Final Draft Prioritization Framework and Long Term Vision for Water Quality in New Mexico

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Abbreviations

AP	Assessment Protocol
AU	Assessment Unit
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CWA	Clean Water Act
DO	Dissolved Oxygen
FSP	Field Sampling Plan
HUC	Hydrologic unit code
IR	Integrated Report and List of Assessed Waters
MASS	Monitoring, Assessment, and Standards Section
MT	Monitoring Team
MS4	Municipal separate storm sewer system
NM	New Mexico
NMAC	New Mexico Administrative Code
NMDGF	New Mexico Department of Game and Fish
NMED	New Mexico Environment Department
NPDES	National Pollutant Discharge Elimination System
NPS	Nonpoint source
ONRW	Outstanding National Resource Water
PSRS	Point Source Regulation Section
QA	Quality Assurance
QAO	Quality Assurance Office
QAPP	Quality Assurance Project Plan
QC	Quality Control
QMP	Quality Management Plan
SPR	Standards, Planning, and Reporting
SWQB	Surface Water Quality Bureau
SQUID	Surface water QUality Information Database
TAT	TMDL and Assessment Team
TMDL	Total Maximum Daily Load
UAA	Use Attainability Analysis
EPA	U.S. Environmental Protection Agency
FWS	U.S. Fish and Wildlife Service
USFS	U.S. Forest Service
WBP	Watershed-based plan
WPS	Watershed Protection Section
WQBEL	Water Quality-based Effluent Limit
WQCC	Water Quality Control Commission
WQMP	Water Quality Management Plan
WQS	Water quality standards
WWTP	Wastewater treatment plant

Executive Summary

EPA's New Vision and Goals

In August 2011, the U.S. Environmental Protection Agency (EPA) and State program managers began an effort to develop a new long-term Vision and Goals for the Federal Water Pollution Control Act (i.e., Clean Water Act (CWA)) Section 303(d) program, as well as implementation plans for achieving the Vision and Goals.

Finalized in August 2013, the Vision and Goals are designed to help coordinate and focus EPA and State efforts to advance the effectiveness of the 303(d) Program direction in the next decade. Specifically, they allow the States the flexibility to define and implement their individual Programs to best accomplish the goals of the CWA.

The Goals of the new Vision are prioritization of watershed or waters for restoration and protection; assessment of priority waters; protection of unimpaired waters; alternative approaches to restoration and protection; engagement with the stakeholders; and integration with other CWA programs.

As a result of the new Vision and Goals, the Total Maximum Daily Load (TMDL) program in New Mexico is being revised to allow a greater focus on state water quality priorities, encourage TMDL alternatives, and emphasize the value of protecting waterbodies that are not impaired. This document, referred to as a Prioritization Framework, summarizes the prioritization of monitoring and TMDL activities in New Mexico. It also describes integration with other CWA programs (primarily Section 319 Nonpoint Source Management Program and Section 402 National Pollutant Discharge Elimination System (NPDES) permitting program), associated quality assurance (QA) efforts, and discusses TMDL alternatives that will be used, where appropriate, by the state.

New Mexico's Current Program

The current 303(d) Program in New Mexico consists of three major steps: monitoring of surface waters; assessing monitoring data against water quality standards (WQS); and developing TMDLs for those waters not meeting water quality standards (i.e., impaired).

Monitoring of surface waters currently occurs on an 8-year rotational watershed approach, meaning a given waterbody is generally surveyed intensively, on average, every 8 years. Monitoring occurs during the non-winter months (i.e., March through November), focuses on physical, chemical, and biological conditions in perennial waters, and includes sampling for most pollutants that have numeric and/or narrative criteria in the WQS. While a majority of New Mexico's perennial waters are sampled, each assessment unit is represented by a small number of monitoring stations (often only one), each of which receives only 4 – 8 site visits during the survey.

Assessment of surface waters against the WQS occurs after the monitoring data have been verified and validated, using the most recent assessment protocols (NMED 2013). These protocols are updated every odd year (e.g., 2015) and are opened for the EPA, as well as public, review and comment as part of the update process. Waterbodies determined to be impaired are reported as such every even year (e.g., 2016) on the State's CWA 303(d)/305(b) Integrated Report and List of Assessed Waters (NMED 2014). TMDLs and TMDL alternatives are then developed from the 303(d) List of Assessed Waters.

New Mexico's Prioritization Framework

The Prioritization Framework will maintain the eight-year rotational monitoring cycle, but through more extensive public outreach, inter-agency coordination, and a scoring system that takes into account a variety of factors, will create three tiers of monitoring – primary, secondary, and tertiary. High ranking priority waters (i.e., primary assessment units (AUs)) will receive the greatest amount of monitoring, whereas low ranking waters (i.e., tertiary AUs) will receive the least. The state will be divided into four large basins. Each basin will be sampled over a two-year period, which should allow more data to be collected from the highest priority waters and will better capture inter-annual variability due to hydrographic conditions during sampling events.

Assessments will continue to be based on the most recently updated assessment protocols, and impaired waters will be reported every even year in the 303(d)/305(b) Integrated Report and List of Assessed Waters (NMED 2014b).

As discussed in the TMDL Prioritization Section of this document, impaired waters (i.e., Integrated Reporting Category 5 on the List of Assessed Waters) will be ranked for TMDL and TMDL alternative development based on a number of factors, such as length of time the number of years the listing has been known, the severity of impairment, and the number of non-point source projects completed in the AU. TMDLs or alternatives will then be developed, starting with the highest priority AU (i.e., highest ranked AU), based on resource availability and workload.

Introduction

The Total Maximum Daily Load (TMDL) program in New Mexico is being revised to allow a greater focus on state water quality priorities, encourage TMDL alternatives, and emphasize the value of protecting waterbodies that are not impaired. This document summarizes the prioritization of surface water quality monitoring and TMDL development in New Mexico. It also describes integration with other federal Water Pollution Control Act (i.e., the Clean Water Act (CWA)) programs (primarily Section 319 Nonpoint Source (NPS) Management and Section 402 National Pollutant Discharge Elimination System (NPDES) permitting programs) and associated quality assurance (QA) efforts, and discusses TMDL alternatives that will be used, where appropriate, by the state.

In August 2011, the U.S. Environmental Protection Agency (EPA) and State program managers began an effort to develop a new long-term Vision and Goals for the Federal Water Pollution Control Act (i.e., Clean Water Act (CWA)) Section 303(d) program, as well as implementation plans for achieving the Vision and Goals. Throughout this process, the States were guided by the successful implementation of CWA assessment, restoration, and protection activities, ensuring the use of good scientific and technical information and methods, having appropriate and relevant water quality standards, engaging the public, and assessing results to guide adaptive management strategies. In the summer of 2012, the States and EPA provided the draft Vision and Goals to external stakeholders for their review. The Vision and Goal statements were finalized in December 2013 and are attached in **Appendix A**.

In a parallel effort, in the fall of 2012, the States and EPA also initiated a workgroup to discuss creating measures that would help track the 303(d) Program's success in light of the new Vision and Goals. The workgroup was tasked with developing a new measure or a set of metrics that would balance (1) State diversity in implementing the Vision and Goals, (2) the need for national aggregation of information to communicate overall program progress, and (3) guiding principles for measures compiled by the States and EPA over the previous year. The Vision and Goals are designed to help coordinate and focus EPA and State efforts to advance the effectiveness of the 303(d) Program direction in the next decade. Specifically, they allow States the flexibility to define and implement their individual Programs to best accomplish CWA goals.

The Goals of the new Vision are the following:

1. Prioritization Goal: The purpose of this goal is to express the 303(d) Program priorities in the context of the State's broader, overall water quality goals. Since the 303(d) Program translates state water quality standards into pollution reduction targets for the point source permitting and nonpoint source management programs, this can help strategically focus limited State resources to address priority waters. The prioritization will provide a framework for focusing the location and timing of TMDL development efforts or alternative actions that are best suited to the water quality goals of each state.
2. Assessment Goal: The purpose of this goal is to encourage comprehensive understanding of the water quality status of at least each priority area in each State. These assessments are a key step in ensuring that appropriate management actions can be taken to protect and restore these waters. They are also essential to effectively address the water quality challenges in these priority areas and measure the progress of the 303(d) Program.

3. Protection Goal: The purpose of this goal is to encourage a more systematic consideration of management actions to prevent impairments in healthy (i.e., unimpaired) waters to maintain water quality or protect existing uses of high quality waters.
4. Alternatives Goal: The purpose of this goal is to encourage the use of the most effective tool(s) to address water quality protection and restoration efforts. Historically, many TMDLs have been developed in response to litigation; thus states have not always had the opportunity to objectively evaluate whether a TMDL is the most effective tool to promote and expedite attainment of state water quality standards. While it is envisioned that TMDLs will remain the dominant 303(d) programmatic tool for addressing impaired waters, a major focus of this goal is to identify, evaluate, and promote, as appropriate, TMDL alternatives that may be more immediately beneficial or practicable to achieving applicable water quality standards. Another focus of this goal is to further explore and identify how the principles of adaptive management can most effectively be applied to improve water quality, regardless of which restoration tool is chosen. Adaptive management will help the program incorporate new data and information, identify opportunities and actions to pursue, and iteratively adjust and integrate subsequent implementation actions to meet water quality standards.
5. Engagement Goal: The purpose of this goal is to ensure that the 303(d) Program encourages working with stakeholders to educate and facilitate actions that work towards achieving water quality goals. Meaningful engagement with the public should not just cover this prioritization process, but any and all watershed actions related to the CWA.
6. Integration Goal: The purpose of this goal is to integrate the CWA Section 303(d) Program with other relevant programs that play a role in influencing water quality, to collectively and more effectively achieve State water quality goals. Because TMDLs are not self-implementing, effective integration of key programs, especially key CWA programs such as monitoring, water quality standards, Sections 319 and 401, and permitting under Sections 402 and 404, it is essential to realize the pollutant reduction goals identified in TMDLs or alternative approaches.

The general timeline for each of the goals above is the following:

2014 – Engagement
2016 – Prioritization, Protection, Integration
2018 – Alternatives
2020 – Assessment (Site Specific)
2022 – Evaluate accomplishments of the Vision and Goals

New Mexico's Priority Framework

The details of New Mexico's Priority Framework and long-term vision for water quality are described below, and generally follow the requirements outlined by the EPA in **Appendix B**.

Factors Considered in Development of the Prioritization Framework

New Mexico considered the following factors during the development of the Prioritization Framework.

U.S. Environmental Protection Agency Priorities

EPA's published guidance (Appendix B) on the state's Prioritization Framework indicated that, where appropriate, the Frameworks should consider EPA's regional and national priorities including, but not limited to, controlling nutrient pollution, addressing source water protection; and focusing on effluent dominated waterbodies.

In addition to these priorities, EPA's Strategic Plan (EPA 2014) charts the course for advancing their priorities and mission to protect human health and the environment. The Plan identifies the measureable environmental and human health outcomes the public can expect over the next four years and describes how the EPA intends to achieve those results. The Plan also represents a commitment to EPA's core values of science, transparency, and the rule of law in managing their programs.

The most applicable EPA Strategic Plan Goal to New Mexico's Prioritization Framework is from the Plan's Water Elements Goal:

> Goal 2: Protecting America's Waters. Protect and restore our waters to ensure that drinking water is safe, and that aquatic ecosystems sustain fish, plants and wildlife, and economic, recreational, and subsistence activities.

The most applicable Objective under this goal is Objective 2.2: Protect and Restore Watershed and Aquatic Ecosystems, which states, "Protect the quality of rivers, lakes, streams, and wetlands on a watershed basis, and protect urban, coastal, and ocean waters."

State Drivers and Variables Considered

New Mexico also considered a number of state-specific drivers and variables during the development of the Prioritization Framework. These are each discussed briefly below.

