 years out. Incremental progress needs to be included like point source upgrades or BMPs in a HUC implemented and maintained. My public doesn't care about pace except environmental groups. The audience of this measure is who? Congress, OMB, public at large? The vision strategy is nice but cumbersome. Straight to measure or hybrid is in our control and simplistic, but I think if given adequate time to articulate a new strategy that gives us credit for our work, and the public cares about, we might be able to come up with a better measurable metric.
- I better understand the 3 proposed approaches for programmatic measures.
- Have improvements taken place? This is an integrated question. Shouldn't we be looking at a report that incorporates WQ 8, WQ 10, and SP 12? They are all related. Management and public do not care about separation of programs when achieving WQS.
- K.I.S.S. or it will collapse under its own weight.
- There are basic measures that we report already in the 305(b) and 303(d) report, how would changing measures help the program? What is the incentive and is the incentive big enough to warrant a change?
- Replace pace is the key for implementing this long-term vision. However, it is not clear how this will be accomplished. I encourage EPA to continue this discussion with states to develop agreeable/attainable measures.
- Was too fast. Too many small slides and no background for those who didn't know WQ-08 etc.
- Nonpoint source is really an issue. There should be some type of incentive for landowners to be engaged in the TMDL development and implementation plan.

- Well covered.
- There are existing measures that include the majority of the 14 points presented, these are WQ-10, SP-12.
- Will be interested to see how EPA, states and tribes move forward with this is a way that satisfies everyone!

Session #8: Engagement

- Our target audience is the educated public (not general public) and engaged stakeholders: watershed groups, local government, dischargers and universities. Need more basic approach for the general public to just understand their own actions and NPS. Coin a national term or brand.
- We need a common message or theme or 2-second commercial to tell the public what we do and what we want from them to be engaged with us.
- What is unclear to me is what different will happen. Is this something new or just documenting existing? That is unclear in the overall goal. Make sure the goal is not just a writing exercise.
- Clarity and transparency in both government and in environmental status and “trends” or “changes” in water quality. GIS and real-time monitoring and assessment as well as TMDL mapping should be available to public.
- Hire professionals – get ahead of bad publicity. Shout our success – HQ/Regions/States
- Branding!
- Perhaps would be valuable to invite an expert to explain to the group how this can be improved.
- Depends on audiences Some really good new videos. “Brand” this work.
- Good session that highlighted the difficulty almost all of us have in garnering audience interest and participation. It has been said one must present on the 5th grade level to be successful in the public arena. Our messages are difficult to bring down to this level. Creativity is the operational word.
- As a representative of the tribal program, I am called upon to engage with not only the tribal government and community, but also to bring the tribal perspective “to the public” – on all levels, across media. We have unique opportunities to convey a culturally-based philosophy of protecting and restoring the waters and resources they support.
- We have plenty of tools but often little or no travel budget or our EPA folks can’t travel to meet stakeholders. This results in meetings with only the polarized folks on either side of the TMDL issue being reached, instead of the folks who might be more supportive of clean water goals. Tours, county fairs, special events are ways we also conduct general CWA outreach.
- This is very important. Branding might significantly help with this goal. Branding can be customized to each state. Yes, there are better people for this, I think most departments also have media departments that could partner with us technical people to produce a good final product.
- This goal is key for addressing NPS issues. The rebranding discussion was great. Non-technical folks get lost in our jargon and our message lets lost. I look forward to seeing how this progresses on a national scale.

