NEW MEXICO

NONPOINT SOURCE MANAGEMENT PLAN

2024

FINAL DRAFT

New Mexico Environment Department

Water Protection Division

Surface Water Quality Bureau

Watershed Protection Section

www.env.nm.gov/surface-water-quality

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Acronyms and Abbreviations

AIM	Assessment, Inventory, and Monitoring
ARP	advance restoration plan
AU	assessment unit
BAER	Burned Area Emergency Response
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	best management practice
CAFO	Concentrated Animal Feeding Operation
CALM	Comprehensive Assessment and Listing Methodology
CFR	Code of Federal Regulations
Commission	New Mexico Water Quality Control Commission
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
CWA	Clean Water Act
DOE	U.S. Department of Energy
EMNRD	Energy Minerals and Natural Resources Department
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EQIP	Environmental Quality Incentives Program
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
Forest Service	U.S. Forest Service
FOG	fats, oils, and grease
FOTG	NRCS Field Office Technical Guide
FSA	Farm Service Agency
FY	Fiscal Year
GIS	geographic information system
GRTS	Grant Reporting and Tracking System
GWQB	Ground Water Quality Bureau
HUC	Hydrologic Unit Code
Institute	New Mexico Water Resources Research Institute
ISC	Interstate Stream Commission
LEP	Limited English Proficiency
MASS	Monitoring, Assessment, and Standards Section
MECS	Mining Environmental Compliance Section
MMD	Mining and Minerals Division of the Energy Minerals and Natural Resources Department
MOU	Memorandum of Understanding

MS4	Municipal Separate Storm Sewer System
NEPA	National Environmental Policy Act
NMAC	New Mexico Administrative Code
NMCES	New Mexico Cooperative Extension Service
NMDA	New Mexico Department of Agriculture
NMDGF	New Mexico Department of Game and Fish
NMDOT	New Mexico Department of Transportation
NMED	New Mexico Environment Department
NMSA	New Mexico Statutes Annotated
NMSLO	New Mexico State Land Office
NPDES	National Pollutant Discharge Elimination System
NPS	nonpoint source
NRCS	Natural Resources Conservation Service
NWPG	EPA National Water Program Guidance
NWQN	USGS National Water Quality Network
ONRW	Outstanding National Resource Water
OSE	Office of the State Engineer
PCBs	polychlorinated biphenyls
PFC	Proper Functioning Condition
PIP	Public Involvement Plan
PSRS	Point Source Regulation Section
PSTB	Petroleum Storage Tank Bureau
QAPP	Quality Assurance Project Plan
RAM	Rapid Assessment Methods
RFA	Request for Applications
RFP	Request for Proposals
RMP	Resource Management Plan
SRF	Clean Water State Revolving Fund
SWCD	Soil and Water Conservation District
SWQB	Surface Water Quality Bureau
SwW	Share with Wildlife
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WAP	Wetland Action Plan
WBP	watershed-based plan
WCF	Watershed Condition Framework

WPD	Water Protection Division
WPS	Watershed Protection Section
WQCC	Water Quality Control Commission
WQMP/CPP	Water Quality Management Plan and Continuing Planning Process
WRAP	Watershed Restoration Action Plan

B L A N K P A G E

Executive Summary

Water pollution originates from both point sources and nonpoint sources. Point sources are easily identifiable, such as a discharge pipe. Nonpoint sources (NPSs) occur over larger areas and are difficult to trace. NPS pollution is generally caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up natural and human-caused pollutants and deposits them in rivers, lakes, wetlands, and groundwater.

Most surface water quality problems in New Mexico are caused by NPS water pollution.[1] Section 319 of the federal Clean Water Act (CWA), 33 United States Code (USC) 1329 (Section 319), requires States to assess NPS pollution and develop management programs to control the sources identified. This 2024 NPS Management Plan describes the New Mexico Nonpoint Source Management Program (NPS Management Program), which is a key element of the *State of New Mexico Statewide Water Quality Management Plan and Continuing Planning Process* (WQMP/CPP).[2] The WQMP/CPP summarizes the water quality management system in New Mexico and the roles of the major participants in that system. More specifically, the WQMP/CPP directs implementation and draws on water quality assessments to identify priority point and nonpoint water quality problems, consider alternative solutions, and recommend control measures to reduce, restrict, or prevent water pollution.

The NPS Management Program establishes a process by which to develop plans and activities within watersheds that will facilitate maintenance of good water quality and achievement of surface water quality standards where standards are not met. The NPS Management Program supports local implementation of Total Maximum Daily Loads (TMDLs) and watershed-based plans and coordination with other agencies that have established resource protection programs and activities. To this end, the NPS Management Program emphasizes watershed planning as a means of coordinating watershed restoration efforts, fostering watershed associations, and encouraging partnership among agencies, nongovernmental organizations, and the public.

Section 1 provides background information for the NPS Management Program, including a summary of the laws that established the program and a brief history of how it has been implemented. Section 1 also summarizes current guidance[3,4] from the U.S. Environmental Protection Agency (EPA) that affects the program, specifically the nine elements of watershed-based plans (WBPs). EPA guidance anticipates that States will primarily focus funding from 33 USC 1329 (h) (Section 319 funding) on implementing WBPs to restore impaired waters. In addition, the *Nonpoint Source Program and Grants Guidelines for States and Territories*

[1] New Mexico Environment Department (NMED). 2024a. *2024–2026 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report*. Available at: https://www.env.nm.gov/surface-water-quality/303d-305b/. Accessed April 2024.

[2] New Mexico Water Quality Control Commission. 2020. *State of New Mexico Statewide Water Quality Management Plan and Continuing Planning Process*. Available at: https://www.env.nm.gov/surface-water-quality/wqmp-cpp/. Accessed April 2024.

[3] U.S. Environmental Protection Agency (EPA). 2012. *Section 319 Program Guidance: Key Components of an Effective State Nonpoint Source Management Program*. Available at: https://www.epa.gov/nps/319-grant-current-guidance. Accessed April 2024.

[4] EPA. 2013. *Nonpoint Source Program and Grants Guidelines for States and Territories*. Available at: https://www.epa.gov/nps/319-grant-current-guidance. Accessed April 2024.

specifies several conditions under which projects may implement other watershed plans.[5] Section 1 also provides an overview of NPS Management Program activities that are ongoing outside of Section 319–funded projects and discusses the integrated approach used to meet the program's goals.

Section 2 presents the overall goal for the NPS Management Program: "to meet and maintain water quality standards and designated uses of surface water, and to protect ground water resources" in New Mexico, following watershed-based approaches with substantive involvement of stakeholders. Further, Section 2 presents the program's six objectives to achieve this overall goal:

- Watershed planning
- Improving water quality
- Protecting water quality
- Providing education and outreach
- Protecting groundwater quality
- Promoting interagency cooperation

Each objective has a set of actions and criteria that enable the New Mexico Environment Department (NMED), EPA, the public, and other organizations to evaluate progress toward these objectives.

Section 3 describes how different NPS Management Program components interact and explains how the NMED Surface Water Quality Bureau (SWQB) engages in statewide activities related to water quality protection, education, and outreach and supports planning and collaboration to implement water quality protection and improvement projects. It also describes how the NPS Management Program seeks to meet environmental justice goals, contribute to mitigation of climate change impacts, and possibly contribute to greenhouse gas emissions reductions.

Section 4 describes how SWQB collects and assesses data to identify water quality problems, along with priorities for planning, water quality improvement, and water quality protection. The NPS Management Program provides funding opportunities to support the development of four types of watershed planning projects: 1) projects to help local organizations build capacity for planning and implementation, 2) projects to develop new nine-element WBPs, 3) projects to develop alternative WBPs, and 4) projects to update existing WBPs. In addition, NMED staff will develop Post-Fire Watershed Mitigation Action Plans in-house with cooperator involvement. The NPS Management Program also provides funding opportunities for implementing watershed plans, including Wetland Action Plans (WAPs) developed through the New Mexico Wetlands Program. The SWQB Watershed Protection Section (WPS) engages in additional programmatic activities that protect water quality, including federal consistency review, CWA Section 401 certification of Section 404 (33 USC 1344) permits, and review of documents required under the New Mexico Mining Act (New Mexico Statutes Annotated [NMSA] 1978, 69-36-1 to 69-36-20).

[5] EPA. 2013. *Nonpoint Source Program and Grants Guidelines for States and Territories*.

Section 5 describes programs and agencies that may assist with implementing the NPS Management Program. The section is organized by agency, starting with NMED, followed by federal, other State, and local government agencies and programs. This section conveys expectations about what may be done under programs for which other agencies are responsible.

Section 6 deals with the programmatic considerations related to quality control, administrative procedures, adaptive management, and reporting. These procedures are intended to promote an effective program that can be implemented within a reasonable amount of time and a reasonable amount of administrative complexity in proportion to the size of the NPS Management Program and the problems it is intended to address. Section 6 also lists ways in which the public can stay informed and participate in the NPS Management Program.

The appendices to the document provide more detailed information about watershed planning, best management practices, and sources of funding for implementation, as well as the process used to develop this plan.

The NPS Management Program is flexible and responsive to changing conditions and situations. Successful implementation of the program will lead to measurable improvements within five priority watersheds by 2029. Where existing water quality is good it will be maintained, groundwater resources will be protected, and the general public and partner organizations will gain an increased understanding of water quality issues, goals, and responsibilities.

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1 Introduction

This section provides a high-level overview of nonpoint source (NPS) pollution and explains the role of the New Mexico Environment Department (NMED) in protecting and improving surface water quality in New Mexico. It also discusses water quality in New Mexico and the history and role of the NPS Management Plan.

1.1 The Problem of Nonpoint Source Pollution

Water pollution originates from both point sources and NPSs. Point sources, as the term implies, are discrete and easily identifiable, such as a discharge pipe. Point sources are regulated, meaning that a facility must have a permit to discharge pollutants into water bodies.

In contrast, NPSs are diffuse, can occur over large areas, and are difficult to trace. Examples include pet waste, fertilizers, pesticides, and septic systems. NPS pollution is generally caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up natural and human-caused pollutants, and deposits them into rivers, lakes, wetlands, and groundwater. Most water quality problems in New Mexico's streams, rivers, and lakes (surface water) are caused by NPS water pollution.

The U.S. Environmental Protection Agency (EPA) regulates point source pollution through the Clean Water Act (CWA). Under the CWA, a permit is needed to discharge pollutants from a point source to a surface water body. Permittees are required to meet discharge limits and reporting requirements to reasonably ensure the discharge will comply with applicable standards. Impaired waters are those that do not meet standards for their designated use (e.g., recreation, irrigation, livestock watering).

Unlike point source pollution, EPA does not regulate NPS pollution through the CWA, because as explained above, the sources of NPS can be numerous and are often untraceable. However, Section 319 of the CWA (33 United States Code [USC] 1329) provides grant funding for States to address NPS pollution.

NMED is the State agency tasked with protecting water quality in New Mexico. Within NMED, the Surface Water Quality Bureau (SWQB) works to protect and improve the quality of New Mexico's surface waters. EPA requires that States receiving CWA Section 319(h) funding submit plans for managing NPS pollution. NMED has developed the NPS Management Plan (this document), which describes how the NPS Management Program will implement specific actions to meet the goals and objectives of the program. The NPS Management Program's goal is to provide a balanced approach that addresses existing water quality problems, prevents future impairments, and invests in communities and future generations to improve their capacity to protect and improve water quality. Section 1.3 below describes the NPS Management Plan in more detail.

SWQB uses a watershed-based approach as the framework for managing water quality. Watersheds are areas of land that drain to a specific water body. Watershed-based planning is a holistic approach that considers possible causes and sources of pollution and prioritizes the

strategies to address these causes and solutions.[6] EPA requires that agencies receiving Section 319 funding develop and implement watershed-based plans (WBPs) that include nine specific elements. Section 1.3.2 discusses these nine elements in further detail.

Importantly, Section 319 funding is available to territories and Tribes as well as States. Sections 2 and 3 detail how NMED works, and will continue to work, with organizations across the state to promote awareness and cooperation in its mission to maintain and improve water quality in New Mexico.

1.2 Sources and Nonpoint Sources of Water Pollution in New Mexico

The main source of information on the status of streams, lakes, and reservoirs in New Mexico with respect to attainment of New Mexico water quality standards, including information on sources of pollutants, is the *2024–2026 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report* (2024–2026 Integrated Report).[7] The Integrated Report is revised every 2 years. The statistics that follow are from the 2024–2026 Integrated Report.

The Integrated List, or Appendix A of the 2024–2026 Integrated Report, tabulates causes (i.e., water quality parameters) of impairment for each assessed water. Of 8,673 assessed (mostly perennial) stream miles in New Mexico, 4,874 assessed miles, or 56%, have identified impairments where water quality does not support a designated use (Integrated Report Categories 4 and 5).

Appendix B of the 2024–2026 Integrated Report tabulates probable sources of pollution for streams with TMDLs. The three main point source categories (i.e., regulated under CWA Section 402) are listed below, with the number of impaired miles in parentheses:

- Municipal point source discharges (386 miles)
- Confined animal feeding operations (92 miles)
- Discharges from municipal separate storm sewer systems (MS4s) (69 miles)

The 2024–2026 Integrated Report lists additional categories that may be regulated as point sources (e.g., construction, resource extraction); these generally affect fewer miles than the point source categories listed above.

Several sources in the urban-related group listed separately from MS4s are not regulated as point sources and thus may be managed as NPS pollution: road/bridge runoff (1,411 miles), impervious surface/parking lot runoff (580 miles), waste from pets (322 miles), and several less prevalent sources. By comparison, more classic NPSs not regulated under CWA Section 402 include hydrologic alteration (3,213 stream miles), rangeland grazing (2,596 stream miles), on-site treatment systems (e.g., septic systems, 1,161 stream miles), and habitat alteration (other than hydrologic alteration, 915 miles). An assessed stream may be impaired by multiple point and nonpoint sources, but the statistics above indicate that impairment by NPS pollution is clearly significant in New Mexico.

[6] EPA. 2013. *Nonpoint Source Program and Grants Guidelines for States and Territories*.

[7] NMED. 2024a. *2024–2026 State of New Mexico Clean Water Act 303(d)/305(b) Integrated Report*.

For streams, the most common water quality parameters exceeding water quality standards (in order of prevalence) are temperature, *Escherichia coli* (*E. coli*), nutrients, and suspended or settleable solids (including turbidity and stream bottom sediments). In lakes and reservoirs, the most common impaired water quality parameters are mercury in fish tissue, polychlorinated biphenyls (PCBs) in fish tissue, temperature, and eutrophication (nutrient impacts).

These pollutants prevent designated uses from being fully supported in many of New Mexico's waters. Designated uses not fully supported in New Mexico's assessed rivers and streams (with the percentage of assessed waters not supporting in parentheses) include aquatic life uses (50%), primary and secondary contact (16%), wildlife habitat (1%), livestock watering (1.4%), irrigation (0.9%), and domestic water supply (0.4%). Most of these impairments are primarily or entirely caused by NPS pollution.

Importantly, the methods used to develop the 2024–2026 Integrated Report do not allow an in-depth analysis of each watershed. In the process of watershed planning, described in Section 4, local stakeholders may identify sources different from those identified in the 2024–2026 Integrated Report and may prioritize addressing some pollutant sources over others.

1.3 New Mexico NPS Management Plan

As explained in Section 1.1, the leading causes of pollution in New Mexico and in the United States overall derive from NPSs. The federal government officially recognized this in 1987, when Congress passed the Water Quality Act of 1987, amending the Federal Water Pollution Control Act and commonly referred to as the CWA. Section 319 of the amended CWA requires States to assess the nature and extent of water quality impairment resulting from NPSs of pollution and develop management programs to control the sources identified. Section 319(b)(1) of the CWA states, "The Governor of each State, for that State or in combination with adjacent States, shall, after notice and opportunity for public comment, prepare and submit to the Administrator for approval a management program which such State proposes to implement in the first 4 fiscal years beginning after the date of submission of such management program for controlling pollution added from nonpoint sources to the navigable waters within the State and improving the quality of such waters" (33 USC 1329 (b)(1)).

As stated in Section 1.1, States receiving Section 319 funding must submit their plans for managing NPS pollution to EPA and must update their plans every 5 years. In 1988, specialists developed the NPS Assessment Report, an initial management plan for abating NPS pollution in New Mexico, in accordance with the requirements of the CWA; the Water Quality Control Commission (WQCC) then approved the report. The NPS Assessment Report then underwent additional revisions before EPA and the WQCC approved it in 1989, along with the initial NPS Management Plan. Since that time, the NPS Management Plan has been subsequently updated, revised, and approved every 5 years as required by Section 319—in 1994, 1999, 2009, 2014, and 2019. The current document is the revision prepared for 2024; the plan will be revised again in 2029.

Although the NPS Management Plan is updated every 5 years, watershed-based planning is an ongoing process. Under Section 319, States must submit an annual report that outlines their progress in meeting the goals set by the plan. To meet this requirement, NMED prepares its NPS Management Program Annual Report for each federal fiscal year (October 1 through September

30) and submits it to EPA by January 31 of the following year. Section 6.4 describes NMED reporting in more detail.

The NPS Management Plan describes how NMED will provide direction for statewide initiatives aimed at specific priority watersheds. It also promotes water quality protection and improvement by outlining activities for SWQB staff and partner organizations for developing and implementing WBPs and alternative WBPs, under a variety of programs and funding sources and through oversight, inspection, enforcement, and public education and outreach activities.

To develop this NPS Management Plan, NMED used as its primary guidance EPA's *Section 319 Program Guidance: Key Components of an Effective State Nonpoint Source Management Program* (Key Components).[8] NMED also used EPA's 2013 *Nonpoint Source Program and Grant Guidelines for States and Territories* (2014 NPS Guidelines), known as the 2014 NPS Guidelines because they apply to federal Fiscal Year 2014 and later.[9] The sections that follow discuss these documents.

1.3.1 Key Components Document

The Key Components document, released in November 2012, interprets and elaborates on the requirements in Section 319(b) of the CWA and describes eight elements that EPA regions should consider when reviewing and approving State NPS Management Plans: 1) a statement of short-term and long-term goals, objectives, and strategies; 2) partnerships; 3) identification of implementing programs; 4) allocation of resources between water quality improvement and water quality protection; 5) prioritization of waters and watersheds; 6) elements specifically identified in Section 319(b) of the CWA (most of which are included in other Key Components); 7) efficiency and effectiveness (including financial management); and 8) regular review, evaluation, and program revision.

1.3.2 2014 NPS Guidelines

As stated previously, EPA requires that any watershed implementation projects funded under Section 319 implement WBPs that include nine specific elements:

- Identify causes and sources of pollution
- Estimate pollutant loading into the watershed and the expected load reductions
- Describe management measures that will achieve load reductions and targeted critical areas
- Estimate amounts of technical and financial assistance and the relevant authorities needed to implement the plan
- Develop an information/education component
- Develop a project schedule
- Describe the interim, measurable milestones

[8] EPA. 2012. *Section 319 Program Guidance: Key Components of an Effective State Nonpoint Source Management Program*.

[9] EPA. 2013. *Nonpoint Source Program and Grants Guidelines for States and Territories*.

- Identify indicators to measure progress
- Develop a monitoring component

Appendix A presents an excerpt from EPA's 2023 draft guidance on nine-element WBPs.

The 2014 NPS Guidelines also specify several conditions under which projects may implement acceptable alternative plans, for example with the purpose of protecting water quality. The 2014 NPS Guidelines outline separate requirements for "NPS program funds" and "watershed project funds," and establish that a minimum of 50% of awarded Section 319 funds must be used for watershed projects and closely related support activities. Planning, if funded with Section 319 funds, must be funded with NPS Management Program funds.

The 2014 NPS Guidelines are narrower than the Key Components because they describe the requirements that EPA regions must follow in approving CWA Section 319 grant funding. By contrast, the Key Components describe program elements that could (and should) be funded by other programs in addition to Section 319. As of this writing, EPA has released a draft 2023 update to the 2014 NPS Guidelines[10] that is expected to replace the 2014 NPS Guidelines in 2024.

1.4 Beyond Implementation of Section 319–Funded Activities and Projects

The NPS Management Program includes permanent programs and tasks beyond the annual implementation of Section 319–funded projects. These programs and tasks, which are tracked and reported in the NPS Management Program Annual Report, include the following:

- Outreach to schools and groups
- Development and implementation of the State-funded River Stewardship Program to support watershed and riparian restoration projects
- Participation in watershed groups to provide direction and target water quality problems
- Oversight of CWA Section 404–permitted activities under the authority of Section 401
- Training, technical assistance, and educational opportunities for the public and private sector
- Cooperation with management agencies through agreements outlined in MOUs and other agreements
- Semiannual publication of the newsletter, *Clearing the Waters*
- Participation in NMED's Mining Team, including coordination and review of operations and activities that may affect surface water quality, under the New Mexico Mining Act
- Assistance with developing NPS TMDLs
- Watershed-based planning and implementation using a variety of funding programs

[10] EPA. 2023a. *Draft Revision for Public Comment, Nonpoint Source Program and Grants, Guidelines for States and Territories*. October. Available at: https://www.epa.gov/system/files/documents/2023-10/draft-revision-for-public-comment_319-grant-guidelines-for-states-and-territories_508.pdf. Accessed April 2024.

1.5 Well-Integrated Assessment, Protection, and Remediation with Other Water or Natural Resource Programs

Section 319 funds are directed primarily toward projects in priority watersheds where reduced pollutant loading is anticipated. By directing these funds toward impaired waters (as described in Section 4), the NPS Management Program can integrate other CWA programs for problem characterization and goal setting. Progress may be tracked in terms of water quality improvement and standards attainment.

Protection of water quality is another key aspect of the NPS Management Program. Although planning efforts often focus on impaired waters and meeting watershed-based planning elements, planning efforts may also identify opportunities to protect water quality where attainment standards are being met.

A portion of Section 319 funds will be used to support projects that protect water quality following unnaturally intense wildfire, if such fires occur during the period covered by the plan, as described in Section 4.2.6. Some watershed project Section 319 funds will also be used to implement Wetland Action Plans (WAPs), alternative WBPs that typically describe actions that may both protect and restore wetlands and downstream waters.

The watershed planning process uses an integrated approach for assessment, protection, and remediation that links natural resource programs. Watershed plans are generally developed with the participation of a variety of natural resource professionals (in addition to citizen and industry participants), who contribute their skills related to fisheries, range management, forest ecology, and aspects of water resources management related to water rights and operation of water infrastructure, including dams, reservoirs, and municipal water supplies (see Sections 5.2 through 5.4). Aspects of these plans may be implemented under federal assistance programs, State programs, and other resources appropriate to support the implementation and maintenance of restoration measures. Effective NPS pollution control efforts must acknowledge that improvements to water quality require long-term commitments of budget and personnel resources.

In addition to collecting and summarizing information in a watershed plan, the watershed planning process encourages partnerships. Participating organizations and stakeholders build the necessary knowledge and relationships to effectively use a variety of programs.

The contributions of other State and federal programs toward implementing the NPS Management Program are summarized in the NPS Management Program Annual Report.

1.6 Legal Authority

The NMED Office of General Counsel has reviewed this document as required by 33 USC 1329 and confirmed that the State of New Mexico has legal authority to implement the NPS Management Program. The New Mexico WQCC (or the Commission), a statutorily created independent body, is designated by the New Mexico Legislature as the "state water pollution control agency for this state for all purposes of the federal [Water Pollution Control] act" and has the duty to "adopt a comprehensive water quality management program and develop a continuing planning process" (NMSA 1978, 74-6-3.E). Pursuant to this authority, the Commission has adopted the *State of New Mexico Statewide Water Quality Management Plan and Continuing*

Planning Process (WQMP/CPP),[11] which includes an element focused on NPS management and control as required by 40 Code of Federal Regulations (CFR) 130.6(c)(4). Further, the most recent version of the New Mexico NPS Management Plan, approved by the Commission, is adopted by reference in the WQMP/CPP.

[11] New Mexico Water Quality Control Commission. 2020. *State of New Mexico Statewide Water Quality Management Plan and Continuing Planning Process*.

2 Program Goal, Objectives, Activities, and Milestones

As stated in Section 1, the overall long-term goal of New Mexico's NPS Management Program is as follows:

> ***To implement an adaptive watershed-based restoration and protection program with the substantive involvement of stakeholders, for all watersheds within New Mexico, to meet and maintain water quality standards and designated uses of surface water, and to protect ground water resources.***

The NPS Management Program has six program objectives, specific, verifiable targets or conditions selected to meet the overall goal of the NPS Management Program. The objectives explain the effect they will have on water resources in New Mexico, list the activities necessary to achieve the objective, and provide the criteria (milestones) for evaluating whether the objectives have been attained.

The six program objectives are as follows:

- Complete Watershed Plans to Enable Effective Implementation
- Implement Watershed Projects
- Protect Water Quality
- Share Information on Surface Water Quality
- Protect Groundwater Quality
- Cooperate with Other Agencies on Water Quality Protection and Improvement

Sections 2.1 through 2.6 describe each program objective, along with the activities to complete the objective and verification criteria. Appendix B has a table that shows the verification milestones for Objectives 1 through 6.

2.1 Objective 1 – Complete Watershed Plans to Enable Effective Implementation

> ***Produce watershed plans that meet all elements identified in the Nonpoint Source Program and Grants Guidelines for States and Territories,[12] for an average of three priority watersheds per year.***

Stakeholder-driven planning processes will be used to reach this objective because stakeholders (resource management agencies, nonprofit organizations, watershed residents, and other people interested in specific watersheds) have a critical role in implementing these plans, and their early and substantive involvement will increase the quality of these plans.

[12] EPA. 2013. *Nonpoint Source Program and Grants Guidelines for States and Territories*.

For the purposes of this plan, priority watersheds are sixth-level watersheds (i.e., U.S. Geological Survey [USGS] 12-digit hydrologic unit codes [HUC][13]) that contain or drain directly to impaired waters, Outstanding National Resource Waters (ONRWs), or waters in danger of impact following wildfire. More information on these priorities is in Section 4.2 below.

On-the-ground projects supported with Section 319(h) watershed project funds will be conducted only in watersheds with nine-element WBPs or specific alternatives to WBPs. Section 4 describes in greater detail the priority watersheds, impaired waters, watershed-based planning, alternative WBPs, and the review process for WBPs envisioned in this section.

2.1.1 Activities to Achieve Objective 1

WPS will carry out the following activities in support of Objective 1:

a. Form a short-term work group composed of WPS and TMDL staff, ONRW stakeholders and related land management agencies, and organizations that have completed WBPs and alternative WBPs to develop technical guidance for WBPs, alternative WBPs, and advance restoration plans (ARPs) specific to New Mexico.

b. Conduct a Request for Applications (RFA) or Request for Proposals (RFP) at least once every other year for projects that will develop local capacity to conduct watershed planning, develop new nine-element WBPs, develop new alternative WBPs, and update existing watershed plans, to be funded with Section 319(h) program funds or State funds.

c. Provide project management of watershed planning projects, including providing technical support to stakeholder groups who have successfully applied for funding to assist them with preparing watershed plans. This activity also includes providing technical and financial oversight of projects.

d. Prepare WBPs in-house (i.e., with NMED leadership) with stakeholder participation.

e. Update the geographic information system (GIS) layers depicting priority watersheds for implementation and include links to WBPs and alternative WBPs (such as WAPs and ARPs).

f. Integrate post-fire planning and analysis conducted by other agencies to develop Post-Fire Watershed Mitigation Action Plans that qualify as alternative WBPs. Section 4.2.6 below provides more discussion of this activity.

g. Encourage participation of all stakeholders in watershed planning efforts, including those from other states, Indigenous nations, Pueblos, and Tribes when watersheds cross jurisdictional boundaries, and incorporate water quality program materials prepared by these jurisdictions in watershed plans when appropriate.

[13] Natural Resources Conservation Service (NRCS). 2024. Geospatial Data Gateway. Available at: http://datagateway.nrcs.usda.gov. Accessed April 2024.

2.1.2 Objective 1 Verification Milestones

a. Develop templates or other guidance documents for WBPs, WAPs, and alternative WBPs and upload them to the SWQB's website for WBPs.[14] Time frame: 2025 through 2027, with the goal of one guidance per year.

b. Update or complete, with EPA's acceptance, at least one WBP per year covering at least one priority watershed. Time frame: Annually.

c. Complete at least one ARP, in cooperation with TMDL staff, within 5 years. Time frame: 2025 through 2029.

d. Update the SWQB mapper website[15] with GIS layers depicting priority watersheds for implementation, including links to WBPs and alternative WBPs (such as WAPs and ARPs). Target date: By December 31, 2025.

e. Submit a Post-Fire Watershed Mitigation Action Plan that qualifies as an alternative WBP to EPA within 5 years of a major wildfire occurring in a priority watershed, as identified in Section 4.2.6 below. Time frame: Ongoing, as appropriate.