> Water Quality Standards. The water quality standards (WQS) form the basis for assessment and listing of a water body, and influence what waters are prioritized for monitoring and TMDL development. When standards are tentatively identified as incorrect or needing revision, those waters are prioritized for Use Attainability Analysis (UAA).
>
> Funding/Resources. Funding levels and staffing levels are not anticipated to increase in the future to support additional water quality activities, thus staff will have to prioritize within the constraints of current resources levels. The monitoring team (MT) of the Surface Water Quality Bureau (SWQB) currently has six staff to monitor the entire state. The TMDL and Assessment Team (TAT) has four staff, of which two are dedicated TMDL writers. The other two staff are responsible for performing

assessments, development of the Integrated Report and List of Impaired Waters, and developing UAAs for improperly classified waters in New Mexico.

Water Quality Data. As discussed previously, most assessments are based on relatively limited datasets. Considering the inherent variability in these data due to weather, fires, natural variability, etc., when possible, impairment determinations should be based on as many data as possible.

Population and Land Use Changes. New Mexico's population annual growth rate has been near 0% since 2010, down from a modest 1.5% peak in 2006 (UNM 2014). Some areas (generally, more rural areas) are experiencing population decline, while the Albuquerque metro area and some other urban areas are experiencing significant population growth (AED 2014). However, land use practices may change in areas with steady population figures, such as in the southeastern and northwestern corners of the state where oil and gas industries are actively developing production well sites. These land use and population changes can influence the uses of surface waters as well as the potential pollution sources that may affect the quality of these waters.

Recreational Activity. New Mexico's larger, perennial surface waters are substantially utilized for recreation due in part to the relatively limited number of perennial waters in the state. Swimming, boating, and fishing are the primary recreational activities that the CWA strives to protect.

Weather. The variability and impacts of weather create challenges for any environmental monitoring program. Whether it is variations in snowpack, drought, scouring floods, or extended periods of unusually warm air temperatures, these conditions can cause water quality conditions that are outside of conditions that were used to develop the WQS. Thus these data may be difficult to assess or may lead to an improper or questionable impairment conclusions during assessment that were largely due to short term conditions. The Assessment Protocols (NMED 2013) detail in what situations weather events may affect the representativeness of the data.

Wildfires. Whether anthropogenic or natural, wildfires impact the landscape. These impacts can be from many factors, such as the loss of vegetation leading to greater rates of erosion, in-stream pollution caused by the suppressants used to combat the fire or the release of nutrients, metals, and organics from soil due to high temperatures. Regardless of the cause, the impacts to nearby surface waters can last for years, if not decades (NMED 2014c). Assessing the water quality of an area after a wildfire can be challenging as it may be difficult to determine the cause of any impairments and when the fire-caused conditions are no longer influencing the watershed. Wildfire impacts on water quality in New Mexico are addressed online at: https://www.env.nm.gov/swqb/Wildfire/ and will be further addressed in a forthcoming memo regarding water quality monitoring in areas impacted by wildfires.

Water Releases and Diversions. Surface waters in the arid southwest are a valuable and limited resource and are highly managed through the water rights process. Releases from reservoirs and diversions from streams during certain times of the year can have significant impacts on instream flow, pollutant concentrations, and the ability of aquatic systems to assimilate pollutants. Careful construction of the field sampling plan to capture all flow conditions, as well as using the most appropriate critical flow condition during TMDL development helps to ensure that waters are protected during all flow conditions.

NPDES Permits. Water pollution comes from two broad categories of sources: point and nonpoint. Nonpoint sources are non-discrete sources, such as stormwater runoff, cattle and wildlife, or atmospheric deposition. Point sources are discrete sources of pollution, most commonly wastewater treatment plants (WWTPs) or other types of treatment facilities that discharge their waste stream directly through a pipe and into a receiving water. Point sources, which include stormwater from urbanized areas as well as construction and industrial activities, are required to have a permit to operate through the National Pollutant Discharge Elimination System (NPDES) program to discharge to a surface water of the State. These NPDES permits contain requirements for monitoring of their waste stream for pollutants of concern as well as maximum concentrations for some, or all, of these pollutants.

Outstanding National Resource Waters. New Mexico has designated certain waters of the state as Outstanding National Resource Waters (ONRWs). These waters are streams, lakes and wetlands that receive special protection against degradation under New Mexico's water quality standards and the federal CWA. Waters eligible for ONRW designation include waters that are part of a national or state park, wildlife refuge or wilderness areas, special trout waters, waters with exceptional recreational or ecological significance, and high quality waters that have not been significantly modified by human activities. ONRWs are identified in the WQS. See http://www.nmenv.state.nm.us/swqb/ONRW/ for ONRW locations in New Mexico.

Water Quality Monitoring Prioritization

As stated in the New Mexico Environment Department (NMED) Surface Water Quality *10-Year Monitoring and Assessment Strategy* (NMED 2010), SWQB's statewide monitoring and assessment efforts provide for the evaluation of all watersheds in New Mexico on a rotational basis and attempt to prioritize data collection needs based on addressing the five questions noted below using available resources.

1. What is the overall quality of waters in the state?
2. To what extent is water quality changing over time?
3. What are the problem areas, and which areas need protection?
4. What level of protection is needed?
5. How effective are CWA projects and programs?

To address these questions, SWQB currently uses a rotating basin approach to monitor surface waters in New Mexico. Within this approach, SWQB staff monitor select watersheds over the course of a year, with an eight year return interval (**Figure 1**). Individual stream and lake assessment units are currently selected within a basin by the SWQB MT with input from other SWQB programs, and feedback received during a public planning meeting. Typically, most perennial streams within a watershed are monitored with an equal level of effort.

Through the Prioritization Framework, the SWQB seeks to refine the current monitoring strategy to better identify and target priority waters, and to focus monitoring efforts on priority waterbodies within a watershed. Prioritization allows the SWQB to target waterbodies that require additional monitoring effort by diverting resources from lower priority waterbodies.

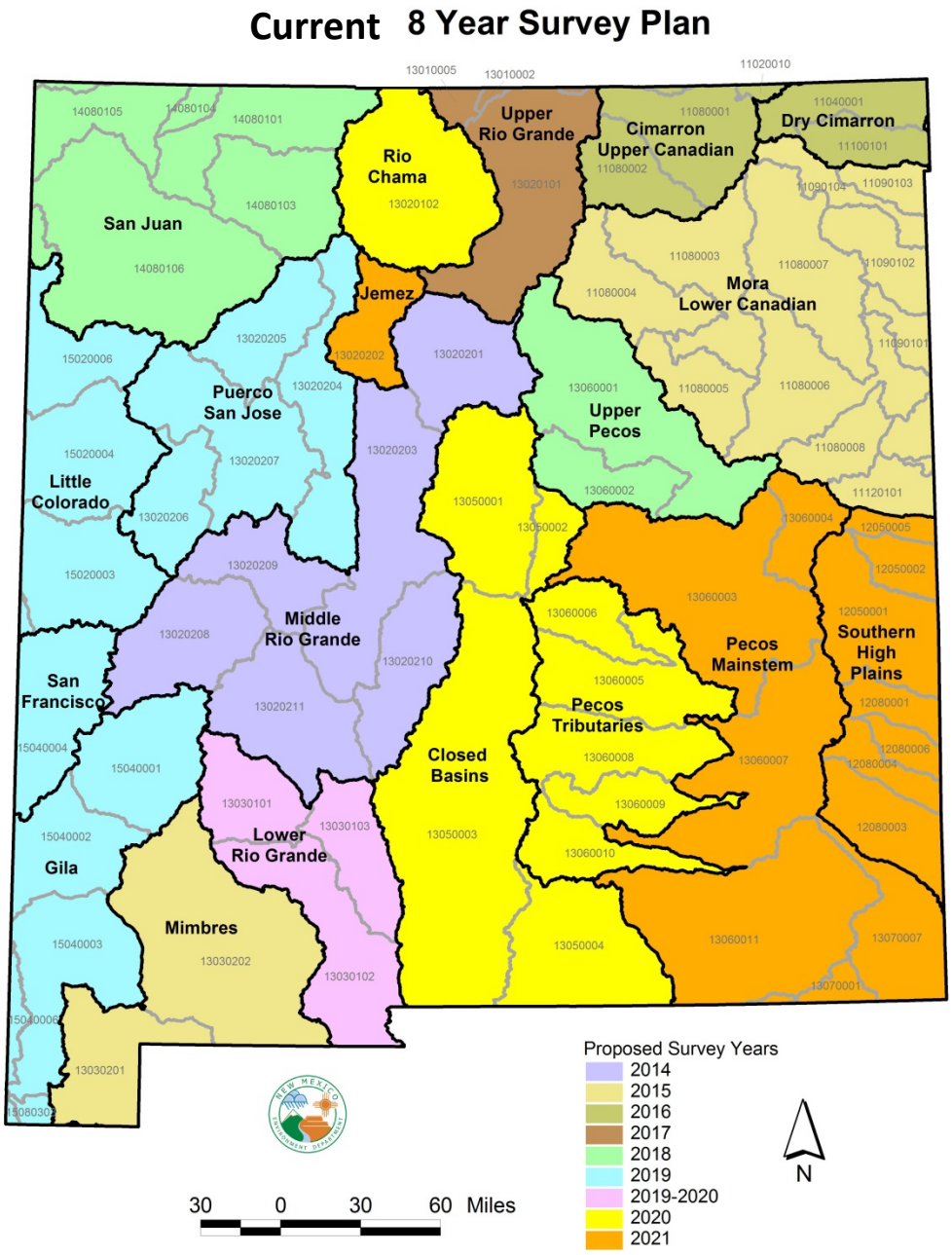

Figure 1. Current 8-year rotating basin monitoring approach used by the SWQB (NMED/SWQB 2010)

Revisions to the Monitoring Strategy

To more effectively capture the seasonal and annual variability in water quality, and to collect more data from the highest priority assessment units, the SWQB will conduct multi-year monitoring as resources allow. Under the Prioritization Framework, surface water monitoring will generally follow the existing eight year,

rotating basin approach currently employed by the SWQB. However, instead of monitoring one-eighth of the state each year, the SWQB MT will monitor one-fourth of the state over the course of two years. An example grouping of the existing basins within the state is shown in **Figure 2**. This approach will allow additional sampling events and more long-term data to be collected at priority sites to help increase the confidence of assessment conclusions.

