

An Overview of State CWA 303(d) Program Vision Prioritization Frameworks

2016



Introduction

After two years of collaborative development, the Environmental Protection Agency (EPA) announced in December of 2013 a new framework for implementing the Clean Water Act (CWA) Section 303(d) program. The document – *A Long-Term Vision for Assessment, Restoration and Protection under the Clean Water Act Section 303(d) Program* (the Vision) – identifies six program goals, the first of which is for states to “review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports,” for the 2016 integrated reporting cycle and beyond. These “Vision priorities” of the CWA 303(d) program are intended to focus the location and timing of TMDL development and any alternative actions to best suit the state’s water quality goals, lead to more efficient and effective program management, and result in faster progress toward water quality improvement and protection. The Vision priorities are distinct from the prioritization required in Section 303(d) of the CWA, since the latter concerns only the ranking of impaired waters on the CWA 303(d) list for TMDL development, and the former can include any waters, protection as well as restoration, and various means of restoration.

Methodology and Scope

This paper provides a national overview of states’ Vision priorities based on the Vision prioritization framework documents provided by 44 states, in response to an inquiry from the Environmental Law Institute (ELI) in early 2016. Although this paper references specific priorities for purposes of illustration, it focuses primarily on the *types* of Vision priorities identified by states and the *process* used for prioritizing. ELI reviewed each state framework document through the lens of the following broad questions:

- What did the state prioritize?
- What were the main reasons for choosing these priorities?
- What process did the state use to select its priority waters?
- What (if any) public participation process was involved in selecting or reviewing the priorities/prioritized waters?
- What (if any) other Clean Water Act programs were involved in selecting or reviewing the priorities/prioritized waters or will be engaged for purposes of implementing the commitments?
- What (if any) other state or federal programs or agencies were involved in selecting or reviewing the priorities/prioritized waters or will be engaged for purposes of implementing the commitments?
- What types of plans does the state intend to pursue to address these priorities/prioritized waters?

ELI used the answers to these questions to develop an aggregate snapshot of Vision prioritization across the country, including the categorization of what states prioritized and how and why they did it, as of early 2016.

This overview is based on *ELI staff’s interpretations of the framework documents reviewed*. It is not intended to be comprehensive or a definitive representation of state priorities and prioritization processes. The framework documents vary significantly in their form as well as the breadth and depth of information provided. In addition, several framework documents were in draft stage when provided to ELI. ELI is solely responsible for the accuracy of the content.

Vision Prioritization Framework Content

The varying forms of the prioritization frameworks reflect the fact that not all frameworks contain the same types of information. A few state CWA 303(d) programs use the framework simply to document their Vision priorities and briefly explain *why* they were chosen.¹ For example, one state’s framework includes a list of proposed priority projects accompanied by this explanation: “In general, these are projects that are already underway, since 2022 is not that far off, and any projects not started at this time have less chance of being completed by then.”² But the majority of state CWA 303(d) programs use the framework to describe a *system* for prioritizing waters, one that potentially could be used again for future prioritizing. Many of these frameworks also include some explanation of why the system was chosen. In addition, some states include in their prioritization frameworks a list or map of their respective Vision priority waters,³ while others simply note that the list will be published separately, often with reference to the specific location, such as the state’s Integrated Report.⁴

The Prioritization Process

In the instances that the framework describes a system for prioritizing waters, that system includes one or more of the following steps: (1) defining a “candidate pool” of waters from which Vision priorities would be selected; (2) selecting the Vision priority waters; and (3) ordering the list of Vision priority waters.⁵ Most states used two or all three of these steps, though not always in the order described here.

1. Identifying Candidates for Prioritization

According to the framework documents, over half of the state CWA 303(d) programs chose to start the prioritization process by defining a pool of candidate waters, rather than considering all waters or all impaired waters as potential priorities.⁶ State CWA 303(d) programs often defined the candidate pool

¹ California, Michigan, and Washington. ELI has categorized California’s “statewide” approach based on the approach taken in the majority of nine separate Regional Water Quality Control Board frameworks compiled and submitted to ELI. Michigan’s framework document explains why the state decided to link its Vision priorities to the Water Resources Division’s preexisting Measures of Success. Washington’s framework document consisted of a draft version of the state’s WQ27 submission, accompanied by a brief explanation.

² The State of Washington (<http://www.eli.org/sites/default/files/docs/washington.pdf>).