2.2 Objective 2 – Implement Watershed Projects

Implement effective watershed-based NPS restoration programs in identified priority watersheds, using multiple funding sources, at an average of three new watersheds per year.

It is anticipated that, while individual projects may be implemented by specific agencies, organizations, and individuals, the projects will be developed, and in some cases implemented, with the aid of diverse, well-integrated partnerships developed during the planning process described in Section 2.1.

2.2.1 Activities to Achieve Objective 2

WPS will facilitate or carry out the following activities in support of Objective 2:

a. Conduct an RFA or RFP at least every other year for watershed implementation projects outlined in WBPs and alternative WBPs, to be funded with Section 319 watershed project funds.

b. Conduct smaller procurements for specific, targeted projects that will implement or support implementation of WBPs and alternative WBPs, to be funded with Section 319 watershed project funds.

c. Manage and provide oversight of Section 319–funded projects.

d. Develop, manage, and provide oversight of State-funded watershed and riparian restoration projects. Section 5.1.2 discusses applicable programs.

[14] NMED. 2024b. Watershed-Based Planning. Available at: www.env.nm.gov/surface-water-quality/wbp. Accessed April 2024.

[15] NMED. 2024c. EnviroMapper application. Available at: https://gis.web.env.nm.gov/oem/?map=swqb. Accessed April 2024.

e. Use scientific methods and weight-of-evidence reporting to measure and document effectiveness of efforts toward achieving water quality standards.

2.2.2 Objective 2 Verification Milestones

a. Document water quality conditions in one priority watershed that improved because of projects or improvements in land management funded or encouraged by New Mexico's NPS Management Program[16] by submitting at least one Success Story to EPA each year. Time frame: Annually.

b. Begin watershed restoration projects described in WBPs or alternative WBPs within two or more priority watersheds per year. Time frame: 2024 through 2029.

c. Begin watershed or water quality restoration projects that are State-funded in an average of three watersheds per year. Time frame: 2024 through 2029.

d. Document water quality improvements in the Grants Reporting and Tracking System (GRTS) by performing pollutant load reduction estimates for implementation projects where on-the-ground improvements were completed in the previous year. Time frame: Annually.

2.3 Objective 3 – Protect Water Quality

Maintain surface water quality through coordinated activities, permitting programs, and technical assistance provided to assist cooperating agencies and landowners with efforts to understand water quality and protect surface waters from NPS pollution.

Protection of water quality is a critical component of the NPS Management Program that, if effective, will prevent new water quality problems from developing in New Mexico. WPS staff will assist other agencies and organizations and the public with a variety of planning efforts where protection of water quality is an important consideration. WPS staff will also review the plans for several types of projects and proposed actions and will participate in at least two permitting programs.

In the 2019 NPS Management Plan, WPS directed a portion of watershed project funds to implement WAPs and post-fire plans. Starting in the period covered by this NPS Management Plan, WPS will also use a portion of watershed project funds to implement eligible alternative WBPs, as discussed in Sections 4.2 and 4.3 below. This section discusses the implementation process for Post-Fire Watershed Mitigation Action Plans. WPS intends to provide one application process for implementing WBPs and alternative WBPs. Implementation of other types of alternative WBPs is supported under Objective 2, above.

[16] EPA will confirm this verification item with their review and acceptance of the NPS Success Story nominations that NMED will submit to EPA. EPA publishes Success Stories at https://www.epa.gov/nps/success-stories-about-restoring-water-bodies-impaired-nonpoint-source-pollution. This verification item is intended to be consistent with EPA Program Measures. EPA's National Water Program Guidance (NWPG) for Fiscal Year 2023 and 2024 (available at https://www.epa.gov/water-planning-evaluation/fy-2023-2024-national-water-program-guidance) includes a Program Measure reading, "Number of primarily NPS-impaired waterbodies partially or fully restored by NPS program actions." This EPA Program Measure may be repeated in future NWPG documents.

2.3.1 Activities to Achieve Objective 3

WPS will carry out or facilitate through appropriate consultation the following activities in support of Objective 3:

a. Use a portion of Section 319 watershed project funds to implement Post-Fire Watershed Mitigation Action Plans within 5 years of a major wildfire with severity outside the natural range of variability for the affected forest types occurring in a watershed with one or more high-quality coldwater, coldwater, or coolwater aquatic life–designated streams.

b. Evaluate applications for permits to discharge fill under Section 404 of the CWA and conditionally certify these activities to protect water quality standards, as allowed under Section 401 and under State law (20.6.2 New Mexico Administrative Code [NMAC]).

c. Review New Mexico Mining Act permit applications, inspect mine sites, and ensure that mining activities will not result in water quality standard exceedances.

d. Assist designated management agencies with developing procedures to ensure that proposed actions will not result in degradation of water quality in ONRWs.

e. Participate in collaborative forest restoration efforts by providing information related to water quality and forest ecology, as a means of preventing impacts to water quality from catastrophic wildfire.

f. Assist the SWQB Monitoring, Assessment, and Standards Section (MASS) with planning and implementing water quality surveys, providing available information relevant to sources of NPS pollution, and completing water quality assessments, TMDLs, and ARPs. Assist with development of NPS TMDLs.

g. Develop responses to climate change as discussed in Section 3.3 below.

2.3.2 Objective 3 Verification Milestones

a. Fund post-fire actions that reduce sedimentation and protect aquatic habitat, with support of Section 319 watershed project funds within 5 years of a major wildfire with severity outside the natural range of variability for the affected forest types occurring in a watershed with one or more with high-quality coldwater, coldwater, or coolwater aquatic life–designated streams. Time frame: Ongoing, as required.

b. Summarize CWA Section 401 certification activity for dredge and fill permits in the NPS Management Program Annual Report. Time frame: Annually.

c. Summarize activities related to the New Mexico Mining Act in the NPS Management Program Annual Report. Time frame: Annually.

d. Summarize significant developments related to ONRWs in the NPS Management Program Annual Report. Time frame: Annually.

e. Summarize activities related to forest restoration in the NPS Management Program Annual Report. Time frame: Annually.

f. Summarize water quality survey activity, analysis, and conclusions in the biennial Integrated Report. The NPS Management Program Annual Report for these years will provide the percentage of assessed stream miles or watersheds designated as impaired, for comparison with previous years. Time frame: Reporting for 2024, 2026, and 2028.

g. Summarize activities on how the NPS Management Program addressed climate change impacts, referring to information and guidance in Section 3.3 below, in the NPS Management Program Annual Report. Time frame: Annually.

2.4 Objective 4 – Share Information on Surface Water Quality

Increase and maintain public awareness of NPS pollution and water quality through an effective education and outreach program using strategically selected educational resources available throughout the State.

Public education and outreach can assist governmental agencies, nongovernmental organizations, and the public in understanding NPS pollution, ways NPS pollution can be prevented, and how to get involved in restoring watersheds and water quality.

2.4.1 Activities to Achieve Objective 4

WPS will carry out or facilitate the following activities in support of Objective 4:

a. Conduct a statewide workshop for NPS Management Program cooperators (subgrant recipients, contractors, agencies, etc.) at least annually.

b. Coordinate two statewide New Mexico Wetlands Roundtables, for agencies and nongovernmental organizations. Each group (one in southern New Mexico, and one in northern New Mexico) will each meet at least once a year and work together to improve wetlands resources in New Mexico. Topics highlighted by the Roundtable seek to make wetlands regulations more effective, improve wetlands restoration and mitigation, and develop wetlands monitoring and assessment and an integrated statewide database.

c. Participate as active members in watershed groups, providing critical information about water quality programs as new developments occur, and assist with technical aspects of watershed planning and project design as needed.

d. Publish *Clearing the Waters*, a semiannual newsletter detailing lessons learned of Section 319(h) projects and other NPS news.

e. Support education and outreach components of WBPs and alternatives to WBPs, with Section 319 funding. The application process for on-the-ground projects that implement acceptable watershed plans will clearly specify that education and outreach components of the plans are eligible for funding.

f. Provide educational opportunities for the public and private sector by coordinating with other State and federal agencies, soil and water conservation districts (SWCDs) and the New Mexico Association of Conservation Districts, local schools, and youth programs; hosting information sessions; and conducting public site tours of demonstration projects and best management practice (BMP) implementation sites.

g. Encourage environmental justice and participation in the NPS Management Program by New Mexico's full range of diverse communities as discussed in Sections 3.1 and 3.2 below.

2.4.2 Objective 4 Verification Milestones

a. Conduct a statewide NPS workshop and summarize the workshop in the NPS Management Program Annual Report. Time frame: Annually.

b. Include a description of the Wetlands Roundtable meetings in the NPS Management Program Annual Report. Time frame: Annually.

c. Publish *Clearing the Waters* with an email circulation of about 2,000 subscribers. Time frame: Semiannually.

d. Summarize education and outreach activities completed during the reporting period in the NPS Management Program Annual Report. Time frame: Annually.

e. Summarize how the NPS Management Program encouraged environmental justice, referring to information and guidance in Section 3.2 below, in the NPS Management Program Annual Report. Time frame: Annually.

2.5 Objective 5 – Protect Groundwater Quality

Maintain groundwater quality through the water fair and water-quality outreach program along with permitting and compliance assistance for large-capacity septic tank leachfields and surface disposal sites with efforts to understand water quality and protect groundwater from NPS pollution.

To identify possible NPS water quality problems in rural New Mexico communities, the NMED Ground Water Quality Bureau (GWQB) will conduct free testing of domestic wells ("water fairs") throughout the state. Domestic well owners will be educated about water quality issues and how they can help preserve or improve water quality in their communities. This program has proven to be very popular with the public and continues to provide NMED with valuable information on groundwater quality in rural communities. NMED continues to receive numerous requests for water fairs from community organizations, NMED field offices, other State, county, and city agencies, and private citizens. The Water Fair and Water Quality Outreach Program will be an important tool for identifying possible NPS water quality problems. The program will also be a great outreach tool, providing a visible and much appreciated service to the community.

In addition, groundwater quality will be protected from NPS pollution attributed to large-capacity septic tank/leachfield systems (septic systems) and surface disposal sites with permitting and compliance assistance. GWQB technical personnel will review Discharge Permit applications, develop Ground Water Discharge Permits, perform compliance assistance activities, and enforce Discharge Permit requirements for (primarily) large-capacity septic tank/leachfield systems and surface disposal sites. It is critical to make sure that the systems are operating pursuant to their Discharge Permits so that groundwater quality is monitored and, if contamination is detected, corrective action(s) are triggered.

2.5.1 Activities to Achieve Objective 5

The GWQB will carry out the following activities in support of Objective 5:

a. Conduct outreach through the water fair and water-quality outreach program, which will consist of approximately 10 water fair events per State fiscal year (July 1 to June 30), conducted in rural communities throughout New Mexico. To the extent possible, the events will be evenly distributed among three NMED Districts. Each water fair event will include the following:
    - Providing free testing of water samples from private domestic wells for nitrate, iron, sulfate, fluoride, conductivity, and pH using portable analytical equipment
    - Offering bacteria sampling kits at appropriate water fair events in response to wildfires and potential contamination of private water wells due to post-fire flooding and runoff
    - Conducting educational outreach activities on water quality issues that will be carried out through informative brochures, displays, and individual contact with NMED staff

b. Devote portions of staff time to permitting and compliance assistance activities for large-capacity septic systems. Activities include, but are not limited to, the following:
    - Conducting compliance inspections and file reviews
    - Holding compliance meetings and teleconferences
    - Drafting and issuing enforcement letters such as Notices of Non-Compliance, Notices of Violation, Discharge Permit Required and Abatement Plan Required
    - Issuing new and renewal Discharge Permits to facilities discharging without a Discharge Permit and facilities renewing their Discharge Permits
    - Drafting and issuing Compliance Orders
    - Testifying in administrative and judicial appeals
    - Participating in settlement negotiations
    - Creating and distributing outreach materials to assist permit holders in understanding requirements

2.5.2 Objective 5 Verification Milestones

The GWQB will carry out the following verification milestones in support of Objective 5:

a. Report the activities conducted under the CWA Section 319 grant for the New Mexico Water Fairs, Water Quality Outreach Program, and Permitting and Compliance for Large-Capacity Septic Tank Leachfields in GRTS. Time frame: Semiannually.

2.6 Objective 6 – Cooperate with Other Agencies on Water Quality Protection and Improvement

Actively manage a variety of natural resources to protect and restore water quality with assistance provided by the WPS and other SWQB programs, federal agencies, and State agencies in New Mexico.

According to current standard GIS datasets, approximately 33.6% of lands in New Mexico are owned by the public and managed by the federal government. An additional 11.6% of lands are managed directly by State agencies. Of the remainder, 10.5% lies within the lands of Tribes, Nations, and Pueblos in New Mexico, and 44.3% is owned or managed by local governments and private landowners. With few exceptions, federal land management agencies are required under the Federal Land Policy and Management Act of 1976, 43 USC 1701 et seq., to comply with federal and State water pollution control laws. To strengthen working partnerships and linkages to appropriate entities which implement portions of the NPS Management Program, WPS and other SWQB staff will conduct the following activities in the period covered by this Plan.

2.6.1 Activities to Achieve Objective 6

a. Revisit, renew, and implement the New Mexico Water Quality Protection Agreement, a Memorandum of Understanding (MOU) between NMED and the U.S. Department of Agriculture (USDA) U.S. Forest Service (Forest Service) Southwestern Region.

b. Participate in the State Technical Committee and subcommittees or work groups of the USDA Natural Resources Conservation Service (NRCS) related to water quality. One major purpose of this participation is to collaborate with NRCS in selecting or updating criteria used to prioritize proposed projects funded under the Environmental Quality Incentives Program (EQIP), including the National Water Quality Initiative, that address water quality problems.

c. Work with the Farm Service Agency (FSA) to determine feasibility of developing a Conservation Reserve Enhancement Program (CREP) agreement to support FSA Conservation Practice 22 (riparian buffers) in New Mexico.

d. Work with local governments and nongovernmental organizations, including Flood Control Districts and the SWCDs identified in Section 5.4.2 with the greatest number of assessed stream miles, to develop their programs and projects to protect and improve water quality.

e. Participate in statewide efforts related to water resources planning such as revision of the State Water Plan (coordinated by the Office of the State Engineer), State Wildlife Action Plan (coordinated by the New Mexico Department of Game and Fish [NMDGF]), and the Forest and Watershed Health Plan (coordinated by the Forestry Division of the Energy, Minerals and Natural Resources Department [EMNRD]). The aim of this participation will be to communicate applicable regulations and information generated by SWQB programs, and to encourage related programs to protect and restore water quality.

f. Publish the New Mexico NPS Management Program Annual Report. Seek annual input from cooperating agencies to update programs and tasks.

g. Revise the NPS Management Plan in coordination with implementing agencies and organizations.

2.6.2 Objective 6 Verification Milestones

These activities and milestones are critical aspects of the NPS Management Program and, as discussed in Section 1, are specifically required of State NPS management programs by CWA Section 319(b)(2) (State Management Programs – Specific Contents) and Section 319(h)(11) (Grant Program – Reporting and Other Requirements).

a. Renew the MOU between NMED and the Southwestern Region of the Forest Service, which will terminate in 2028. Target Date: 2028.

b. For each NPS Management Program Annual Report, report on agricultural BMPs funded under the National Water Quality Initiative or other conservation programs that have been implemented during the calendar year and provide sufficient details for SWQB to estimate pollutant load reductions for identified water quality impairments. Time frame: Annually.

c. Include at least one profile of a project intended to protect or improve water quality implemented by an SWCD, SWCD clients, or other local government agency or nongovernmental organization in the NPS Management Program Annual Report. Time frame: Annually.

d. Fund at least three competitively awarded water quality or aquatic habitat improvement projects with agencies or organizations with which NMED has not had an agreement within the previous 10 years. Target: Partner with three new agencies/organizations between 2024 and 2029.

e. Submit the NPS Management Program Annual Report to EPA by January 31 and post the report on SWQB's website. Time frame: Annually.

f. Revise the New Mexico NPS Management Plan to reflect input and review by implementing agencies and organizations. The Governor of New Mexico, or the Governor's designee, will submit the revised Plan to the EPA Regional Administrator. Target Date: 2029.

2.7 Milestones

Table B-1 in Appendix B lists the milestones for evaluating progress in achieving the NPS Management Program objectives. These activities and milestones are critical aspects of the NPS Management Program, and as discussed in Section 1, are specifically required of State NPS management programs by CWA Section 319(b)(2) (State Management Programs – Specific Contents) and Section 319(h)(11) (Grant Program – Reporting and Other Requirements).

3 The NPS Management Program Is for All New Mexicans: Statewide Initiatives, Environmental Justice, and Climate Change

As discussed in Section 1, the NPS Management Program's goal is to manage a balanced program that addresses existing water quality problems, prevents future impairments, and invests in communities and future generations to improve their capacity to protect and improve water quality. The NPS Management Plan provides direction for statewide initiatives aimed at specific priority watersheds. It also promotes water quality protection and improvement by outlining activities for SWQB staff and partner organizations for developing and implementing WBPs and alternative WBPs, under a variety of programs and funding sources and through oversight, inspection, enforcement, and public education and outreach activities.

This section describes statewide activities that NMED will undertake as part of the NPS Management Program. It also discusses how the program will address environmental justice and climate change.

3.1 Statewide Activities

Statewide activities include the following:

- Coordinate with Nations, Pueblos, and Tribes in New Mexico, and federal land management agencies, such as the Bureau of Land Management (BLM) and the Forest Service, regarding actions that regulate and affect water quality,
- Assist other water quality–oriented federal, State, and Tribal programs (including funding programs) to improve consistency with goals and objectives of the NPS Management Program,
- Coordinate Section 319(h)-funded projects with other agency and Tribal programs, using the watershed priority information outlined in Section 4, to steer project development and implementation and seek the best use of funding on a watershed scale, and
- Participate in education activities on a statewide basis (including on the lands of Nations, Pueblos, and Tribes in New Mexico) to generate greater awareness of NPS pollution problems and solutions and to provide guidance for restoration and protection of impaired surface water and groundwater resources.

The NPS Management Program will continue to coordinate with designated management agencies to provide direction and oversight to existing water quality–oriented agency programs and will initiate new outreach efforts involving agencies, watershed groups, educational institutions, industry groups, and environmental organizations.

3.2 Environmental Justice

New Mexico's diversity of landscapes and ecosystems is matched by its cultural diversity and varied lifeways. Unfortunately, New Mexico is also subject to a range of economic and social problems that place the state near the bottom of many rankings related to quality of life and opportunity, and large disparities exist between areas and communities within New Mexico.

Concern for water quality is often low among competing priorities. To be effective and serve New Mexicans, efforts to protect and improve water quality must be conducted within the larger context of equitable development and social and environmental justice.

Environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies.

Meaningful involvement means the following:

- People have an opportunity to participate in decisions about activities that may affect their environment and/or health,
- The public's contribution can influence the regulatory agency's decision,
- Community concerns will be considered in the decision-making process, and
- Decision-makers will seek out and facilitate the involvement of those potentially affected.

President Biden signed Executive Order (EO) 14008, "Tackling the Climate Crisis at Home and Abroad," in January 2021. Section 223 of EO 14008 outlines next steps for the Justice40 Initiative, including establishing a goal that 40% of the overall benefits of certain federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution.

The CWA Section 319 grant program is covered by the Justice40 Initiative. In 2022, EPA established a website with resources on equity and environmental justice for the national NPS Program.[17] EPA also conducted several listening sessions and quarterly updates as it began developing guidance or requirements for states that receive Section 319 grants to implement the Justice40 Initiative.

The sections that follow summarize actions taken in recent years by NMED across all programs to improve environmental justice and environmental justice components specific to the NPS Management Program.

3.2.1 Department Policies and Procedures Supporting Environmental Justice

In 2018, NMED adopted two new policies related to equity and environmental justice. First, Policy 07-11, "Limited English Proficiency (LEP) Accessibility & Outreach," requires programs to conduct limited English proficiency analyses for activities or proceedings that require public participation. CWA Section 401 certifications are included in this requirement, as is the public comment period for this NPS Management Plan revision. LEP analyses typically use the American Communities Survey data from the U.S. Census Bureau accessed within EPA's Environmental

[17] EPA. 2023b. Equity and Environmental Justice in the Nonpoint Source Program. Available at: https://www.epa.gov/nps/equity-resources. Accessed April 2024.

Justice Screening and Mapping Tool[18] to determine the number or percentage of linguistically isolated households, as well as the languages spoken in those households, within the area affected by the NMED activity or proceeding. Appropriate methods are then selected to increase the likelihood that LEP individuals and households will receive information on public participation opportunities.

For the NPS Management Program, a typical conclusion has been that public participation opportunities need to be published or otherwise disseminated in Spanish as well as English. For actions affecting the whole state such as Section 401 certification of a statewide Section 404 Regional General Permit, data from EPA's Environmental Justice Screening and Mapping Tool[19] indicate that 5% of New Mexico's households are "limited English households." Approximately 80% of these households speak Spanish with 13% speaking other languages, most likely native Indigenous languages. For an action with more limited geographic scope, a buffer is typically used, such as a radius of 5 miles from a project requiring a Section 404 permit. In these smaller areas, Spanish is frequently the main language of linguistically isolated individuals, followed by smaller numbers of many other languages, including Indigenous languages. In a few instances, Indigenous languages have been the most common languages in linguistically isolated households.

The second policy related to equity and environmental justice, adopted by NMED in 2018, is policy 07-13, "Public Participation." A key aspect of this policy is to support involvement of all people in NMED's activities and proceedings by further educating NMED staff on the topics of federal civil rights requirements, environmental justice, and public participation. The policy also supports providing opportunities for public participation above and beyond NMED's statutorily mandated public participation requirements. In addition to limited English proficiency, the policy requires NMED staff to consider how best to reach minority communities and people with low income. The policy requires development of a Public Involvement Plan (PIP) for any activity or proceeding requiring public participation. Example PIPs are available on NMED's public notices website.[20] To better comply with this policy, WPS began providing all announcements made to subscribers of the SWQB email list in English and Spanish (with translations provided by a certified translator) in 2022.

Organizationally, NMED has encouraged greater transparency in recent years by making information on public processes available more directly from the main NMED website in a uniform format, rather than from the pages for various bureaus and programs with different formats or styles. In addition to the public notices website mentioned above, in 2021, NMED began posting events, meeting notices, public comment deadlines, funding opportunity deadlines, etc., on a department calendar.[21] In 2022, NMED established a public comment portal.[22]

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[18] EPA. 2024. EJScreen: Environmental Justice Screening and Mapping Tool. Available at: https://www.epa.gov/ejscreen. Accessed April 2024.

[19] EPA. 2024. EJScreen: Environmental Justice Screening and Mapping Tool. Available at: https://www.epa.gov/ejscreen. Accessed April 2024.

[20] NMED. 2024d. Public Notices. Available at: https://www.env.nm.gov/public-notices/. Accessed April 2024.

[21] NMED. 2024e. Events Calendar. Available at: https://www.env.nm.gov/events-calendar/. Accessed April 2024.

[22] NMED. 2024f. The New Mexico Environment Department comment portal. Available at: https://nmed.commentinput.com. Accessed April 2024.

3.2.2 NPS Management Program Components Supporting Environmental Justice

Many communities and local organizations with jurisdictions appropriate for watershed planning (e.g., SWCDs, county governments, nongovernmental organizations) lack resources to conduct watershed planning, such as personnel with appropriate specialized training, public support, and funding. The NPS Management Program will fund projects that develop local capacity to conduct watershed planning, using an RFA as discussed in Section 2.1 above. These projects can include training for local personnel, synthesis of WBP or alternative WBP components (such as problem definition and goal formulation) from existing information and data provided by WPS staff, water quality monitoring, and formation of organized watershed groups, and funding to increase public engagement and public support. More information on Type 1 Watershed Planning Projects for Capacity Building is provided in Section 4.3.1 below. This activity can benefit disadvantaged communities as well as communities that need assistance with addressing NPS pollution.

The NPS Management Program also includes elements to improve coordination with Tribal agencies, such as Section 2.6 above on interagency cooperation. There are many places where water flows between State and Tribal jurisdictions and where rivers define the boundaries between State and Tribal jurisdictions, in which case both jurisdictions may apply. In all of these situations, water quality problems identified by a Tribal agency or NMED should be approached from a watershed perspective. As stated in Section 2.1 above, WPS will encourage participation of all stakeholders in watershed planning efforts, including from other states, Indigenous nations, Pueblos, and Tribes when watersheds cross jurisdictional boundaries, and incorporate water quality program materials prepared by these jurisdictions into watershed plans when appropriate. Beginning in 2023, EPA will accept current EPA-approved Tribal NPS Management Plans as an alternative to a nine-element WBP. States may award CWA Section 319 watershed project funds to CWA Section 319–eligible Tribes to implement projects consistent with these plans.

The NPS Management Program can also support environmental justice through environmental education. Environmental education has long-term benefits to water quality that are difficult to quantify. Environmental education ensures that the next generation will be able to make land use and policy decisions that protect water quality. As stated in Section 2.4 above, WPS will provide educational opportunities for the public and private sector by coordinating with other State and federal agencies, Tribes, SWCDs and the New Mexico Association of Conservation Districts, and local schools and youth programs; hosting information sessions; and conducting public site tours of demonstration projects and BMP implementation sites.

An additional way in which the NPS Management Program supports environmental justice and disadvantaged communities is through a policy change beginning with this plan revision regarding non-federal match. Section 319(h)(3) of the CWA states, “The Federal share of the cost of each management program implemented with Federal assistance under this subsection in any fiscal year shall not exceed 60 percent of the cost incurred by the State in implementing such management program and shall be made on condition that the non-federal share is provided from non-federal sources.” States usually pass on this 40% non-federal match requirement to subgrant recipients and often to contractors, such that an individual project can only be funded with Section 319 funds up to 60% of the project cost. However, this plan revision establishes that NMED may reduce the match requirement to as low as 10% of total project costs, depending on its ability to comply with Section 319(h)(3) through other sources of non-federal funds that support the NPS Management

Program, such as River Stewardship Program funds. Reducing the non-federal match requirement for individual projects will facilitate project development in areas with a prevalence of federal land and federal cooperators whose expenses cannot be reported as match and will reduce the burden on disadvantaged communities.

The Climate and Economic Justice Screening Tool,[23] developed as guidance for EO 14008, shows that approximately 90% of New Mexico qualifies as a disadvantaged community. The goal of EO 14008 is for 40% of the overall benefits of certain federal investments, including Section 319, to be directed to disadvantaged communities. Additionally, beginning in 2023, EPA guidelines will allow use of watershed project funds to support WBP development and capacity building in disadvantaged communities, and these projects can also include implementation of demonstration projects.

Each step of the project development and management process, from the RFA to the management of existing projects, will include specific language and considerations to increase involvement by representatives of all groups and communities within the watershed. NMED will develop an RFA process that awards additional points to those projects that benefit disadvantaged communities and address environmental justice.

3.3 Climate Change

In 2022, the New Mexico Bureau of Geology and Mineral Resources completed a report[24] known as the Leap Ahead Report on the expected impacts of climate change on water resources in New Mexico over the next 50 years. The New Mexico Bureau of Geology and Mineral Resources completed the report to support the Interstate Stream Commission's (ISC's) development of a 50-year water plan for New Mexico. A chapter on impacts of a warming climate to water quality provides a comprehensive summary of expected impacts based on past studies. A key conclusion of the report is that "water-quality issues that are likely to be of increasing concern due to climate warming are temperature and *E. coli* concentrations. Future changes in nutrient concentrations and eutrophication are uncertain but not predicted to be problematic, however, they have not been the subject of much investigation." The report also noted that wildfires, expected to increase in frequency and intensity partly because of climate change, may increase loading of sediment, nutrients, organic compounds, and metals. A study cited in the report found that dissolved oxygen minima extended more than 200 miles downstream from the burn area of the 2011 Las Conchas fire during summer monsoon rains, due to the increase in nutrients or biochemical oxygen demand in post-fire runoff.