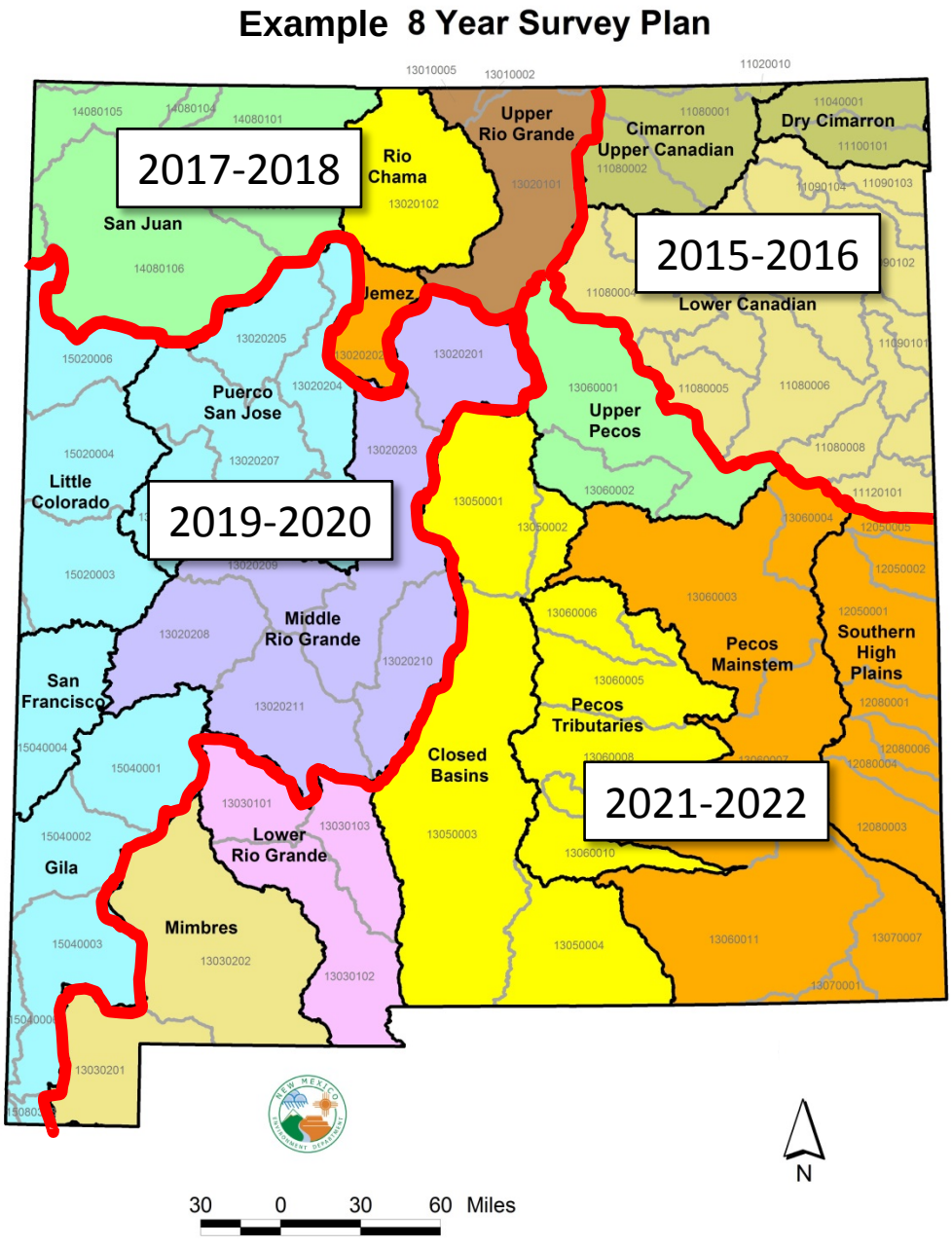

Figure 2. Example grouping of existing basins under the Prioritization Framework

Priority Determination

Water quality data inform standards, assessments and impairment conclusions, and drive the development of TMDLs, stream restoration projects, and point source regulation. The SWQB MT will consider and target the priorities of the SWQB Monitoring, Assessment, and Standards Section (MASS), Watershed Protection Section (WPS), Point Source Regulation Section (PSRS), watershed groups, and stakeholders by designing water quality surveys that incorporate the goals and priorities of these groups.

Outreach and Collaboration

The SWQB evaluates all existing, high quality, and readily available data to determine whether surface water quality standards are being attained. Although the SWQB MT currently generates the majority of data used for assessment determinations, other groups also collect water quality data in New Mexico, including the SWQB PSRS and WPS, watershed groups, municipalities, and other state and federal agencies. While these groups typically conduct monitoring to meet the specific needs of their programs, there are often common goals and opportunities for collaboration and data sharing that can augment the data available for surface water quality assessments.

In an effort to make assessment conclusions and water management decisions with as many high quality data as possible, the SWQB MT will dedicate resources to collaboration efforts and collecting data generated by outside entities to help ensure that as many of the data as possible meet the rigorous quality assurance and quality control (QA/QC) requirements. By reaching out to water quality data collectors before monitoring begins, via email, phone and public meeting, the SWQB MT and the SWQB QA officer (QAO) can promote and train proper QA/QC procedures to prospective data submitters. These QA/QC procedures are essential to ensure high quality data are collected, and are a requirement of the SWQB Assessment Protocols (APs).

The SWQB MT will also work closely with the SWQB WPS to align monitoring locations, field visits, procedures, and protocols to maximize data, minimize duplication of effort, and ensure data usability from stream restoration effectiveness monitoring projects. Whenever possible, SWQB MT will provide documentation support, training, and resources to WPS staff and their contractors. Documentation support would include review and revision of QA/QC documents, sampling and analysis plans, and reporting. Training would include demonstrations of standard operating procedures and other relevant protocols. When resources allow, SWQB MT may offer WPS staff, their contractors, and cooperators other assorted resources such as monitoring equipment and chemical analysis of water samples.

Intra-Basin Segment Priority Determination

The SWQB MT currently conducts routine monitoring of selected stream and lakes assessment units in New Mexico. These monitoring locations are selected based on information collected via coordination with other SWQB sections, watershed groups, land management agencies, private landowners, and the public. Within the Prioritization Framework, this coordination and outreach process has been formalized to allow the SWQB MT to target stream and lake assessment units that meet a wide range of programmatic and public priorities and focus resources appropriately. A variety of factors will be incorporated into a scoring matrix to determine a preliminary, numeric prioritization for each stream and lake assessment unit (AU) within a survey basin. A preliminary list of factors and associated prioritization scores are listed in **Table 1**. Each factor is

assigned to a broader category (e.g., TMDL) as specific factors are more closely associated with certain groups than others.

Based on the prioritization scoring, resource availability, and other factors associated with the upcoming survey season (e.g., driving time to remote stations in a particular sub-basin), the SWQB MT will assign each stream and lake AU a priority ranking of "primary", "secondary", or "tertiary". The priority ranking will define the relative level of effort that each stream and lake AU will receive over the course of the two-year survey. The anticipated number of samples for each monitoring location per year for primary, secondary, and tertiary stream and lake AUs are listed in **Tables 2 and 3**, respectively.

Table 1. Preliminary priority factors and associated maximum points for the prioritization of monitoring locations in New Mexico

Category	Priority Factor	Maximum Points
Watershed Protection / Nonpoint Source	Water Quality Improvement Priority	2
	Water Quality Protection Priority (ONRW)	1
	Restoration with Effectiveness Monitoring	-1
	Restoration without Effectiveness Monitoring	2
Point Source	NPDES Discharge	1
	NPDES Discharge – Impaired	1
	Upgraded Facility Since Previous Monitoring	1
	NPDES Permit Renewal	1
	MS4/sMS4 Permit – Urban Areas	1
TMDL	Existing TMDL/TMDL Alternative	1
	Impairment without a TMDL	2
	Previously Unmonitored/Unassessed Perennial Water	1
	High Impairment Severity	1
Monitoring	Standards Review Needed	2
	Best Available Reference Site	1
	Monitoring Team Priority	2
	Drinking Water Supply	1
Public	Stakeholder Priority	1-3
	Ongoing Monitoring - SWQB Collaboration (non-WPS)	-1
	High Use/Recreation	1

Table 2. Proposed stream AU samples for a two-year survey[a]

	Primary	Secondary	Tertiary
Chemistry	6/6	4/4	1/1
Biological-Habitat	1/1	1	0[c]
Nutrients[b]	1/1	1	1
Temperature	1/1	1/1	0[c]

(a) The nomenclature used in the table is the following: #/# indicates the number of samples (in the case of Chemistry and Biology-Habitat) or the number of data set collections (e.g., thermograph deployments for Temperature) that will be scheduled in year one and year two, respectively, of the survey period. A single number indicates that the event will be scheduled during a single year of the survey.
(b) Refers to all of the response parameters needed for nutrient assessment (dissolved oxygen (DO) probe long term deployment, chlorophyll a, and diatom community). TN/TP samples are included in the "Chemistry" activity.
(c) Biological – Habitat and Temperature will be monitored in Tertiary River and Stream AUs as resources allow.

Table 3. Proposed lake AU samples for a two-year survey[a]

	Primary	Secondary	Tertiary[c]
Nutrients[b]	3/3	2/2	0
Metals	2/2	2	0
Radiochemistry	2	2	0
Organics	2	2	0

(a) The nomenclature used in the table is the following: #/# indicates the number of samples that will be scheduled in year one and in year two, respectively, of the survey period.
(b) Refers to all of the parameters needed for nutrient assessment (nutrient samples, DO profile, chlorophyll a, phytoplankton, and secchi depth).
(c) Monitoring in Tertiary Lake AUs will be performed as resources allow.

Priority Factor Descriptions

Each of the Categories and Priority Factors are described below.

Watershed Protection/Non-Point Source

- **Water Quality Improvement Priority**. These watersheds are priorities for implementation and/or restoration projects, and have an accepted watershed-based plan. As of early 2014, New Mexico had 24 streams in 45 12-digit Hydrologic Unit Code (HUC) watersheds with completed watershed-based plans. Generally, these plans focus on streams with TMDLs that describe water quality impairments. This list of priority watersheds will increase as additional watershed-based plans are completed. As of late 2014, the priorities are located in the El Paso-Las Cruces, Pecos Headwaters, Rio Santa Barbara, and Cimarron watersheds. Any Water Quality Improvement Priority segment will receive two priority points.
- **Water Quality Protection Priority.** Designation as an ONRW is intended to ensure water quality is maintained or improved following designation, and will receive priority point Waters eligible for ONRW designation include those within National or State Parks, wildlife refuges, wilderness areas, Special Trout Waters, waters with exceptional recreational or ecological significance, and other high

quality waters not significantly modified by human activity. ONRW designation does not limit existing uses as long as these uses do not degrade water quality from levels present at the time of designation. The antidegradation provisions for ONRWs are contained in the WQS at 20.6.4.8 New Mexico Administrative Code (NMAC). Special care will be taken when monitoring ONRW assessment units, because few (or no) data were collected from some ONRWs. Any data collected from these streams will establish baseline conditions, and should reflect representative conditions.

- **Restoration with Effectiveness Monitoring.** Whether or not a restoration project has been effective for improving water quality represents a common data need. Restoration projects often include monitoring components that may provide sufficient data for assessment, and the SWQB MT may need to collect fewer data from these sites. The SWQB MT will augment effectiveness monitoring by allocating resources, as available, for chemical analysis, training, and equipment provided that such assistance is not already the responsibility of a contractor. Due to existing effectiveness monitoring activities, these AUs will be deprioritized a single point for monitoring by SWQB MT staff.
- **Restoration without Effectiveness Monitoring.** On the other hand, restoration projects often are not of sufficient duration to permit sufficient collection of post-implementation data. For example, on-the-ground work may occur during the last year of a project, and in some cases additional monitoring would not be conducted without SWQB MT support. Assessment units that have received implementation/restoration efforts without effectiveness monitoring since the previous monitoring cycle will be prioritized two points for routine monitoring.

Point Source

- **NPDES Discharge.** Any AUs receiving one or more NPDES discharges will receive one priority point.
- **NPDES Discharge – Impaired.** Any AU that has one or more NPDES dischargers, and also has an impairment related to the NPDES discharge (e.g., nutrients) will receive one additional priority point. If it is unknown whether the NPDES discharge is contributing to the impairment, the AU will still receive one additional priority point.
- **Upgraded Facility Since Previous Monitoring.** An upgraded or significantly altered NPDES facility can have a large influence on the receiving stream, and will receive a priority point.
- **NPDES Permit Renewal**. Any AUs receiving discharges from a NPDES facility that is expected to receive new pollutant discharge limitations during the next permit revision will receive an additional priority point.
- **MS4/sMS4 Permit – Urban Areas.** Areas that currently have, or are planned to receive, a municipal separate storm sewer system (MS4) or small MS4 (sMS4) permit will receive a priority point. SWQB will coordinate with the permittee(s) for monitoring requirements and water quality goals associated with the permit(s).

TMDL

- **Existing TMDL/TMDL Alternative.** AUs with existing TMDLs or TMDL alternatives (Category 4a or 4b) will receive a priority point to evaluate effectiveness or inform revision of the TMDL or TMDL alternative.