³ Alaska (provided two documents, one of which includes a list), Arizona, Arkansas, Connecticut, Delaware, Florida, Illinois, Indiana (the list is limited to priorities for the first two years), Iowa, Kansas, Maine, Maryland, Minnesota, Mississippi, Montana, Nebraska, Nevada (the list is in the form of a map showing candidates, as yet unranked), New York, Oklahoma (partial list), Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Washington, West Virginia, and Wisconsin. For purposes of this category, “list” encompasses draft lists and partial lists, in addition to final lists.

⁴ Alabama (2016 IR), Colorado, Georgia, Kentucky (2016 IR), Louisiana (2016 IR), Missouri (2016 IR), New Hampshire, New Jersey, New Mexico (2016-2018 IR), North Carolina (“plans to publish the entire priority list on a website ... on or before the 2016 IR publication date”), North Dakota, Ohio (each forthcoming IR), Texas (“All projects conducted for this new process will be posted on the internet to inform the public in general”), and Virginia (“impaired waters prioritized for TMDL, TMDL alternative, stressor analysis, or natural conditions report development during 2016-2022 were assembled into a list and public noticed for comment on July 27th, 2015”).

⁵ These are generalized descriptions of the steps that state CWA 303(d) programs have taken. They used a wide variety of approaches to prioritization, and implementation equally varied.

⁶ Of the 44 prioritization frameworks reviewed by ELI, 29 began the prioritization process by defining a pool of candidate waters. The other 15 frameworks indicated that they considered all of their state’s CWA 303(d) listings, or even all of their state waters, when selecting specific priorities. These include Arizona (“[c]oordination between internal programs looks at water body and watershed prioritization based on many factors”), Delaware (“Delaware waterbodies and the nature of impairments that may exist”), Florida (all “verified” impairments), Iowa (CWA 303(d) list), Kentucky (CWA 303(d) list), Louisiana (all watersheds), Missouri (will rotate by year, but eventually will have looked at all basins/listings as candidates), Montana (all watersheds), Nebraska (all impairments), New Hampshire (impaired and threatened waters), New Jersey (will rotate through

based on an overall focus or program goal. In some instances, that focus or goal predated the Vision, but in many cases it resulted from work on the state’s Vision goals. Either way, it tended to fit within one of the following categories: specific geographic areas; priority pollutants; priority uses; or pollutant-use combinations. Several states defined their candidate pool with goals from more than one of these categories, which will hereafter be referred to as a “hybrid” approach.⁷

Geography-Based Approach. Three state CWA 303(d) programs began their prioritization process by identifying particular geographic units from which long-term Vision priority waters (through 2022) would be selected.⁸ The primary reason for this approach was to facilitate alignment of Vision priorities with other programs’ priorities, specifically: basins on the nonpoint source program’s list for targeted CWA 319 funding;⁹ basins identified in the preexisting Nutrient Loss Reduction Strategy document as “priority watersheds for reducing nutrient losses;”¹⁰ and watersheds where multiple water programs’ priorities overlapped.¹¹

Pollutant-Based Approach: Eleven state CWA 303(d) programs chose to focus solely on impairments caused by, or waters to be protected from, one or more pollutants.¹² In addition, all seven state CWA 303(d) programs that used a hybrid approach chose one or more pollutants as part of their focus.¹³ Among these eighteen states, the most common pollutants referenced in creating a pool of candidate waters for prioritization were: nutrients (ten states¹⁴); sediment (eight states¹⁵); and bacteria (seven states¹⁶). Several other pollutants were selected by at least two states: dissolved oxygen;¹⁷ toxics;¹⁸

five “regions” by 2022), New Mexico (all surface waters in the state), North Dakota (CWA 303(d) list), Washington (unspecified), and West Virginia (2014 IR and additional non-listed waters for which impairments were determined via modeling).

⁷ Colorado, the state not otherwise noted in these categories, was still refining its prioritization process, but its framework at the time indicated that it would begin by excluding waters for which impairment data, standards, or sources were uncertain.

⁸ Arkansas, Illinois, and Mississippi. Note: If a state indicated it would be focusing on a specific geographic area each year, but ultimately would rotate through all areas in the state during the Vision period (before 2022), this was considered a place to start work and *not* a geography-based approach. For example, a state may be immediately prioritizing a certain region or group of basins for 2016, but it will rotate away from that geographic area in 2017 – that would not be characterized here as “prioritizing” a certain geographic region for purposes of the long-term Vision. In other words, if a state intends to look at all its waters (for potential prioritization) by 2022, then we are not considering that state to have an overall focus based on geographic area, regardless of how they have scheduled it.

⁹ Arkansas.

¹⁰ Illinois.

¹¹ Mississippi.