In 2019, Governor Lujan Grisham issued an EO for New Mexico to join the United States Climate Alliance and set an economy-wide greenhouse gas emissions target of 45% below 2005 levels by 2030 (EO 2019-003). This EO also established a Climate Change Task Force to evaluate policies and strategies to achieve the target. Interagency subgroups of the Climate Change Task Force called Climate Action Teams have taken on more detailed planning to reduce greenhouse gas

[23] Council on Environmental Quality. 2022. Climate and Economic Justice Screening Tool. Available at: https://screeningtool.geoplatform.gov/en. Accessed April 2024.

[24] New Mexico Bureau of Geology and Mineral Resources. 2022. *Climate change in New Mexico over the next 50 years: Impacts on water resources*. Bulletin 164. Available at: https://engagenmwater.org/. Accessed April 2024.

emissions and increase resiliency to climate change. A greenhouse gas emissions inventory and forecast supported through this effort projected the effects on various emissions sectors by current initiatives and longer-term proposals, concluding that these actions are not sufficient to achieve the overall reduction goal and that "[f]urther reductions outside of buildings, transportation and electricity generation are needed, primarily in oil and gas production but also in other non-energy sources such as agriculture and natural and working lands."[25] Through carbon sequestration by restored wetlands and riparian areas, the NPS Management Program may be able to contribute to meeting greenhouse gas emissions goals for natural and working lands.

Subsections below describe how the New Mexico NPS Management Program intends to reduce the impacts of climate change and how the program can support greenhouse gas emission reduction goals.

3.3.1 Adaptation to Climate Change

The NPS Management Program helps New Mexicans adapt to climate change by focusing on addressing temperature impairments and encouraging protection and restoration of floodplain and riparian area functions related to flood attenuation and pollutant filtering. Temperature is the most common surface water quality impairment in New Mexico. Of the 8,671 miles of assessed streams provided in the 2024–2026 Integrated Report, 2,494 stream miles (29%) are listed as impaired by temperature, and 52% of *all* impaired streams are impaired at least partially due to temperature. TMDLs for temperature include a margin of safety that, while not specifically intended to anticipate the effects of rising air temperatures, address uncertainty in various model inputs that may be affected by climate change. Air temperature is the variable with the greatest effect on stream temperature, followed by shade. Flow and stream channel geometry are usually considered less influential, although some stream systems are believed to have significant flow occurring in the hyporheic zone (underground, near the stream), and hyporheic exchange may also effectively reduce stream temperature maxima.

Weber and others[26] found statistically significant reductions in temperature maxima with beaver colonization as well as construction of artificial beaver dams (beaver dam analogs), supporting the notion that hyporheic flow encouraged by reconnection with floodplains and increased channel complexity (including pool depth) more than compensate for potential effects of riparian vegetation removal by beaver and increased surface area of beaver-impounded streams.

Many NPS projects focus on reducing stream temperature by improving stream shade, and the increased filtering effect of a more thickly vegetated riparian area generally reduces loading of other pollutants such as *E. coli*.

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[25] Bharadwaj, Sharad, Rawley Loken, Tory Clark, and Amber Mahone. 2020. *New Mexico Greenhouse Gas (GHG) Emissions Inventory and Forecast*. Energy and Environmental Economics, Inc. (Prepared for Center for the New Energy Economy at Colorado State University). October 27. Available at: https://cnee.colostate.edu/wp-content/uploads/2021/01/New-Mexico-GHG-Inventory-and-Forecast-Report_2020-10-27_final.pdf. Accessed April 2024.

[26] Weber, Nicholas, Nicolaas Bouwes, Michael M. Pollock, Carol Volk, Joseph M. Wheaton, Gus Wathan, Jacob Wirtz, and Chris E. Jordan. 2017. Alteration of stream temperature by natural and artificial beaver dams. *PLoS ONE* 12(5):e0176313. Available at: https://doi.org/10.1371/journal.pone.0176313. Accessed April 2024.

Earlier and faster spring runoff, longer dry periods interspersed with intense rainfall, and increased runoff as a result of forest fire are already occurring in New Mexico and are expected to intensify as a result of climate change. Projects and land management changes funded or encouraged by the NPS Management Program are expected to mitigate these effects through support of more erosion-resistant banks and floodplains which can accommodate flood flows. When streams flood their natural floodplains, the result is that peak flows are reduced and elevated flows are attenuated (spread out over more time, with reduced flows) downstream. Increasing the health of riparian areas and wetlands adjacent to streams can also help maintain base flows.

3.3.2 Reduction of Greenhouse Gas Emissions

The NPS Management Program can help reduce net greenhouse gas emissions by reducing emissions associated with projects and program activities and by supporting projects and land management changes that increase carbon sequestration. Some stream restoration approaches are less resource-intensive and result in reduced emissions. Ways in which the NPS Management Program will continue to reduce greenhouse gas emissions include the following:

- Continued development of a decentralized office structure in which NMED employees work closer to home and travel shorter distances to assigned projects and field sites,
- Continued use of technology for communication, such as conducting some meetings virtually and thus reducing travel,
- Support of passive restoration methods where appropriate, requiring less earthwork and imported construction materials,
- Support of restoration approaches using natural, locally available materials and hand labor where appropriate, and
- A shift to a more fuel-efficient vehicle fleet, including hybrid and electric vehicles, which provides a co-benefit to water quality by reducing the atmospheric deposition of pollutants that are associated with the combustion of fossil fuels.

In addition, stream and wetland restoration has potential for carbon sequestration.[27] Although riparian areas and wetlands cover a small percentage of New Mexico's area, their potential for carbon sequestration per unit area is large. NMED staff working on the NPS Management Program will continue to participate in statewide planning related to climate change and will explore options for participating in carbon accounting. If carbon sequestration in restored wetlands and riparian areas is significant enough to be accounted for, project proponents may receive credit for implementing them, and the credit could become an additional incentive for implementing wetland and riparian restoration.

[27] Franklin, Abe. 2022. Carbon sequestration in montane wetlands: A review for New Mexico. *Clearing the Waters* 26(3):3. New Mexico Environment Department. Available at: https://www.env.nm.gov/surface-water-quality/newsletters/. Accessed April 2024.

4 Priorities and Approaches for Nonpoint Source Pollution Control

In addition to collecting and summarizing information in a watershed plan, the watershed planning process encourages partnerships. Participating organizations and stakeholders build the necessary knowledge and relationships to effectively use a variety of programs.

4.1 Assessment Process Overview

Most of New Mexico's priorities for NPS pollution planning and implementation are based on SWQB's water quality monitoring and assessment programs. New Mexico water quality standards development, water quality surveys, assessment, and TMDL development are led by MASS, with significant assistance from other SWQB staff, including the WPS. SWQB implements clean water programs by seeking and considering stakeholder and public input and involvement in water quality assessment determinations, water quality standards development and amendments, and TMDLs, including public meetings, hearings, and formal public comment periods as appropriate or required.

SWQB typically uses a targeted, rotational approach to water quality monitoring and watershed surveys in order to identify water quality standards exceedances and associated data needs. Under this type of approach, the state is divided into 10 watersheds or groups of watersheds and two areas are intensively monitored over a 2-year period, depending on staff and financial resources. This 10-year rotational cycle identifies water bodies where water quality problems exist, serves to prioritize and redirect SWQB resources to best protect and restore water quality, and informs WPS. As part of these surveys, monitoring is often conducted above and below point source discharges (e.g., wastewater treatment plants) to assess the impact of their discharges. The surveys planned from 2021 through 2030 are depicted in Figure 1.

The SWQB website presents the field sampling plans describing current surveys.[28] A report summarizing the data collected during each 2-year rotational survey will be available at the same website in the year following completion of the survey (2025, 2027, etc.).

Additional short-term targeted monitoring designs address special concerns such as citizen complaints, accidental spills, fish kills, or illegal dumping.

[28] NMED. 2024g. Water Quality Monitoring. Available at: www.env.nm.gov/surface-water-quality/water-quality-monitoring. Accessed April 2024.

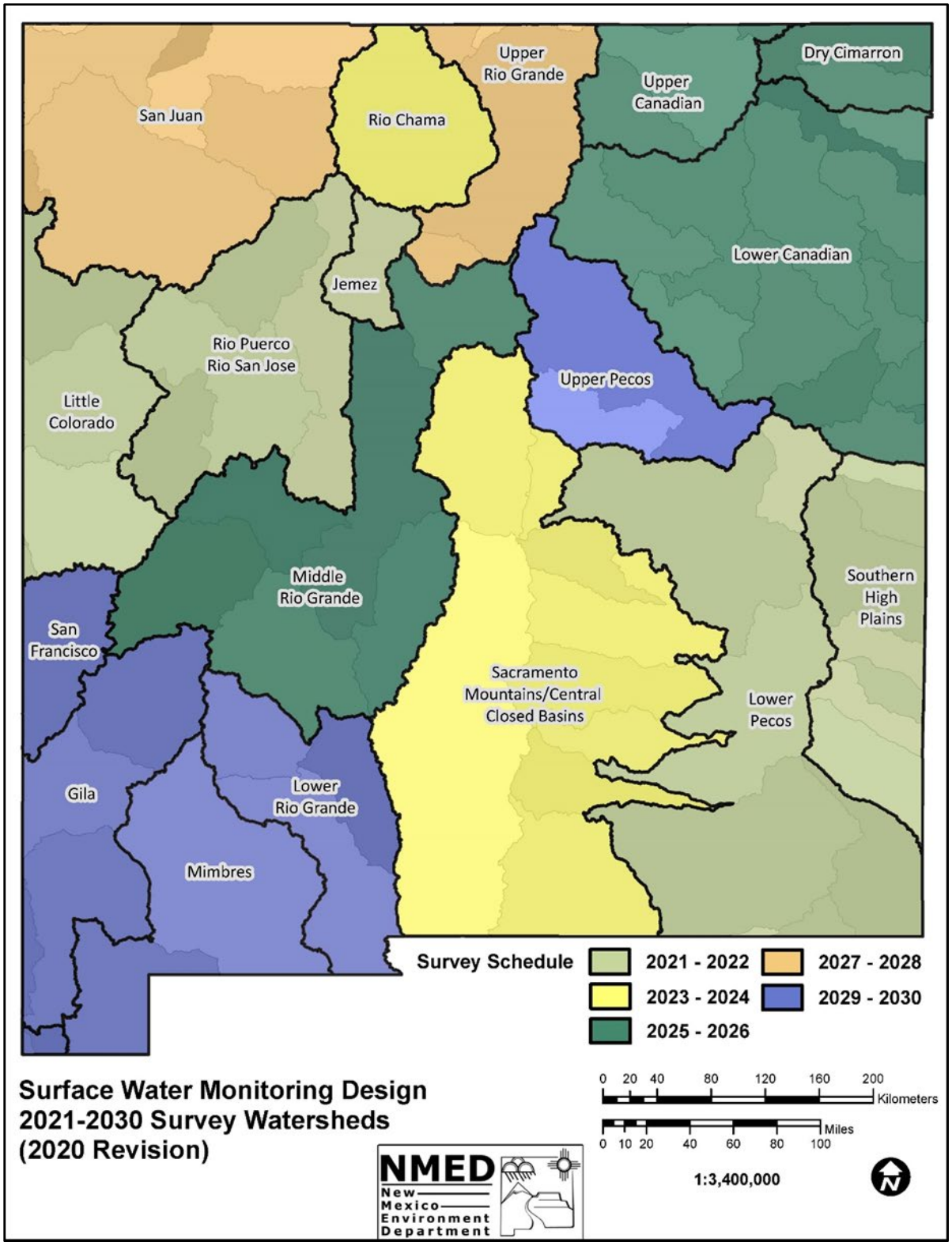

Figure 1: Surface Water Quality Bureau 10-year water quality survey plan.

MASS evaluates streams and lakes specifically defined as assessment units (AUs). For example, the assessment team evaluates water quality data from the "Rio Ruidoso (Perennial portions from Rio Bonito to Eagle Creek)" as an AU. All AUs are assigned assessment categories as described in the *Comprehensive Assessment and Listing Methodology (CALM): Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d) /§305(b) Integrated Report* (CALM).[29] Each AU contains assessment categories by parameter, which recognize, for example, that an AU may have one impairment parameter with a TMDL (Category 4A) and another impairment parameter that still needs a TMDL (Category 5A).

All collected data (with an exception noted below) are assessed against the most current EPA-approved version of the *State of New Mexico Standards for Interstate and Intrastate Surface Waters* (20.6.4 NMAC) to produce a new Integrated Report every other year. Using the protocols in the CALM, MASS assesses all available data of sufficient quality to determine whether an AU is achieving water quality that supports its designated uses. All AUs (i.e., water bodies) in Categories 4 or 5 in the Integrated Report are impaired for one or more parameters.

Impairments identified through this process may originate from a combination of point and nonpoint sources. The subsequently developed TMDLs determine the maximum amount of a pollutant that can enter a water body without causing impairment and estimate the amounts of loading (current and a desired maximum) contributed by point and nonpoint sources. Very few impaired waters in New Mexico are impaired solely by point source pollution. If an AU is clearly impacted disproportionately by point sources, regulatory mechanisms are likely to serve a greater role in addressing those water quality problems than the NPS Management Program.

MASS typically does not prioritize recently burned watersheds for monitoring, and the 2023 CALM[30] guides MASS to treat post-wildfire water quality data as nonrepresentative data that should not be assessed. Streams and lakes within these watersheds may be within any assessment category, including Category 1 (unimpaired), Category 2 (attaining some designated uses, but not fully assessed), Category 3 (unassessed), and Categories 4 and 5 (described above). Wildfire may result in new water quality problems that are not recognized as impairments, and these problems may persist for years without being documented in an Integrated Report.

MASS does not assess water quality standards attainment of wetlands. This is generally due to lack of numeric or narrative standards specific for wetlands. The New Mexico Wetlands Program, funded separately in part by CWA Section 104(b)(3) Wetlands Program Development grants, is developing wetland function information and Rapid Assessment Methods that will support assessment of wetlands per Sections 303(d) or 305(b), but at this time they are not assessed.

[29] NMED. 2023. *Comprehensive Assessment and Listing Methodology (CALM): Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d) /§305(b) Integrated Report*. August 21. Available at: https://www.env.nm.gov/surface-water-quality/wp-content/uploads/sites/18/2023/08/2023-CALM_FINAL_all-appendices.pdf. Accessed April 2024.

[30] NMED. 2023. *Comprehensive Assessment and Listing Methodology (CALM): Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d) /§305(b) Integrated Report*.

4.2 Priorities for Watershed Planning

4.2.1 Introduction

Appendix A provides the nine elements of WBPs and five elements of acceptable alternative plans. The nine elements of WBPs are intended for waters impaired by NPS pollution loading. Alternative plans are intended to protect water quality, address hydrologic problems (e.g., in Category 4C streams), address emergencies (e.g., wildfire impacts), or address simple water quality problems to fully meet water quality standards in a short period of time where a nine-element plan is unnecessary. The NPS Management Program supports planning under each of these options.

Identification of priority watersheds for watershed planning is intended to serve as a guide for early planning activities, as encouragement for planners to direct attention to areas that increase the likelihood of producing measurable improvements in water quality or new protections of existing high-quality waters, and as an aid to measuring progress.

4.2.2 Watersheds of Waters Impaired by Nonpoint Source Pollution Loading (Categories 4A and 5A)

Category 4A waters are impaired for one or more designated uses, and a TMDL has been completed. Where TMDLs are available, TMDL writers have looked closely at existing data to confirm impairment, they may have collected supplemental data as needed to characterize loading, and they published their analyses using a public process. These final documents typically include estimates of load reductions required for a stream to meet the New Mexico water quality standards. TMDLs establish separate maximum acceptable loads for point and nonpoint sources. TMDLs do not establish separate load reduction goals for each individual point and nonpoint source, but most TMDLs establish an overall load reduction goal.

Category 5A waters are impaired for one or more designated or existing uses, and a TMDL is underway or scheduled. Some Category 5A waters have been impaired for many years, and SWQB has postponed TMDL development for reasons such as plans to review standards for a larger region or plans to collect additional data in a basin before developing additional TMDLs. As of 2024, none of the impaired lakes—except for one—have WQCC- and EPA-approved TMDLs. Including these waters allows the NPS Management Program to proceed with characterizing pollutant loading and to move toward solutions in advance of TMDL development. WBPs can also contribute information for TMDL documents and, as noted below, may in some cases provide information sufficient to allow TMDL development to be postponed.

The NPS Management Program will also support development of ARPs, which can be considered an alternative plan to the traditional TMDL planning documents and nine-element WBPs. An ARP is a near-term plan, or description of actions, with a schedule and milestones that is more immediately beneficial or practicable to achieving water quality standards and is particularly appropriate in watersheds with active, engaged stakeholders.[31] ARPs and WBPs contain much of

[31] EPA. 2024. Advance Restoration Plans. Available at: https://www.epa.gov/tmdl/advance-restoration-plans. Accessed April 2024.

the same elements and information. Combining the traditional TMDL planning documents and the nine-element WBPs is expected to reduce the amount of time it takes to develop planning documents in order to more quickly support on-the-ground projects and implementation work in the watershed.

The NPS Management Program designates the watersheds of Category 4A and 5A lakes and streams as priorities for developing WBPs. During the term covered by this NPS Management Plan, WPS will develop new guidance for WBPs specific to New Mexico, support development of new WBPs, and support updating existing WBPs through an RFA or RFP as described in Section 2.1 above.

4.2.3 Watersheds of Waters Impaired by Flow Regime Modification (Category 4C)

Another limited category of streams recognized in the Integrated Report consists of streams with at least one designated use not supported, but a TMDL is not required because the impairment is due to reduced flow rather than an excess of pollutants (Category 4C streams). Watersheds with Category 4C streams are included as priority watersheds for watershed planning in the NPS Management Program. The NPS Management Program designates the watersheds of Category 4C streams as priorities for developing alternative WBPs. During the term covered by this NPS Management Plan, WPS will develop guidance for alternative WBPs and support development of alternative WBPs.

4.2.4 Watersheds of Impaired Waters with Advance Restoration Plans (Category 5R)

A WBP may serve as an ARP for a stream in Category 5R. Category 5R was created to encourage integration of NPS management programs and TMDL programs, reduce the amount of time between water quality problem recognition and water quality problem solution, and encourage more public involvement in local water quality planning. During the term of this NPS Management Plan, MASS and WPS may select one or more AUs in Category 5A to develop WBPs or ARPs in-house. Such watersheds will be selected based on the presence of interested stakeholders and impairment parameters for which TMDLs have not yet been prepared. More information is included in the 2023 CALM.[32]

EPA may later require TMDL development for a stream in Category 5R if the ARP is not implemented or does not result in water quality standards attainment within a reasonable amount of time.

The NPS Management Plan designates the watersheds of streams in Category 5R as priorities for developing and updating WBPs. Minor technical revisions and updates will often be sufficient for maintaining WBPs for Category 5R streams. During the term covered by this NPS Management Plan, WPS will support updating of WBPs through the RFA or RFP described in Section 2.1 above.

[32] NMED. 2023. *Comprehensive Assessment and Listing Methodology (CALM): Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d)/§305(b) Integrated Report.*

4.2.5 Watersheds of Outstanding National Resource Waters

A significant tool for protecting water quality is the designation of ONRWs, a concept found in EPA water quality standards regulations at 40 CFR 131.12. Designation as an ONRW is intended to ensure water quality is maintained or improved following designation. 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 (20.6.4.9.B NMAC). ONRW designation does not limit existing uses if these uses do not degrade water quality from levels present at the time of designation. The antidegradation provisions for ONRWs are contained in the water quality standards at 20.6.4.8 NMAC and allow beneficial watershed protection and restoration activities that might temporarily reduce water quality.

The streams, lakes, and wetlands currently designated as ONRWs are listed in the water quality standards at 20.6.4.9 NMAC. Specific wetlands identified at 20.6.4.9 NMAC or in related documents cited by 20.6.4.9 NMAC have also been designated as ONRWs. Prior to 2023, all ONRWs were within National Forest System designated wilderness areas and within the Valle Vidal Unit of the Carson National Forest. In early 2023, EPA approved a new group of ONRWs that includes streams flowing within lands managed by the National Park Service, BLM, and Forest Service and within private lands. ONRWs may also be reviewed using NMED's online GIS tool.[33] One of the new ONRWs forms the boundary between BLM land and Taos Pueblo, and Taos Pueblo shares jurisdiction with the State of New Mexico for CWA programs there.

ONRWs may be in any assessment category, including impaired categories. Therefore, a nine-element WBP or alternative WBP, or a plan with elements of both, may be appropriate for the watershed of an ONRW, depending on its impairment status.

The NPS Management Program designates the watersheds of ONRWs as priorities for developing WBPs or alternative WBPs, as appropriate for protection of water quality in the watershed. During the term covered by this NPS Management Plan, WPS will develop guidance for writing WBPs or alternative WBPs to protect water quality in ONRWs and support development of these plans through the RFA or RFP process described in Section 2.1 above.

In addition, SWQB, WQCC, and designated management agencies have ongoing responsibility for reviewing projects, management changes, and fire-suppression activities in the watersheds of ONRWs. These responsibilities are outlined in the antidegradation provisions of the New Mexico water quality standards (20.6.4 NMAC), and in an MOU between NMED and the Southwestern Region of the Forest Service.

4.2.6 Fire-Impacted Watersheds

Fire-impacted watersheds draining to streams with coldwater or coolwater aquatic life–designated uses may be identified as additional priorities for watershed planning. Streams within these watersheds may be within any assessment category, including Category 1 (unimpaired), Category 2 (attaining some designated uses, but not fully assessed), Category 3 (unassessed), and Categories

[33] NMED. 2024c. EnviroMapper application. Available at: https://gis.web.env.nm.gov/oem/?map=swqb.

4 and 5 (described above). Depending on when a wildfire occurs with respect to the rotational watershed monitoring schedule, it may result in new impairments that persist for years without being recognized under New Mexico's CWA 303(d) list of impaired waters. MASS lacks the resources to prioritize burned watersheds for monitoring, and the 2023 CALM[34] includes guidelines for water quality data collection following a fire. While the NPS Management Program may not be able to fully address the short- or medium-term impacts of wildfires such as those experienced in 2022, the program may be able to achieve long-term restoration results in watersheds identified by engaged watershed groups, landowners, and other stakeholders.

During the term covered by this NPS Management Plan, WPS staff will develop Post-Fire Watershed Mitigation Action Plans in-house, with cooperator involvement, prior to requesting implementation funds to implement the plans.

The NPS Management Program approached the problems of post-fire water quality impacts on a pilot or experimental basis through the period covered by the 2019 NPS Management Plan and will continue to develop approaches for future prioritization through the term covered by this Plan.

A portion of Section 319 funds will be used to support projects that protect water quality following unnaturally intense wildfire, if such fires occur during the period covered by this NPS Management Plan. These projects will be developed through a planning process and will be conducted in watersheds with one or more streams with a coldwater or coolwater aquatic life–designated use, where a major wildfire has occurred with severity outside the natural range of variability for the affected forest types. Some Section 319 funds will also be used to implement WAPs, alternative WBPs that typically describe actions that may both protect and restore wetlands and downstream waters.

4.2.7 Summary

Based on the 2024–2026 Integrated Report, 317 AUs have impairments in Categories 4A or 5A, for which a nine-element WBP or alternative WBP is an appropriate planning approach. Three AUs have impairments in Category 4B or 5R, for which updates to existing plans may be appropriate. Seventeen AUs have impairments in Category 4C. In total, 340 AUs have impairments in one or more of these categories. The watersheds that contain or drain directly to these impaired streams are among priority watersheds for planning.

In total, 141 AUs are designated as ONRWs and are in various assessment categories. The watersheds (with 12-digit HUCs) that contain or drain directly to ONRWs are among priority watersheds for planning. The specific type of plan appropriate for each watershed depends on the impairment status of streams in the watershed. As indicated above, some wetlands are designated as ONRWs. These are generally associated with ONRW streams or lakes, and in no case is an ONRW wetland found in a 12-digit HUC watershed without an ONRW stream.

When the priority watersheds described above are counted together, 727 unique 12-digit HUCs are priority watersheds. These are depicted in Figure 2 below and are identified as "NPS Priority

[34] NMED. 2023. *Comprehensive Assessment and Listing Methodology (CALM): Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d) /§305(b) Integrated Report*.

Watersheds – Planning" (under the tab Nonpoint Source Program tab) in NMED's online GIS tool.[35] Additional watersheds impacted by fire will be identified as priorities for developing post-fire alternative WBPs.

The list of priority watersheds and impaired waters is subject to change as the status of waters in the Integrated Report changes. NMED will update its online GIS tool[36] periodically to reflect these changes. The priority watershed GIS layers are also available from NMED upon request.

[35] NMED. 2024c. EnviroMapper application. Available at: https://gis.web.env.nm.gov/oem/?map=swqb. Accessed April 2024.

[36] NMED. 2024c. EnviroMapper application.

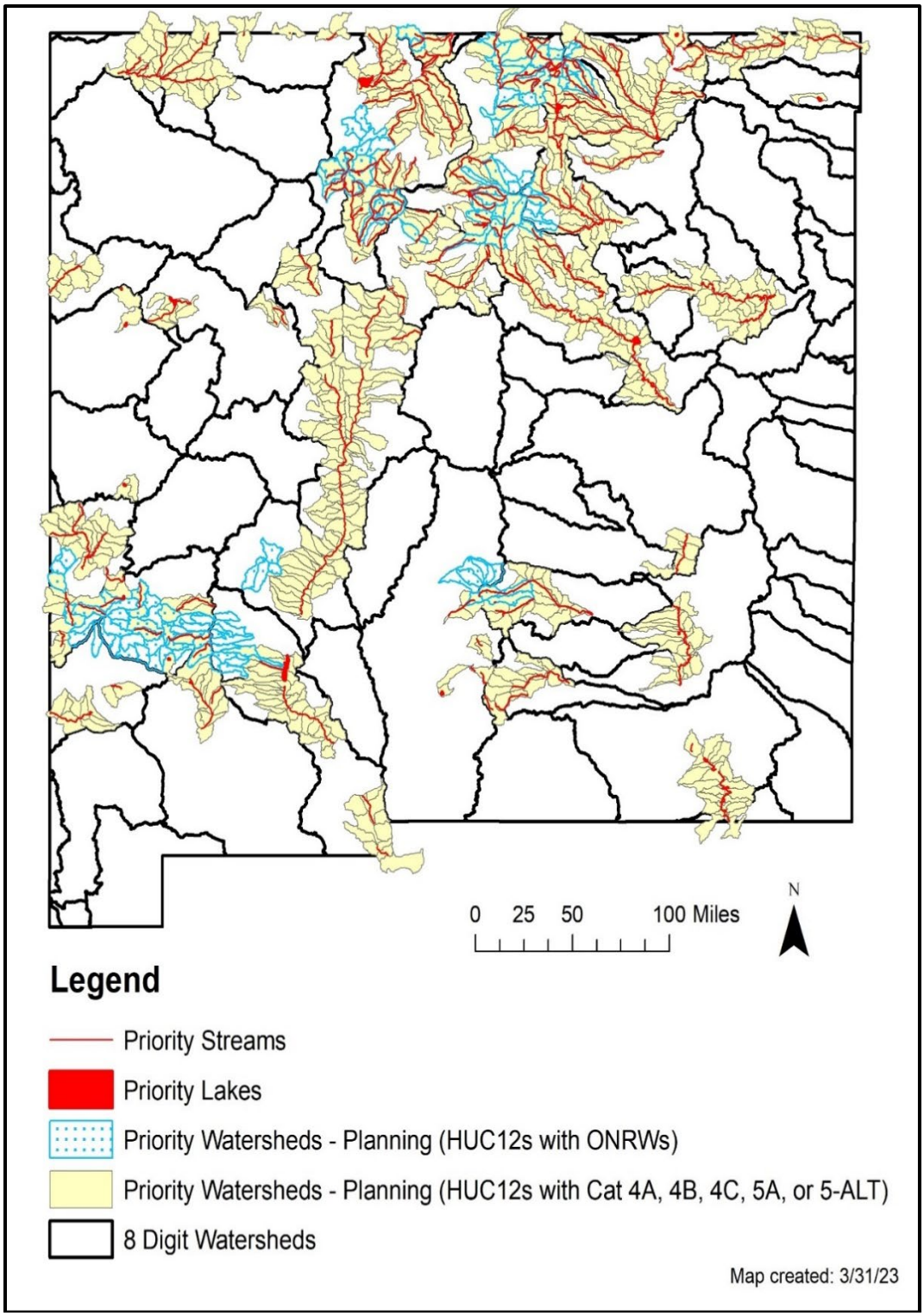

Figure 2: Priority streams and watersheds for watershed planning.