- Definitely the outreach approach was helpful to reach out to potential stakeholders, using social media.
- This will continue to remain fluid depending on stakeholders. However, a lot of information was shared that could be helpful further down the road.
- It is very useful to have the applications developed by EPA such as: mywaterway app. Why is Puerto Rico not included in the NPDAT application? This app uses the same framework used in mywaterway.
- I struggle with this issue, but the discussion really left me feeling that better engagement is possible, and gave me some ideas how to proceed.
- EPA has the right idea with the How's My Waterway app. People are getting curious about their surroundings, but out of sight, out of mind. We need to get water quality data and other environmental data on smartphones where people can access it. Imagine being able to set up notifications on your phone that gives you the status and recent data on a stream as you cross it. Or being notified that the 12 digit HUC you just crossed into has 15% impervious surface. Okay, well I'd be interested in that at least 😊

Session #9: Draft Implementation plan & Menu of State Options

- How do regions implement this process? Looks like changes are falling in the 303(d) listing realm.
- This is where focus needs to shift. Follow-through on cataloguing is critical. Would have appreciated more time on examples (Tom, Traci)
- I think we need to hammer at more the nuts and bolts. Put on paper all proposed options and highlight the selected options.
- This looks to be too prescriptive. But Tom keeps talking about states taking ownership and being flexible, which helps.
- Good summary.
- Good charting of options.
- Timelines are very helpful.
- Great review of goals and discussions/changes made to the goals.
- A bit dry. It would have been helpful to sit down and draft something instead of listening. This was my best opportunity to work on strategy. When I get back office, time will need to be spent on "urgent activities."
- Very helpful in terms of understanding how each state can benefit from each other. Was done very well!

Final Discussion and Training Workshop Wrap-Up

- Thoughts for 2014 workshop – integration might be a good focus. We could bring in speakers from different programs and discuss ways those programs have been or could be integrated into the 303(d) programs.
- Workshop was a great way to engage with other states and talk about program issues (I am an EPA regional employee).
- John did an excellent history and summary presentation – very succinct.

- Believe EPA staff in attendance support this, but need to commit to passing along to remaining staff.
- Excellent summation and sense of next steps.
- Spreadsheet useful, but I am unsure going through it so specifically was necessary. Maybe examples should have been first?
- Sense concern about EPA keeping flexible as process takes the next steps.
- John Goodin did a great job on history of this project vision.
- Very good.
- Clearly summarized and crystallized what the workshop was about and also helped to clarify the options each state may have – in dealing with the new vision strategy moving forward.
- Excellent. Brought it all together.
- Thanks for the hospitality!

Other Comments or Suggestions

- I'm still unsure how EPA is going to roll this out and how states will begin the process of developing a new vision for their "TMDL" program. For me, it will be important to hear from states as they go about this process. ACWA could facilitate presentations from states on their processes as they are developed.
- It is still very unclear if there will be any official direction to adopt and use this new vision and goals. It seems the regional EPA counterparts are unclear about if or when they will allow states to start this process. Barriers: oftentimes, land owners are reluctant to participate for fear of information and the process to be used against them. More effort has to be made to ensure land owners that their cooperation is important to fix that problem.
- Vision statement way too wordy. We came up with a couple of potential rewrites. I can email them to ELI.
- Our state's comments on A+B III additional information did not fit into the tally. Add organization's name to name tag.
- A little information on background and expectations could have been given at the onset of the workshop. Several people were a bit confused about how we got to this point.
- Good idea of post-workshop survey; will get more/better data. Some small breakout session (maybe 1) would have been useful. Perhaps the alternatives could have been a small group learning.
- Excellent facilitation. Thank you EPA for flexibility, especially in how we measure and report on these shared goals. Great location and facilities.
- Networking opportunities and social events were wonderful collaboration and team-building opportunities.
- EPA/ELI team and all presenters did a great job! Bonus points/props to John Goodin, Menchu, Eric and Adam! Appreciate the networking time – breaks and mixers – wonder how to get more interaction beyond/across the naturally framed groups. For newcomers, brief explanation of who/what is ELI. Potential follow-up exercise – review value of EPA's CPP as a useful tool for integration.