¹² Alabama (nutrients and siltation), Alaska (turbidity and toxics), Kansas (nutrients), Maryland (pathogens, toxics, chloride, and sediment), Nevada [nutrients (phosphorus and nitrogen), temperature, sediment (turbidity and total suspended solids), and bacteria], Oklahoma (metals and chlorophyll-a), Pennsylvania [sediment (total suspended solids and siltation)], Wisconsin (total phosphorus and total suspended solids), Minnesota (all “conventional pollutants”: ammonia, aquatic macroinvertebrate bio assessments, aquatic plant bioassessments, *E. coli*/fecal coliform, fishes bioassessments, lack of a cold-water assemblage, nitrates, nutrient/eutrophication biological indicators, dissolved oxygen, pH, temperature, and total suspended solids/turbidity), Maine (all except legacy pollutants), and North Carolina (all except toxics and mercury).

¹³ California, Connecticut, Rhode Island, South Carolina, South Dakota, Tennessee, and Utah.

¹⁴ Alabama (nutrients), California (Central Coast – nutrients), Connecticut (nutrients), Kansas (phosphorous), Minnesota (nitrates and nutrient/eutrophication biological indicators), Nevada (phosphorous and nitrogen), Rhode Island (nutrients), South Carolina (nutrients), and Tennessee (nutrients), and Wisconsin (total phosphorous).

¹⁵ Alabama (sediment), Alaska (turbidity, although sediment was tied in some cases), Maryland (sediment), Minnesota (total suspended solids/turbidity), Nevada (sediment), Pennsylvania (sediment), South Dakota (total suspended solids), and Wisconsin (total suspended solids).

¹⁶ California (Los Angeles – bacteria), Connecticut (bacteria), Maryland (pathogens), Minnesota (*E. coli*), Nevada (bacteria), South Dakota (bacteria), and Utah (*E. coli*).

¹⁷ California, Minnesota, and South Carolina.

¹⁸ Alaska, Maryland, and Utah.

metals;¹⁹ and temperature.²⁰ Pollutants prioritized by just one state include: chloride;²¹ pH;²² stormwater;²³ chlorophyll-a;²⁴ ammonia;²⁵ and pesticides.²⁶ Two of the eleven state CWA 303(d) programs that chose to focus solely on impairments caused by, or waters to be protected from, pollutants took an “all pollutants except ...” approach, screening out a few pollutants and then considering the rest as candidates for Vision prioritization.²⁷ State CWA 303(d) programs cited various reasons in their frameworks for taking a pollutant-based approach, the most common of which was that a pollutant was causing a large proportion of the impairments on the state’s CWA 303(d) list.²⁸ Other reasons cited include, but were not limited to: protection of public health;²⁹ the relationship between the focus pollutant and other pollutants (e.g., opportunities to address other problems with the same projects);³⁰ and the difficulty of developing and implementing a TMDL to address a certain pollutant.³¹

Use-Based Approach: Three state CWA 303(d) programs focused their Vision prioritization efforts solely on waters with specific designated use impairments.³² In addition, five of the seven state CWA 303(d) programs that used a hybrid approach chose one or more designated uses as part of their focus.³³ Among these eight states, the most common uses referenced in creating a pool of candidate waters for prioritization were: aquatic life (six states³⁴); recreation (five states³⁵); drinking water/public water supply (five states³⁶); and fishing/shellfishing (three states³⁷). Some of the reasons noted for focusing on these uses were the number of impairments, human health, aquatic health, and the economy (e.g., the importance of recreational waters to tourism).

Pollutant-Use Approach: Four state CWA 303(d) programs chose to focus their Vision prioritization efforts solely on one or more pollutant-use combinations, a specific use impaired by a specific pollutant.³⁸ In addition, two of the seven state CWA 303(d) programs that used a hybrid approach chose one or more pollutant-use combinations as part of their focus.³⁹ Most of the selected pollutant-use combinations reflect human health concerns: bacterial impairment of recreational uses;⁴⁰ bacterial

¹⁹ Oklahoma and Utah.

²⁰ Nevada and Minnesota.

²¹ Maryland.

²² Minnesota.

²³ Connecticut.

²⁴ Oklahoma.

²⁵ Minnesota.

²⁶ California.

²⁷ Maine (all except legacy pollutants) and North Carolina (all except toxics and mercury).

²⁸ Alabama, Alaska, Maryland, Pennsylvania (number of stream miles impacted), and South Carolina.

²⁹ Georgia and Maryland.

³⁰ Alaska, Pennsylvania, and South Carolina.

³¹ South Dakota and Texas explicitly chose to focus on pollutants for which they expected TMDLs to be relatively straightforward, whereas Georgia explicitly chose to prioritize impairments caused by a pollutant it knew to be particularly complex.

³² Michigan, Ohio, and Virginia.