4.3 Approaches for Watershed Planning

The following subsections describe four types of planning projects supported under the NPS Management Program through the activities described in Section 2.1 above. One or more RFAs or RFPs will be used to develop watershed planning projects described in this section and in the two sections below. An RFA is a competitive project selection process by which NMED will award subgrants of Section 319 funding to implement watershed-based planning or implementation projects. An RFP is similar but is administratively more complex, with more streamlined requirements for cooperators, and RFPs result in contracts rather than subgrants. WPS will develop a single form that allows applicants to apply for the project type or types appropriate for their watershed of interest. For example, a resulting project may develop the nine WBP elements for an impaired stream and address the five elements of alternative WBPs for an unimpaired stream in the same watershed.

4.3.1 Type 1 Watershed Planning Projects for Capacity Building

These projects may cover more than one priority watershed for planning. Approximately one to three Type 1 projects will be funded every 2 years. These projects will serve to organize and inform stakeholders under concepts of watershed and water quality management and develop their capacity for further planning and implementation demonstrated through development of follow-on projects and formation of organized watershed groups.

An analysis of Section 319 planning and implementation projects showed that 61% of projects initiated between 2012 and 2018 addressed streams in just three northern New Mexico counties: Rio Arriba, San Miguel, and Sandoval. Further, 82% (28 of 34) of these projects occurred within a 100-mile radius of Santa Fe. The same analysis of projects initiated from 2016 through 2022 showed that the percentage in the three northern counties decreased to 41%, and 34% were within 100 miles of Santa Fe. While this shift represents improvement, Type 1 planning projects are intended to help address the remaining disparity and to initiate NPS Management Program activity in new watersheds by encouraging basic community organizing, information sharing, and consensus building in areas with limited or no past NPS Management Program activity.

4.3.2 Type 2 Projects for New Nine-Element WBPs

Watersheds will be selected for development of new nine-element WBPs through an RFA or RFP, at a rate of approximately one to three projects every 2 years. These projects will be funded with Section 319 funds or with State funds if available.

During the period covered by this NPS Management Plan, SWQB may also develop one or more WBPs in-house with substantive stakeholder involvement for Category 4A or 5A streams. In the case of Category 5A streams, SWQB may propose that one or more impairments in the planning area be placed in Category 5R.

4.3.3 Type 3 Projects for New Alternative WBPs

Watersheds will be selected for development of new alternative WBPs through an RFA or RFP, at a rate of approximately one to three projects every 2 years. These projects will be funded with

Section 319 funds or with State funds if available. For example, these projects may include plans that focus on protection of water quality in ONRWs or ARPs.

4.3.4 Type 4 Projects to Update WBPs and Alternative WBPs

Specialists will make technical revisions and updates of existing WBPs and alternative WBPs that have been accepted by EPA as part of the projects identified through the same RFA or RFP mentioned in subsections above. The reasons for these updates may include the following: specialists identified new impairments after the WBP was developed; specialists have completed additional TMDLs since this Plan was developed; SWQB has delisted some waters that shifted focus to water quality protection; the WQCC has designated new ONRW in the watershed; significant changes to the watershed have occurred, such as catastrophic wildfire, that changed conditions or restoration approaches; or specialists have identified additional implementation steps that should be analyzed and described in this Plan.

4.3.5 Wetland Action Plans

Wetlands are surface waters of the State (defined at 20.6.4.7 NMAC) and may also be considered waters of the United States. The WQCC has not adopted water quality standards specific to wetlands, and SWQB does not currently assess wetlands against the existing water quality standards for the purposes of impairment listing and TMDL development. The New Mexico Wetlands Program has a long-term goal to develop standards for wetlands within the state. While assessment of wetlands against water quality standards has been very limited, some wetlands have been assessed using wetlands rapid assessment methods.[37] Wetlands (including riverine wetlands, a term interchangeable with riparian areas) may be impaired by altered hydrology or habitat degradation. An example of a degraded wetland is one that has already been affected by a gully. The gully lowers the water table, thus reducing the area that supports wetland vegetation and other wetland values. Plugging the gully and directing sheet flow over the wetland protects the remaining wetland area and may restore the wetland.

Wetland degradation is described in WAPs,[38] an alternative WBP that is developed under the New Mexico Wetlands Program. A WAP provides a framework for documenting the current location and condition of wetlands in the planning area. Specialists develop recommendations for future stewardship actions to protect and enhance wetlands and riparian areas, identify data gaps, and continue public education and engagement regarding watersheds in the planning area. WAPs are often a collaborative effort between federal and State agencies, counties, cities, nongovernmental organizations, local contractors, and the public. They include comprehensive watershed-based actions that can be implemented to protect, restore, and enhance wetland ecosystem functions and services.

[37] Rapid assessment methods developed through the New Mexico Wetlands Program are available at www.env.nm.gov/surface-water-quality/wetlands-rapid-assessment-methods.

[38] WAPs developed through the New Mexico Wetlands Program are available at www.env.nm.gov/surface-water-quality/wbp.

WAPs are developed through the New Mexico Wetlands Program (funded through CWA Section 104(b)(3), rather than Section 319). Implementation of WAPs, along with other types of alternative WBPs, may be supported with Section 319 watershed project funds. Such implementation projects will be identified and developed through the RFA or RFP process described in Section 4.6 below.

4.4 Submittal and Review of WBPs and Alternative WBPs

Sections 4.2 and 4.3 above describe how WPS will support watershed planning directly through staff activities and through major procurements or subgrant awards for comprehensive planning projects. WPS submits draft WBPs, alternative WBPs including WAPs, ARPs, and Post-Fire Watershed Mitigation Action Plans to EPA for review. MASS submits Category 4B Demonstrations to EPA for review. EPA's review, and time for revision in response to EPA's review, will be included in the work plans for planning projects. All WBPs and WAPs are available on NMED's website.[39] The same page provides resources for developing watershed plans, including information on how stakeholders may begin watershed-based planning and how they may submit draft WBPs to NMED for review and comment before submitting them to EPA for review. SWQB provides Category 4B Demonstrations as supporting documents to each Integrated Report (if applicable), accessible on NMED's website.[40]

4.5 Priorities for Implementation

Identifying priority watersheds is primarily intended to encourage implementers to select project areas that are likely to produce measurable improvements in water quality and aid in measuring progress. Implementation projects funded under Section 319 will be limited to watersheds with WBPs or alternative WBPs. In addition to WBPs, ARPs and WAPs will be included among alternative WBPs that can be implemented under New Mexico's NPS Management Program. The watersheds covered by these various plan types are the priority watersheds for implementation.

As of 2023, New Mexico had 18 EPA-accepted WBPs describing water quality improvement approaches for 53 AUs in 163 12-digit watersheds, one alternative WBP for a Category 4C stream (with three 12-digit watersheds), and one Category 4B demonstration covering two AUs in Category 4B (in one 12-digit watershed). These watersheds are depicted in Figure 3 and are identified as "NPS Priority Watersheds – Implementation" (under Nonpoint Source Program) in NMED's online GIS tool.[41] Additional priority watersheds are covered by WAPs; these areas are under Wetland Action Plans in the same online GIS tool. NMED can also supply the priority watershed GIS layers upon request.

[39] NMED. 2024b. Watershed-Based Planning. Available at: www.env.nm.gov/surface-water-quality/wbp.

[40] NMED. 2024a. Clean Water Act 303(d)/305(b) Integrated Report. Available at: www.env.nm.gov/surface-water-quality/303d-305b. Accessed April 2024.

[41] NMED. 2024c. EnviroMapper application. Available at: https://gis.web.env.nm.gov/oem/?map=swqb.

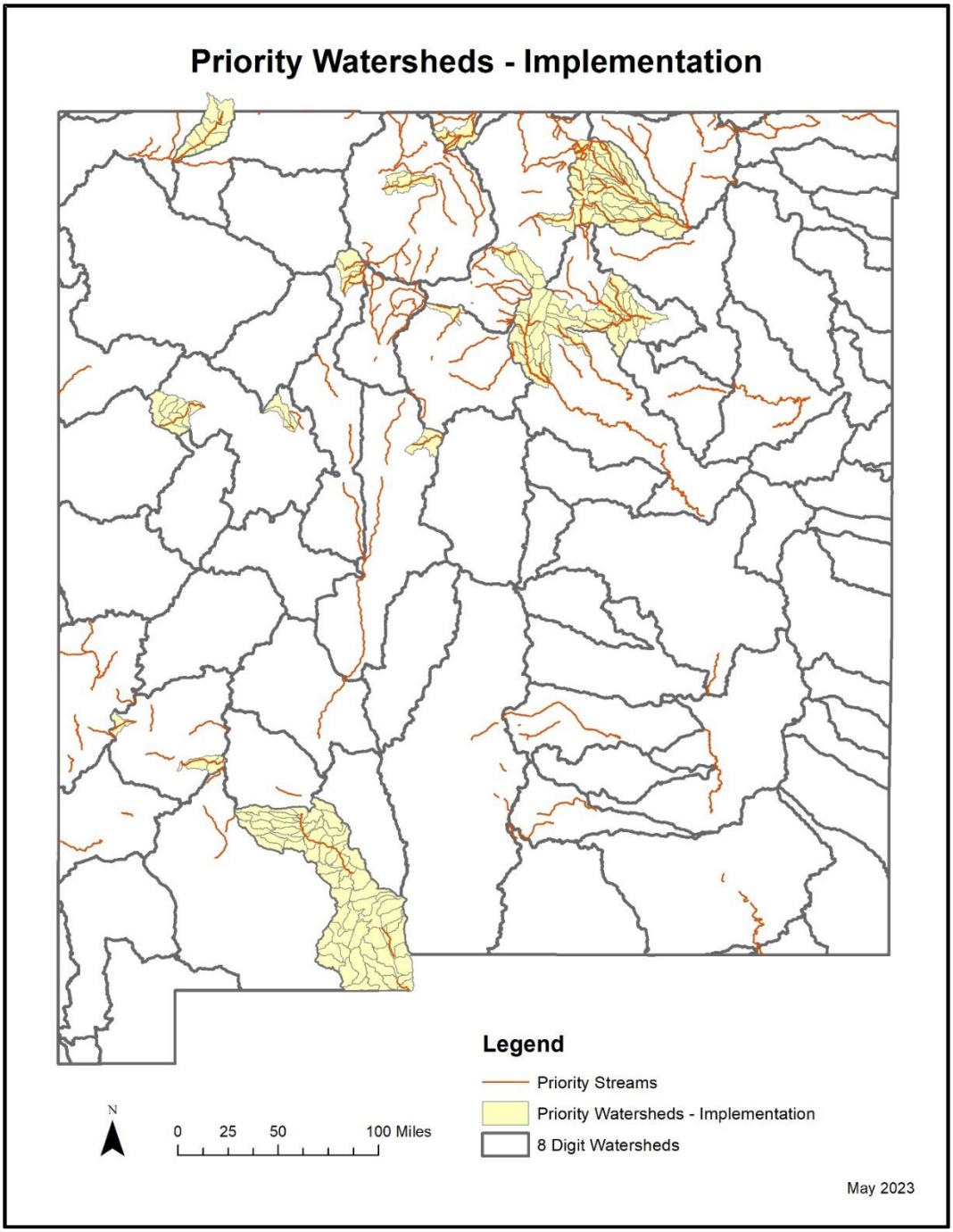

Figure 3: Priority watersheds for implementation.

The list of priority watersheds will grow as additional WBPs and alternative WBPs (including WAPs) are completed. Water quality improvement projects funded under other programs, including State-funded programs detailed in Section 5.1.2, will not be limited to these priority watersheds. NMED anticipates that watershed groups and other project proponents in those areas will use a variety of programs to implement their watershed plans. NMED expects proposals or subgrant applications supported by watershed plans to have a strong basis in planning.

NMED will conduct an RFA or RFP every other year, which will be the primary means for selecting projects for Section 319 watershed project funding. The RFA or RFP will outline program priorities and eligible streams and watersheds and will request details from applicants on components of WBPs or alternative WBPs they propose to implement. Potential applicants include the same organizations that prepared the plans, as well as other organizations or individuals interested in implementing the plans.

NMED may supplement these efforts with procurements for specific, targeted projects that implement WBPs or alternative WBPs. NMED will develop these projects, in cooperation with watershed groups and other stakeholders, in situations where WPS staff can more efficiently manage the projects than would be possible through a contractor. This approach is likely to involve the use of State price agreements or other procurements as necessary.

When the WPS conducts RFAs, RFPs, or other procurements for projects to implement WBPs and alternative WBPs, the request will be for projects that address impaired waters or threats to water quality in specific waters. The locations and other basic details of proposed projects should be identified within WBPs or alternative WBPs.

4.6 Programmatic Activities

The activities listed in Section 2.3 are NPS Management Program activities intended to protect surface water quality, implemented by NMED staff and supported, partially or entirely, by Section 319 funds. Examples include review of Section 404-permitted activities and Section 401 certification, as applicable; participation by SWQB staff in NMED's Mining Act team; environmental impact reviews, e.g., National Environmental Policy Act (NEPA) reviews; participation in statewide natural resources planning efforts that may affect water quality; responses to complaints of disposal of refuse in watercourses; and interagency cooperation on forest restoration planning.

Activities intended to protect water quality can also lead to progress toward achieving the other NPS Management Program objectives described in Section 2. Examples include developing WAPs, education and outreach activities (listed in Section 2.4), groundwater quality protection (described in Section 2.5), and several of the interagency cooperation activities listed in Section 2.6.

WPS staff will also support the use of other programs (identified in Sections 5.2 through 5.4) to materially participate in water quality improvement and protection activities.

4.7 Best Management Practices

"Identification of the best management practices and measures which will be undertaken" is a basic requirement of NPS management programs, as stated in Section 319 of the CWA.

In general, the availability of information on BMPs for water quality protection and improvement is not a limiting factor for implementation. Numerous publications and web resources present information on the application and effectiveness of a multitude of BMPs. Appendix C provides a sample of publications and other resources that were reviewed and compiled for this NPS

Management Plan. The NPS Management Program promotes the selection of BMPs appropriate for identified pollutant sources. Usually, BMPs that make use of natural processes are more economical because they often cost less in the short run and require less maintenance in the long run than "harder" engineering approaches. Examples of such BMPs include protecting vegetation on banks or in riparian buffers, reconnection of channels to floodplains, restoring channel form to accommodate sediment inputs without generating significant new sediment loading through bank erosion, and promoting infiltration of runoff in upland and urban settings.

NPS pollution controls are typically established through implementation of BMPs. *Nonstructural efforts*, often referred to as *nonstructural BMPs* or *passive restoration*, include measures that remove or manage environmental stressors. In many instances a natural system can repair past degradation once the stressors are removed. Example measures include riparian fencing, limiting vehicular access, and rest. Although removing stressors allows for recovery, the system may not achieve full site potential if chemical, physical, or biological integrity and their relationships remain fragmented.

Structural and mitigation measures attempt to mitigate the impact of underlying stressors and/or accelerate natural recovery processes. These practices often treat the symptoms of past and present management activities. They are typically applied on a limited scale and thus do not result in landscape-scale recovery. However, they are effective in treating localized problem areas at the reach scale. Structural and mitigation measures include sediment basins, animal waste lagoons, fencing, terraces, rock check dams, and other constructed means of reducing pollutant loading to surface water and groundwater.

BMPs are active management strategies that attempt to address the underlying problem that is causing impairment. Rest-rotation grazing strategies are a good example. The intent of BMPs is to avoid making an impact in the first place or adopting management strategies that allow natural healing to occur. BMPs are a preferred option because they tend to be applied on a landscape scale. However, they can be a challenge to implement because land managers and users are required to alter existing practices or adopt new ones. BMPs might also require structural or mitigation measures such as upland water developments or pasture fencing in order to be fully implemented.

Restoration attempts to restore the integrity and relationships between all system components. Restoration is the gold standard because it focuses on ecological processes that maintain and restore watershed functions. A restored system is self-maintaining and resilient, and the system can achieve full site potential once ecological relationships are restored. Restoration may require a combination of other practices to succeed.

5 Programs that Protect and Improve Surface Water Quality

While NMED is the lead agency for the NPS Management Program, several agencies are charged with managing natural resources for their sustainable use. Laws such as the Federal Land Policy and Management Act of 1976 require land management agencies to protect surface water quality; thus, some agencies are required to assist with implementing aspects of this Plan. This section describes several State, federal, and local agencies with a role in implementing the NPS Management Program. Several of these agencies are responsible for financial assistance programs, some of which include components for water quality improvement or protection. Sections 5.2 through 5.4 provide more detail on these funding sources, as well as funding through private sources. The contributions of other State and federal programs toward implementing the NPS Management Program are summarized in the NPS Management Program Annual Report.

In New Mexico, approximately 34% of lands are owned by the public and managed by the federal government. Federal land management is of great concern to the State because of the large amount of the State's waters that are located on federal lands. State agencies directly manage an additional 12% of lands. Another 11% lies within the lands of Tribes, Nations, and Pueblos in New Mexico, and 44% is owned or managed by local governments and private landowners.

The NPS Management Program focuses on federal, State, and local programs that can influence and support beneficial land management by public agencies and private individuals. Land management practices, including water quality BMPs, are implemented by landowners, operators, and management agencies. For example, stormwater runoff is typically managed by Flood Control Districts in New Mexico. MS4s may have permits issued to multiple stakeholders, agencies, and districts in a watershed to implement BMPs to reduce NPS pollution.

The watershed planning process uses an integrated approach for assessment, protection, and remediation that links natural resource programs. Watershed plans are generally developed with the participation of a variety of natural resource professionals (in addition to citizen and industry participants), who contribute their skills related to fisheries, range management, forest ecology, and aspects of water resources management related to water rights and operation of water infrastructure, including dams, reservoirs, and municipal water supplies (see Sections 5.2 through 5.4). Aspects of these plans may be implemented under federal assistance programs, State programs, and other resources appropriate to support the implementation and maintenance of restoration measures. Effective NPS pollution control efforts must acknowledge that improvements to water quality require long-term commitments of budget and personnel resources.

SWQB hopes to improve coordination and cooperation by participating in the planning efforts of other agencies and through the review and updating of interagency MOUs. SWQB also intends to make Section 319 funds available to other agencies through competitive project development processes to assist with implementing the program through their watershed-based efforts. Unless specifically indicated, the costs of programs described below will not be considered non-federal NPS Management Program costs for the purpose of matching CWA Section 319 grants. They will not be considered federal costs, either, unless specifically indicated, for the purpose of calculating non-federal match requirements.

5.1 NPS Management Program Lead Agency – New Mexico Environment Department

With submittal of this NPS Management Plan, the Governor of New Mexico designates NMED the lead agency for developing, implementing, and coordinating the NPS Management Program. As lead agency, NMED has primary responsibility for assessing NPS impacts on both surface water and groundwater and for enforcement of specific regulations as adopted by the WQCC. The Cabinet Secretary of the Department, or a designated staff member, serves on the WQCC pursuant to NMSA 1978, Section 74-6-3.A(1). Figure 4 presents the current organization of NMED to the division level. Within the Water Protection Division (WPD), SWQB is the main bureau that implements CWA programs, including much of the NPS Management Program. Staff members of the GWQB (WPD), Construction Programs Bureau (WPD), Drinking Water Bureau (WPD), Solid Waste Bureau (Resource Protection Division), Department of Energy Oversight Bureau (Resource Protection Division), and Environmental Health Bureau (Environmental Health Division) are also involved in management and control of surface water and groundwater NPS concerns. Frequent intra-agency meetings, as well as informal discussions, are held to provide educational opportunities, ensure coordination, and transfer information.

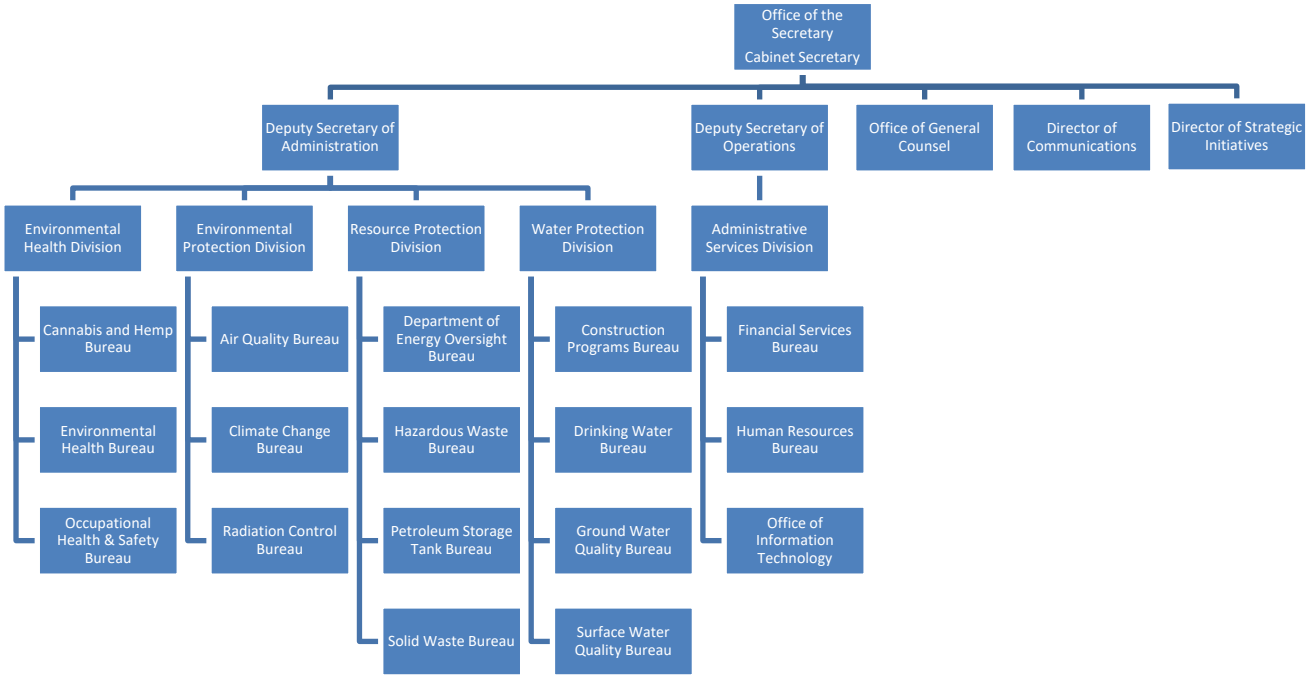

Figure 4: NMED organizational chart.

5.1.1 State Regulations

State regulations applicable to surface water protection under the NPS Management Program include reporting and cleanup of spills (20.6.2.1203 NMAC) and prohibiting placement of refuse in watercourses (20.6.2.2201 NMAC). Environmental Improvement Board regulations applicable to the NPS Management Program are those governing individual on-site liquid waste disposal systems (septic tanks).

NMED has enforcement responsibilities for several other regulatory programs that also protect surface water and groundwater quality. These include groundwater discharge plans and certain underground injection control regulations under the Water Quality Act and petroleum storage tank and hazardous waste management regulations under the New Mexico Hazardous Waste Act. These regulations have proven effective in preventing pollution or mitigating its effects from sources to which they apply. Stringent solid waste management regulations have also been adopted under the New Mexico Solid Waste Act.

Enforcement of other regulations is not specifically addressed in the NPS Management Program because the regulations are mainly applicable to point sources. NMED routinely uses these regulations to protect both surface water and groundwater quality. Normal ongoing internal processes ensure that these regulatory programs are, and will be, coordinated with the NPS Management Program.

5.1.2 Surface Water Quality Bureau

SWQB coordinates with other NMED programs to ensure that surface water and groundwater NPS concerns are considered in departmental activities. Intra-agency coordination includes information transfers, specific requests for reporting of staff observations of potential water quality concerns, intra-agency meetings, and informal discussions. Bureau chiefs within NMED meet as needed.

Some State funds used to support SWQB staff and water quality lab analyses are considered non-federal NPS Management Program costs (i.e., match to CWA Section 319 grants). These costs are described in Section 319 grant applications and work plans.

Watershed Protection Section

Within SWQB, WPS coordinates and implements major portions of the NPS Management Program. Coordination allows for reporting water quality concerns resulting from inappropriate management practices, identifying new NPS concerns, and documenting the effectiveness of watershed-based efforts at addressing NPS pollution problems. The major responsibilities of WPS are planning and implementing effective use of Section 319 funds (described in greater detail in Sections 2, 3, and 4 above), implementing the River Stewardship Program, providing technical oversight of some State-funded river restoration projects, administering the New Mexico Wetlands Program, providing oversight to the U.S. Army Corps of Engineers (USACE) Section 404 permitting program through water quality certifications, and reviewing permit applications under the New Mexico Mining Act.

The River Stewardship Program is a State-funded river restoration program managed within SWQB. The goal of the River Stewardship Program is to fund projects that enhance the health of

rivers by addressing the root causes of poor water quality and stream habitat. The River Stewardship Program builds on the success of past efforts with Section 319 CWA funding and prior State funding for watersheds, rivers, and wetlands.

The objectives of the River Stewardship Program include the following:

a. Enhancing the economic benefits of healthy river systems, such as improved opportunities to hunt, fish, float, and view wildlife,

b. Restoring or maintaining the hydrology of streams and rivers to better handle overbank flows and reduce flooding downstream, and

c. Providing the match required to leverage federal CWA grants, ensuring that New Mexico continues to receive these funds.

Projects are selected through a competitive process that complies with State procurement rules. Evaluation criteria ensure that projects are technically sound, community based, and stakeholder driven. Evaluation criteria favor projects that improve water quality, enhance fish and wildlife habitat, support local economies, and reduce downstream flood hazard.

Since the rebranding of the State-funded river restoration program to the River Stewardship Program in 2015 (previously known as the River Ecosystem Restoration Initiative), the New Mexico Legislature has appropriated a total of $22.5 million to fund restoration projects through the River Stewardship Program. Table 1 below provides a summary of current funding for projects covered by this NPS Management Plan. More information on the projects is available in the NMED 319 and River Stewardship Program Projects list.[42]

Table 1: Current Funding for Projects Covered by the River Stewardship Program

State Fiscal Year	Amount (millions)	Use of Funds
2021	$1.25	Eight restoration projects were funded. These projects will be completed on or before June 30, 2024.
2022	$1.5	Seven restoration projects were funded. These projects will be completed on or before June 30, 2025.
2022	$10.0	Twelve restoration projects were funded. These projects will be completed on or before December 31, 2026.
2023	$1.5	Four restoration projects were funded. These projects will be completed on or before June 30, 2026.
2024	$3.25	An RFP was in progress to select projects to support with these funds at the time of publication. These projects will be completed on or before June 30, 2027.

[42] NMED. n.d. NMED 319 and River Stewardship Program Projects. Available at: https://www.env.nm.gov/surface-water-quality/wp-content/uploads/sites/18/2024/02/RS8103_NMED-319-and-River-Stewardship-Program-Projects.pdf. Accessed May 2024.

Wetlands are integral to keeping NPS pollution from impairing surface or groundwater. WPS has established a Wetlands Program that encourages watershed groups to develop WAPs and to identify, assess, protect, and restore wetland resources. The Wetlands Program is also integrated into other SWQB programs, including developing water quality standards for wetlands and developing and implementing appropriate monitoring methods to assess wetlands against their standards.

The WQMP/CPP describes SWQB responsibilities to certify Section 404 permits. WPS staff reviews joint Section 401/404 applications to determine the effects of proposed activities and to develop mitigation measures. This review is limited to determining whether a proposed project will comply with applicable sections of the CWA and New Mexico statutes. This review may result in an unconditional certification, conditional certification, or denial of certification under Section 401 of the CWA. USACE enforces Section 404 regulations on a case-by-case basis, including enforcement of conditions associated with Section 401 certification. WPS staff routinely visit project sites and report any apparent permit violations to USACE.

The WPS participates in the New Mexico Mining Act Reclamation Program administered by the GWQB. Pursuant to the New Mexico Mining Act Rules at 19.10.3.302.G NMAC, SWQB reviews permit applications and inspects the physical sites identified in minimal impact permit applications and prepares comments for consideration by the Director of the Mining and Minerals Division (MMD) in determining eligibility for minimal impact status. For general permit New Mexico Mining Act applications for non-coal mining operations occurring in intermittent streams, perennial streams, or other bodies of water, NMED must certify that "water quality standards are expected to be met if the operation is conducted as described" prior to MMD issuing a permit, pursuant to 19.10.3.301.A NMAC. Potential impacts to surface waters resulting from the actions proposed in the permit must be identified, and BMPs to prevent or mitigate surface water impacts are recommended for inclusion in the permit conditions.