- I came mostly to see what EPA's vision and path forward are. I'm concerned, as always, that guidance will become a mandate and that regions will interpret "states can" as "states must." I like the fact that EPA appears to be picking the path forward rather than waiting for lawsuits and external forces to dictate their part. Proactive is better than reactive.
- I'm glad the conference was in early April – nice and cool and before the stink bugs come out!
- Don't make state programs spend a lot of time on these vision elements if they have already achieved (some) of them. If EPA does make them, this is just a paper exercise, wasting effort that could have been used elsewhere. Also I repeated flexibility so many times because the various states have so many variable that you'd really do the effort a disservice by trying to define these aspects too much.
- Consider moving to mid-April due to the 305(b) reporting schedule. As the group rolled through the last morning review of the previous days, it became apparent there were omissions. Some states' comments seemed to be routinely missing in the "state option" component.
- Please consider investing some time, resources in supporting tribal water program beyond monitoring and standards. Tribes need tools to address impairments. In the future, a parallel track for EPA and tribes to engage on this issue (workshop? Training?) could be mutually beneficial. Tribal water programs are evolving rapidly and we need to engage with EPA to identify a "menu" of opportunities to restore impaired tribal waters. States may be partners for cross-jurisdictional actions, but EPA will always have a role in supporting tribal efforts to restore waters in Indian country.
- Always good!
- The public education piece and perspective is needed. Consider a branding and lead up to the 50th anniversary of the CWA. We need a Ken Burns documentary on the history of water quality and show where we have come and where we are going.
- Great workshop! I've gained so much from the information and interactions with other states, tribes and EPA. After hearing about the struggles of other states, I feel very optimistic about "getting er done" in my state!
- As always, a great workshop! Great dialogue, great intellectual stimulation, great venue, great to listen and learn the tremendous diversity of challenges and approaches among the states, and also the common threads among the states.
- Kudos to John Goodin and his team and to Bruce and ELI and the entire ELI team for another successful effort.
- In my state, we'll see little success in WQ improvements without increased success in the nonpoint source program. We can do all the priority setting, etc, but I believe the focus should not be on TMDLs, but finding ways to improve participation in NPS program. I expect that we will focus on watershed programs (locally driven) as an alternative to TMDLs as we move forward. All in favor of having the vision customizable to state's needs.
- This is great, however, I feel that my state has a lot to do to simply catch up and straighten out our program before we can look towards achieving these goals, which may not be applicable to all states. This format was very engaging.
- I hope that this series of workshops continue into the future given the issues. The interaction between the states and EPA participants allows for various approaches and

obstacles to be shared openly and freely. There is no other forum where this occurs for TMDLs and 303(d) lists. Our program has benefitted from these workshops – thanks!

- Enjoyed it – thanks! I think it was nice that ELI provided an opportunity for folks to get together and talk every night. There was never a dull moment. Thanks to all. And to John Goodin from EPA for being so engaged.
- ELI was tremendous, as usual.
- Add all state websites to follow-up with their progress and learn from programs that have worked for them.
- Awesome workshop! Thank you!
- We extremely recommend EPA to incorporate in their grant conditions that impose other parties to share with the state agency responsible for the assessment/TMDL, all the data generated. Many institutions/agencies receive money from EPA to conduct projects that involve the generation of water quality data, but they never share that in a timely matter. More communication and integration. We need more initiative like the NRCS – NWQI. Regarding the next steps schedule, we understand that we do not provide enough time to incorporate all the requirements in this new cycle of IR 2013. In order to comply with the April 2014 date, we have to complete the assessment by December 2013.
- Great workshop all around – thanks! I will note that although I am the head of the TMDL unit in my state, many/most of the programmatic changes that would need to be implemented at the state level to satisfy the “vision” would need to be initiated or approved at the management level far above me. I will do my best to communicate with my management, but decisions will ultimately be driven by priorities and politics.

APPENDIX 4: WORKSHOP WEB PORTAL— ELI'S STATE TMDL PROGRAM RESOURCE CENTER

ELI continues to maintain and make publicly available a companion website for this workshop and related past work. Workshop materials for 2013, as well as many other resources that are relevant to the mission and work of State TMDL Programs, are now available at the Institute's *State TMDL Program Resource Center*, at

http://www.eli.org/Program_Areas/state_tmdl_center.cfm