³³ California, Connecticut, Rhode Island, Tennessee, and Utah.

³⁴ California, Connecticut, Michigan, Ohio, Rhode Island, and Virginia.

³⁵ Michigan, Ohio, Rhode Island (public beach), Virginia, and Utah.

³⁶ Michigan (drinking water), Ohio (public water supply), Rhode Island (drinking water), Tennessee (source water area), and Utah (drinking water source).

³⁷ Michigan (fishing), Rhode Island (shellfish), and Virginia (fish consumption and shellfishing).

³⁸ Georgia, Indiana, New York, and Texas. Georgia’s framework document reflected a suggested approach; the prioritization process had not been finalized.

³⁹ South Carolina and South Dakota.

⁴⁰ Indiana (*E. coli* and recreation), South Carolina (bacteria and recreation), and Texas (bacteria and contact recreation).

impairment of shellfish uses;⁴¹ and mercury impairment of fish uses.⁴² Two state CWA 303(d) programs include in their respective pools of candidate waters pollutant-use combinations that reflect aquatic health concerns: dissolved oxygen, total suspended solids, algal, or phosphorus impairments of biotic communities;⁴³ and temperature impairments of cold water fisheries.⁴⁴ One state focused its Vision prioritization on waters with contact recreation, public bathing beaches, or public water supply uses impaired by pathogens, nutrients, or dissolved oxygen.⁴⁵

Hybrid Approach: As noted above, seven state CWA 303(d) programs created a pool of candidate waters for prioritization using more than one of the aforementioned approaches.⁴⁶ In some states, the combination of different focus areas reflected input from different programs, regional offices, and stakeholder groups. Other states' prioritization frameworks indicate that their hybrid approaches to Vision priorities reflect multiple goals of the TMDL program.⁴⁷ One state decided to focus on several uses for both protection and restoration work, and also one pollutant just for restoration.⁴⁸

Additional Priorities: Several state CWA 303(d) programs that defined an initial pool of candidates through one of these approaches also noted in the prioritization framework document that a small, discrete group of additional impairments will or may be included on the state's list of Vision priorities as the need arises. Some of these frameworks include general descriptions of the types of problems that the state CWA 303(d) program foresees needing to address. For example, one framework declares that additional priorities may be set based on "other threats to drinking water supplies or human health" or where a pollutant "has contributed to the documented decline of a threatened or endangered species."⁴⁹ A few frameworks explain that completing TMDLs already planned or in progress also is a priority.⁵⁰

2. *Selecting the Vision Priority Waters*

Whether or not a state CWA 303(d) program started this process by defining a candidate pool, it eventually undertook the task of selecting specific waters or watersheds to be Vision priorities. While the details vary significantly, most of the prioritization processes used by state CWA 303(d) programs can be distilled into two general categories: (1) standardized processes with established criteria or consistently-weighted indicators; and (2) the best professional judgment of program staff. The prioritization frameworks of three states reference only the use of a standardized process.⁵¹ The prioritization frameworks of five states reference the use of professional judgment but not a

⁴¹ South Carolina.

⁴² South Dakota.

⁴³ Indiana.

⁴⁴ South Dakota.

⁴⁵ New York.

⁴⁶ California (hybrid in terms of different regional approaches – pollutants used by some and uses used by some), Connecticut ["priority program areas" include two pollutants (nutrients and bacteria), one use (aquatic life), and stormwater], Rhode Island [four uses (drinking water, shellfish, public beach, and aquatic life) and one pollutant [nutrients], South Carolina [two pollutants (nutrients and dissolved oxygen) and two pollutant-use combinations (bacteria and shellfish; bacteria and recreation)], South Dakota [two pollutants (bacteria and total suspended solids) and two pollutant-use combinations (temperature and cold water fishery; mercury and fish)], Tennessee [watersheds that had both a use (source water area) and a pollutant (nutrients) – note that each water does not need to have both, just that the watershed has to have one of each], and Utah [two uses (drinking water source and recreation) and three pollutants (toxics, metals, and *E. coli*)].

⁴⁷ For example, Connecticut's framework indicates that the focus areas were based on multiple "priority program areas."

⁴⁸ Rhode Island.

⁴⁹ Tennessee.

⁵⁰ Indiana, Michigan, and Utah.