Point Source Regulation Section

The Point Source Regulation Section (PSRS) within SWQB assists EPA in implementing the CWA National Pollutant Discharge Elimination System (NPDES) permitting program in New Mexico. New Mexico is one of three states that does not have delegation under the CWA and does not directly issue NPDES permits. PSRS ensures that point source dischargers within the state comply, and are compatible, with applicable State law, water quality standards, and the State of New Mexico WQMP/CPP. PSRS conducts compliance inspections; reviews effluent discharge monitoring reports; provides information to the regulated community and the public; reviews and certifies federally issued NPDES permits for municipal wastewater treatment plants, electrical generating stations, fish hatcheries, mines, stormwater discharges, and other regulated entities; and provides oversight of discharging facilities.

Monitoring, Assessment, and Standards Section

MASS is composed of the Standards, Planning, and Reporting Team; the Monitoring Team; and the Assessment and TMDL Team. The Standards, Planning, and Reporting Team focuses on water quality standards development, interpretation of standards, quality assurance, and maintenance of the WQMP/CPP. Like many states, MASS uses a targeted, rotational watershed approach to ambient water quality monitoring. The Monitoring Team conducts 2-year monitoring surveys.

The 2-year approach allows for additional sampling events and long-term instrument data collection and provides an opportunity for a mid-survey assessment to tailor data collection in the second year of monitoring. In addition, MASS can more effectively capture seasonal and annual variability in water quality and mitigate the influence of extreme hydrologic events, such as drought or flood, occurring in year 1 of the survey. The Assessment and TMDL Team is responsible for assessing waters against standards, producing the biennial Integrated Report, developing TMDLs, and preparing TMDL alternatives in cooperation with WPS. As noted in Section 4.2.4, a WBP may serve as a TMDL alternative for a stream in Category 5R. MASS conducts water quality assessments with the assistance of other agencies and bureaus. Water quality assessments are a major component in evaluating the success of the NPS Management Program. These assessments are mandated by Section 106 of the CWA (33 USC 1256). More information on the assessment process and how MASS contributes to watershed-based planning is in Sections 4.1 and 4.3.1 above.

5.1.3 Ground Water Quality Bureau

Groundwater is an important source of drinking water in New Mexico. The role of the GWQB is to protect the environmental quality of New Mexico's groundwater resources as mandated by the Water Quality Act, the Ground and Surface Water Protection Regulations (20.6.2 NMAC), the Supplemental Permitting Requirements for Dairy Facilities (20.6.6 NMAC), and the Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC) and to identify, investigate, and clean up contaminated sites that pose significant risks to human health and the environment. The GWQB issues groundwater pollution prevention permits; implements the Department's responsibilities under the New Mexico Mining Act (NMSA 1978, 69-36-1 to 69-36-20) to ensure that environmental issues are addressed and standards are met; oversees groundwater investigation and remediation activities; and identifies, investigates, and remediates inactive hazardous waste sites. The GWQB implements these programs through the federal Superfund program, agreements between the State and responsible parties, and voluntary remediation regulations. This bureau also strives to increase industry and public understanding and awareness of the importance of safe groundwater supplies in sustaining the quality of life in New Mexico for this and future generations, as well as the importance of protecting groundwater quality through pollution prevention initiatives. Three programs within the GWQB regulate facilities that have the potential to contaminate groundwater: the Pollution Prevention Section, the Agricultural Compliance Section, and the Mining Environmental Compliance Section.

Some State funds used to support GWQB staff and programs are considered non-federal NPS Management Program costs, i.e., match to CWA Section 319 grants. These costs are described in Section 319 grant applications and work plans.

Pollution Prevention Section

The Pollution Prevention Section reviews and approves groundwater discharge plan applications and issues pollution prevention permits, known as "Discharge Permits," for discharges that have the potential to impact groundwater quality pursuant to Subparts III and V of the WQCC regulations. Large septic systems that discharge more than 5,000 gallons of domestic wastewater per day are regulated under this program.

Groundwater Discharge Permits address discharges, including domestic septic systems, surface disposal facilities, and sludge processing disposal sites. The Pollution Prevention Section program also addresses unauthorized discharges, such as spills, and abatement of groundwater contamination related to various permitted facilities. The discharge permitting process includes public notification, a public comment period, and a public hearing in situations where there is substantial public interest. Permits are issued for 5-year terms and must be renewed to provide continuous coverage. The Pollution Prevention Section manages approximately 446 permits for large-capacity domestic waste disposal systems (101 for septic tank leachfields and land application sludge disposal facilities, and 345 for advanced treatment and other types of systems).

Agricultural Compliance Section

The Agricultural Compliance Section reviews and approves groundwater discharge plan applications and issues Discharge Permits for dairy and food processing discharges that have the potential to impact groundwater quality pursuant to the Sections 3000 and 5000 of 20.6.2 NMAC and pursuant to the 20.6.6 NMAC Dairy Rule. Under this program, the Agricultural Compliance Section regulates large septic systems (discharging more than 5,000 gallons per day of wastewater) used by agricultural facilities, chili processing operations, and Concentrated Animal Feeding Operations (CAFOs) that land apply (i.e., discharge) agricultural wastewater to crops. The Agricultural Compliance Section also addresses unauthorized discharges such as spills and abatement of groundwater contamination related to various food processing and dairy operation permitted facilities.

The discharge permitting process includes public notification, a public comment period, and a public hearing in situations where there is substantial public interest. Permits are issued for a 5-year term and must be renewed to provide continuous coverage. The Agricultural Compliance Section manages approximately 204 permits for CAFOs, food processing, septic tank leachfields, and advanced treatment systems.

Mining Environmental Compliance Section

The Mining Environmental Compliance Section conducts permitting, spill response, abatement, and public participation activities for mining facilities in New Mexico pursuant to the Ground and Surface Water Protection Regulations (20.6.2 NMAC) and the Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC). The Mining Team consists of 14 GWQB staff and staff from other bureaus, including SWQB, who support these regulatory activities on an as-needed basis. The hardrock mines in New Mexico are responsible for NPS contamination of groundwater and surface water from acid rock drainage. In addition, the Mining Environmental Compliance Section participates in implementing the New Mexico Mining Act and Non-Coal Mining Regulations by reviewing and commenting on mine permits and closeout plans, coordinating environmental protection requirements at mine sites with MMD of EMNRD, and providing determinations that environmental standards will be met after closure of New Mexico mining operations. Currently, the Mining Environmental Compliance Section manages approximately 46 active mining permits and 26 mining-related projects that do not have Discharge Permits.

5.1.4 Environmental Health Bureau – Onsite Wastewater Program

NMED's Onsite Wastewater Program (formerly the Liquid Waste Program), within the Environmental Health Bureau, is directed at the prevention of surface and groundwater contamination from on-site liquid waste disposal practices (including septic tanks). An ambitious, ongoing monitoring program undertaken by the Onsite Wastewater Program documented serious groundwater pollution from these sources in many parts of the state. The Onsite Wastewater Program addresses these problems through a permitting program for individual liquid waste systems discharging 5,000 gallons per day or less.

The Onsite Wastewater Program maintains lists of approved products for the installation of septic tanks, advanced treatment systems, and proprietary drainfield products. NMED must review and approve each tank or product before installation. The Wastewater Technical Advisory Committee must review proprietary drainfield products.

5.1.5 Construction Programs Bureau

The Construction Programs Bureau of NMED administers the Clean Water State Revolving Fund (SRF) program. This program is managed by the State and uses State and federal funding. Under the program, EPA provides grants to capitalize State loan funds. The Construction Programs Bureau evaluates and ranks proposed projects and awards up to 200 points to those projects that address water quality impairments from either point source or NPS pollution. SWQB staff are available as needed to assist with determining whether proposed projects will address exceedances in water quality standards and/or protect the designated uses of lakes, rivers, streams, and other water bodies. The States, in turn, provide 0% or low-interest loans to eligible entities for high-priority water quality activities. As money is paid back to the SRF, new loans are made to other recipients. NPS control programs are specifically identified as eligible for loans from the program. The SRF program is a source of funding available to counties, municipalities, SWCDs, sanitation districts, other local agencies, and nonprofit organizations for any activity that a State has identified in its NPS Management Program.

The Construction Programs Bureau also has a role in helping oversee some projects funded by the State Water Project Fund, created by the Water Project Finance Act (NMSA 1978, 72-4A-1 to 72-4A-11). Priorities for the Water Project Fund are set by the Water Trust Board, a 16-member body that includes the Secretary of Environment and other natural resource executives and recommends projects to the Legislature to be funded through the State Water Project Fund. The Water Trust Board recommends funding to the Legislature for four categories of water-related projects. One of these categories is watershed restoration and management. The project management policies of the Water Trust Board identify water quality improvement, water quality protection, and implementation of WBPs among the purposes of watershed restoration and management projects and recommend allocation of 10% to 20% of funds to this category.[43]

[43] Reynolds, Richard T., Andrew J. Sánchez Meador, James A. Youtz, Tessa Nicolet, Megan S. Matonis, Patrick L. Jackson, Donald G. DeLorenzo, and Andrew D. Graves. 2013. *Restoring composition and structure in Southwestern frequent-fire forests: A science-based framework for improving ecosystem resiliency*. General Technical Report RMRS-GTR-310. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Available at: https://www.fs.usda.gov/rm/pubs/rmrs_gtr310.pdf. Accessed April 2024.

The Construction Programs Bureau requests technical support, including review of completed work, from SWQB on an as-needed basis. The costs of project oversight and the costs of individual watershed restoration and management projects may be considered NPS Management Program costs in the future; pending EPA's review and approval, they may constitute a match for Section 319 funding.

5.1.6 Petroleum Storage Tank Bureau

The Petroleum Storage Tank Bureau (PSTB) carries out the legislative mandate to develop and implement a regulatory program to protect public health and the environment from releases from regulated aboveground storage tanks and underground storage tanks. The PSTB also has primacy to implement the federal underground storage tank program outlined in 40 CFR 281, as provided in 40 CFR 281 Subpart C. The PSTB accomplishes this mandate by overseeing and ensuring compliance with installation, operation and maintenance, modification, repair, and closure requirements for tank systems. These activities prevent and detect spills, overfills, and corrosion of tanks, piping, and other metal components. The PSTB also oversees and implements investigation and corrective action at sites contaminated by releases from regulated storage tank systems.

The PSTB has four programs: Tanks Operation and Support Program, Prevention and Inspection Program, Remedial Action Program, and the Reimbursement Section. These programs perform the following activities to ensure compliance with 20.5 NMAC:

- Maintain a registry of all regulated petroleum storage tanks, certified installers, and storage tank release sites.
- Inspect facilities at least once every 3 years to ensure compliance with the Petroleum Storage Tank Regulations and minimize the probability of releases to the environment.
- Provide compliance assistance or, as appropriate, take enforcement actions against noncompliant owners and operators.
- Approve and oversee corrective action of releases from regulated storage tank sites to ensure expedient and cost-effective corrective action.

Removal, upgrade, replacement, or remediation of aging or leaking regulated petroleum storage tanks will be considered components of the NPS Management Program, which may be eligible for support with SRF loan funds (pending review of each application and applicant for eligibility).

5.2 Federal NPS Management Programs

5.2.1 U.S. Forest Service

- **NPS categories to be addressed: Rangeland, Wildlife and Fisheries Management, Silviculture, Recreation Management, Road Construction and Maintenance, Watershed Management, Wetland Management, and Resource Extraction and Exploration**

The Forest Service manages approximately 9.2 million acres of land in New Mexico. These lands include approximately 3,000 miles of the state's 6,560 miles of perennial streams. Most of the

stream miles on National Forest System land are high-quality mountain streams. The Forest Service is a designated management agency for NPS control in New Mexico; its responsibilities include control, abatement, and prevention of NPS pollution resulting from all activities conducted in national forests. Water quality concerns identified in national forests include high temperatures, sediment, and nutrient inputs that can occur from management activities or natural events such as unmanaged or improperly managed grazing near waterways, lack of road maintenance or unmanaged roads adjacent to or cross waterways, timber harvest impacts where sedimentation or debris is connected to waterways, mining where there is a direct impact to waterways and groundwater, recreation on or near water, and wildfire where vegetation is no longer in place, which may lead to flooding and sedimentation.

Because the large majority of ONRWs are located on lands managed by the Forest Service, coordination with the Forest Service is essential for implementation of the antidegradation policy. The Forest Service and NMED have developed procedures for the Forest Service to notify NMED of anticipated emergency actions in ONRW watersheds that may affect water quality (generally, fire-suppression activities) and then to summarize such actions after they have taken place so that NMED and WQCC may assess any potential impacts on ONRWs. NMED and the Forest Service also have in place procedures to prevent and respond to potential water quality degradation in ONRWs.

All land management activities on National Forest System lands are to be conducted in accordance with Forest Land Management Plans (Forest Plans), developed by the Forest Service for each national forest, following public review and comment. Use of water quality and other resource protection BMPs in national forests is required by the National Forest Management Act (16 USC 1600 et seq.) and prescribed in the Forest Plans. Consequently, all land management activities, such as grazing, silviculture, and road construction, must be implemented using BMPs for control of NPS water pollution.

Forest Service soil scientists and hydrologists work with interdisciplinary teams to recommend BMPs, using guidance from 36 CFR 220 (for NEPA procedures), Forest Service Handbook 1909.15 (for guidance on conducting environmental analysis),[44] Forest Service Technical Guide FS-990a (National Core BMP Technical Guide),[45] and various Forest Service manuals and handbooks specific to different types of projects. Their analysis and recommendations are included in specialists' reports that accompany forest planning and decision documents.

WPS staff review key projects of the Forest Service requiring analysis under NEPA that might affect water quality for consistency with the NPS Management Program and goals related to water quality protection.

The Watershed Condition Framework (WCF) is a policy tool within the Forest Service that the agency incorporated into Forest Plan objectives. WCF rates the condition of 12-digit watersheds using several physical and biological indicators and attributes that cross a range of resource concerns for which the Forest Service has responsibility. WCF establishes performance measures

[44] U.S. Forest Service (Forest Service). 2013. Forest Service Handbook 1909.15. Available at: https://www.fs.usda.gov/cgi-bin/Directives/get_dirs/fsh?1909.15. Accessed April 2024.

[45] Forest Service. 2024. Best Management Practices (BMP) Program. Available at: https://www.fs.usda.gov/naturalresources/watershed/bmp.shtml. Accessed April 2024.

in that each national forest or Ranger District can identify the characteristics of watersheds that may be changed through management to improve the condition rating. In many watersheds, water quality standards attainment and related characteristics of aquatic ecosystems are among the conditions likely to be identified for improvement. The Forest Service develops plans called Watershed Restoration Action Plans (WRAPs) for watersheds that are targeted for improvement. WPS staff assist the Forest Service to develop these plans and, where applicable, provide technical guidance to meet watershed-based planning elements such as load reduction estimates for management measures. More information on the WCF (including links to some WRAPs) is available at the Forest Service's website.[46]

Of prime importance among Forest Service responsibilities is management of fire, including prescriptive wildland fire use, fire suppression, and emergency stabilization and rehabilitation of fire impacts to watersheds. The Forest Service recognizes the importance of fire in New Mexico's forest ecosystems and seeks to use fire or allow fire to function naturally where possible. A framework for restoring southwestern U.S. forests to withstand fire and other disturbances is described in a publication from the Forest Service Rocky Mountain Research Station.[47]

In 2022 New Mexico experienced its largest fires on record, with more than 800,000 acres burned statewide. The largest fire in 2022 (and the largest in New Mexico's recorded history) was the Hermit's Peak–Calf Canyon Fire, at 341,424 acres. The second largest fire in 2022 (and the second largest in New Mexico's recorded history) was the Black Fire, at 325,133 acres. More than 100,000 of these acres burned with high severity. Burned Area Emergency Response (BAER) expenditures surpassed $8.6 million for all fires on National Forest System lands in New Mexico, and further investments are being made under the Forest Service BAER program and Disaster Relief funds passed by Congress. Through this NPS Management Plan, NMED will help reduce impacts from the 2022 fires and may reduce impacts from additional fires during the approximate plan term of 2024–2028, as described in Sections 2.1, 2.3, and 4.2.6 above.

5.2.2 USDA Farm Service Agency

- **NPS categories to be addressed: Agriculture, Irrigated Crop Production, and Rangeland**

FSA is responsible for administering the federal Conservation Reserve Program (CRP), which President Ronald Reagan signed into law in 1985 and is the USDA's largest conservation program. CRP was originally authorized through 2023 under the Agricultural Improvement Act of 2018 with an annually increasing enrolled acreage cap. FSA has extended the CRP Grasslands Program, originally authorized in the Agricultural Act of 2014, and enrollment is ongoing.

CRP is a land conservation program in which in exchange for a yearly rental payment, farmers who voluntarily enroll in the program agree to remove environmentally sensitive land from agricultural production and to plant perennial species that will improve environmental health and

[46] Forest Service. 2020. Watershed Condition Framework. Available at: https://www.fs.usda.gov/naturalresources/watershed/condition_framework.shtml. Accessed April 2024.

[47] Forest Service - Rocky Mountain Research Station. 2013. Restoring Composition and Structure in Southwestern Frequent-Fire Forests: a science-based framework for improving ecosystem resiliency. Gen. Tech. Rep. RMRS-GTR-310. 76 p. Available at: https://www.fs.usda.gov/research/treesearch/44885#. Accessed June 2024.

quality. Contracts for land enrolled in CRP are 10 to 15 years long. The long-term goal of the program is to reestablish valuable permanent land cover to help improve water quality, prevent soil erosion, and reduce the loss of wildlife habitat with an annually increasing enrolled acreage cap.

CRP encourages farmers and ranchers to protect their most fragile farmland and marginal pastureland by conserving and improving soil, water, and wildlife resources. Participants receive cost-share assistance to convert highly erodible and other environmentally sensitive acreage devoted to production of agricultural commodities to long-term habitat. Producers enrolled in CRP are also offered annual rental payments and incentives for implementing approved conservation practices. The cost share for establishment and other activities is limited to 50% of approved costs. The CREP can offer additional cost-share assistance using partner funds.

Converting highly erodible and/or environmentally sensitive cropland to permanent vegetative cover under the CRP has created significant improvements in water quality across the nation. According to NRCS, each acre under CRP contract reduces erosion by an average of 19 tons of topsoil per year. This improves the quality of water in streams, lakes, and other bodies of water not only by reducing sediment but also by reducing the amount of nutrients and pesticides swept into bodies of water along with topsoil. Producers who enroll acreage in CRP greatly reduce their application of pesticides and nutrients on these acres, thereby reducing runoff containing excess agricultural pesticides and nutrients.

FSA administers the CRP, while NRCS, Forest Service, New Mexico Cooperative Extension Service (NMCES), and other agencies provide technical and educational assistance.

The Agriculture Improvement Act of 2018, or "2018 Farm Bill," included a national cap on the CRP acreage at 27 million acres. In May 2023, there were more than 1,800 CRP contracts totaling more than 860,000 acres across the state. This is more than double the acreage enrolled in FY2017. At the end of FY2023, 39,906.29 acres expired, but some amount of that could be reenrolled during the 2024 signups. The majority of the current acreage is in permanent grasses and legumes through the CRP Grasslands Program. The next largest practice is establishing native grasses through General CRP. Additionally, there are almost 5,000 acres in the State Acres for Wildlife Enhancement program, which is a partnership with NMDGF to establish and protect lesser prairie-chicken habitat.

During the term covered by this NPS Management Plan, NMED will work with FSA to explore the possibility of developing a CREP agreement between NMED and FSA to recruit new CRP participants. The focus of this effort would be to encourage more widespread adoption of Conservation Practice 22, riparian buffers. More information on this initiative is provided above in Section 2.6.

In addition to conservation concerns, FSA also has the primary responsibility for making producer eligibility determinations regarding Conservation Compliance, as required by the Food Security Act of 1985. This act requires farmers to reduce erosion on their highly erodible land, which must have had a conservation plan by 1990 and was to be fully implemented by 1995 if the producer is to continue receiving USDA program benefits.

5.2.3 USDA Natural Resources Conservation Service

- **NPS categories to be addressed: Agriculture, Irrigated Crop Production, Rangeland, and Hydrologic Habitat Modification**

NRCS, through programs such as EQIP and Conservation Technical Assistance, among others, provides technical, educational, and financial assistance to landowners and operators to assist them in implementing practices for sound natural resource use and management. Assistance is provided for all types of land uses, which NRCS categorizes as follows: commercial/industrial, community services, cropland, farmstead or headquarters, hay land, native pasture, natural areas, pastureland, rangeland, recreation land, residential land, mined land, transportation services land, wildlife land, forest land, and other. Technical assistance, provided through local field offices, involves helping landowners develop conservation plans for implementation by the landowner/operator that include protection and enhancement of water quality through NPS control. The focus of NRCS activities is for landowners and managers to voluntarily effect wise land use. Cost-share programs are available for implementation of conservation practices through both NRCS and FSA.

NRCS emphasizes surface water and groundwater quality protection in all ongoing programs. To ensure that water quality improvement objectives are incorporated into NRCS staff work, the NRCS Field Office Technical Guides (FOTGs) include water quality management information. FOTGs are the primary scientific references for NRCS. They contain technical information about the conservation of soil, water, air, and related plant and animal resources. FOTGs have been developed for each NRCS field office. FOTGs are composed of databases, computer programs, technical references, and other materials. They are available from the NRCS website.[48] Programs administered by NRCS that provide educational and technical assistance are discussed below.

The National Water Quality Initiative is a subprogram within EQIP under which NRCS focuses on water quality improvement in priority watersheds with impaired waters. EPA and NRCS established the National Water Quality Initiative as a cornerstone of cooperation between NRCS and State water quality programs, which should recommend priority watersheds, cooperate through State programs and projects, and provide assistance in recruiting applicants where practicable.

The Small Watershed Program, managed by NRCS, works through local government sponsors and helps participants solve natural resource and economic problems on a watershed scale. Projects include watershed protection, flood prevention, erosion and sediment control, water quality, wetlands creation, and restoration in watersheds of 250,000 or fewer acres. Both technical assistance and financial assistance are available.

The 2014 Farm Bill passed the U.S. Congress in early 2014. In the area of conservation, compared with the previous 2008 Farm Bill, the 2014 Farm Bill consolidates conservation programs for flexibility, accountability, and adaptability at the local level; links basic conservation practices to crop insurance premium subsidies for highly erodible lands and wetlands; builds upon previous successful partnerships; and encourages agricultural producers and partners to design conservation projects that focus on and address regional priorities. These changes were implemented by FSA

[48] Natural Resources Conservation Service (NRCS). 2024a. Field Office Technical Guide (FOTG). Available at: https://www.nrcs.usda.gov/resources/guides-and-instructions/field-office-technical-guides. Accessed April 2024.

and NRCS through 2014. Additional information on Farm Bill programs is available on the NRCS website.[49]

NRCS operates 24 Plant Materials Centers around the country. The Los Lunas Plant Materials Center is in Los Lunas, New Mexico. NRCS field personnel and cooperating agencies identify conservation needs and priorities, and scientists at the centers seek out native plants that show promise for solving problems. Current conservation priorities relating to water quality that have been addressed at the Los Lunas Plant Materials Center are 1) testing and developing plants and planting techniques for riparian restoration, 2) revegetating uplands, 3) creating wetlands, and 4) reclaiming mines.

5.2.4 U.S. Department of the Interior Bureau of Land Management

- **NPS categories to be addressed: Rangeland, Wildlife and Fisheries Management, Recreation Management, Road Construction and Maintenance, Watershed Management, Wetland Management, and Resource Extraction and Exploration**

The BLM is a designated management agency for NPS control in New Mexico. The BLM's responsibility includes control, abatement, and prevention of NPS pollution resulting from activities conducted on over 13 million acres of lands managed by BLM in New Mexico. Approximately 215 miles of perennial streams are located on BLM land. Approximately 69 miles of these streams are listed as impaired on the Integrated List and have TMDLs for the impairment parameters, or are listed as impaired under Category 4C. The BLM manages two large national monuments in New Mexico, including the Rio Grande del Norte National Monument. The Rio Grande from the Rio Pueblo de Taos upstream to the Colorado border is within this national monument and is an ONRW. Potential sources of NPS pollutants on BLM land include rangeland grazing, mining operations, oil and gas development, recreation, and utility line and road construction and maintenance.

Activities on BLM-administered lands are conducted in accordance with Resource Management Plans (RMPs) developed by the agency in coordination with other federal, State, and local agencies, Tribes, user groups, and the public. Many existing RMPs in New Mexico contain water quality and erosion control goals that are directly related to NPS water quality concerns. Implementation of RMPs is accomplished through individual activity plans that address a specific land area or watershed objectives and use an interdisciplinary multiple-use, sustained yield approach in their development.

The State of New Mexico is particularly concerned with the development and implementation of standards and guidelines associated with rangeland and riparian area management. Activity plans and site-specific NEPA analysis documents, such as Environmental Assessments, for proposed actions establish site-specific objectives and mitigation within the general objectives of a particular RMP, enabling development of standards and guidelines for grazing management on BLM land. The riparian area management program focuses on improving surface water quality. To assess and monitor streams, riparian areas, and wetlands, the BLM developed a National Aquatic Monitoring Framework to monitor the condition and trend of aquatic systems as part of the Assessment,

[49] NRCS. 2024b. Farm Bill. Available at: www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmbill. Accessed April 2024.

Inventory, and Monitoring (AIM) program. The National Aquatic Monitoring Framework program includes Lotic and Riparian/Wetland AIM protocols for intermittent and perennial surface waters.[50] In conjunction with the AIM program, the BLM conducts annual Proper Functioning Condition (PFC) assessments to evaluate intermittent and perennial streams within grazing allotments. The abbreviation PFC describes both the assessment method and a defined, on-the-ground condition of a riparian area. For areas not meeting PFC, actions are taken to improve PFC status in future years. BLM is cooperating with other federal and State agencies and private groups to identify, restore, and manage all riparian areas on BLM lands in New Mexico. BLM also administers Restore New Mexico 2.0, a landscape-scale program to restore grasslands, woodlands, and riparian areas to a healthy and productive condition. Restore New Mexico 2.0 provides an opportunity for BLM to assist with meeting the objectives described in Section 2.

WPS staff review projects of the BLM requiring analysis under NEPA that might affect water quality for consistency with the NPS Management Program and goals related to water quality protection by WPS staff. The most relevant types of projects or actions that receive such review are Environmental Assessments or categorical exclusions related to grazing allotment management plans, documents related to development of oil and gas leases, and Environmental Impact Statements for RMPs.

5.2.5 U.S. Department of Interior Fish and Wildlife Service

- **NPS categories to be addressed: Agriculture, Rangeland, Recreation Management, Wildlife and Fisheries Management, and Hydrologic Habitat Modification**

The U.S. Department of the Interior U.S. Fish and Wildlife Service (USFWS) is the primary agency responsible for administering the federal Endangered Species Act, Migratory Bird Treaty Act, and Fish and Wildlife Coordination Act, some provisions of which relate to pollution-induced habitat degradation. Various USFWS programs such as Partners for Fish and Wildlife, Wildlife and Sport Fish Restoration, and Ecological Services work in partnership with other agencies and organizations to identify sources of pollution, investigate the effects of pollution on fish and wildlife habitat, restore pollution-degraded habitats, provide advice to minimize pesticide use, and provide technical expertise or aid to federal, State, Tribal or private entities through grants and conservation agreements.

The USFWS's Partners for Fish and Wildlife Program works with private landowners, local and county agencies, municipalities, Indigenous nations, pueblos, and Tribes, private organizations, corporations, schools, and others to restore and protect wildlife habitat on private or Tribal lands. USFWS focuses on projects in ecosystems and watersheds where conservation efforts will provide the greatest benefit for federal trust species, to include migratory birds or federally listed species. Often, restoration of wildlife habitat involves the improvement of upland, wetland or riparian conditions, which can reduce NPS pollution and improve water quality and quantity. Through cost-share agreements, up to $25,000 is available for each Partners for Fish and Wildlife Program

[50] The lotic AIM protocol is designed to provide quantitative data for wadable streams and rivers across all BLM lands including conductivity, temperature, pool frequency, percent fine sediment in streambed substrates, bank stability and cover, floodplain connectivity, and macroinvertebrate biological condition. The Riparian and Wetland AIM protocol is designed to collect quantitative data for riparian areas, floodplains, and wetlands, including bare ground, vegetation composition, soil characterization, vegetation height, water source, pH, and conductivity. The Riparian and Wetland data collection protocol was piloted in 2019, with expansion in 2020–2021.

project. Before beginning a habitat restoration project, a private landowner must sign an agreement such that the landowner will not return the project area to its former use or alter or remove any project components, e.g., fences, riparian vegetation, for a minimum of 10 years.