- **Impairment without a TMDL.** AUs with 303(d)/305(b) Integrated Report and List of Assessed Waters (IR) Category 5 (not attaining standards) will receive two priority points to further evaluate and/or verify the impairment determination and provide support for a TMDL or TMDL alternative.
- **Previously Unmonitored/Unassessed Perennial Water.** This includes perennial waters designated as IR Category 3. AUs are listed in these categories if there are no or insufficient data and information that meet requirements to support an assessment conclusion for some or all uses. One priority point will be awarded to these AUs.
- **High Impairment Severity.** The impairment severity expresses the magnitude of impairment with respect to the water quality standards. See the TMDL Prioritization section below for additional information. A single priority point will be given to the most severely impaired AUs.

Monitoring

- **Standards Review Needed.** Assessment units with potentially incorrect water quality standards that may or may not be classified in the Integrated Report as Category 5b are a monitoring priority to inform a standards review and potential revision or UAA and will receive two priority points.
- **Best Available Reference Site.** Reference sites are often used to establish baseline conditions to develop standards and assessment criteria. Reference sites will be selected for specific parameters (e.g., temperature, sediment, fish community), as needed.
- **Monitoring Team Priority.** This is a subjective factor based on the institutional knowledge and experience of the SWQB MASS. Priorities can include monitoring for potential AU splits, special investigations, AUs with new stressors since the previous survey, marginally attaining AUs that could become impaired with small watershed changes, etc. Up to two priority points can be assigned per segment based on Monitoring Team judgement.
- **Drinking Water Supply.** Addressing source water protection is an EPA priority. Assessment units containing one or more municipal surface water intakes will receive a priority point.

Public

- **Stakeholder Priority.** Based on formalized outreach and public planning meeting feedback, stakeholder priorities will be incorporated into the scoring matrix. AUs will be awarded a point, up to a maximum of three, for every stakeholder sector (e.g., private individual; watershed group; land management agency/owner) that identifies the AU as a priority. These external priorities can be received at any point during the planning process. Formalized outreach implementation procedures are listed in the Implementation section below.
- **Ongoing Monitoring – SWQB Collaboration (non-WPS).** Private citizens, watershed groups, or land management agencies/landowners who conduct water quality monitoring and plan to submit data to SWQB for assessment will potentially receive support from SWQB, and the monitored AU will be deprioritized by a point by SWQB MT. This factor is intended for groups not working under contract for SWQB. WPS effectiveness monitoring (conducted under contract) is considered in the WPS category above, and is exempt from this factor.
- **High Use/Recreation.** Sites that are identified by SWQB MT staff or through the outreach process as experiencing high recreational use will be prioritized over sites that experience minimal recreation use. One point will be assigned to high recreation segments.

Monitoring Implementation

Rotating-Basin Survey Design

The SWQB's new Prioritization Framework will maintain the eight-year basin rotation as outlined in Section 3.0 in the *10 Year Monitoring and Assessment Strategy*, and will continue to employ the targeted approach methodology, as described above. Whenever possible, monitoring will be conducted over a two-year period.

For each monitoring project, typically at the basin scale, Primary, Secondary, and Tertiary monitoring locations will be established based on the criteria described in Table 1 and the availability of resources. The proportion of primary, secondary, and tertiary sites is not a fixed value, but will depend on the unique variables presented in each survey basin. Primary AUs will be monitored the most over the course of the two-year survey; Tertiary AUs will be monitored the least. The priority rankings will be reevaluated after the first year of monitoring to determine if resources should be shifted towards or away from certain AUs.

Public Outreach

Public outreach will be conducted as a joint effort between MASS, WPS, and PSRS. Targeted, direct outreach will occur to watershed groups, land managers (U.S. Forest Service (USFS), Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (FWS), private ranches, State Parks, State Lands), municipalities, NPDES permittees, and concerned citizens. The SWQB MT staff will work with WPS and PSRS staff to get contact info for watershed groups, NPDES permittees, and concerned citizens. Before the first year of monitoring, SWQB staff will conduct public outreach through email and phone correspondencein December/January to announce the upcoming survey and solicit input for the Field Sampling Plan (FSP). WPS staff will be available for more detailed discussions to help cooperators relate their priorities to the MT. The SWQB MT will also develop an online opinion survey to encourage submission of information. This outreach will allow public priorities to be considered in the FSP before distribution of a draft FSP or the pre-survey public meeting. SWQB will conduct similar outreach in December/January after the first year of monitoring to assess effectiveness and solicit revisions to the FSP.

External Data Collection and Submittal Coordination

MASS staff will provide technical support and assistance with chemical analysis, as resources allow, to WPS staff, their cooperators, and other agencies to help ensure that high quality, usable, and adequate data are generated through their monitoring efforts. Where possible, the WPS will coordinate that assistance. MASS will individually request previously collected data (with individual contacts rather than only a statewide appeal), to supplement MASS data sets to enable more thorough assessments. WPS will assist with those communications and provide feedback as to where those datasets exist/have been collected.

Non-representative Conditions

As discussed above, conditions such as drought, can lead to water quality data that may be difficult to assess or may lead to an improper or questionable impairment conclusions during assessment. These non-representative conditions, should therefore be handled differently from a monitoring and an assessment standpoint. The state is currently in the process of developing a standardized approach to determining when non-representative conditions exist, and what their policy will be on monitoring and assessing during these conditions.

Special and Supplemental Monitoring

MASS will work with WPS and PSRS to identify high priority assessment units that require monitoring outside of the 8-year rotational cycle. Special monitoring includes, but is not limited to, off-cycle NPDES permit renewals requiring additional stream data, supplemental WPS or stakeholder monitoring, or UAA data collection. Prioritization and level of effort requirements for special sampling projects will be determined on a case-by-case basis.

TMDL Prioritization

Section 303(d)(1)(A) of the CWA, 33 U.S.C. Section 1313 (CWA 2015), requires that states develop a priority ranking system for waters not meeting water quality standards and that the ranking system should be developed "taking into account the severity of the pollution and the uses to be made of such waters." Prior to 2009, TMDL priorities were assigned based on the priorities set forth in the 1996 Consent Decree (US District Court for the District of New Mexico 1997). After the dismissal (US District Court for the District of New Mexico 2009) of the Consent Decree in 2009, all impaired waterbodies were designated as high priority, but were not further ranked. The "TMDL schedule" field in the 303(d)/305(b) Integrated List of Impaired Waters was previously based on the rotating basin approach for water quality monitoring; specifically, TMDLs for a particular waterbody-pollutant pair were scheduled for completion two years after the water quality survey was completed. However, under the Prioritization Framework, the SWQB will plan the development of TMDLs and TMDL alternatives using a priority ranking system based on the factors shown in **Figure 3**.

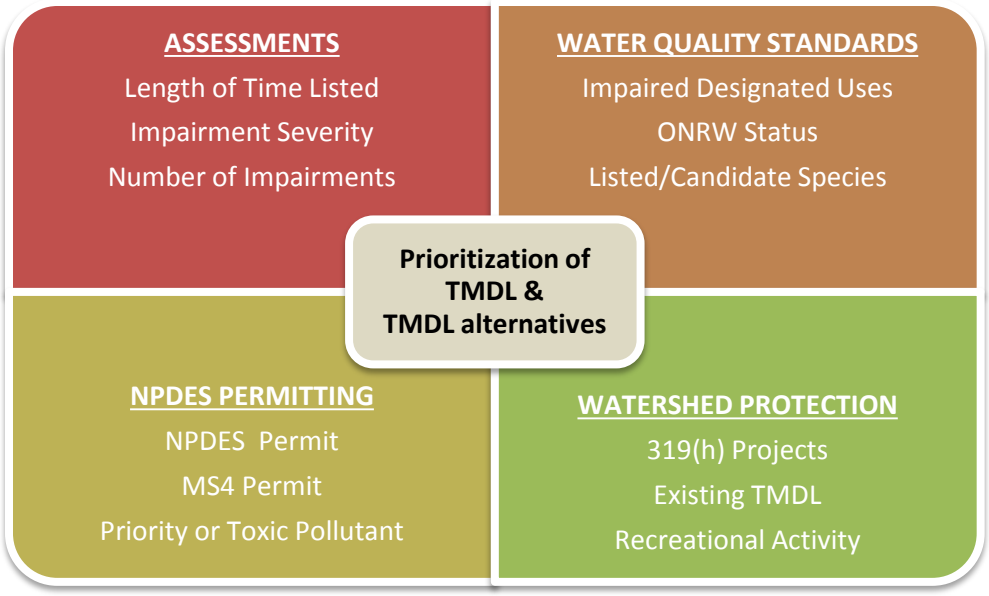

Figure 3. Factors used to prioritize TMDL and TMDL alternatives development

Prioritization Ranking System

The factors shown in **Figure 3** are equally weighted when used to determine a priority ranking scheme for the development of TMDLs and TMDL alternatives. The factors represent facets of various SWQB programs, including assessment, water quality standards, NPDES permitting, and watershed protection. Each factor shown in **Figure 3** is assigned a preliminary scoring scheme, as listed in **Table 4**. The rational for each factor is as follows:

- Length of Time Listed. The SWQB aims to have an impairment addressed within eight years (four listing cycles) of its first listing on the 303(d)/305(b) Integrated List of Impaired Waters. This is consistent with EPA guidance (EAP 2014a) suggesting that states address impairments within 8-13 years of its first appearance on the 303(d)/305(b) Integrated List of Impaired Waters. While the SWQB strives to address each impairment within 8-13 years with a TMDL or TMDL alternative, the waterbody may not achieve water quality standards within that time frame.
- Impairment Severity. The impairment severity represents the magnitude of impairment with respect to the water quality standards. For numeric criteria, this will generally be determined using the exceedance ratio which expresses how many samples in the dataset exceeded the water quality standard and by how much the water quality standard is exceeded. For narrative criteria, the impairment severity score will be detailed in the applicable assessment protocol.
- Number of Impairments. Assessment units with more than one impairment will be given a higher priority to be addressed with TMDLs or TMDL alternatives.
- Impaired Designated Uses. The "fishable and swimmable" goals of the CWA are described in 101(a)(2) (EPA 2014b). The New Mexico Water Quality Standards for Interstate and Intrastate Surface Waters define designated uses in 20.6.4.900 NMAC. Development of TMDLs and TMDL alternatives for waterbodies with impaired CWA Section 101(a)(2) uses will be a priority. These uses

include aquatic life and contact uses. Other priority designated uses include public water supply, irrigation, and wildlife habitat, followed by all other designated uses.

- ONRW Status. Water quality impairments on ONRWs will be a priority for TMDL and TMDL alternative development. ONRWs are listed in 20.6.4.9(D) NMAC.
- Listed/Candidate Species. The presence of riparian or aquatic federal or state listed threatened, endangered, sensitive, and candidate species will be a priority for TMDL and TMDL alternative development. Lists of species can be found from the FWS (US Fish and Wildlife Service 2014) or from the New Mexico Department of Game and Fish. Waterbodies with both aquatic and riparian species will receive a higher score than a waterbody with only aquatic or only riparian species.
- NPDES or MS4 Permits. The presence of a MS4 or NPDES permitted discharge to an impaired waterbody will be a priority for TMDL and TMDL alternative development. Multiple permits and major dischargers will cause higher scores than single permits or minor dischargers. A facility must also have the potential to cause or contribute to the impairment, based on effluent water quality data, reasonable potential analysis, or staff input. A list of NPDES permits can be retrieved from the SWQB.
- Priority or Toxic Pollutant. A water quality impairment for either an EPA-defined priority (EPA 2014d) or toxic (US Government Publishing Office 2015) pollutant, as well as nutrients, will be a priority for TMDL and TMDL alternative development. Alternatively, New Mexico may consider the top impairments in the state (i.e., nutrients; *E.coli*; temperature; sediment) as a priority for TMDL and TMDL alternative development.
- 319(h) Projects and Existing TMDL. Waterbodies are generally eligible for CWA 319(h) funding once a TMDL has been developed and often addressing one non-point source of impairment may positively affect other non-point sources of impairment. Therefore, SWQB will prioritize the development of TMDLs and TMDL alternatives on waterbodies for which a TMDL has not yet been developed or for which a 319(h) project has not yet been initiated.
- Recreational Activity. Impairments on waterbodies that are more heavily used by the population will be a priority for the development of TMDL and TMDL alternatives. These scores will be determined annually from county, tourism, or park visitation statistics. The definition of high, moderate, and low are to be determined on a percentage basis. Initially the state will assign a high priority to the top 25% of the recreated areas by usage. The state may narrow this approach after the first application of the scoring system.