⁵¹ Kentucky, Minnesota, and Colorado (to the extent the process had been developed and applied).

standardized process.⁵² The vast majority of prioritization frameworks reference some combination of a standardized process and professional judgment.⁵³

Standardized Approaches: State CWA 303(d) programs used widely varying standardized processes to select their vision priorities. The most common method, referenced in eleven prioritization frameworks, was using EPA's Recovery Potential Screening (RPS) tool, a systematic means of comparing watersheds, their condition, and how well they may respond to restoration or protection efforts using multiple indicators.⁵⁴ Most of the state CWA 303(d) programs that used the RPS tool applied multiple ecological, social, and stressor indicators, and many of them performed multiple RPS runs. One state performed separate RPS runs for protection and restoration scenarios.⁵⁵ Other tools used to prioritize waters or watersheds include EPA's WATERCAPE tool, which compares alternative prioritization scenarios, and the USGS's SPARROW modeling tool for interpreting water quality monitoring data.⁵⁶ State CWA 303(d) programs also used state-developed point systems and a simple comparison of the number and types of impairments in an area.⁵⁷ In addition, one state CWA 303(d) program utilized Qualitative Habitat Evaluation Index scores in its prioritization.⁵⁸ Another one incorporated National Land Cover Datasets.⁵⁹

A slightly different approach, used by several state CWA 303(d) programs, was to categorically assign lower priority to waters and watersheds based on established criteria. For example, three state CWA 303(d) programs de-prioritized waters for which there was a lack of sufficient data.⁶⁰ Five states gave a lower priority for impairments for which a TMDL, including a statewide TMDL, or other planning effort existed or was scheduled.⁶¹ Other reasons for assigning a low priority to certain waters include, but were not limited to, the relative importance of public health impacts and the relative effectiveness of a TMDL approach for the pollutant type.⁶²

Considerations in Professional Judgment: Whether in conjunction with a standardized approach or not, many factors played a role in the professional judgment exercised by state CWA 303(d) program staff in selecting the specific waters or watersheds to be Vision priorities. Many prioritization framework documents note that staff considered the likelihood of successful implementation, including the presence of interested stakeholders, the potential for partnerships, the availability of data, and the feasibility of TMDL development (e.g., the availability of funds, staff knowledge, and the level of

⁵² Alaska, Delaware, Kansas, Missouri, and Texas.

⁵³ Alabama, Connecticut, Florida, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Michigan, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Virginia, and Wisconsin. For the remaining states, Arkansas, California, Georgia, Washington, and West Virginia, the framework did not provide sufficient detail to categorize the process.

⁵⁴ Alabama, Connecticut, Florida, Kentucky, Louisiana, Maryland, New Hampshire, North Dakota, South Dakota, Tennessee, and Utah. The Colorado and Michigan frameworks reported that RPS was one of the tools being considered for future prioritization.

⁵⁵ Connecticut.

⁵⁶ Wisconsin's framework noted that SPARROW had been used. Louisiana's framework noted that, in addition to the RPS tool, SPARROW and Waterscapes may be utilized for prioritization.

⁵⁷ States whose frameworks described application of a state-developed priority points/scoring system include Alaska, Mississippi, New Mexico, New York, North Carolina, Nevada, and Ohio. States whose frameworks described the systematic incorporation of the number and types of impairments into the prioritization process include Illinois, Indiana, New Mexico, North Carolina, and North Dakota.

⁵⁸ Indiana.

⁵⁹ Kentucky.

⁶⁰ Colorado, Florida, and New Hampshire.

⁶¹ Florida, Illinois, Indiana, Michigan, and Wisconsin.

⁶² Maryland and North Dakota, respectively.

complexity and cost).⁶³ Other factors referenced in multiple framework documents include human health,⁶⁴ habitat values,⁶⁵ and economic or social values.⁶⁶ Some state CWA 303(d) program staff considered more logistical issues, such as monitoring and assessment timing or the availability of a regulatory mechanism or ongoing pollution abatement action to address the impairment.⁶⁷ Some of the frameworks go beyond identifying considerations to actually noting which receive special emphasis.⁶⁸

3. Ordering the Vision Priority Waters

After selecting their Vision priority waters or watersheds, several state CWA 303(d) programs took the additional step of ordering those priorities according to when specific plans and projects would be implemented. Six prioritization frameworks include a list of TMDLs and projects scheduled by year of completion through 2022.⁶⁹ Six frameworks include a partial or near-term schedule, such as 2016 through 2017, for some priorities but then list the rest generally, with additional scheduling to be determined.⁷⁰ Two state CWA 303(d) programs indicated in their frameworks that they plan to schedule priority projects through 2022 at the outset of the Vision term.⁷¹ Some state CWA 303(d) programs intend to schedule plans and projects for a subset of priority waters or watersheds annually or biennially, rather than attempting to determine a schedule for the whole list at once.⁷² A few state CWA 303(d) programs explained in their framework documents the general basis on which the order of schedules would be determined in the future. For example, one state indicated in its framework that the order of TMDL development among prioritized waters for the first two years “will be determined from