5.2.6 U.S. Department of Interior Bureau of Indian Affairs

- **NPS categories to be addressed: Agriculture, Rangeland, Irrigated Crop Production, Wildlife and Fisheries Management, Silviculture, and Recreation Management**

The U.S. government has a unique legal and political relationship with Indigenous nations, pueblos, and Tribes as provided in the U.S. Constitution and in treaties, court decisions. and federal statutes. Within the government-to-government relationship, the Bureau of Indian Affairs (BIA) provides services directly or through contracts, grants, or compacts to 562 federally recognized Tribes, with a service population of about 1.9 million. While the role of the BIA has changed significantly in the past three decades in response to a greater emphasis on self-governance and self-determination, Tribes still look to the BIA for a broad spectrum of services. The BIA offers an extensive scope of programs that covers the entire range of federal, State and local government services, including several that affect water quality.

The Division of Environmental and Cultural Resources Management within BIA provides leadership, guidance, policy, and support for the protection of environmental and cultural resources. The division ensures compliance with other BIA programs with applicable environmental and cultural resource statutes.

5.2.7 U.S. Army Corps of Engineers

- **NPS categories to be addressed: Recreation Management and Hydrologic Habitat Modification**

The USACE Albuquerque District is responsible for several missions that have potential to impact water quality and NPS water pollution. These missions include civil works, emergency management, environmental programs, recreation at USACE reservoirs, and regulation of dredged and fill material into waters of the United States.

The Regulatory Division is the primary USACE interface with the New Mexico NPS Management Program. The Regulatory Division is responsible for issuing and enforcing permits under the authority of Section 404 of the CWA. Section 404 is intended to control discharges of dredged or fill materials into waters of the United States. Section 401 of the CWA requires certification of compliance with State or Tribal water quality standards for any discharge of dredged or fill material permitted under Section 404 in New Mexico. For discharges to non-Tribal waters in New Mexico, NMED's SWQB is responsible for the Section 401 certification process. The State WQMP/CPP describes SWQB responsibilities to certify CWA Section 404 permits. Discharges to Tribal waters require certification by the tribe, or by EPA for Tribes that do not have water quality standards. Current information on the USACE Albuquerque District Regulatory Program is available at the district's website.[51]

[51] U.S. Army Corps of Engineers (USACE). 2024a. Albuquerque District Website. Available at: www.spa.usace.army.mil/Missions/Regulatory-Program-and-Permits. Accessed April 2024.

Through its civil works mission, USACE also implements ecosystem restoration projects that can directly or indirectly address water quality and NPS water pollution.

Protecting surface water resources is also part of the USACE recreation mission. Of particular concern is the spread, through recreational activities, of harmful plants, animals, and other organisms. These aquatic nuisance species can hitch a ride on clothing, boats, and items used in the water and can be spread from one water body to another. Under some conditions, these introduced species can become established and create drastic results. USACE implements a public education campaign designed to increase awareness of threats and simple practices that can reduce the spread of nuisance aquatic species.

Additional information regarding USACE missions is available at the USACE Albuquerque website.[52]

5.2.8 Federal Energy Regulatory Commission

- **NPS categories to be addressed: Hydrologic Habitat Modification**

The Federal Energy Regulatory Commission (FERC) regulates modification of dams and waterways when modification is for non-federal hydroelectric generation. FERC permits for hydroelectric power generation typically include required use of BMPs during construction and operation of facilities. FERC and its licensees consult with the State in developing permits and permit conditions. Also, pursuant to Section 401 of the CWA, an applicant for a FERC license must obtain certification (or a waiver of certification) from the appropriate State pollution control agency verifying compliance with the CWA before FERC can issue a license for a project. The conditions of a water quality certification become mandatory conditions of any license issued. Additional information about FERC and hydropower is available at FERC's website.[53]

5.2.9 U.S. Geological Survey

The Water Mission Area of the USGS collects data at numerous groundwater and surface water sites throughout New Mexico as part of local and regional studies and through the National Water Quality Network (NWQN) Program. Data have been collected at the same sites, in some cases for decades, providing valuable baseline information on water quality and quantity. The data are published regularly by USGS on an easily accessible web server. SWQB uses these data to supplement other data for water quality standards assessment and TMDL development.

The objectives of the NWQN Program are to describe current water quality conditions for a large part of the nation's freshwater streams, rivers, and aquifers; describe how water quality is changing over time; and improve understanding of the primary natural and human factors that affect water quality conditions.

Topics addressed by the NWQN Program include pesticides, pharmaceuticals, wastewater compounds, volatile organic compounds, nutrients, major and trace elements, stable and

[52] USACE. 2024b. U.S. Army Corps of Engineers Mission Overview. Available at: www.spa.usace.army.mil/Missions. Accessed April 2024.

[53] Federal Energy Regulatory Commission. 2017. *Hydropower primer: A Handbook of Hydropower Basics*. Available at: https://www.ferc.gov/media/hydropower-primer. Accessed April 2024.

radiochemical isotopes, and aquatic biota. This information supports the development and evaluation of management, regulatory, and monitoring decisions to protect, use, and enhance water resources. The USGS also continues to publish reports and journal articles for studies undertaken throughout New Mexico.

Two larger USGS projects that were in progress in 2023 relate to NPS pollution. The USGS is working with NMED's Drinking Water Bureau on a statewide assessment of per- and polyfluoroalkyl substances that started in 2020. It includes both surface water and groundwater.[54] The USGS is also undertaking a study in the San Juan Basin to identify sources of different metals.[55,56] In addition, the USGS has two active research projects in the San Juan-Animas watershed in collaboration with EPA and SWQB to 1) identify sources of nutrients and 2) estimate the concentration of different metals using suspended sediment as a surrogate.

5.3 Other State Programs

5.3.1 Energy, Minerals, and Natural Resources Department

The chairman of the Oil Conservation Commission, or a designated staff member, and the director of the State Parks Division, or a designated staff member, represent EMNRD as constituent agencies of the WQCC.

Mining and Minerals Division

- **NPS categories to be addressed: Resource Extraction and Exploration**

The MMD of EMNRD administers the New Mexico Surface Coal Mining Program. This program satisfies the requirements of the federal Surface Mining Control Act of 1977. The State has primary enforcement authority pursuant to this Act. MMD issues permits to coal mines that include standards for control of NPS pollution in runoff from coal mines.

EMNRD also administers the Mining Act Reclamation Program, which legislators created under the New Mexico Mining Act of 1993 to regulate hardrock mining reclamation activities for all minerals except fossil fuels and nonmetallic minerals used in construction. NMED has a certification role for new general permits under the New Mexico Mining Act and reviews other actions such as permit modifications for consistency with the water quality standards attainment goals. NMED effort, as described in Sections 2.3, 5.1.2, and 5.1.3 above, is part of the NPS Management Program.

[54] U.S. Geological Survey (USGS). 2023. Assessment of Per- and Polyfluoroalkyl Substances in Water Resources of New Mexico. Available at: https://www.usgs.gov/centers/new-mexico-water-science-center/science/assessment-and-polyfluoroalkyl-substances-water. Accessed April 2024.

[55] USGS. 2021a. Investigations of Sources of Contaminants of Concern in the San Juan River. Available at: https://www.usgs.gov/centers/new-mexico-water-science-center/science/investigations-sources-contaminants-concern-san. Accessed April 2024.

[56] USGS. 2021b. *Tracking the Source of Metals to the San Juan River*. Available at: https://pubs.usgs.gov/fs/2021/3029/fs20213029.pdf. Accessed April 2024.

Forestry Division

- **NPS categories to be addressed: Silviculture**

The New Mexico Forestry Division's forest resource management programs involve the application of both regulatory and voluntary silviculture BMPs on State and private forest lands in New Mexico.

Through the federally supported Cooperative Forestry Assistance Program, the New Mexico Forestry Division provides technical forest resource management assistance to private landowners and recommends application of NPS pollution BMPs in all silviculture activities. Types of technical assistance include hazardous fuels treatments, forest health treatments, soil stabilization, reforestation, and forest treatment, which may include harvesting of mature timber. This assistance is designed to meet a wide range of landowner management objectives. In conjunction with these programs, the New Mexico Forestry Division has technical responsibility for application of forestry practices in federally funded landowner cost-share programs, including the Forest Stewardship Program, Forest Health Initiative Program, and Emergency Forest Restoration Program.

The New Mexico Forestry Division has regulatory authority over all harvesting of commercial forest products where more than 25 acres are harvested from an individual private ownership in a single year. Harvesting is conducted under a permit issued by the New Mexico Forestry Division. As a requirement of the permit application, a harvest plan must be prepared, defining what will be reserved after harvest and how steep slopes will be treated to minimize soil erosion. In addition, regulations require that all roads, skid trails, and landings be water barred and reseeded. Following completion of harvesting activities, New Mexico Forestry Division personnel complete a silviculture water pollution–NPS assessment to determine the types of BMPs applied.

The New Mexico Forestry Division provides technical assistance to partner agencies and organizations on matters related to forestry, wildland fire, and watershed health. Some partnerships are formalized through legal agreements. Two agreements with the Forest Service support shared stewardship opportunities on both federal lands and private forested lands. A Financial Assistance Agreement with the BLM enables the New Mexico Forestry Division and BLM to collaboratively develop cross-jurisdictional, landscape-scale forest and woodland restoration treatments for improving forest health and resilience and decreasing wildland fire threat to forests, woodlands, and watersheds. In other cases, partnerships are formed to implement grant-funded activities that promote watershed health and water quality. The New Mexico Forestry Division also partners with sister agencies to support common state objectives, such as managing post-disaster recovery Lines of Effort, administering the Forest and Watershed Restoration Act, and hosting the Forest and Watershed Health Coordinating Group.

The Forest and Watershed Health Coordinating Group is a collaborative group focused on the coordinating the implementation of the New Mexico Forest Action Plan[57] and providing a way for stakeholders across the state to be a part of the Forestry Division's goals and objectives. The Forest

[57] New Mexico Department of Game and Fish. 2012. *Strategic Plan New Mexico Department of Game and Fish FY 2013 through FY 2018*. Available at: https://www.wildlife.state.nm.us/download/department/strategic-plans/Strategic-Plan-FY_2013-FY_2018.pdf. Accessed April 2024.

and Watershed Health Coordinating Group includes State agencies, local governments, and nongovernmental organizations and meets quarterly to improve the efficiency and effectiveness of mutual efforts to protect and restore New Mexico's landscapes.

The New Mexico Legislature significantly increased its support of forest restoration work in 2014, by authorizing the sale of $6.2 million in severance tax bonds to "plan, design and construct watershed restoration improvements, including forest thinning, statewide." The governor signed this legislation into law in March 2014, as part of House Bill 55. Legislators expanded the Watershed Restoration Program in 2015 and 2016, with legislative funds totaling $6 million being added. The NMDGF Pitman Robertson Federal Funds supplemented these funds, for an additional $9.4 million for forest and watershed restoration. In total, $21.8 million of State and federal funds have been dedicated to the Watershed Restoration Program and have funded a planned 26,403 acres of treatment.

5.3.2 New Mexico Forest and Watershed Restoration Institute

- **NPS categories to be addressed: Silviculture and Rangeland**

The U.S. Congress authorized the New Mexico Forest and Watershed Restoration Institute; the Forest Service and the New Mexico State Legislature fund the Institute. It promotes, supports, and promulgates two interrelated goals. The first goal is that forest and woodland stands should have many fewer small-diameter trees than currently are common and that stand structure after a commercial logging operation or precommercial thinning should mimic historic patterns of clumps and openings. Second, it promotes reestablishing the historic fire regimes of New Mexico forests, especially the 2- to 7-year cycle of low-intensity fire in ponderosa pine forests. The NM Forest and Watershed Restoration Institute is administratively part of New Mexico Highlands University with its office in Las Vegas, Nevada, and has two sister institutes at Colorado State University and Northern Arizona University.

The NM Forest and Watershed Restoration Institute specifically does the following:

- Provides GIS and mapping support to stakeholders that are too small to invest in their own equipment
- Facilitates collaboration of groups to accomplish landscape-scale forest restoration
- Provides information on methods and biological effects of thinning and fire to organizations and individuals doing the work
- Supports pre- and post-treatment monitoring of forests and woodlands, at levels from stand to landscape

5.3.3 New Mexico Department of Transportation

- **NPS categories to be addressed: Road Construction and Maintenance**

The New Mexico Department of Transportation (NMDOT) is responsible for the planning, designing, construction, and maintenance of New Mexico's federal and State roads and highways. BMPs for erosion control from disturbed areas and road embankments, for chemical deicers, for herbicides used for weed control, and for other sources of NPS pollution are required for all road construction and maintenance work NMDOT performs or contracts.

BMPs are routinely included in operational plans for construction and maintenance projects. The Design Division oversees design and implementation of BMPs. The NPDES Program (Section 402(p) of the CWA) establishes additional controls for pollution prevention plans on all projects that disturb 1 acre or more.

Another area in which NMDOT's mission intersects with the NPS Management Program is in the avoidance, minimization, or mitigation of impacts to waters of the State, including wetlands, as required by Section 404 and (through State certification) Section 401 of the CWA. NMDOT is actively working to increase the effectiveness and reduce the expense of mitigation through an Advance Permittee-Responsible Mitigation Program.

5.3.4 State Land Office

- **NPS categories to be addressed: Agriculture, Rangeland, Wildlife and Fisheries Management, Road Construction and Maintenance, Resource Extraction and Exploration, and Silviculture**

The New Mexico State Land Office (NMSLO) administers 8.9 million surface acres and 13 million acres of mineral estate that are held in trust for schools, State universities, and other beneficiary institutions. The NMSLO is required to manage the trust's assets in a manner that maximizes income to beneficiaries. At the same time, assets (renewable and nonrenewable) must be protected from waste and dissipation to ensure sustainability. The NMSLO is not legally authorized to expend trust funds for improvement of trust land. However, FSA funds and other funds may be expended on trust lands.

The NMSLO uses a cooperative approach in dealing with conservation of natural resources in relation to grazing and agricultural practices on trust land. Lessees are encouraged to enter into EQIP contracts or develop ranch and farm plans with SWCDs and NRCS. Communications frequently occur with the approximately 4,000 grazing lessees regarding evolving range conservation practices.

The NMSLO has promulgated rules that stipulate BMPs designed to control sediment and other pollutants originating from construction and operation of roads. Similarly, the NMSLO has rules establishing reclamation standards for oil and gas development on trust lands. Lessees of State lands are required to develop and implement management plans and reclamation plans as a condition of the lease. The NMSLO has the authority to cancel any lease that does not meet these conditions. NMSLO staff conduct on-site inspections to ensure that lease conditions are met.

Other activities on trust lands typically use BMPs developed by other expert agencies. For example, forest management practices are conducted using New Mexico Forestry Division guidance.

5.3.5 New Mexico Department of Agriculture

- **NPS categories to be addressed: Agriculture, Irrigated Crop Production, Rangeland, Hydrologic Habitat Modification, and Watershed Management**

New Mexico Department of Agriculture (NMDA) administers regulations concerning distribution and use of agricultural pesticides in New Mexico. The director of the NMDA, or a designated staff

member, represents NMDA as a constituent agency of the WQCC. NMDA staff analyze TMDL documents and provide input to agricultural producers on BMPs to aid the rehabilitation of impaired waters.

On July 1, 1997, responsibilities for New Mexico's Soil and Water Conservation Plan were transferred to NMDA. The Agricultural Programs and Resources Division provides administrative support, program direction, project and program planning assistance, and some financial help to 47 SWCDs in New Mexico. In this capacity, NMDA provides technical support and partnership coordination to implement a wide variety of watershed management projects and programs.

NMDA created its Healthy Soil Program after the State Healthy Soil Act (NMSA 25 76-25-1)[58] was signed into law in 2019. The purpose of the program is "to promote and support farming and ranching systems and other forms of land management that increase soil organic matter, aggregate stability, microbiology and water retention to improve the health, yield and profitability of the soils of the state." Improving the health of soils directly benefits water quality by reducing runoff of sediment and nutrients.

5.3.6 New Mexico State University

- **NPS categories to be addressed: Agriculture and Irrigated Crop Production**

New Mexico Cooperative Extension Service

NMCES administers several water quality programs for NPS pollution control that are objective based with measurable accomplishments. External grants support updating and delivery of New Mexico Farm*A*Syst, a voluntary groundwater protection program for New Mexico farms, ranches, and rural homeowners for which NMCES is the lead agency. A dedicated website for Farm*A*Syst contains the program's materials in an interactive format, including information about integrated pest management, nutrient management, pesticide management, animal waste management, and more.[59]

New Mexico Water Resources Research Institute

The New Mexico Legislature established the New Mexico Water Resources Research Institute (Institute) in 1963 and approved it under the federal Water Resources Research Act of 1964. The Institute funds research conducted by faculty and students from universities across the state to address water problems critical to New Mexico and the Southwest. The Institute also participates in joint efforts to solve water-related problems along the U.S./Mexico border.

Through its support of research and its interaction and cooperation with other water resources entities, the Institute continuously strives to alleviate water problems, working toward ensuring an ample supply of high-quality water for future generations. Water quality, including NPS pollution impacts, is one of the Institute's key research priorities.

[58] Available at: https://laws.nmonesource.com/w/nmos/Chapter-76-NMSA-1978#!b/a25.

[59] New Mexico State University. 2021. New Mexico Farm*A*Syst. Available at: https://aces.nmsu.edu/farmasyst. Accessed April 2024.

State appropriations support a substantial part of the program. Federal appropriations are provided through the Water Resources Research Act (42 USC 109 et seq.), which authorizes a program of water-related research and training through establishment of water research institutes at land grant colleges in each state and authorizes awarding of grant funds for research projects.

The program addresses water resource management problems, such as abundance and quality of New Mexico's water supplies, sources of water contaminants and methods of remediation, and training of research scientists, engineers, and technicians. It also represents other important topics, such as water conservation, planning, and management, and atmosphere-surface-groundwater relationships.

The Institute informs SWQB about research related to NPS activities. For example, for the past 8 years, the Institute has worked with NMED to host an annual conference to support the activities outlined in the *Gold King Mine Spill Long-Term Monitoring Plan*;[60] in 2021, the Institute produced proceedings with conference papers for the 2016, 2017, and 2018 conferences. In addition, NMED is represented on the Program Development and Review Board and the Water Conference Advisory Committee.

5.3.7 New Mexico Department of Game and Fish

- **NPS categories to be addressed: Agriculture, Hydrologic Habitat Modification, Road Construction and Maintenance, Recreation Management, Watershed Management, Wetlands Management, and Wildlife and Fisheries Management**

The NMDGF strategic plan[61] mandates providing information and technical guidance to public agencies and private entities in support of the conservation and enhancement of wildlife habitat and recovery of Indigenous species of threatened or endangered wildlife. NMDGF collaborates with federal, State, and local agencies, Tribal governments, nongovernmental organizations, and private interests that manage significant land and water areas in New Mexico, to plan and implement habitat improvement projects consistent with the conservation actions recommended in the 2016 *State Wildlife Action Plan for New Mexico*,[62] habitat restoration priorities identified in the *2022 Statewide Fisheries Management Plan*,[63] and projects recommended by the Citizen Advisory Committee through NMDGF's Habitat Stamp Program. NMDGF, through the Habitat Stamp Program, funds habitat restoration work on National Forest System and BLM-administered lands, with 50% of funds going to projects that benefit fish.

NMDGF administers approximately 260,000 acres of real property, owned or leased by the State Game Commission, for the following purposes: game refuges, fish hatcheries, wildlife habitat, public recreational sites, and administrative sites. Management of these properties contributes to

[60] New Mexico Long-Term Impact Team. 2017. *Gold King Mine Spill Long-Term Monitoring Plan*. May 5, 2017. Available at: GKM-Long-Term-Monitoring-Plan-for-2017-Final_5-5-2017.pdf. Accessed April 2024.

[61] New Mexico Department of Game and Fish (NMDGF). 2012. *Strategic Plan New Mexico Department of Game and Fish FY 2013 through FY 2018*.

[62] NMDGF. 2016. State Wildlife Action Plan. Available at: https://www.wildlife.state.nm.us/conservation/state-wildlife-action-plan/. Accessed April 2024.

[63] NMDGF. 2022. Statewide Fisheries Management Plan. Available at: https://www.wildlife.state.nm.us/fishing/fisheries-management/. Accessed April 2024.

supporting populations of many of New Mexico's wildlife species while also providing opportunities for public enjoyment, appreciation, and recreational use by current and future generations. NMDGF provides feed, through crop production on several thousand acres, for wintering populations of Central Flyway ducks, geese, and sandhill cranes in the Middle Rio Grande and Lower Pecos valleys. Improvements made to existing water infrastructure have supported efficient use of water across these acres. NMDGF has prioritized and invested in improving water quality within the Middle Rio Grande Valley by enhancing management of moist-soil units and wetland units on local Wildlife Management Areas. Federal partnerships (i.e., with USFWS National Wildlife Refuges) have been fostered in recent years. BMPs are included in operational plans for irrigated crop production, road maintenance on wildlife areas, and recreational sites. NMDGF oversees use of BMPs to control erosion from road banks, herbicides used in weed control, and sewage disposal from recreational sites.

NMDGF reviews hundreds of development and restoration projects annually and provides guidelines for ways to mitigate impacts of various types of anthropogenic development on wildlife, several of which include recommendations for ways to minimize erosion and other sources of NPS. Additionally, the NMDGF director, or a designated staff member, represents NMDGF as a constituent agency of the WQCC.

NMDGF administers several wildlife education programs, including Aquatic Resources Education, lessons and activities related to New Mexico's wildlife, and education projects funded through the Share with Wildlife (SwW) program. The Aquatic Resources Education program provides fun and educational ways to introduce kids and adults to the sport of fishing and to first-hand experiences monitoring watersheds throughout New Mexico. Some of the wildlife-focused activities and lessons provided—and SwW education projects funded—by NMDGF focus on evaluating water quality and have students consider potential sources of pollution.

Funding applied to NPS efforts by NMDGF comes from the Game Protection Fund (hunting and fishing license sales, including sales of the Habitat Management and Access Validation), the federal Wildlife and Sport Fish Restoration programs, the federal State Wildlife Grant program, NMDGF's Habitat Stamp Program, and NMDGF's SwW program.

5.3.8 Office of the State Engineer and Interstate Stream Commission

- **NPS categories to be addressed: Agriculture, Irrigated Crop Production, Hydrologic Habitat Modification, and Wildlife and Fisheries Management**

The Office of the State Engineer (OSE) is charged with administering the State's water resources. The State Engineer has authority over the supervision, measurement, appropriation, and distribution of all surface water and groundwater in New Mexico, including streams and rivers that cross state boundaries.

The ISC is charged with separate duties that include protecting New Mexico's right to water under eight interstate stream basins, ensuring that the State complies with compacts governing each of those basins, and overseeing water planning and Endangered Species Act compliance. The State Engineer serves as the Secretary of the ISC.

Office of the State Engineer

The Water Resources Allocation Program within OSE is responsible for processing water rights applications, conducting the scientific research for making those water rights decisions, maintaining water rights records, and enforcing any conditions or restrictions on water use. Water masters in the program measure stream flow, allocate the water within a stream system based on State water law, and regulate and control diversions. Staff also inventory water resources, monitor water use, and cooperate with the USGS in monitoring groundwater levels throughout the state. Published data are available to the public through the OSE library. Additional duties include licensing all well drillers, maintaining and updating the rules and regulations of the State Engineer, inspecting non-federal dams, evaluating subdivision water supply plans submitted by counties, and promoting water conservation.

In addition to water rights and water adjudication responsibilities, OSE maintains a Water Use and Conservation Program that coordinates water conservation activities for the State of New Mexico and inventories surface and groundwater withdrawals and depletions by category, county, and river basin. The program's goals are to increase awareness regarding the value of New Mexico's water resources, assist entities initiating water conservation plans and programs, and assist in the development of State government policies that will encourage the implementation of water conservation measures in various water use sectors.

Water quality issues of concern regarding the State's water supply and water resources management include the effects of salinity and total dissolved solids on surface water supplies. OSE does not have any regulatory authority over these issues, as its regulatory authority is limited to the quantity of water rather than the quality of water.

Interstate Stream Commission

In 1987, the New Mexico Legislature created a regional water planning program to inventory New Mexico's water supplies to ensure that adequate water is available for the state's future growth and development. The 1987 regional water planning statute required technical investigations into water supply and future demand and extensive public involvement to determine recommended alternatives for balancing regional water supply with future demand. This program established 16 water planning regions, and two rounds of regional planning have been completed. The State Water Plan Act, passed by the New Mexico Legislature in 2003, charged the ISC, with help from OSE and the Water Trust Board, with developing and implementing a comprehensive State Water Plan. The statute includes "protecting both the water supply and water quality" as one of the eight stated purposes. A review or update of the New Mexico State Water Plan is required every 5 years, and in 2023, the ISC Planning Program published a review of the State Water Plan. Governor Lujan Grisham released the 50-Year Water Action Plan in January 2024.

In the 2023 legislative session, ISC presented an agency-sponsored bill intended to reinvigorate regional water planning. The bill, SB337 or the Water Security Planning Act of 2023, passed the house and senate with unanimous support and only minor edits before being signed into law on April 4. The Water Security Planning Act of 2023 calls for a public rulemaking process to revisit regional boundaries and identify strategies that allow regions the autonomy to identify needs and projects in a manner consistent with the needs of the State relative to interstate compacts and endangered species.

In the coming years, the ISC's Planning Program will be engaging water users throughout the state to shape a new approach to regional water planning. ISC's goal is to be transparent in the trade-offs associated with different administrative strategies and geographic boundaries and to develop a process and framework for regions to organize and advocate for their needs. These efforts will dovetail with efforts across the state to improve monitoring and climate science to ensure equitable, efficient, and long-term water management strategies that are responsive to local needs and developed with scientific integrity.

Water supply investigations are required to assess water quantity and quality, identify sources and types of contamination, and provide water quality management plans relating to land use practices, water use practices, and wastewater treatment. Elevated salinity in the Rio Grande Project area, which extends from above Elephant Butte Reservoir, New Mexico, to Fort Quitman, Texas, has long been recognized as an issue. ISC and OSE are cooperators in the USGS's Mesilla Basin Monitoring Program, which collects basic data on groundwater level, groundwater quality, and surface water quality at sites between Caballo Dam and El Paso, Texas.

As the San Juan River, which flows through the northwest corner of New Mexico, is a tributary of the Colorado River, the State of New Mexico maintains membership in the Colorado River Basin Salinity Control Forum and the Colorado River Basin Salinity Control Advisory Council. In compliance with the CWA and the Colorado River Basin Salinity Control Act, the forum works with federal agencies to improve agricultural practices, remove nonnative vegetation, and intercept extremely saline water sources in the interest of reducing the amount of salt that enters the Colorado River. Projects in New Mexico have been done on Tribal and non-Tribal lands.

5.4 Local Government Programs

County and municipal governments have authority over land use within their jurisdictions. Through subdivision regulations and zoning ordinances regarding land use, local governments can play a significant role in NPS management and prevention. At present, program implementation varies widely. A goal of the NPS Management Program is to provide information and assistance that will enhance county and municipal governments' ability to act as a partner with the State in NPS management.

5.4.1 Councils of Government

- **NPS categories to be addressed: Road Construction and Maintenance**

Councils of Government (Councils) are associations of local governments within regions of the state. There are seven planning districts designated by State statute. These organizations are governed by Boards of Directors that are appointed by member jurisdictions. Throughout the state, their mission is to provide ongoing and long-term interjurisdictional planning. Many of the Councils also provide technical services and direct program delivery. Information and training delivery is also a major part of the mission for all Councils.

Through this structure, emphasis can be placed on improving local practices that impact water quality. As intergovernmental coordinating entities, they are able to help establish development and delivery of information, training, and projects that benefit from the use of multi-agency resources. These activities will provide benefits in the quality of regional groundwater and surface

water resources by cooperatively identifying NPS projects between local, State, and federal entities. A Council may affect NPS management, as can be seen in the North Central New Mexico Economic Development District's efforts to secure funding for development of water and wastewater treatment facilities for communities in their region.

President Ronald Reagan issued EO 12372 in July 1982, requiring federal agencies to provide opportunities for consultation by elected officials of State and local governments that would provide the non-federal funds for, or that would be directly affected by, proposed federal financial assistance. EO 12372 also requires federal agencies to use the State process to determine official views of State and local elected officials. The State process implemented by NMED is to provide an opportunity to Councils to review draft federal grant applications and to provide responses from the Councils as part of the grant application.