Implementation

Point values for each factor and the total score for each AU will be tracked in the SWQB Surface water QUality Information Database (SQUID). TMDL prioritization scoring for each AU will be first introduced as part of the 2016-2018 303(d)/305(b) Integrated List of Impaired Waters and scores for each AU will updated as part of each of the following listing cycle.. In order to develop the list of long-term priorities for TMDL and TMDL Alternative development for the 2016-2022 long-term commitments, the state will apply the scoring matrix in **Table 4** to information from the 2014-2016.303(d)/305(b) Integrated List of Impaired Waters. The state will select a percentage of the highest scoring Assessment Units for the list of 2016-2022 long-term priorities to be submitted as a draft list to EPA in July 2015 with the final list being submitted as part of the 2016-2018 303(d)/305(b) Integrated List of Impaired Waters in April 2016. A draft list of annual commitments for TMDL and TMDL alternatives will be provided to EPA Region 6 by September 30 of each calendar year and a final list will be provided by December 31 of each calendar year.

Table 4. Scoring matrix for TMDL and TMDL alternative prioritization

Points	Length of Listing	Impairment Severity[a]	Number of Impairments	Impaired Designated Uses [b]	ONRW Status	Aquatic/Riparian Listed/Candidate Species	NPDES/MS4 Permit[c]	Priority or Toxic Pollutant	319(h) Projects	Existing TMDL	Recreational Activity
4	≥4 cycles	≥75%	≥>4	PWS or contact	Yes	Both	>1 Permit, at least 1 major	Yes	0	No	High
3	3 cycles	50-74%	3	ALU	--	Aquatic	1 Permit, major	--	1	--	Moderate
2	2 cycles	25-49%	2	IRR or WH	--	Riparian	>1 Permit, no major	--	2	--	Low
1	1 cycle	<25%	1	any DU	--	--	1 Permit, minor	--	≥3	Yes	--

(a) Example shown here based on exceedance ratios of numeric criteria

(b) ALU= aquatic life use. PWS=public water supply. IRR= irrigation. WH=wildlife habitat. DU = designated use..

(c) Points are only awarded if there is at least one permit and the permitee has the potential to cause or contribute to the potential impairment. Major = major discharger. Minor = minor discharger.

For reporting purposes, the TMDL prioritization score for each assessment unit will be converted to "high", "medium", or "low" priority based on the following scale: High (≥34 points), Medium (33-23), Low (<22). TMDL and TMDL alternatives, however, will generally be prepared by SWQB staff in order of highest score to lowest score; the number of assessment units addressed in any given year will be based on staff resources and the complexity of the specific TMDL and TMDL alternatives. How the TMDL and TMDL alternatives are bundled together in separate documents and assigned to staff will be determined annually by the TMDL Coordinator. TMDL documents may continue to be bundled together based on the HUC 8 watershed or another approach may be more efficient, such as bundling the documents by pollutant or designated use. The state plans to address an average of 15% of the long-term priority waterbodies annually between 2016 and 2022. The state expects that will result in 10-15 TMDL or TMDL alternatives annually.

TMDL Alternatives

Assessment units that are assigned Category 5 constitute New Mexico's CWA Section 303(d) List of Impaired Waters. Section 303(d), and supporting regulations, requires states to develop a TMDL for each impaired assessment unit – pollutant combination. TMDLs establish pollution reduction goals necessary for an impaired water to attain applicable water quality standards (WQS).

EPA regulations also recognize that alternative pollution control requirements (i.e., "TMDL Alternatives") may eliminate the need for a TMDL because both mechanisms (TMDL or TMDL alternative) would achieve the same surface water quality goal. Specifically, TMDLs are not required if technology-based effluent limitations, more stringent effluent limitations, and/or other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are stringent enough to implement an applicable WQS within a reasonable period of time (see 40 CFR 130.7(b)(1) and Appendix H of SWQB's most recent Assessment Protocol - http://www.nmenv.state.nm.us/swqb/protocols/2014/).

New Mexico, like many other states, has traditionally used TMDLs as the primary mechanism for addressing impaired water. However, the EPA is encouraging the use of TMDL alternatives as a regulatory option to TMDLs for restoring impaired waters. Similar to TMDLs, TMDL alternatives focus on an impaired assessment unit – pollutant combination including a water quality target, describe pollution controls and reduction goals necessary to achieve WQS, and establish point and nonpoint source loadings required to attain these goals. If a point source is contributing to the impairment, the TMDL alternative (and NPDES permit) should include (1) water quality based effluent limits (WQBELs) or other requirements to meet WQS in the impaired AU, (2) a schedule of compliance to meet WQBELs or other requirements, and (3) an in-stream monitoring requirement to demonstrate the WQS are being met. New Mexico is currently considering the use of the following TMDL alternatives as part of the state's Prioritization Framework.

Use Attainability Analysis (UAA). Although New Mexico has relatively few surface waters, the state has more variety in landscapes than many other states. Elevations range from 3,000 ft. to over 13,000 ft. and environments range from desert to alpine forest. As a result, ecological diversity in the state is enormous. New Mexico contains eight Level III ecoregions, and fifty-five Level IV ecoregions (EPA 2015). Many of the state's streams and rivers are located within multiple ecoregions, making proper classification of aquatic life uses very difficult. As a result, an important process in New Mexico is the proper classification of streams through the Use Attainability Analysis process. However, the goal of a TMDL or TMDL alternative should be to restore the waterbody in order to meet water quality standards; however, the UAA is meant to correct an improper use designation. While a UAA may result in a waterbody being removed from the impaired waterbodies list because the impaired use no longer applies to that waterbody, no improvements have been made to the water quality. Thus, UAAs will not be considered TMDL Alternatives.

Category 4b Demonstrations. This TMDL alternative is for waters that are impaired for one or more designated uses, but do not require the development of a TMDL because other pollution control requirements are reasonably expected to result in the attainment of the water quality standards in the near future. Category 4b demonstrations are typically initiated by outside entities and developed with input and review by the state. New Mexico recently completed its first category 4b demonstration project with Los Alamos National Securities (LANS) for dissolved copper in Sandia Canyon (NMED 2014d). As Category 4b demonstrations are part of the 303d/305b Integrated Report via their inclusion on the Integrated List (Appendix A of the Integrated Report), the SWQB views these documents as part of the New Mexico Water Quality Management Plan (WQMP). As such 4b demonstrations and TMDL have equal standing for EPA's development of NPDES permits as well as State Certification under section 401 of the Clean Water Act.

Protective TMDLs. TMDLs have historically been developed only after a water body is determined to be impaired for one or more pollutants. However, since a TMDL is a calculation that determines the maximum amount of a pollutant that a water body can assimilate before it is impaired, it can be developed at any time, regardless of impairment status of the water. Further, TMDLs, once written, can be incorporated into NPDES permits, thus when developed prior to impairment can help ensure that a water body does not become impaired. While TMDLs do not have any direct influence over nonpoint sources of pollution, they do make the associated waters eligible for Section 319 funding through the WPS of the SWQB. In both of these ways, protective TMDLs can help ensure that waters do not become impaired. Protective TMDLs will be prioritized alongside TMDLs for impaired waters, using the same scoring framework described above for TMDL development.

Adaptive Management

One of the strengths of New Mexico's Prioritization Framework is that it continues to evaluate and consider all surface waters in the state for every pollutant with a WQS, but prioritizes monitoring frequency and TMDL development on factors that have relative weights (i.e., scores) and resource availability. Thus, as additional public input is obtained, as resources increase or decrease, or as certain prioritization factors become more important in the future, the state's strategy can evolve without fundamentally changing the mechanics of the overall process.

Monitoring plans and TMDL commitments are made annually, thus the prioritization strategy will be regularly reviewed and updated.

In addition, the final decisions on where to monitor and what TMDLs to write will not be based solely on a numeric score, but will also consider staff, public, and EPA input. For example, if a wastewater treatment plant permit is up for renewal on an impaired water, writing a TMDL for that water, even if not the highest priority numerically, regardless of impairment status, may make sense as the TMDL can inform the design of the plant and will allow the permit limits and monitoring requirements to be correctly written into the facility's permit, helping to ensure that water quality standards are achieved or maintained.

Schedule for Addressing Priority Waters

New Mexico's ability to monitor its surface waters and write TMDLs for impaired waters is based on the resources (i.e., staff) that the state has who are dedicated to these tasks. However, by maintaining the 8-year rotating basin approach for monitoring and considering all surface waters when prioritizing TMDL development, the state is ensuring that no waters will be ignored. In addition, one of the primary factors considered in developing TMDLs will be length of the time that the water has been listed, with higher prioritization given to waters that have been listed as impaired the longest. This will encourage turnover in the TMDL prioritization process and help ensure that all impairments are addressed as quickly as possible.

Public Engagement

New Mexico's existing public engagement progress for the establishment of water quality priorities exceeds what is required by the EPA. This includes a robust website with links to relevant documents, public notices, and key staff contact information. In addition, New Mexico encourages public comment on their water quality-related activities through email notification, newspaper notices, public meetings and direct communication with permitees.

The existing public engagement process will be augmented using this Prioritization Framework through additional outreach prior to each monitoring season. This outreach will include targeted contact with known watershed groups, state parks, national forests, NPDES permittees, and other entities located within the boundaries of the watershed(s) to be included in the upcoming monitoring activities. The SWQB's email list will also be used to send a notification to any and all interested parties about the upcoming activities. Once this preliminary outreach has been conducted, the FSP will be developed and then presented publicly at one or more public meetings held in appropriate locations within the monitoring basin to encourage members of the public to attend and interact directly with staff.

Quality Assurance

EPA has issued Order 5360.1 A2, *Policy and Program Requirements for the Mandatory Agency-wide Quality System* to implement the requirements of 40 CFR 31.45 and other federal regulations. According to the order, it is EPA

policy that all environmental programs performed by EPA or directly for EPA through EPA-funded extramural agreements shall be supported by individual quality systems that comply fully with the American National Standard ANSI/ASQC E4-1994, *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs*.

To comply with 40 CFR 31.45 and meet the requirements of EPA Order 5360.1 A2, organizations funded by EPA are required to have a quality system that is documented in a Quality Management Plan (QMP). The QMP describes the organization's quality system for planning, implementing, documenting, and assessing the effectiveness of activities supporting environmental data operations and other environmental programs. The requirements of the QMP apply to all environmental programs funded by EPA that acquire, generate, compile, or use environmental data and technology.

The Quality Management Plan for New Mexico Environment Department Surface Water Quality Bureau Environmental Data Operations is based on the ten elements listed in *EPA Requirements for Quality Management Plans*, EPA QA/R-2, March 2001. Following the organization of *EPA Requirements*, element one describes the Bureau's quality policy, the scope of the quality system and the responsibilities of management; element two lists the quality system components; and elements three through ten document the Bureau's quality system.

According to EPA Region 6 policy, the QMP is valid for a period of one year from the date of approval by EPA. However, *EPA Requirements for Quality Management Plans* requires the recipient to modify the QMP if any of the following occur:

- major changes in mission and responsibilities, such as changes in the delegation status of a program;
- reorganization of existing functions that affect programs covered by the QMP; or
- EPA-issued assessment findings requiring corrective actions and response.