⁶³ These include, e.g., Alabama (interested stakeholders, available resources), Arizona (local interest in implementing projects, “implement-ability,” readiness to proceed), Colorado (interested stakeholders), Connecticut (potential for partnerships, best locations for plan development), Georgia (availability of data, stakeholder interest, potential partnerships), Illinois (stakeholder interest), Iowa (level of complexity and cost of development), Kentucky (location and proximity to the agency’s laboratories), Louisiana (state and federal partnerships, presence of watershed groups, funding), Missouri (availability of data, cost and complexity of implementing TMDL, stakeholder interest, potential partnerships), Nebraska (implementation potential, stakeholder interest), Nevada (desires of the public and stakeholders), North Carolina (stakeholder interest, staff knowledge of stressors in the watershed), Pennsylvania (presence of active stakeholder community), Texas (stakeholder interest and potential partnerships), and Wisconsin (stakeholder engagement and readiness).

⁶⁴ Indiana, Missouri, and Wisconsin.

⁶⁵ Indiana, Nebraska, and Utah.

⁶⁶ Nevada, North Dakota, and Wisconsin.

⁶⁷ Illinois, New York, and Virginia referenced the timing of monitoring and assessments. Georgia, Illinois, Maryland, and Ohio referenced the availability of a regulatory mechanism or ongoing pollution abatement action to address the impairment.

⁶⁸ For example, in Pennsylvania, where the regional offices had wide discretion in general, it was determined that “because active stakeholders (both permittees and nonpoint sources) are key to implementation and represent a core component in the CWA 303(d) Revisioning process, it was determined that an active stakeholder community must be present in order for a watershed to make an Regional Office’s list of priorities.” Nevada’s framework describes engagement of potential stakeholders and the public as “one of the most important criteria used;” North Carolina’s framework noted that stakeholders and the public interest were among the most important considerations; and Indiana’s process gave particular weight to “reasonable expectation that stakeholder entity exists there to drive implementation.” Kansas’ framework noted generally that, in weighing stresses, values, and opportunities of a candidate stream, the scale was “tilted toward implementation potential.” Nebraska’s framework noted that: “Special consideration will be given to waterbodies that support sensitive aquatic species, federally threatened and endangered species, as well as aquatic life unique to Nebraska.”

⁶⁹ Arkansas, Iowa, Kansas, Missouri, Utah, and Wisconsin.

⁷⁰ Alaska, Illinois, Indiana, Montana, Tennessee, and West Virginia.

⁷¹ Connecticut and Texas.

⁷² The specificity with which these commitments are articulated varies. For example, Indiana’s framework indicates that the program will select one of the priority watersheds for TMDL development each year, starting in 2017. New Jersey’s framework notes that the number of priority assessment units addressed in any given year will be based on the resources and complexity of specific TMDLs and “alternatives,” but that the state plans to address an average of 15 percent of the long-term priority waterbodies annually between 2016 and 2022. New Hampshire’s framework states that annual work plans will be created beginning in 2016. Florida’s framework states that the program will use the first of two “check in periods,” in FY 2019, to “catch up on any straggling TMDLs and re-prioritize the second half of the overall plan.”

the full list of prioritized impairments considering logistics, data, staff and other factors in coordination with EPA Region 4.”⁷³

The Roles of Others in the Process

Most state CWA 303(d) programs engaged other entities in the course of selecting or vetting Vision priorities. The prioritization framework documents commonly reference many of these interactions, although likely not all of them, and reflect notable variation across states as to who was engaged in the process, at what stage, and how.

1. Other Clean Water Act Programs

A majority of state CWA 303(d) programs engaged one or more other CWA programs in prioritizing waters or watersheds or in determining the schedule of work. The framework documents of 22 states reference the influence of the permitting program or CWA 402 permits on the prioritization process.⁷⁴ Twelve frameworks indicate that the permitting program provided input during the development of the Vision priorities.⁷⁵ Sixteen frameworks note that permitted sources were among the factors considered in the selection or ordering of priority waters or watersheds, although some of them *prioritized* areas with permitted sources, for leverage in improving water quality, while others *de-prioritized* those areas, in an attempt to avoid a duplication of effort.⁷⁶

Nineteen states’ frameworks reference collaboration with the nonpoint source program, in many cases indicating that the CWA 303(d) program had purposefully aligned Vision priorities with the priorities, plans, or ongoing projects of the nonpoint source program.⁷⁷ Seven frameworks specifically note that the implementation assistance that the nonpoint source program potentially could provide was one of the factors considered when developing the list of Vision priority waters.⁷⁸

Fifteen frameworks indicate that the monitoring and assessment program was involved, or that its activities were considered, in the development of the state’s Vision priorities.⁷⁹ Most of these frameworks note that monitoring plans and schedules informed the Vision priorities, so that prioritized waters are, and implementation efforts occur, where sufficient data does or will soon exist. For example, many states aligned their Vision priorities with their rotating basin schedule.