5.4.2 Soil and Water Conservation Districts

- **NPS categories to be addressed: Agriculture, Irrigated Crop Production, Rangeland, Hydrologic Habitat Modification, and Watershed Management**

New Mexico's SWCDs are subdivisions of New Mexico State Government. They are responsible under State law for directing soil and water conservation programs within their approved boundaries. Through their programs SWCDs implement a variety of projects on private land, as well as on local, State, and federally held lands. This is made possible through their unique statutory authority, which allows them to conduct and administer projects on all types of landholdings within their boundaries. Each of the 47 SWCDs in New Mexico have an elected board of five locally elected district supervisors who are familiar with local soil and water conservation issues. Two additional district supervisors may serve subject to an annual appointment by the New Mexico Soil and Water Conservation Commission. SWCDs can provide assistance at the local level to establish watershed groups, develop WBPs, provide technical expertise on water quality and NPS pollution issues, promote the use of the SRF, assist local governments with NPS pollution management and prevention, and provide water stewardship education to private landowners. SWCDs are able to work with private landowners and other stakeholders on a landscape scale for watershed projects on private, State, Tribal, and federal lands. The BLM program Restore New Mexico has been implemented to work in concert with SWCDs. The SWCDs have had a pivotal role in identifying and coordinating private landowners within the matrix of public and private lands.

New Mexico's SWCDs encourage the use of BMPs such as rotational grazing to reduce erosion and protect water quality and habitat in streams and watersheds. They directly implement or coordinate these activities when personnel and funding are available. SWCDs work with local landowners to restore streams to stop channel bank erosion and implement practices to increase riparian vegetation to protect banks and lower water temperatures. SWCDs provide educational experiences for erosion prevention, road drainage techniques, and rotational grazing. Assistance is provided to landowners and other agencies with practices that stop headcuts and heal gullies, reduce runoff from irrigated fields, and reduce runoff from impervious surfaces. SWCDs administer hazard mitigation projects to assist landowners and public entities with forest thinning on their properties to protect and promote the health of watersheds. SWCDs administer noxious weed programs, providing techniques for local and public landowners to address noxious weed problems in many parts of New Mexico.

More than one-half of New Mexico's assessed streams are within eight SWCDs (Table 2). These are the priority SWCDs that WPS will reach out to, as described in Section 2.6 above.

Table 2: Streams within Soil and Water Conservation Districts

SWCD	Miles of Assessed Streams	% of New Mexico's Assessed Streams	Miles of Impaired Streams	% of New Mexico's Impaired Streams
Tierra y Montes	938	11%	489	10%
Colfax	903	10%	674	14%
Cuba	810	9%	435	9%
East Rio Arriba	721	8%	474	10%
Grant	612	7%	309	6%
San Francisco	598	7%	477	10%
Taos	591	7%	309	6%
Santa Fe-Pojoaque	533	6%	315	7%

5.4.3 Flood Control Districts

- **NPS categories to be addressed: Stormwater Management**

New Mexico's Flood Control Districts are political subdivisions of the State that exist to protect inhabitants of a district from flooding. The role of a Flood Control District in NPS pollution management may include reducing flooding risks and damages and improving water quality. Flood Control Districts can use a variety of tools to protect and improve water quality, including implementing structural and nonstructural BMPs, maintaining infrastructure, increasing stormwater conveyance capacity in drainage channels and arroyos, and excavating stormwater detention basins and dams.

6 NPS Management Program Efficiency and Effectiveness

6.1 Improved Watershed Planning Efforts

Through early 2023, the NPS Management Program supported the development of 18 WBPs that EPA has recognized as meeting the nine elements specified in the *NPS Program and Grants Guidelines for States and Territories.* Each of the planning efforts and the partnerships that have developed represent a significant investment of dollars, time, and the hopes of many program participants. Feedback to NMED has been positive and has indicated that the WBPs have helped local organizations focus, prioritize, and gain support from funding programs, community members, and participants in on-the-ground projects.

NMED will continue to support watershed-based planning with Section 319 funds. A small number of comprehensive watershed-based planning projects will be identified and funded through RFAs or RFPs to revise existing WBPs or develop new WBPs. NMED staff from both MASS and WPS may additionally conduct in-house watershed-based planning, with significant stakeholder involvement, for a small number of watersheds. NMED will also support development of alternative WBPs and ARPs. NMED will continue to support development of WAPs through the Wetlands Program. NMED will also fund capacity-building projects to help prepare communities to take on appropriate water quality planning for their watersheds. Section 4.3 above provides more detail about each approach.

The investment in watershed planning will be reinforced with commitment by NMED to implement WBPs and alternative WBPs. Section 319 watershed project funds will be used exclusively to implement WBPs and alternative WBPs that have been accepted by EPA. WPS staff will promote awareness of WBPs and alternative WBPs as resources that may help effectively direct other funds.

6.2 Efficient Implementation of Watershed Projects

The NPS Management Program supports identification of effective project approaches through the watershed planning process described in Sections 2.1, 4.2, 4.3, and 6.1 and Appendix A. This level of planning is sufficient to describe the main features of future projects, including their approximate locations, costs, approaches toward achieving pollutant load reductions, and the estimated pollutant load reductions expected from implementation.

To support those planning efforts and to develop project plans that are of sufficient detail to ensure their effective implementation, NMED will issue RFAs or RFPs, during which nongovernmental or agency cooperators may submit applications describing projects that they are well positioned to implement. Typically, one RFA or RFP every other year will be designed to solicit applications for watershed planning projects, and another RFA or RFP every other year will be for projects that implement portions of watershed plans.

An evaluation committee nominated by the assigned lead for the RFA or RFP will evaluate the applications against criteria that are consistent with the NPS Management Program. The evaluation may be refined from year to year, according to specific priorities and in an effort to make them more understandable to applicants.

Successful applicants will be notified that their application has been selected for development of a subgrant agreement. A project work plan attached to the agreement will describe the project in detail; the work plan will be subject to EPA's review and approval and will serve to document the expectations for the project. For watershed projects, applications or proposals provide more detail than that found in the watershed plan, and applicants develop work plans that describe the project in sufficient detail to ensure effective implementation once they have reasonable assurance that they will receive funding to implement their work plans.

Cooperators will develop project work plans with assistance of a WPS Project Officer. The work plans promote ownership of the projects and strong awareness of responsibilities under resulting agreements. The NMED Project Officer and the Procurement Manager will review the work plans before submittal to EPA. Following EPA's review, any resulting modifications, and EPA's approval, the work plan is attached to a subgrant agreement. It then receives additional review by several people within NMED who check the work plan and the agreement for consistency with various administrative and legal requirements.

The result of this process is a set of work plans for watershed projects that are well designed and contain sufficient detail to ensure effective implementation.

6.3 Program Effectiveness Monitoring

SWQB established an Effectiveness Monitoring Program with a dedicated staff position in 2008, with the goal of documenting effects on water quality resulting from projects implemented with Section 319 funds. The Effectiveness Monitoring Program is described in the SWQB Quality Assurance Project Plan (QAPP); project-level QAPPs have been developed for each of several project areas.

Applicants for Section 319 watershed project funding are encouraged to include effectiveness monitoring in their projects. The WPS Monitoring Coordinator provides training and assistance, as well as supplemental data collection when appropriate. In cases where a project cooperator is responsible for monitoring, the WPS Project Officer and/or Monitoring Coordinator will assist in developing a project-level QAPP.

Effectiveness monitoring is conducted within each selected project area at least twice (before and after project implementation) in a 3-year period. In many cases, additional projects and the lag time in vegetation growth and channel response warrant longer-term monitoring. In addition, effectiveness monitoring is coordinated with MASS water quality monitoring and assessment programs. This enables the NPS Management Program to supplement the data sets used for assessment to avoid duplication of effort, in compliance with the Quality Management Plan.[64]

The focus of effectiveness monitoring is detecting water quality changes resulting from NPS pollution control projects in watersheds of impaired reaches. This effort has documented improvements in water quality and significantly helped measure the progress of the NPS Management Program toward meeting its objectives. In early 2023, 11 watersheds were nominated and recognized as NPS Success Stories. A reasonable case was made that projects and management

[64] The SWQB QAPP and Quality Management Plan are subject to revision. The current SWQB QAPP and Quality Management Plan are available at: https://www.env.nm.gov/surface-water-quality/protocols-and-planning.

improvements in each watershed produced measurable water quality improvements, and the efforts used to develop, fund, and implement those projects met strategic planning elements in EPA's Strategic Plan applicable to fiscal years 2022 through 2026.[65] NPS Success Stories accepted by EPA are available at EPA's Success Stories website.[66]

6.4 Reporting

6.4.1 NPS Management Program Annual Report

The NPS Management Program Annual Report will be prepared for each federal fiscal year (October 1 through September 30) and submitted to EPA by January 31 of the following year. The annual report describes the progress of NMED and other agencies in carrying out the NPS Management Program. Section 2 above provides lists of activities and verification items that the annual report will include. In addition, the report will include summaries of projects completed during the year that were supported with Section 319 funds, along with pollutant load reduction estimates for the previous year, described in Section 6.4.2 below. The annual report is a useful resource for agencies, watershed groups, other citizens' groups, legislators, and others to stay informed of the progress and direction of the State's NPS Management Program. NMED makes the report available to the public on its website.[67]

6.4.2 Grants Reporting and Tracking System

The GRTS is a financial and implementation reporting database administered by EPA specifically for State Section 319 grant programs. The WPS program manager is responsible for entering data describing each assistance agreement and ensuring data for projects are up to date. NMED Project Officers are responsible for entering project data and reporting on a semiannual basis describing individual 319 projects and State-funded projects (most notably, River Stewardship Program projects) used to meet the non-federal share requirement of Section 319. GRTS is used to track all Section 319 projects and all State-funded projects used to meet the non-federal share requirement of Section 319. All Section 319 funds used in New Mexico are represented within projects in GRTS, including a large project for each State fiscal year for the administration of NPS Management Program implementation, and another project each State fiscal year for groundwater quality–related projects.

To increase the accuracy of financial data in GRTS, project managers record invoices received and certified in GRTS and document the GRTS entry with each certified invoice forwarded to the SWQB Financial and Administrative Section. The Financial and Administrative Section (Financial Section) uses that information to confirm that the records associated with a contract or subgrant agreement agree with financial data in GRTS.

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[65] EPA. 2022. *FY 2022–2026 EPA Strategic Plan*. Available at: https://www.epa.gov/system/files/documents/2022-03/fy-2022-2026-epa-strategic-plan.pdf. Accessed April 2024.

[66] EPA. 2023c. Success Stories about Restoring Water Bodies Impaired by Nonpoint Source Pollution. Available at: https://www.epa.gov/nps/success-stories-about-restoring-water-bodies-impaired-nonpoint-source-pollution. Accessed April 2024.

[67] NMED. 2024h. NPS Annual Reports. Available at: www.env.nm.gov/surface-water-quality/nps-annual-reports. Accessed April 2024.

Section 319(h)(11) of the CWA requires each State to report to EPA "reductions in nonpoint source pollutant loading" annually, as a component of the NPS Management Program Annual Report. EPA and NMED use GRTS to implement this reporting requirement. WPS project managers enter estimated pollutant load reductions for all projects in GRTS implemented during the previous calendar year, by an EPA-requested deadline (usually set at the end of March). The annual report described above in Section 6.4.1 will include a link to generate a report of pollutant load reduction estimates for the most recent calendar year. For example, the NPS Management Program Annual Report for the period October 1, 2023–September 30, 2024, includes pollutant load reduction estimates for calendar year 2024.

GRTS is a useful tool for the public to access information about Section 319 grants and projects. Anyone can access much of the information in GRTS without a username or password, using the public data explorer.[68] The list of projects[69] is a more curated resource that includes links for each project that pull current data from GRTS. Contact information for NMED project managers and cooperators, project work plans, and final reports for completed projects are included in the information available from this list.

6.4.3 Project Reporting

Project work plans include reporting tasks for individual projects. The requirement is usually for project reports to be prepared and submitted to the NMED Project Officer by the subgrantee, contractor, or cooperating agency on a quarterly or semiannual basis. These reports provide much of the information used by the Project Officer to report project details in GRTS. These reports are generally brief and focus on describing the progress of the project against work plan tasks, activities planned for the next reporting period, and any developments that may require work plan amendments or that otherwise require the attention of NMED or EPA. Quarterly or semiannual reports may be useful for cooperators in that they provide structured opportunities to review progress and evaluate next steps. Quarterly or semiannual reports may also be used by cooperators to maintain good communication with other project participants, their own management, board members, or the public.

6.5 Financial Management

SWQB has four full-time employees who form the Financial Section. The Financial Section assists, monitors, and ensures financial reporting and recording requirements are met, procurement of tangible goods and contracts meet federal and State requirements, and time reporting is accurately tracked. The Financial Section will continue to develop and implement policies and procedures for tracking of all federal grants within the bureau, will ensure that the required match is being met, and will keep an accurate and updated master list of current grants, work plans, contracts, and interagency agreements. Financial staff and Project Officers work together to verify that SWQB is both financially and technically in compliance with the Section 319(h) grant agreements and ensure that the NMED Grants Section can file the final Financial Status Report and quarterly financial reports when required.

[68] EPA. 2024. Nonpoint Source (NPS) Watershed Projects Data Explorer. Available at: https://ordspub.epa.gov/ords/grts/f?p=grts:940. Accessed April 2024.

[69] NMED. n.d. NMED 319 and River Stewardship Program Projects.

SWQB has developed and uses a fiscal accounting system capable of tracking expenditures of both Section 319(h) funds and non-federal match. SWQB requires documentation of matching funds when project contractors working on Section 319 projects submit requests for reimbursement.

6.6 Adaptive Management

The National Research Council has defined adaptive management as a decision process that "promotes flexible decision making that can be adjusted in the face of uncertainties as outcomes from management actions and other events become better understood."[70] This section describes the concept of adaptive management as applied by the NPS Management Program.

The NPS Management Program will be revised in 2029—approximately 5 years after approval of this document by EPA. At that time, strategies and approaches described in this document that have been found to be ineffective will be modified, and new strategies will be documented.

At a frequency of less than 5 years, NMED will apply for Section 319 funding from EPA to support the NPS Management Program. NMED will prepare a core work plan that will describe the activities of the NMED staff who implement the NPS Management Program and will document the activities that will be funded in great detail. Lessons learned during each successive grant period will be used to refine the core work plan.

On an annual basis, the WPS will prepare a report for the NPS Management Program that describes significant new developments affecting the program and the problems encountered. NMED will use this information to make adjustments to the core work plan and the NPS Management Program when these documents are revised. The WPS also prepares RFAs and RFPs to seek assistance from locally based organizations who can help implement the NPS Management Program within specific watersheds and are open to trying new approaches at developing projects of an appropriate size, complexity, and technical or practical nature to effectively accomplish the goals of the program. NMED may also use experience gained through this process to make adjustments to core work plans and the NPS Management Program when these documents are revised.

6.7 Public Input into the NPS Management Program

Public meetings and workshops for collection of input and comments on TMDLs, NPS Management Program changes, and for other important program issues are held virtually and at strategic locations throughout the state. Public meetings and notice of public comment periods are advertised primarily through public notices, press releases, messages to the SWQB email list, and the SWQB semiannual newsletter, *Clearing the Waters.* WPS will conduct a statewide meeting for NPS Management Program cooperators (subgrant recipients, contractors, agencies, etc.) at least annually, in accordance with Section 2.4. WQCC meetings are open to the public, as well, and often include dedicated time on the agenda for public comments.

[70] Williams, B.K., R.C. Szaro, and C.D. Shapiro. 2009. Adaptive Management: The U.S. Department of the Interior Technical Guide. Adaptive Management Working Group, U.S. Department of the Interior, Washington, DC. Available at: https://www.usgs.gov/publications/adaptive-management-us-department-interior-technical-guide. Accessed April 2024.

The integration of the NPS Management Program in other programs administered by SWQB is evident in the public outreach processes in which the bureau engages. WPS staff are integral participants in public meetings related to planning water quality surveys and TMDL development, often boosting attendance of these meetings by encouraging cooperators to attend.

WPS staff engage in public education activities to promote public awareness of the NPS Management Program and NPS pollution and its solutions. SWQB will continue to provide educational opportunities for the public and private sector by coordinating with local schools and youth programs, hosting information sessions, and conducting public site tours of demonstration projects and BMP implementation sites.

When stakeholders undertake a planning effort to develop or revise a WBP, they have opportunities to provide input to the NPS Management Program, both in the process of developing the WBP (e.g., through project reports and participation by SWQB staff in aspects of plan preparation) and in the content of the WBP itself. The NPS Management Program promotes bottom-up watershed planning and restoration efforts in which stakeholders do not have to agree with or address all problems identified by SWQB; in addition, the scope of a watershed plan may include priorities (problems or resource issues) not identified by SWQB.

Significantly, watershed planning efforts implemented on the local level generally are conducted with an open-door policy that promotes collaboration and participation by all interested and affected parties within a watershed. The public process is a key element in the final selection of Section 319 planning projects.

6.8 Consistency between Federal and State Programs

NMED is committed to reviewing and identifying federal land management programs and projects, development projects, and financial assistance programs that are or may be inconsistent with the State's NPS Management Program. An NMED Environmental Review Coordinator within the Office of the Secretary is responsible for receiving documents to review, assigning them to appropriate bureaus, and compiling comments received into unified NMED comments. Individual staff within NMED (e.g., the SWQB bureau chief and WPS program manager) may also directly receive NEPA documents, identify those that should be reviewed, and forward them to the Environmental Review Coordinator. In response to NMED comments, potential inconsistencies are often resolved by the federal agency preparing a NEPA document, or by USACE in its decisions regarding the applicability of Section 404 permitting requirements. When significant inconsistencies are not resolved, the State will seek EPA's assistance to help resolve issues.

Appendix A The Nine Elements of Watershed-Based Plans (WBPs) and Elements of Alternative WBPs

This appendix explains watershed planning. The information below is taken directly from the draft revision of the U.S. Environmental Protection's (EPA's) 2023 Nonpoint Source Program and Grants Guidelines for States and Territories, Appendix B.[*]

The Nine Elements of Watershed-based Plans (WBPs)

The nine elements of WBPs and short explanations of how each element fits in the context of the broader WBP are provided below. Although listed as a through i, they do not necessarily occur sequentially.

The level of detail needed to address the nine elements of WBPs will vary in proportion to the homogeneity or similarity of land use types and the variety and complexity of pollution sources. For example, densely developed urban and suburban watersheds often have multiple sources of pollution from historic and current activities (Superfund sites, point sources, solid waste disposal, leakage from road salt storage, oil handling, stormwater-caused erosion, road maintenance, etc.) in addition to some agricultural activities. WBPs will be more complex in these cases than in predominantly rural settings. Therefore, plans for urban and suburban watersheds might need to be developed and implemented at a smaller scale than watersheds with agricultural lands of a similar character.

Element a. The identification of the causes of impairment and pollutant sources or groups of similar sources that need to be controlled to achieve the desired load reductions and any other goals identified in the watershed plan. Sources that need to be controlled should be identified at the significant subcategory level along with estimates of the extent to which they are present in the watershed (e.g., X number of dairy cattle feedlots needing upgrading, including a rough estimate of the number of cattle per facility; Y acres of row crops needing improved nutrient management or sediment control; or Z linear miles of eroded streambank needing remediation).

What does this mean?

Your WBP source assessment should encompass the watershed of the impaired water body(ies) and include map(s) of the watershed that locates the major causes and source(s) of impairment in the planning area. To address these impairments, you will set goals to meet (or exceed) the appropriate water quality standards for pollutant(s) that threaten or impair the physical, chemical, or biological integrity of the watershed covered in the plan.

This element usually includes an accounting of significant point and nonpoint sources in addition to the natural background levels that make up the pollutant loads causing problems in the watershed. If a Total Maximum Daily Load (TMDL) exists for the waters under consideration, this element may be adequately addressed in those documents. If not, you will need to conduct a

[*] EPA. 2023. *Draft Revision for Public Comment, Nonpoint Source Program and Grants, Guidelines for States and Territories*. October. Available at: https://www.epa.gov/system/files/documents/2023-10/draft-revision-for-public-comment_319-grant-guidelines-for-states-and-territories_508.pdf. Accessed April 2024.

similar analysis (which may involve mapping, modeling, monitoring, and field assessments) to link the sources of pollution and the extent to which they cause the water to exceed relevant water quality standards.

Element b. An estimate of the load reductions expected from management measures.

What does this mean?

Using the existing source loads estimated for element a, you will determine the reductions needed to meet water quality standards. After identifying the various management measures that will help to reduce the pollutant loads (see element c below), you will estimate the load reductions expected as a result of implementing these management measures while recognizing the difficulty in precisely predicting the performance of management measures over time.

Estimates should be provided at the same scale and scope as described in element a (e.g., the total load reduction expected for dairy cattle feedlots, row crops, eroded streambanks, or implementation of a specific stormwater management practice). For waters in which TMDLs have been approved or are being developed, the plan should identify and incorporate the TMDLs; the plan needs to be designed to achieve the applicable load allocations in the TMDLs. Applicable loads for downstream waters should be included so that the water delivered to a downstream or adjacent segment does not exceed the water quality standards for the pollutant of concern at the water segment boundary. The estimate should account for reductions in pollutant loads from point and nonpoint sources identified in the TMDL as necessary to attain the applicable water quality standards.

Element c. A description of the nonpoint source (NPS) management measures that will need to be implemented to achieve load reductions in element b and a description of the critical areas in which those measures will be needed to implement the plan.

What does this mean?

The plan should describe the management measures needed to achieve the load reductions estimated under element b and any additional pollution prevention goals outlined in the watershed plan (e.g., habitat conservation and protection). Pollutant loads will vary even within land use types, so the plan should also identify the critical areas in which those measures will be needed to implement the plan. This description should be detailed enough to guide needed implementation activities throughout the watershed and can be greatly enhanced by developing an accompanying map with priority areas and best management practices (BMPs). Thought should also be given to the possible use of measures that protect important habitats (e.g., wetlands, vegetated buffers, forest corridors) and other nonpolluting watershed areas. In this way, water bodies would not continue degrading in some watershed areas while being restored in others.

Element d. Estimate the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon to implement the plan.

What does this mean?

You should estimate the financial and technical assistance needed to implement the entire plan. This includes implementation and long-term operation and maintenance of management measures, information/education activities, monitoring, and evaluation activities. You should also document which relevant authorities might play a role in implementing the plan. The plan's sponsors should consider the use of federal, State, local, and private funds or other resources that might be available to assist in implementing the plan. Shortfalls between the needs and the available resources should be identified and addressed in the plan.

Element e. An information and education component used to enhance public understanding of the plan and encourage early and continued participation in selecting, designing, and implementing the NPS management measures.

What does this mean?

The plan should include an information/education component that identifies the education and outreach activities or actions that will support implementing the plan. These activities may support the adoption and long-term operation and maintenance of BMPs and support stakeholder involvement efforts.

Element f. A schedule for implementing the NPS management measures identified in this plan that is reasonably expeditious.

What does this mean?

You should include a schedule for implementing the management measures outlined in your watershed plan. The schedule should reflect the milestones you develop in element g, and you should begin implementation as soon as possible. Conducting baseline monitoring and outreach for implementing water quality projects are examples of activities that can start right away. It is important that schedules not be "shelved" for lack of funds or program authorities; instead, they should identify steps towards obtaining needed funds as feasible.

Element g. A description of interim measurable milestones for determining whether NPS management measures or other control actions are being implemented.

What does this mean?

These milestones will be used to track the implementation of the management measures, such as whether they are being implemented according to the schedule outlined in element f. In contrast, element h (see below) will develop criteria to measure the management measures' effectiveness (e.g., via documenting improvements in water quality). For example, a watershed plan may include milestones for a problem pesticide found at high levels in a stream. An initial milestone may be a 30% reduction in the measured stream concentrations of that pesticide after 5 years and 50% of the users in the watershed have implemented integrated pest management. The next milestone could be a 40% reduction after 7 years, when 80% of pesticide users are using integrated pest

management. The final goal, which achieves the water quality standard for that stream, may require a 50% reduction in 10 years. These waypoints let the watershed managers document incremental progress and know if they are on track to meet their goals or need to re-evaluate the treatment levels or timelines.

Element h. A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining water quality standards.

What does this mean?

As projects are implemented in the watershed, you will need water quality benchmarks to track progress toward attaining water quality standards. The criteria in element h (not to be confused with the water quality criteria in State regulations) are the benchmarks or waypoints to measure against through monitoring. These interim targets can be direct measurements (e.g., fecal coliform concentrations, nutrient loads) or indirect indicators of load reduction (e.g., number of beach closings). These criteria should reflect the time it takes to implement pollution control measures and for water quality indicators to respond, including lag times (e.g., water quality response influenced by groundwater sources that move slowly; the extra time it takes for sediment-bound pollutants to break down, degrade, or otherwise be isolated from the water column). You should also indicate how you will determine whether the WBP needs to be revised if interim targets are not met. These revisions could involve changing BMPs, updating the loading analyses, and reassessing the time it takes for pollution concentrations to respond to treatment.

Element i. A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under element h.

What does this mean?

The WBP should include a monitoring component to determine whether progress is being made toward attaining or maintaining the applicable water quality standards for the water body(ies) addressed in the plan. The monitoring program should be fully integrated with the established schedule and interim milestone criteria identified above. The monitoring component should be designed to assess progress in achieving loading reductions and meeting water quality standards. Watershed-scale monitoring can be used to measure the effects of multiple programs, projects, and trends over time. Instream monitoring does not have to be conducted for individual BMPs unless that type of monitoring is particularly relevant to the project.

Elements of Alternative WBPs

EPA regions will review and approve all alternative plans, with some exceptions (see Chapter 4.7), to ensure the following planning elements are adequately addressed:

- Describe watershed project goal(s) and explain how the proposed project(s) will achieve water quality goals.
- Identify the causes or sources of NPS impairments, water quality problems, or threats to healthy waters, including critical source areas addressed by the alternative plan.

- Propose management measures and BMPs (including a description of operation and maintenance requirements) and explain how these measures will effectively address the NPS impairment identified above.
- Establish a schedule and milestones to guide project implementation.
- Include a water quality results monitoring component describing the processes and measures (e.g., water quality parameters, stream flow metrics, biological indicators) that will help gauge project success.

Specific Circumstances

Plan developers are encouraged to notify their EPA regional and state contacts when situations may warrant using an alternative plan. EPA regions may authorize the use of watershed project funding to implement alternative plans described below in the following circumstances:

1. **When the impairment is caused by a change in physical conditions or is otherwise not pollutant specific.**

The current WBP approach emphasizes identifying major NPS pollutant sources in critical areas as well as planning for and achieving NPS pollutant load reductions. In scenarios where a water body impairment is not caused by a pollutant (e.g., waters assigned to Category 4C in the Clean Water Act (CWA) Section 303(d) program), an alternative plan may be sufficient to guide CWA Section 319–funded watershed projects. Circumstances where an alternative plan might be appropriate include hydrologic alteration (e.g., flow alteration) or habitat alteration (e.g., fish passage barriers). Sources of hydrologic and habitat alteration may include impoundments, dams, channelization, levees, water withdrawals, and culverts. Climate change is expected to exacerbate changes to the natural flow regime resulting from anthropogenic hydrological alteration. For this scenario, the State must provide assurance that appropriate watershed analyses were conducted to ascertain that the water quality problem will be fully addressed by dealing with the pollution source.

2. **When responding to an NPS pollution emergency or urgent NPS public health risk.**

In scenarios where the proposed CWA Section 319 project(s) responds to an urgent, unplanned NPS pollution emergency or urgent NPS public health risk in an area for which a WBP does not exist or address the post-emergency situation (e.g., efforts to control erosion and reestablish vegetation in the immediate aftermath of a forest fire, efforts to reduce pollution affecting drinking water safety, other climate-related events), an alternative plan may be developed to ensure the timely, targeted use of watershed project funds.

Where an existing WBP addresses the NPS pollution but does not address post-emergency circumstances, the alternative plan should simply provide the updates needed to supplement the WBP sufficiently to ensure CWA Section 319 funds are well used to successfully address the priority water quality problem(s) in the area addressed by the alternative plan.

Efforts to respond to an NPS pollution emergency or urgent NPS public health risk should be handled by the appropriate State and local emergency or public health agencies. In the recovery phase, alternative plans can be used to guide short-term targeted restoration work. Because these events are unplanned, States may not have funds for developing and implementing alternative

plans to address these situations. If funds are needed, States should work with their EPA region to realign funds in existing CWA Section 319 budgets, set aside funds in future CWA Section 319 grant budgets, or use alternative funding mechanisms as appropriate.