The general objectives and goals of the quality system are to ensure quality in the work processes and products of the Surface Water Quality Bureau. The quality system includes planning, implementing, documenting, and assessing work performed by the Bureau. The Bureau is committed to maintaining a quality system that provides confidence that the products generated by its environmental data operations meet the requirements of internal and external customers.

The planned and systematic actions that ensure environmental data operations are of sufficient quality to meet customer requirements are called Quality Assurance (QA). Quality Assurance includes Quality Control (QC), which is the system of technical activities, including data verification and validation procedures, which measures the attributes and performance of a process, item, or service against defined standards.

The SWQB Quality Assurance Officer (QAO) has the authority for planning, assessing, and improving the Bureau's quality system. The QAO is responsible for the preparation, approval, and distribution of the QMP and Quality Assurance Project Plans (QAPPs). The QAO has the authority to require quality-related training. The QAO is responsible for ensuring the proper review of QC data and for the review of new or of alternative methods and procedures for conducting environmental data operations. The QAO has the authority to ensure implementation of work processes according to approved procedures, conduct quality system assessments, and implement quality system improvement activities. The QAO has the authority to ensure quality documentation in the procurement of products; and to require the inclusion of quality

requirements in proposals, workplans, and contracts; and to require persons or organizations that collect environmental data, including contractors, to conform to the applicable QAPP.

The QAO is directly supervised by the leader of the Standards, Planning, and Reporting (SPR) Team. SPR Team members support the QAO as needed. For the purposes of quality assurance, however, the QAO reports to the SWQB Bureau Chief. The QAO communicates with senior management through the SWQB Bureau Chief.

References

Albuquerque Economic Development (AED). 2014. Demographics and Population of Albuquerque metro area. Available at: http://www.abq.org/Demographics.aspx

CWA, 40 C.F.R. 401.15 (CWA). 2015. Available at: http://www.epw.senate.gov/water.pdf

New Mexico Environment Department (NMED). 2010. New Mexico Surface Water Quality 10-Year Monitoring and Assessment Strategy. Available at: http://www.nmenv.state.nm.us/swqb/MAS/monitoring/10-YearMonitoringPlan.pdf

_____. 2013. State of New Mexico Procedures for Assessing Standards Attainment for the Integrated 303(d)/305(b) Water Quality Monitoring and Assessment Report. May. Santa Fe, NM. Available at: http://www.nmenv.state.nm.us/swqb/protocols/2014/

_____. 2014a. NPDES Permits in New Mexico. Available at: http://www.nmenv.state.nm.us/swqb/Permits/

_____. 2014b. Integrated 303(d)/305(b) Water Quality Monitoring and Assessment Report. September 9, 2014. Santa Fe, NM. Available at: http://www.nmenv.state.nm.us/swqb/303d-305b/

_____. 2014c. Wildfire Impacts on Surface Water Quality. Available at: http://www.nmenv.state.nm.us/swqb/Wildfire/

_____. 2014d. Integrated Reporting Category 4b Demonstration: Upper Sandia Canyon Assessment Unit AU NM-9000.A_047 Dissolved Copper Pollutant Pair. Santa Fe, NM. Available at: http://www.nmenv.state.nm.us/swqb/303d-305b/2014-2016/LANL/index.html

New Mexico Department of Game and Fish (NMDGF). 2014. Threatened and Endangered Species of New Mexico, 2014 Biennial Review. Available at: http://www.wildlife.state.nm.us/download/conservation/threatened-endangered-species/biennial-reviews/2014-Biennial-Review-DRAFT-Final.pdf

Surface Water Quality Bureau (SWQB). 2010. State of New Mexico Surface Water Quality 10-Year Monitoring and Assessment Strategy. March. Santa Fe, NM. Available at: http://www.nmenv.state.nm.us/swqb/MAS/monitoring/10-YearMonitoringPlan.pdf

UNM Bureau of Business and Economic Research (UNM). 2014. Population Estimates and Projections for the State of New Mexico. Available at: https://bber.unm.edu/demograp2.htm

U.S. District Court for the District of New Mexico. 1997. Forest Guardians of the Southwest Environmental Center (Plaintiffs) v. Carol Browner, in her official capacity as Administrator, EPA (Defendant): Joint Motion for Entry of Consent Decree. April 29. Available at: http://www.nmenv.state.nm.us/swqb/cdnm.pdf

_____. 2009. Forest Guardians of the Southwest Environmental Center (Plaintiffs) v. Carol Browner, in her official capacity as Administrator, EPA (Defendant): Motion to Terminate Consent Decree and Dismiss Action. April 21. Available at: http://www.nmenv.state.nm.us/swqb/documents/swqbdocs/MAS/TMDLs/ConsentDecreeDismissalOrder04-21-2009.pdf

U.S. Environmental Protection Agency (EPA). 2003. Elements of a state water monitoring and assessment program. Assessment and Watershed Protection Division, Office of Wetlands, Oceans, and Watersheds. March. EPA 841-B-03-003. Washington, D.C. Available at: http://water.epa.gov/type/watersheds/monitoring/statemonitoring.cfm

_____. 2014. EPA Strategic Plan. Available at: http://www2.epa.gov/planandbudget/strategicplan

_____. 2014a. New Policies for Establishing and Implementing Total Maximum Daily Loads. Available at: http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/ratepace.cfm

_____. 2014b. Clean Water Act Section 101(a). Available at: http://water.epa.gov/lawsregs/guidance/101a.cfm

_____. 2014c. Clean Water Act Section 101(a). Available at: http://water.epa.gov/lawsregs/guidance/101a.cfm

_____. 2014d. Priority Pollutants. Available at: http://water.epa.gov/scitech/methods/cwa/pollutants.cfm

_____. 2015. Ecoregions of New Mexico. Available at: http://www.epa.gov/wed/pages/ecoregions/nm_eco.htm

U.S. Fish and Wildlife Service (FWS). 2014. Endangered Species. Available at: http://www.fws.gov/endangered/

U.S. Government Publishing Office. 2015. Title 40: Protection of the Environment. Available at: http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=fd63445c424b6ce4abe39a59d68923ed&n=pt40.29.401&r=PART&ty=HTML#se40.29.401_115

Appendices

Appendix A
A Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program

A Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program

The Clean Water Act Section 303(d) Program provides for effective integration of implementation efforts to restore and protect the nation's aquatic resources, where the nation's waters are assessed, restoration and protection objectives are systematically prioritized, and Total Maximum Daily Loads and alternative approaches are adaptively implemented to achieve water quality goals with the collaboration of States, Federal agencies, tribes, stakeholders, and the public

"Prioritization" For the 2016 integrated reporting cycle and beyond, States review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals

"Assessment" By 2020, States identify the extent of healthy and CWA Section 303(d) impaired waters in each State's priority watersheds or waters through site-specific assessments

"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

"Alternatives" 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

"Engagement" 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

"Integration" 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

Timeline for Goal Statements
2014 – Engagement
2016 – Prioritization, Protection, Integration
2018 – Alternatives
2020 – Assessment (Site-specific)
2022 – Evaluate accomplishments of the Vision and Goals

Purpose

The purpose of this document is to describe a new, long-term Vision and associated Goals for the Clean Water Act Section 303(d) Program, as well as present implementation plans for achieving the Vision and Goals. Recognizing the significant input from individual states and the Association of Clean Water Administrators (ACWA), EPA is pleased to present this Vision and these Goals to help guide the realization of our clean water goals in a manner that best reflects lessons learned from the past two decades of CWA 303(d) Program implementation and that anticipates new challenges that are likely to present themselves in the coming years.

How Have We Gone About the Task?

EPA and State program managers launched the effort to develop a new long-term Vision and Goals for the program in August 2011. Following a number of discussions and meetings with program managers and staff, the States generated a comprehensive "wish list" of potential program improvements that was then distilled into key issue threads. Over the span of several months, State and EPA participants discussed these issue threads and formulated both a working draft Vision and six Goal statements that would significantly contribute to achieving that Vision.

Throughout the development of the Vision and Goals, EPA and the States were guided by the preeminent importance of successful implementation of our CWA assessment, restoration, and protection activities, in the context of ensuring the use of good scientific and technical information and methods, having appropriate and relevant water quality standards, engaging individuals and organizations that have a role in reducing nonpoint as well as point sources of pollution, facilitating the use of listing and TMDL information by stakeholders, and assessing results to guide adaptive management strategies. EPA and the States recognize that the CWA Section 303(d) Program is only one part of the CWA and one part of how we can drive water quality attainment, but it is a key part – translating the water quality standards and goals of States into analyses and pollution reduction targets that describe a path to clean water. In the summer of 2012, the States and EPA provided the draft Vision and Goals to external stakeholders for their review. As a result of that stakeholder review, additional modifications were made to this document, including clarifications of the Goal statements.

In a parallel effort, in the fall of 2012, the States and EPA also initiated a workgroup to discuss creation of measures that would help track the CWA 303(d) Program's success in light of the new Vision and Goals. The workgroup was tasked with developing a new measure or a set of metrics that would balance (1) State diversity in implementing the Vision and its Goals, (2) the need for national aggregation of information to communicate overall program progress, and (3) guiding principles for measures compiled by the States and EPA over the previous year (for example, measures that reflect incremental progress, are outcome-oriented, and consider reporting burden).

The revised Vision and Goal statements were presented (along with several suggested approaches for program measures, and preliminary implementation plans for Prioritization and Assessment Goal statements), and well–received, at the February 2013 ACWA mid-year meeting.

To provide more detail on the path for achieving the long-term Vision and Goals of the CWA 303(d) Program, the States and EPA developed implementation plans for each Goal statement that contain action milestones and timelines to help States build their individual strategies to achieve the CWA

303(d) Program Vision. These Vision Goal Statements and their implementation plans and milestones, reflect discussions among almost every State, three Tribes, the District of Columbia, Puerto Rico, an interstate organization and EPA at an April 2013 State/EPA Workshop. While no Tribe currently administers the CWA 303(d) Program, Tribal, State and EPA representatives recognize the importance of Tribal perspectives and concerns in implementing the CWA 303(d) Vision.

The revised Vision and Goals , along with the near-final draft implementation plan, were presented at the ACWA meeting in August 2013. Additionally, external stakeholder input was sought on that draft. The product of these extensive efforts is today's version of the Vision and what the States and EPA are now implementing.

Important Considerations

The Vision and Goals presented here are designed to help coordinate and focus EPA and State efforts to advance the effectiveness of the Clean Water Act Section 303(d) Program direction in the coming decade. Prior to this effort, CWA 303(d) Program direction largely had been described through broader CWA program management goals and specific performance measures, such as the EPA's annual National Water Program Guidance and the States' water quality commitments. It is expected that such program goals and performance measures will evolve to reflect this new long-term Vision and Goals, with such changes being proposed and reflected as a part of those processes.

This new, long-term Vision and associated Goals are not regulation, policy, or new mandates. They do, however, provide focus for EPA and State efforts to better manage the CWA 303(d) Program activities to achieve water quality goals for the Nation's aquatic resources such as streams, rivers, lakes, estuaries and wetlands. States and EPA retain their flexibility in how they implement their CWA 303(d) Program responsibilities (including, specifically, identification of impaired waters and development of TMDLs) consistent with existing statutory and regulatory authorities and their individual priorities.

The Goal statements are presented in an order beginning with the cornerstone Goals of Prioritization and Assessment – with the Prioritization Goal as the foundation to guide planning and implementation of the other Goals, and the Assessment Goal to develop a full understanding of the condition of priority areas identified. The next two Goals of Protection and Alternatives pertain to actions that a State may consider to advance its water quality objectives, in addition to TMDL development. Finally, under the Integration and Engagement Goals, coordination of the CWA 303(d) and other CWA program objectives and involvement of stakeholders around mutually identified priorities are key themes to deal with the technical challenges of water quality restoration and protection, limited funding and other resources, and the specific objectives of individual States and their public. The Engagement Goal is a key means to implement the Vision and as a result, is expected to be initiated immediately.