2. The Public

Many of the framework documents reviewed by ELI detail public engagement efforts, beyond the Integrated Report process, but at various phases of prioritization. Several states involved the public early, in choosing an overall focus and defining the initial candidate pool.⁸⁰ The frameworks of fifteen

⁷³ South Carolina.

⁷⁴ Colorado, Connecticut, Georgia, Illinois, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Montana, Nebraska, Nevada, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, Texas, Utah, and Wisconsin.

⁷⁵ Georgia, Illinois, Kentucky, Louisiana, Mississippi, Nebraska, New Mexico, Oklahoma, Pennsylvania, Texas, Utah, and Wisconsin.

⁷⁶ States whose frameworks noted specifically that some consideration of permitted point sources had occurred during Vision priority selection include California (North Coast region), Colorado, Connecticut, Georgia, Illinois, Kansas, Kentucky, Louisiana, Maryland, Missouri, Montana, Nebraska, New Mexico, Pennsylvania, Rhode Island, and Utah.

⁷⁷ Alabama, Alaska, Arizona, Arkansas, Connecticut, Georgia, Kansas, Louisiana, Mississippi, Nebraska, New Hampshire, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, South Dakota, Texas, and Wisconsin.

⁷⁸ Alabama, Alaska, Arizona, Arkansas, Georgia, Kansas, and Mississippi.

⁷⁹ Alaska, Arkansas, Florida, Illinois, Louisiana, Mississippi, Nebraska, New Hampshire, New Mexico, New York, Ohio, Tennessee, Texas, West Virginia, and Wisconsin.

⁸⁰ These include Arkansas, Connecticut, Mississippi, and Utah.

states note that the public was involved in selecting Vision priorities from the state's initial candidate pool.⁸¹ Nearly as many frameworks report that the public had or will have an opportunity to review the list of Vision priority waters before it was or is finalized.⁸² Six state frameworks indicate that the public was or will be involved in both the selection and review of Vision priority waters.⁸³

The framework documents describe a variety of mechanisms for engaging the public. For example, one framework notes that over 400 citizens responded to a survey containing a series of questions “posed to gauge respondents’ values associated with the uses, benefits, and threats to [the state’s] surface waters.”⁸⁴ Other types of public engagement mechanisms used include, but were not limited to: offering the public the opportunity to nominate priority watersheds or waterbodies; soliciting feedback during stakeholder meetings, workshops, educational events, and individual contact sessions; coordinating Vision priorities with the priorities of watershed groups; and publishing a draft list of Vision priorities for comment, separate from the Integrated Report process.

Protection as a Priority

Another of the six goals of the Vision concerned water quality protection: “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 approaches along with schedules to help prevent impairments in healthy waters, in a manner consistent with each State’s systematic prioritization.” A majority of the framework documents reviewed by ELI reference protection. Most of them indicate that the state would or may establish protection priorities in the future.⁸⁵ Five others reference a process for prioritizing protection efforts.⁸⁶ Four others actually identify protection priorities.⁸⁷ Six states simply note that protection was considered during the prioritization process (e.g., the location of source water protection areas or the feasibility of implementing protection plans).⁸⁸ Four frameworks note that protection efforts were not a current priority.⁸⁹

⁸¹ Alabama (nominations), Alaska (can nominate), Colorado, Florida (some priorities are because stakeholders petitioned), Illinois, Louisiana (in-person meetings, conference calls, postings on LDEQ webpages, and/or presentations), Mississippi (list refined based on discussions), Missouri, Nevada (identifying desired TMDLs/plans), New Hampshire (invited to contribute), New Mexico (stakeholder priorities will be incorporated into the scoring matrix based on formalized outreach and public planning meeting feedback), New York, Oklahoma (nominations solicited), South Carolina (stakeholder meetings, educational events, and individual contact sessions), and Texas.

⁸² Alaska (opportunity for dialogue), Connecticut (will be able to review the draft list and may change it), Florida (draft list released for comment), Kansas (have been briefed), Michigan (webinar), Mississippi (list will be vetted), Nebraska (plan was public noticed), New York (solicitation of feedback), North Carolina (publish online before IR), Oklahoma (will notice and comment draft priority list), Tennessee (draft prioritization plan available at watershed meetings), Utah (framework document posted on DWQ’s website and public comments accepted for 30 days), Virginia (list released for comment as a draft list and then again as a revised list), and Wisconsin (nonpoint source plan).