States and EPA encourage their CWA 303(d) Program managers to adopt the Vision concept. We anticipate this Vision will be implemented at two levels. At one level, State and Federal program managers work together and measure their collective progress. At another level, States individually employ their specific strategies to achieve the overall Program Vision and their own specific goals; in concert with the public, States may develop a Vision strategy that outlines a comprehensive, integrated, and iterative approach to addressing the challenge of achieving and communicating water

quality improvements. We believe such State-level Vision strategies can be generated through evaluating the Goals of the long-term Vision at the individual State level. The intent is to generate, through thoughtful discussion and debate, ideas and information on workable approaches for developing and implementing State efforts to achieve the Goals of the Vision and, ultimately, each State's water quality standards. Thus, there will likely be variability in State strategies to achieve the Vision.

Relationship to EPA Strategic Plan Measures for the CWA 303(d) Program

There are also implications for reshaping relevant EPA Strategic Plan measures that reflect the new Vision and Goals. Previous performance measures for the Program have served to draw attention and effort to areas important during those times, such as tracking the number of TMDLs approved. Although it is expected that TMDLs will continue to be the primary feature of the Program, the Program will become better positioned as States and EPA work with stakeholders to carry out this Vision and Goals, to meaningfully capture implementation success through a new measure. States will have flexibility in developing strategies to achieve their Vision Goals, producing information that national tracking will report through a new national measure, and additional metrics, to communicate overall progress and provide accountability.

A workgroup of States and EPA is developing a metric to replace, by FY 2015, the simple tally of TMDLs completed with one that measures the extent of State priority waters addressed by TMDLs or alternative approaches in impaired waters or by protection approaches in waters of existing good quality. The metric will have a defined universe, baseline, and annual targets. Recognizing that TMDLs and alternative approaches may take several years to be developed, and that States engage in actions outside of priority areas, a complementary measure also is envisioned to track incremental progress toward development of TMDLs or alternative approaches in priority areas, as well as such activities outside of priority areas. This complementary metric approach will provide the opportunity for States not only to report on their focused progress within their priority waters, but also to communicate overall progress.

Prioritization Goal

For the 2016 integrated reporting cycle and beyond, States review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals

The intent of the Prioritization Goal is for States to express CWA 303(d) Program priorities in the context of the State's broader, overall water quality goals. The CWA 303(d) Program provides an integrating function because it translates state water quality standards into pollution reduction targets for the point source permitting and nonpoint sources management programs as well as other programs outside the CWA. Linking the CWA 303(d) Program priorities with those of other programs can aid in strategically focusing limited State resources to address priority waters through water quality assessments, TMDL or alternative approaches, water quality protection strategies, implementation actions and follow-up monitoring. Establishing CWA 303(d) Program priorities will lead to more efficient and effective program management, yielding faster progress toward water quality improvement and protection.

While existing CWA 303(d) statutory and regulatory obligations remain in force (including requirements to identify impaired and threatened waters and develop TMDLs for such waters according to a priority ranking and schedule), we believe these requirements can be implemented through the lens of a State's prioritization framework. Prioritization provides a framework for focusing the location and timing of TMDL development efforts and/or alternative actions that are best suited to the water quality goals of each state. In addition to identifying high priority waters, it is also important to identify those waters that will be a lower priority for TMDL development.

The State's CWA 303(d) priority framework should be transparent to the public and clearly address how the States will implement the CWA 303(d) Program Vision and work toward the associated Goals over the next decade. The priorities provide the foundation to guide the planning and implementation of the other CWA 303(d) Vision Goals, and States and EPA will work collaboratively in defining them. Important venues for such State/EPA collaboration include the Performance Partnership Agreement/Performance Partnership Grant (PPA/PPG) discussions and development of CWA State Water Quality Management Plans and CWA Integrated Reports (IRs). The IR process, with its existing provisions for public notice and comment as well as prioritization for TMDL development, is a logical repository for such State prioritization efforts, even if such efforts are developed in other venues such as PPA/PPGs.

States and EPA envision using existing and emerging tools to help develop the priority frameworks. For example, state-wide probability-based water quality surveys can assist States in identifying, based on the State WQS, particular pollutants/stressors and/or geographic areas of the State that may warrant particular attention. Tools like Recovery Potential Screening are emerging as beneficial to States to consider where to invest their efforts for the greater likelihood of success, based on the traits of their geographic area's environment and communities. Some States may have an existing

prioritization process that addresses many of these issues (e.g., use of the rotating basin approach) and thus, States may include their existing efforts as appropriate.

Milestones and Proposed Timeline

1) ACWA surveys States on their current approaches and rationales to prioritizing water quality restoration and protection (e.g., PPA/PPG discussions, biennial impaired waters list, State Water Plans) to establish a baseline of prioritization philosophy. (2013)
2) States provide to EPA, through ACWA, good examples of systematic prioritization processes/products of States, including emerging TMDL Vision Strategies. (2013)
3) EPA and States collaborate on a workshop to present tools to aid priority-setting, such as the Recovery Potential Tool, Healthy Watersheds Initiative, and wetland restoration priority setting tools, as well as to address data availability issues and develop a template to account for State reporting on priorities for TMDL or alternative approaches. (2014)
4) EPA provides training on tools to assist States in the use of State-scale statistically representative survey results for prioritization. (2014)
5) EPA includes in IR guidance for 2016 examples of how IR reporting process can house/reference State prioritization reports, including the appropriate definition and metric for such reporting. (2015)
6) States house/reference State prioritization reports in 2016 IRs, including: priority lists of waters slated for near term (~2 year) TMDL development or alternative approaches; priority waters scheduled for likely TMDL development or alternative approaches over 2016 - 2022; priority waters awaiting management to protect their current condition from degradation; and/or the strategic rationale of the State in setting these priorities, which may include customized Vision Strategies. (2016)

Assessment Goal

By 2020, States identify the extent of healthy and CWA Section 303(d) impaired waters in each State's priority watersheds or waters through site-specific assessment

The purpose of this Goal is to encourage a comprehensive understanding of the water quality status of at least each State's priority areas. These assessments are a key step in ensuring that appropriate management actions can be taken to protect and restore these waters. Detailed assessments of the nation's waters have been a challenge given the number and extent of waters, the variety of pollutants that could affect them, and the limited resources available to undertake the task. States and EPA recognize that given these challenges it is important to be strategic about how limited monitoring and assessment resources are deployed.

Most states employ a combination of cost-effective monitoring and assessment approaches to address CWA data needs. The most widely used approaches include: targeted data collection to characterize site-specific water quality conditions; statistically representative survey designs to describe water quality conditions across a basin or State; and, modeling, literature values, and reference watersheds to predict water quality conditions or impacts from individual dischargers or sources of pollutants. Advances in technology and data transmission offer potential for improvements in the amount of data available and the efficiency of data interpretation. States and EPA will continue to apply existing tools and explore new ones as appropriate to assess and track changes in the extent of impaired and healthy waters in priority areas, at the State-scale and nationally in order to assess progress toward CWA goals.

A comprehensive understanding of the water quality status of at least the State priority areas is essential to effectively address the water quality challenges in the priority areas and to effectively measure the progress on the CWA 303(d) Program performance. As a general matter, targeted monitoring is expected to be the primary approach for accomplishing the comprehensive assessment of States' priority areas. However, some States may also use the results of state-wide or sub-state representative surveys when the results of such approaches may be compelling enough (i.e., have a high degree of confidence) to support site-specific water quality attainment decisions.

Milestones and Proposed Timeline

1) States and EPA develop and distribute tools to support consistency in cycle-to-cycle tracking of water quality status. (2016)
2) States and EPA develop and publish approaches to ensure linkage between priority waters and assessment units, and how to roll up different State approaches into a National total. (2018)
3) States develop plans to complete "baseline" monitoring to gather needed data to assess pre-implementation conditions in priority areas. (2018)
4) States develop plans to complete "effectiveness" monitoring to gather needed data to assess post-implementation conditions in priority areas. (2018)

Protection 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 approaches along with schedules to help prevent impairments in healthy waters, in a manner consistent with each State's systematic prioritization

The intent of the Protection Goal is to encourage a more systematic consideration of management actions to prevent impairments in healthy waters (i.e., unimpaired waters) in order to maintain water quality or protect existing uses or high quality waters. Although protection of healthy waters is envisioned specifically as an objective of the CWA – "restore and maintain the chemical, physical, and biological integrity of the nation's waters" – substantial resources to date have been focused on restoring impaired waters; protection efforts have lagged. Protection and restoration are interdependent goals regarding the "integrity of the nation's waters." Protection of healthy headwaters and wetlands, for instance, helps reduce downstream restoration challenges and costs, while restoration reduces risks to adjacent protected, healthy waters. Successful restoration of impaired waters can lay the foundation for committed and continued protection of those same waters.

Although not all States may ultimately choose to use protection approaches, opportunities for protection within the context of state-wide water quality goals can be an important component to achieving water quality objectives. For example, setting CWA 303(d) Program priorities could involve consideration of the restoration potential of impaired waters adjacent or upstream to healthy watersheds. Such coordinated efforts could lead to realizing more effective results than isolated, individual protection or restoration actions. Also, under the protection Goal, healthy waters at risk of becoming impaired, could be identified as part of the CWA 303(d) Program prioritization process.

Some States have used their CWA 401 certification or antidegradation programs to protect healthy waters and habitats. Some Tribes have also promoted the concept of protection in their water programs. Protection provisions are included in the CWA 303(d) regulations, including the opportunity to establish TMDLs for information purposes ("informational TMDLs") or the need to list threatened waters. EPA is also promoting a voluntary Healthy Watershed Initiative whereby it will work with State and other partners to identify healthy watersheds and to develop and implement healthy watershed protection plans to maintain the integrity of those waters. Likewise, States could consider leveraging their existing work to identify high quality waters and Outstanding National Resource waters for antidegradation purposes.

Milestones and Proposed Timeline

1) ACWA surveys States on their current approaches and rationales to prioritizing protection of healthy waters (e.g., PPA/PPG discussions, State Water Plans, high quality water designations, protection-based TMDLs, etc.) to establish a baseline of priority philosophy. (2013)
2) States provide to EPA, through ACWA, good examples of systematic prioritization processes/products of States, including emerging TMDL Vision Strategies that include aspects of protection. (2013)
3) EPA and States collaborate on a workshop to present tools to aid in protecting healthy waters, as well as to develop a template to account for State reporting on protection priorities and schedules. (2014)

Alternatives 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

The purpose of this Goal is to encourage the use of the most effective tool(s) to address water quality protection and restoration efforts. For the past two decades, many TMDLs have been developed in response to litigation. As a result, States and EPA have not always had the opportunity to objectively evaluate whether a TMDL would be the most effective tool to promote and expedite attainment of State water quality standards. With most of their consent decree and settlement agreement TMDLs completed, States and EPA are using their program experience to make more informed decisions about selecting and using the tools that have the best opportunity to restore and protect water quality.

While TMDLs will remain the most dominant program analytic and informational tool for addressing impaired waters, a major focus of this Goal is to identify, evaluate, and promote (as appropriate) other tools (or "alternatives") that may be more immediately beneficial or practicable to achieving applicable water quality standards under certain circumstances. For example, additional opportunities with long-standing program tools (e.g., Category 4b) will likely be considered along with emerging tools, wherein impaired waters remain on the State's CWA 303(d) list until water quality standards are attained, but are assigned lower priority for TMDL development as alternatives designed to achieve water quality standards are pursued in the near term. If water quality standards are not fully attained through these alternative approaches, development of the TMDL would be necessary.