⁸³ Connecticut, Florida, Mississippi, New York, Oklahoma, and Utah.

⁸⁴ Utah.

⁸⁵ Arizona, Arkansas, California, Delaware, Georgia, Kansas, Illinois, Iowa, Maine, Minnesota, Missouri, New Hampshire, North Dakota, Ohio, South Carolina, South Dakota, and Texas.

⁸⁶ Kentucky, Maryland, New Mexico, Rhode Island, and Wisconsin.

⁸⁷ Alaska, Connecticut, Oklahoma, and Utah.

⁸⁸ Alabama (source water protection was considered in watershed ranking process), Florida (presence of designated Outstanding Florida Water(s) was used as an indicator in the basin ranking process), Mississippi (source water protection was one of the “focus areas identified by the water programs to select priorities at the watershed level”), Montana (local stakeholder interest in water quality protection activities was cited among “prioritization rationale” for several priority watersheds), New York (in determining priority concerns, evaluated the feasibility of completing a TMDL or other interim approach, including a protection plan), and North Carolina (assigned higher points for water supply watersheds, consistent with EPA priority of source water protection).

⁸⁹ Indiana, Michigan, Nebraska, and Tennessee.

A few frameworks detail different prioritization processes for protection and restoration. One state CWA 303(d) program identified entirely different initial candidate pools for restoration and protection priorities.⁹⁰ Another state CWA 303(d) program defined the initial candidate pools slightly differently for restoration alone versus restoration and protection considered together.⁹¹ Yet another state performed separate Recovery Potential Screening tool runs for protection scenarios.⁹² A fourth state, which used the Healthy Watersheds Assessment Health Index for restoration prioritization, used the Healthy Watersheds Assessment Vulnerability Index to identify protection priorities, so as to incorporate factors such as climate change, land use change, and water use.⁹³

Implementation

Nearly all of the 44 frameworks reviewed by ELI reference the types of projects and plans that the state intends to undertake to address its Vision priorities. Many do so in general or categorical terms, while some provide details about the projects and plans. A few frameworks describe plans to revise existing TMDLs, in addition to developing new ones.⁹⁴ A few frameworks note that statewide TMDLs are planned or under consideration.⁹⁵ Many frameworks reference alternative restoration plans, some noting the state's intention to consider or implement "alternatives" generally,⁹⁶ while others detail the types of "alternatives" that the state intends to use, including but not limited to: "restoration plans;" "watershed-based plans;" "implementation plans;" and "load reduction strategies."⁹⁷ Five frameworks identify specific priority waters or watersheds that the respective states intend to, or are likely to, address using an "alternative."⁹⁸

Conclusion

The states have made great strides in meeting the Prioritization Goal of the Vision, and in so doing, have advanced the Engagement Goal, Integration Goal, Protection Goal, and Alternatives Goal. While the Vision prioritization frameworks reviewed by ELI reflect widely varying approaches and resulting priorities, that variation relays the innovation, communication, and local knowledge necessary to select meaningful, responsible water quality priorities. Yet this is just the beginning. The priority waters need to be restored (or protected); other priorities likely will arise as circumstances change; and 2022 eventually will arrive, offering an opportunity to assess the results, build on the successes, learn from the shortcomings, and plan for the future.

The prioritization frameworks can be found in ELI's CWA 303(d) Resource Library, specifically: <http://www.eli.org/freshwater-ocean/state-and-territorial-prioritization-frameworks>. They will be updated, and new states will be added, as those documents become available.

⁹⁰ Kentucky.

⁹¹ Rhode Island.

⁹² Connecticut.

⁹³ Wisconsin.

⁹⁴ Connecticut, Louisiana, and Maryland.

⁹⁵ These include Florida, Iowa, and Maryland.

⁹⁶ States referencing the use of "alternatives" to address priority waters include Alaska, Arkansas, California, Connecticut (implied when document states that action plans "may include" TMDLs), Florida (as "other priority" in addition to 80 specific TMDLs), Illinois, Louisiana, Maine, Maryland, Missouri, Nebraska, New Mexico, North Dakota, Pennsylvania, South Dakota, Utah, Virginia, and West Virginia.

⁹⁷ States specifically referencing the type(s) of "alternative" include Alaska ("alternative TMDL/recovery plan performance measure(s)"), Florida (4b plans, 4e plans), Illinois (Fox River Implementation Plan, WBPs, load reduction strategies), and Pennsylvania (watershed implementation plan).

⁹⁸ Alaska, California, Maryland, Utah, and West Virginia.