Recognizing the importance of effective implementation to achieve water quality standards, another major focus of this Goal is to further explore and identify how principles of adaptive management can most effectively be applied to improve water quality whichever restoration tool is chosen. Adaptive management will help the program incorporate new data and information, identify opportunities and actions to pursue under the Integration Goal of the Vision, and iteratively adjust and integrate subsequent implementation actions to meet water quality standards.

Milestones and Proposed Timeline

1) States compile an inventory of current and potential types of State approaches and rationales for pursuing near-term, alternative approaches to the traditional TMDL process (e.g., subcategories of Category 5 for on-going restoration efforts, Category 4b; Category 4c) to address impaired waters. (2014)
2) EPA and States collaborate to identify factors or tools to aid States in deciding to pursue a TMDL or a non-TMDL alternative approach. Such factors or tools will address multiple considerations, including opportunities for a weight-of-evidence approach for selecting a TMDL or non-TMDL alternative approach, as well as identify circumstances where a TMDL or non-TMDL alternative are likely to be more successful. (2014)
3) EPA and States compile a catalogue of good examples for each type of TMDL alternative approach based on the inventory results and guiding principles. (2014)
4) EPA and States collaborate on a workshop and create a blueprint communicating how adaptive management can be applied during the implementation of TMDL and non-TMDL approaches to achieve water quality standards. (2016)
5) EPA and States develop a reporting method for tracking non-TMDL approaches employed and their environmental results. (2017)

Engagement 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

The purpose of the Engagement Goal is to ensure the CWA 303(d) Program encourages working with stakeholders to educate and facilitate actions that work toward achieving water quality goals. Facilitating meaningful engagement with the public and stakeholders on watershed goals, the prioritization processes, watershed restoration plans, and necessary watershed actions related to CWA 303(d) is vital. Levels of engagement range from public outreach and communication efforts to more strategic civic and technical engagement for long-term capacity building in the watershed. EPA and States will further explore the various types of engagement and delineate some of the barriers to, and opportunities for, each level of engagement. In addition, an effort to develop a national message for the program (i.e., "branding") may be beneficial for consistently communicating the Vision and associated Goals to general audiences. Branding of the Program provides a communications umbrella under which States can utilize a common set of talking points for engaging broad audiences, yet have the ability to tailor them when communicating with more specific audiences. It is generally recognized by EPA and States that strategic engagement efforts could be aided by improved communication to develop a CWA 303(d) Program brand that would enable the public to more readily identify and support water quality restoration and protection goals and actions. An engagement strategy for this Goal will consider effective methods currently employed by States, and identify ways engagement efforts and strategies support other Vision Goals such as Prioritization, Alternatives, and Integration.

Milestones and Proposed Timeline

1) States develop (or enhance an existing) framework or strategy to engage the public and other stakeholders. A public engagement strategy will identify key opportunities and actions to: communicate the Vision Goals to the public and other stakeholders and encourage their participation in achieving them; provide information about the purpose and critical importance of the program; and, encourage their participation in the process of listing and developing TMDLs or alternatives. (2014)
2) States develop a framework to ensure they have data to measure each Goal, with the aim of communicating the most relevant outputs and/or outcomes to key stakeholders in their state, and informing the public about their progress and accomplishments. (2015)
3) EPA develops a strategy for communicating results of Federal and State progress in implementing the Program-wide Vision. (2015)
4) States share success stories and/or lessons learned regarding engagement and report to EPA and ACWA. (2017)

Integration 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

The intent of this Goal is to integrate the CWA Section 303(d) Program with other relevant programs that play a role in influencing water quality, in order to collectively and more effectively achieve the water quality goals of States, Tribes, and Territories. Because TMDLs are not self- implementing, effective integration of key programs – especially key CWA programs (listing and TMDLs, water quality standards, monitoring and assessment, CWA 319, CWA 404, and NPDES) that encompass assessment and point source and nonpoint source control actions – is important to realize the pollutant reduction goals identified in TMDLs or alternative approaches. It also is important that integration occur among the different offices in charge of CWA programs within a department or agency as well as between and among local, State, Federal and tribal jurisdictions. Interaction between agencies and non-governmental interests also may promote effective implementation. Integration is particularly important for addressing impairments caused by non point sources of pollution, especially in watersheds crossing multiple jurisdictions and those involving different CWA programs. A consequence of not integrating effectively is less successful implementation, especially for TMDLs or alternative approaches that include sources of nonpoint pollution that typically lie outside the regulatory reach of the CWA.

This Integration Goal aims to overcome barriers in coordination by aligning diverse program goals for mutual benefit. To achieve this, cross-program education will be important, in addition to active leadership and engagement among groups managing these key programs. Sharing of institutional knowledge and the history of established networks will enable the next generation of State and EPA employees and managers to sustain integrated successes.

Milestones and Proposed Timeline

1) The following milestones are expected to occur within the States and EPA in parallel efforts.
    a) States and EPA (HQ and Regions) individually bring their CWA programs together to identify areas for improved coordination and partnership and develop a plan for fostering better communication and coordination moving forward. (2014)
    b) States and EPA individually bring other applicable statutory program representatives and partner agencies together to identify areas for improved coordination and partnership and develop a plan for fostering better communication moving forward. (2014)
2) States and EPA communicate the results of these discussions, at the regional level with the pertinent States and EPA Region, or at national level with all States and all EPA Regions and HQ. (2015)
3) ACWA surveys States for good example case-studies of such key collaboration efforts among CWA programs, other EPA statutory programs, or external partner agencies or authorities (as available). (2015)
4) EPA and States collaborate on a workshop to discuss and identify the most important actions, partnerships, and authorities for the States and EPA to pursue in the near-, mid-, and long-term, with each program partner. (2016)
5) States and EPA initiate implementation of near-, mid-, and long-term actions. (2016)

Appendix B
Guidelines for Developing the State Prioritization Framework

Guidelines for Developing the State Prioritization Framework

These guidelines serve to provide U.S. Environmental Protection Agency (EPA) Region 6 states with some minimum expectations for setting priorities under the new Clean Water Act (CWA) Section 303(d) Vision. The priority setting will be documented through a State Prioritization Framework, and carried out as a grant commitment/deliverable (e.g., under the CWA Section 106 grant) for Fiscal Year (FY) 2015. The Region recognizes that each state will approach this priority setting process differently. Thus, the Framework document will serve as a record that can be provided to EPA, other state programs, partner agencies, and the public, which explains and defends the state's decision making process in setting priorities and allocating limited resources.

Minimum Elements:

1. Mechanism for prioritization. Examples include, but are not limited to: the Recovery Potential Screening Tool, WATERSCAPE (an ArcGIS add-on), the Nutrient Framework Memo (Stoner), and a cost/benefit analysis. For reference, see the attached document titled "ELI Menu of Approaches." Also, the state should describe what is different or the same about past prioritization schemes versus the method of prioritization under the new Vision.

2. Factors considered in prioritization. The document should clearly describe any factors and assumptions considered when making prioritization decisions. This could include: any indicators used in Recovery Potential Screening or other prioritization tools, pollutants, sources of impairments, and public input.

3. Consideration of EPA National and Regional Priorities. The document should explain how the state will collaborate with the Region on prioritization and how EPA's priorities fit into the state's Framework. The state is not required to choose EPA priorities as their designations. Rather, the state should recognize the Agency's priorities as an important factor in this process.

4. Schedule for addressing priority waters. The document should include a general schedule for how the state plans to address priority waters through TMDLs or TMDL alternatives. The schedule may be very general and can be based on a number of factors (e.g. rotating basin scheduling, monitoring cycle, or permitting cycle).

5. Adaptive Management. The document should describe how the state plans to maintain flexibility in its approach for handling changing priorities. For instance, describe when and how the state will review and update the prioritization scheme. Assessment is a critical piece of the new Vision; states should consider how they will adapt to new information on the status of waters, interest and engagement from stakeholders and partners, and the effectiveness of their chosen scheme.

6. Public engagement approach. The document should explain how the state will involve the public in the process of setting water quality priorities. It should also explain what method

will be used to share the final designated priorities with the public. At a minimum, priorities should be clearly identified in the 2016 IR for the public to provide comments.

Other Elements to Consider:

1. Choice of priority designations. Once the state has completed the Framework Document and gone through the process to determine their priorities, it would be appropriate to include that information as an appendix/update to the document.

2. Availability of Framework Document to the public. Although the State Prioritization Framework is not subject to public notice requirements or EPA approval, states should consider making it available to the public (along with any other supporting documentation), either through their website or other means which facilitate transparency and public engagement.

Appendix C
WQ-27 Priorities Submitted to EPA Region 6

HUC	AU_ID	AU Name	Impairment
13020201	NM-2111_00	Rio Grande (Cochiti Reservoir to San Ildefonso bnd)	Turbidity
13020201	NM-9000.A_061	Santa Fe River (Santa Fe WWTP to Guadalupe St)	Aluminum
13020201	NM-9000.A_061	Santa Fe River (Santa Fe WWTP to Guadalupe St)	E. coli
13020201	NM-9000.A_061	Santa Fe River (Santa Fe WWTP to Guadalupe St)	PCB in Water Column
13020201	NM-2111_00	Rio Grande (Cochiti Reservoir to San Ildefonso bnd)	E. coli
13020201	NM-2118.A_10	Galisteo Ck (Perennial prt Kewa bnd to 2.2 mi abv Lamy)	Temperature
11080001	NM-2305.A_253	Raton Creek (Chicorica Creek to headwaters)	E. coli
11080001	NM-2305.A_253	Raton Creek (Chicorica Creek to headwaters)	Nutrients
11080002	NM-2306.A_162	North Ponil Creek (Seally Canyon to headwaters)	Turbidity
11080002	NM-2306.A_110	North Ponil Creek (South Ponil Creek to Seally Canyon)	Nutrients
11080002	NM-2306.A_162	North Ponil Creek (Seally Canyon to headwaters)	Aluminum
11080002	NM-2306.A_110	North Ponil Creek (South Ponil Creek to Seally Canyon)	Nutrients
11080002	NM-2306.A_112	McCrystal Creek (North Ponil to headwaters)	Temperature
11080002	NM-2306.A_122	Greenwood Canyon (Middle Ponil Creek to headwaters)	Aluminum
11040001	NM-2701_00	Dry Cimarron R (Perennial reaches OK bnd to Long Canyon)	Dissolved oxygen
11040001	NM-2701_00	Dry Cimarron R (Perennial reaches OK bnd to Long Canyon)	Temperature
13060001	NM-2212_10	Tecolote Creek (I-25 to Blue Creek)	Specific conductance
13060001	NM-2212_10	Tecolote Creek (I-25 to Blue Creek)	Temperature
13060010	NM-2206.A_10	Rio Penasco (Perennial prt Pecos River to HWY 24)	sedimentation
13030202	NM-2803_00	Mimbres R (Perennial reaches downstream of Willow Springs)	Temperature
13030202	NM-2804_00	Mimbres R (Perennial reaches Willow Springs to Cooney Cny)	Temperature
15040004	NM-2603.A_50	Centerfire Creek (San Francisco R to headwaters)	Temperature
13020202	NM-2106.A_10	East Fork Jemez (VCNP to headwaters)	Aluminum
13020202	NM-2106.A_10	East Fork Jemez (VCNP to headwaters)	Dissolved oxygen
13020202	NM-2106.A_10	East Fork Jemez (VCNP to headwaters)	pH
13020202	NM-2105_71	Jemez River (Jemez Pueblo bnd to Rio Guadalupe)	Aluminum
13020202	NM-2106.A_00	Jemez River (Soda Dam nr Jemez Springs to East Fork)	pH
13020202	NM-2106.A_00	Jemez River (Soda Dam nr Jemez Springs to East Fork)	Temperature
13020202	NM-2106.A_20	San Antonio Creek (East Fork Jemez to VCNP bnd)	Aluminum