Unless highly expedited, project solicitation processes are not likely appropriate for projects implementing this type of alternative plan. Alternative plans for NPS pollution emergencies and public health risks should target implementation at the beginning of the recovery or mitigation phase (phases following the response) and within months of the emergency or public health risk. They should not be started more than 2 years beyond the emergency or public health risk. Implementation, monitoring, and reporting of alternative plans for emergency response should be completed within 48 months to ensure the plan is truly an alternative plan. Restoration efforts starting more than 2 years after the emergency (including management of ongoing, longer-term vulnerabilities such as tree death that threatens slope instability) should be guided by WBPs.

An alternative plan for responding to an NPS pollution emergency or urgent NPS public health risk could be presented in a separate plan or in a project proposal format; existing planning documents may be summarized and cited to fully address the relevant elements listed below.

When developing an alternative plan, in addition to leveraging and citing existing planning documents and the elements listed in Chapter 4.6.2, the plan must:

- Demonstrate that the proposed project represents regional/community priority implementation work (e.g., prescribed treatments for implementation in a Burned Area Emergency Response [BAER] report).
- Be limited to a sufficiently small geographic area so that the recommended management strategies in the plan will fully address the water quality problems (or threats) caused by the NPS pollution emergency or urgent NPS public health risk in that area.
- Identify the specific locations selected for implementation (describe and, if appropriate, develop maps) and the specific BMPs identified or designed (describe how far along the designs are, e.g., 60% design, and any permits needed/obtained).

3. When protecting priority healthy waters.

Proactive NPS management activities can play a critical role in maintaining healthy waters and helping to ensure and maintain water quality restoration success. Where a watershed includes both impaired and unimpaired waters, a WBP should be developed to address all actions needed to maintain and restore water quality. In the following cases, alternative plans can effectively guide CWA Section 319–funded protection activities:

- In watersheds where a State has assessed waters that are near attaining or fully attaining water quality standards and where only protection actions are needed (i.e., measures to prevent future degradation) to address documented water quality threat(s).
- In portions of a watershed (e.g., intact headwater areas) where only limited protection actions are needed to address documented water quality threat(s) and help ensure restoration activities are effective.

- In watersheds where water quality monitoring and assessment information is limited, but watershed-scale assessments (e.g., EPA's healthy watersheds integrated assessments) indicate intact watershed function and structure to support healthy aquatic ecosystems.

4. When addressing an isolated, small-scale water quality problem resulting from one or a few sources of pollution.

An alternative plan may be acceptable when the NPS problem and solution are extremely limited in scope and scale, such that the water quality problem is caused by one or a very few pollution sources (e.g., failing on-site septic systems). In such cases, the State must demonstrate (through upstream and downstream monitoring, watershed characterization studies, etc.) that this impairment is isolated from other potential contributing causes/sources of pollution in the watershed. Additionally, the State must provide assurance that the proposed watershed project will significantly address the water quality problem within one grant period. Restoration efforts that may take more than one grant period to address should be guided by nine-element WBPs. In meeting these conditions, the State will ensure that multiple smaller problems are not dealt with in a piecemeal fashion when they are part of a larger water quality problem involving multiple pollution sources in the watershed.

5. When addressing only agricultural NPS sources in a Natural Resources Conservation Service (NRCS) National Water Quality Initiative watershed.

As noted above, NRCS requires that Watershed Assessments/Areawide Conservation Assessments at the HUC-12 scale be developed before enrolling the National Water Quality Initiative watersheds in the "implementation" phase. If CWA Section 319 watershed projects targeting agricultural sources and pollutants (e.g., nutrients, sediment, pathogens, pesticides) are being contemplated, NRCS Watershed Assessments and related Areawide Conservation Plans/Assessments, developed in accordance with U.S. Department of Agriculture (USDA) guidance and with EPA review and approval, may be considered as acceptable alternative plans for the purposes of CWA Section 319 funding if the documents address all of the criteria listed above in Chapter 4.6.2. States should consult with the EPA regional NPS coordinator to discuss the appropriateness of using these documents to address agricultural NPS pollution sources.

6. When implementing an EPA-approved Tribal Nonpoint Source Management Plan.

Beginning in fiscal year 2023, a current EPA-approved Tribal NPS Management Plan can be considered an acceptable alternative to a nine-element WBP. Tribes and intertribal consortia must meet the following four conditions for States to use CWA Section 319 funding for Tribal projects guided by EPA-approved NPS Management Plans:

- Be federally recognized by the Secretary of the Interior
- Have an approved NPS Assessment Report in accordance with CWA Section 319(a)
- Have an approved NPS Management Plan in accordance with CWA Section 319(b)
- Be approved for treatment in a similar manner as a state in accordance with CWA Section 518(e)

States may award CWA Section 319 watershed project funds to CWA Section 319–eligible Tribes to implement project(s) consistent with these plans. In this scenario, Tribal NPS Management Plans may be accepted as written and without the need to address all nine elements outlined in Appendix B. States should contact their Tribal regional coordinator with questions about Tribal NPS Management Plans.

7. Other Circumstances.

An alternative plan may be used in other situations where EPA deems it appropriate. EPA regional contacts may use discretion in consultation with the State and EPA headquarters to make the case for situations not identified in these guidelines where an alternative plan would be appropriate.

Appendix B NPS Management Program Milestones and Schedule

Table B-1: NPS Management Program Milestones and Schedule

Objective Number	Objective Short Name	Milestone	Schedule
2.1.2.a	Complete Watershed Plans	From 2025 through 2027, develop templates or other guidance documents for watershed-based plans (WBPs), wetland action plans (WAPs), and alternative WBPs and post them at the Surface Water Quality Bureau's (SWQB's) website.[72]	2025 through 2027, with the goal of one guidance per year
2.1.2.b	Complete Watershed Plans	From 2025 through 2029, update or complete, with the U.S. Environmental Protection Agency's (EPA's) acceptance, at least one WBP per year, covering at least one priority watershed.	Annually
2.1.2.c	Complete Watershed Plans	Complete at least one ARP, in cooperation with TMDL staff, within 5 years.	2025 through 2029
2.1.2.d	Complete Watershed Plans	From 2024 through 2025, update the SWQB mapper website[73] with GIS layers depicting priority watersheds for implementation, including links to WBPs and alternative WBPs (such as WAPs).	By December 31, 2025
2.1.2.e	Complete Watershed Plans	Submit a Post-Fire Watershed Mitigation Action Plan that qualifies as an alternative WBP to EPA within 5 years of a major wildfire occurring in a priority watershed identified in Section 4.2.6 below.	Ongoing, as appropriate

[72] NMED. 2024b. Watershed-Based Planning. Available at: www.env.nm.gov/surface-water-quality/wbp. Accessed April 2024.

[73] NMED. 2024c. EnviroMapper application. Available at: https://gis.web.env.nm.gov/oem/?map=swqb. Accessed April 2024.

Objective Number	Objective Short Name	Milestone	Schedule
2.2.2.a	Implement Watershed Projects	Annually document improved water quality conditions in one priority watershed from 2024 through 2029 by submitting at least one Success Story to EPA each year.	At least one Success Story annually, from 2024 through 2029
2.2.2.b	Implement Watershed Projects	Begin watershed restoration projects described in WBPs or alternative WBPs within two or more priority watersheds per year from 2024 through 2029.	Two watersheds per year, from 2024 through 2029
2.2.2.c	Implement Watershed Projects	Begin watershed or water quality restoration projects that are State-funded in an average of three watersheds per year from the 2024 through 2029 period.	Approximately three watersheds per year, from 2024 through 2029
2.2.2.d	Implement Watershed Projects	Annually document water quality improvements in Grant Reporting and Tracking System (GRTS) by performing pollutant load reduction estimates for implementation projects where on-the-ground improvements were completed in the previous year.	Annually
2.3.2.a	Protect Water Quality	Fund post-fire actions that reduce sedimentation and protect aquatic habitat, with support of Section 319 watershed project funds, within 5 years of a major wildfire with severity outside the natural range of variability for the affected forest types occurring in a watershed with one or more high-quality coldwater, coldwater, or coolwater aquatic life–designated streams.	Within 5 years of a major and unnaturally intense wildfire in the watershed of a cold or coolwater stream
2.3.2.b	Protect Water Quality	Summarize Clean Water Act (CWA) Section 401 certification activity for dredge and fill permits in the NPS Management Program Annual Report.	Annually

Objective Number	Objective Short Name	Milestone	Schedule
2.3.2.c	Protect Water Quality	Summarize activities related to the New Mexico Mining Act in the NPS Management Program Annual Report.	Annually
2.3.2.d	Protect Water Quality	Summarize significant developments related to Outstanding National Resource Waters (ONRWs) in the NPS Management Program Annual Report.	Annually
2.3.2.e	Protect Water Quality	Summarize activities related to forest restoration in the NPS Management Program Annual Report.	Annually
2.3.2.f	Protect Water Quality	Summarize water quality survey activity, analysis, and conclusions in the 2024, 2026, and 2028 Integrated Reports. Provide the percentage of assessed stream miles or watersheds designated as impaired in the NPS Management Program Annual Report for these years, for comparison with previous years.	Reporting for 2024, 2026, and 2028
2.3.2.g	Protect Water Quality	Summarize activities on how the program addressed climate change impacts, referring to information and guidance in Section 3.3 above, in the NPS Management Program Annual Report.	Annually
2.4.2.a	Share Information on Surface Water Quality	Conduct a statewide NPS workshop and summarize the workshop in the NPS Management Program Annual Report.	Annually
2.4.2.b	Share Information on Surface Water Quality	Include a description of the Wetlands Roundtable meetings in the NPS Management Program Annual Report.	Annually
2.4.2.c	Share Information on Surface Water Quality	Publish *Clearing the Waters* semiannually with an email circulation of about 2,000 subscribers.	Semiannually

Objective Number	Objective Short Name	Milestone	Schedule
2.4.2.d	Share Information on Surface Water Quality	Summarize education and outreach activities completed during the reporting period in the NPS Management Program Annual Report.	Annually
2.4.2.e	Share Information on Surface Water Quality	Summarize how the NPS Management Program encouraged environmental justice, referring to information and guidance in Section 3.2, in the NPS Management Program Annual Report.	Annually
2.5.2.a	Protect Ground Water Quality	Report activities conducted under the CWA Section 319 grant for the New Mexico Water Fairs, Water Quality Outreach Program, and Permitting and Compliance for Large-Capacity Septic Tank Leachfields semiannually in GRTS.	Semiannually
2.6.2.a	Cooperate with other Agencies (U.S. Forest Service)	Renew the Memorandum of Understanding (MOU) between the New Mexico Environment Department (NMED) and the Southwestern Region of the Forest Service, which will terminate in 2028.	2028
2.6.2.b	Cooperate with other Agencies (Natural Resources Conservation Service)	For each year starting from 2024 and through 2029, report on agricultural BMPs funded under the National Water Quality Initiative or other conservation programs that have been implemented during the calendar year and provide sufficient details for the Soil and Water Conservation District (SWQB) to estimate pollutant load reductions for identified water quality impairments. Report findings in the NPS Management Program Annual Report.	Annually

Objective Number	Objective Short Name	Milestone	Schedule
2.6.2.c	Cooperate with other Agencies (SWCDs)	Each year starting in 2025, include at least one profile of a project intended to protect or improve water quality implemented by an SWCD, SWCD clients, or other local government agency or nongovernmental organization in the NPS Management Program Annual Report.	Annually
2.6.2.d	Cooperate with other Agencies (New)	During the planning period (2024 through 2029), fund at least three competitively awarded water quality or aquatic habitat improvement projects with agencies or organizations with which NMED has not had an agreement within the previous 10 years.	Goal of three new agencies or organizations as partners, from 2024 through 2029
2.6.2.e	Cooperate with other Agencies (SWQB)	Submit the NPS Management Program Annual Report to EPA by January 31 and post the report on SWQB's website each year.	Annually by January 31
2.6.2.f	Cooperate with other Agencies (Governor or Designee)	Submit the New Mexico NPS Management Plan to the EPA Regional Administrator in 2029. SWQB will revise the plan to reflect input and review by implementing agencies and organizations.	2029

Appendix C Best Management Practices

This appendix presents a list of best management practices (BMPs) by category, followed by a bibliography.

Agriculture

Crop and residue management practices to maintain soil cover:

- Implement contour strip-cropping
- Use stubble mulching
- Adopt conservation tillage

Practices to reduce runoff:

- Implement terracing
- Install diversions
- Adopt contour farming
- Use grassed waterways
- Use vegetative filter strips

Practices to limit nutrient movement:

- Implement nutrient management
- Split fertilizer applications
- Balance nutrients using expected crop needs and soil sampling results
- Rotate to deep-rooted crops to deplete carryover nutrients
- Limit pre-plant applications
- Use slow-release fertilizers when applicable
- Install riparian buffer strips

Practices to minimize pesticide impacts on surface water and groundwater:

- Use the least toxic compound that is effective on the target species
- Apply pesticide strictly according to label directions and applicable legal requirements
- Use certified applicators when possible
- Use biological control mechanisms when possible
- Clean and dispose of pesticide containers according to federal, State, and local laws
- Avoid applying when pesticide could drift away from the application site during spray application
- Follow recommended integrated pest management practices when possible
- Calibrate spray equipment regularly

- Know the surface area of the fields to be sprayed
- Maintain adequate storage/mixing/loading facilities
- Store or land apply tank rinsate at legal application rate
- Use a nurse tank, back-flow prevention devices, siphon break, or air gap when filling sprayer tanks
- Retrofit sprayers with injection devices when upgrading equipment
- Leave buffer zones adjacent to waterways, wells, and wetlands when possible
- Avoid applications when rainfall is imminent
- Be prepared for spills and leaks at all stages of pesticide management
- Use New Mexico Farm*A*Syst, Farmstead Assessment, Section 2

Irrigated Crop Production

Management practices used to maintain crop and residue cover:

- Implement no-till/conservation tillage
- Use cover and green manure crops
- Employ soil moisture monitoring devices
- Maximize irrigation efficiency through irrigation scheduling when possible
- Split fertilizer applications

Irrigation water delivery and drainage systems:

- Manage irrigation water
- Measure irrigation water
- Install irrigation pipelines
- Install tailwater recovery systems
- Control vegetation
- Use concrete or synthetic ditch lining
- Laser level fields
- Use low output sprinkler systems

Animal waste management:

- Maintain adequate solid and liquid management facilities
- Use manure and effluent for crop fertilization; apply at agronomic rates
- Compost solid wastes where applicable

Urban agriculture (landscaping, gardening, turf management):

- Use urban integrated pest management techniques
- Reduce levels of pesticide usage

- Use soil test results for turf, lawn and garden fertilization

Rangeland

Grazing/wildlife management:

- Determine grazing capability of lands
- Monitor grazing/wildlife use
- Implement planned grazing systems such as rest/rotation or seasonal or pasture rotation
- Control livestock/wildlife use in sensitive areas, including riparian/wetland areas
- Ensure livestock/wildlife water development to better distribute use
- Relocate livestock trails to better distribute livestock use
- Ride or herd livestock to shift livestock locations
- Use salt or supplemental feed as tools to gain proper distribution of livestock

Gully erosion control:

- Identify and address stressors that may be accelerating erosion
- Install grade stabilization structures
- Install rock and brush dam (e.g., one rock dam, wicker weir, post-vane, log rundown, etc.)
- Install debris basins
- Divert water around eroding areas
- Reestablish vegetation
- Maintain erosion control structures

Critical area treatment to restore vegetative cover:

- Mechanically treat grazing land
- Practice critical area planting
- Mulch critical areas

Vegetative management practices to improve cover:

- Manage brush
- Implement range seeding
- Implement prescribed burning

Silviculture

Harvesting, reforestation, and residue management:

- Designate streamside management areas to provide stream shading, soil stabilization, sediment and water filtering effects, and wildlife habitat

- Ensure streamside management areas encompass a strip at least 50 feet wide on each side of the stream, measured from the ordinary (yearly average) high-water mark or definable bank
- Limit timber harvest to protect steep slopes (>30%) or unstable areas
- Clearly delineate protected areas in timber sale maps and with special marking on the ground
- Limit the operating period of timber sale activities
- Harvest when soils are frozen
- Eliminate unsuitable stands from harvest units
- Prescribe size, location, and shape of clear cuts
- Determine tractor-loggable ground
- Properly locate tractor skidding areas
- Use suspended log-yarding on sensitive areas (e.g., streamside management zones and steep slopes)
- Locate log landings properly
- Prepare sites for reforestation
- Revegetate areas disturbed by harvest activities
- Prevent and control erosion on log landings
- Control erosion on skid trails
- Protect meadows during timber harvesting
- Properly locate and design stream crossings
- Keep equipment out of streams
- Use erosion control structures and energy dissipaters
- Maintain erosion control structures
- Review and approve timber sale erosion control measures before sale closure
- Use slash treatments in sensitive areas
- Use soil moisture and wetland limitations for equipment and vehicle use
- Use of sale area maps for designating water protection needs
- Use directional felling of trees near streamside management zones
- Modify timber sale contract if necessary as soon as water quality concerns are identified
- End-line logs out of streamside management zones

Fire suppression and fuels management:

- Use fire and fuel management activities to reduce frequency, intensity, and destructiveness of wildfires

- Consider water quality in formulating fire prescriptions
- Repair or stabilize watershed damage related to fire-suppression activities
- Implement emergency rehabilitation of watersheds following intense fires

Road Construction and Maintenance

Road design:

- Properly design roads and drainage facilities to minimize impacts to water quality
- Design roads for specific types of vehicles and required vehicle speed
- Provide frequent drainage with outsloping where feasible, grade reversals, and frequent cross-drains such as rolling dips
- Minimize the number of roads constructed in a watershed
- Limit the alteration of natural drainage patterns by following contours and minimizing cuts, fill, and stream crossings
- Avoid problem areas such as flood zones, narrow canyon bottoms, wet areas, steep slopes, and highly erodible or unstable soil
- Locate roads away from streams
- Maintain a buffer strip of undisturbed soil and vegetation between the road and stream
- Minimize road grade

Road construction:

- Develop and implement erosion control plans
- Time construction activities to avoid wet periods
- Disperse subsurface drainage from cut and fill slopes
- Implement timely erosion control measures on actively eroding areas
- Properly orient, design, and maintain stream crossings
- Construct stable embankments
- Control sidecast materials
- Minimize in-channel excavation
- Divert flows around construction sites
- Mandate spill prevention plans as part of all construction projects
- Properly install bridges and culverts
- Ensure proper stream crossings on temporary roads
- Regulate streamside gravel borrow areas
- Properly dispose of right-of-way and roadside debris
- Specify riprap composition

- Ensure water source development is consistent with water quality protection
- Restrict machinery to the designated construction zone
- Remove debris from stream channels that was added during construction
- Limit removal of vegetation especially adjacent to streams
- Deposit surplus soil and rock in areas where sediment will not threaten streams
- Compact all fill material
- Keep equipment out of streams unless necessary
- Refuel and service machinery well away from streams
- Revegetate denuded areas with appropriate native vegetation

Culvert installation:

- Consider installing a bottomless arch culvert
- Determine the necessary culvert diameter for expected high flow
- Ensure the culvert is long enough to extend beyond fill
- Align the culvert with the stream at the existing grade and at the depth of the streambed
- Compact surrounding fill; consider using permeable fill for wet areas
- Protect fill material with armoring

Road maintenance:

- Regularly maintain and inspect roads
- Inspect drainage structures frequently
- Treat road surfaces to prevent erosion
- Correct erosion issues early
- Control traffic during wet periods
- Install snow removal controls to avoid resource damage
- Close temporary roads
- Restore borrow pits and quarries
- Prevent side casting materials into streams or wetlands
- Reduce use of salt for deicing roads in sensitive areas

Road closure:

- Remove culverts on roads to be permanently closed
- Reestablish the natural drainage pattern
- Revegetate denuded areas with appropriate native vegetation
- Prevent unauthorized vehicle access

Recreation Management

- Control erosion at facility sites and recreation sites
- Provide and maintain sanitation facilities
- Control refuse disposal
- Provide proper drainage (such as the use of French drains) at hydrants and water faucets within developed recreation sites
- Properly locate pack and riding stock facilities
- Manage off-road vehicle use
- Recognize and protect heavy-use areas
- Provide public information on water quality protection at recreation areas
- Close or relocate recreation areas as conditions dictate

Resource Extraction and Exploration

General:

- Limit the total area of disturbed ground
- Implement and maintain erosion control measures
- Reclaim completed mine sites, including revegetation
- Maintain vegetated buffer zone along watercourses
- Control erosion from exploration through closure

Surface mining:

- Control runoff into or through mine
- Treat acid mine drainage

Mill tailings and mine tailings:

- Stabilize tailings
- Relocate tailings
- Implement channel runoff around tailings

Oil and gas exploration and production:

- Close pits
- Plug orphan wells
- Provide secondary containment for aboveground storage tanks
- Implement Spill Prevention, Control, and Countermeasure Plans
- Design access roads for specific types of vehicles and required vehicle speed
- Provide frequent drainage from access roads with outsloping, grade reversals, and native material cross-drains such as rolling dips

Hydrologic Habitat Modification

Flow regulation/modification:

- Ensure flow management
- Encourage floodplain protection
- Encourage channel and floodplain maintenance flows

Streambank modification/stabilization:

- Stabilize stream channels
- Install streambank protection (e.g., riparian buffers or exclosure fencing)
- Revegetate area

Dam construction:

- Use erosion control methods to protect and reclaim disturbed ground
- Use coffer dams to temporarily divert water around work areas
- Select proper materials for dam construction

Urban runoff:

- Develop and follow Stormwater Pollution Prevention Plans as required
- Use "off-line" (i.e., not located within natural channels) settling ponds to collect suspended material and preserve or restore predevelopment hydrology
- Use public education methods to promote landscaping that uses rainfall on-site
- Use zoning and land use planning to minimize impacts on streams and arroyos

Stormwater Management

- Pick up after dogs regularly and dispose of bags in a trash container
- Never put cat litter down the drain or in the toilet
- Dispose of fats, oils, and grease (FOG) properly, including throwing FOG into the trash and not disposing of FOG in garbage disposals
- Dispose of wash water at a sanitary cleanout, not a storm drain
- Take leftover paints, solvents, oils, and construction materials to waste disposal centers
- Do not wash, sweep, or blow any materials into the street where they can enter storm drains
- When not in use, keep materials such as chemicals or other hazardous materials stored properly with lids secured to reduce potential for spills
- Discard grass clippings and other yard waste in bags and dispose of in the trash receptacle
- Keep yard waste from the street where it can enter storm drains
- Do not wash fertilizers, weed killers, pesticides, or other chemicals into the street where they can enter storm drains

- Use commercial car washes whenever possible because they are equipped to collect and recycle wash water
- If you wash your car yourself, use minimal soap and place your vehicle on grass to wash whenever possible
- Dispose of used motor oil and hydraulic fluids at a local automotive part store or a certified hazardous waste facility
- Never put motor oil, antifreeze, or any other vehicle fluid down a storm drain, sink, or toilet, and never pour these fluids on the ground
- If vehicle fluids leak onto your driveway, clean the fluids using adsorbent materials such as cat litter and throw it away in a trash receptacle

Other

Watershed management:

- When planning watershed restoration efforts, include goals aimed at reducing or preventing loading of specific NPS pollutants
- In appropriate forest ecosystems, reduce tree density and restore natural fire regimes to increase native herbaceous ground cover
- Control activities under special use permit on National Forest System lands
- Evaluate watershed-scale cumulative effects for projects requiring NEPA analysis

Wildlife and fisheries management:

- Limit channel disturbance associated with fish habitat improvement structures
- Control sedimentation from wildlife habitat improvements

Conservation easements:

- Include riparian areas in conservation easements

Wetland management (when working near wetlands):

- Avoid working in wetlands whenever possible
- Delineate and flag wetland boundaries to help construction crews avoid wetlands
- Minimize the amount of work and work duration in wetlands
- Schedule wetland activity to periods when the soil is frozen or not saturated
- Use mats, wide tires, or rubber tires/tracks to disperse weight and minimize soil compaction
- Salvage vegetation and soil materials for reclamation purposes
- Use the smallest/least impactful machinery and equipment (nonmechanized machinery when possible)
- Operate machinery carefully (e.g., avoid turning wheels while machinery is stationary)
- Restore ground disturbances and maintain wetland hydrology

Nature-based BMPs with co-benefits for water quality, hazard mitigation, and ecosystem services:

- Use neighborhood-scale green stormwater infrastructure and low-impact development practices such as rain gardens, bioretention, and permeable pavement
- Remove obstructions from streams and stormwater pipes
- Use and preserve park green space and open space to store and enhance infiltration
- Implement aquifer storage and recovery
- Implement stream restoration, including pooling and meandering to enhance infiltration and hyporheic flows
- Restore floodplain, including floodplain benching
- Install stream (riparian) buffers
- Protect and restore natural wetlands
- Implement agricultural soil health practices and soil conservation practices
- Ensure urban forest/tree canopy and tree preservation
- Plant native vegetation and ensure reforestation

Best Management Practices Bibliography (website links current as of August 2024):

New Mexico Environment Department (NMED)

Nonpoint Source (NPS) Management Plan
https://www.env.nm.gov/surface-water-quality/nps-plan

Point Source Regulation
https://www.env.nm.gov/surface-water-quality/point-source-regulation-section/

NPS Management Program
https://www.env.nm.gov/surface-water-quality/watershed-protection-section/

TMDL and Assessment Programs
https://www.env.nm.gov/surface-water-quality/tmdl/
https://www.env.nm.gov/surface-water-quality/303d-305b/

*Characterization and Restoration of Slope Wetlands in New Mexico: A Guide for Understanding Slope Wetlands, Causes of Degradation and Treatment Option*s, Wetlands Technical Guide 2 (2014)
https://www.env.nm.gov/surface-water-quality/wetlands-technical-guides

The Plug and Pond Treatment: Restoring Sheetflow to High Elevation Slope Wetlands in New Mexico: A Restoration Project in the Valle Seco of the Valles Caldera National Preserve, Jemez Mountains, Wetlands Technical Guide 3 (2017)
https://www.env.nm.gov/surface-water-quality/wetlands-technical-guides

New Mexico Energy, Minerals and Natural Resources Department (EMNRD), Forestry Division

New Mexico Forest Practices Guidelines (2008)
http://www.emnrd.state.nm.us/SFD/Publications/documents/NM_ForestPracticesGuidelines2008.pdf

New Mexico Department of Game and Fish (NMDGF)

New Mexico Environmental Review Tool: an interactive tool for conservation planning and review of important resources for wildlife and habitats
https://nmert.org

Habitat Handbook Topics
http://www.wildlife.state.nm.us/conservation/habitat-handbook

Habitat Restoration and Management of Native and Non-native Trees in Southwestern Riparian Ecosystems (2024)
https://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Riparian_Ecosystems_Restoration_Handbook_2024_v3.pdf

Bridge and Culvert Construction Guidelines for Stream, Wetland, and Riparian Habitats (2024)
https://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Bridge-and-Culvert-Construction-Guidelines-2024.pdf

New Mexico State Wildlife Action Plan (2016)
https://www.wildlife.state.nm.us/conservation/state-wildlife-action-plan/

Powerline Project Guidelines (2007)
http://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Powerline-Project-Guidelines-2007.pdf

Guidelines for Grazing Management in New Mexico's Riparian Areas: Towards Protection of Wildlife and Fisheries Resources (2023)
https://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Habitat_Handbook_Riparian_Grazing_final.pdf

Habitat Guidelines for Mine Operations and Reclamation (2004)
http://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Mining-Guidelines.pdf

Oil and Gas Development Guidelines (2007)
http://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Oil-and-Gas-Guidelines.pdf

New Mexico Department of Transportation (NMDOT)

NMDOT Design Manual
https://www.dot.nm.gov/infrastructure/engineering-publications/design-manual/

NMDOT Standard Specifications and Drawings:
https://www.dot.nm.gov/infrastructure/plans-specifications-estimates-pse-bureau/standards/

New Mexico State University Extension Services

New Mexico Farm*A*Syst – Farmstead Assessment System, a voluntary groundwater protection program
http://aces.nmsu.edu/farmasyst/

Water Publications Listing
http://aces.nmsu.edu/pubs/_w/

U.S. Department of Agriculture (USDA), U.S. Forest Service

Management and Techniques for Riparian Restorations. Roads Field Guide, Volumes I and II, General Technical Report RMRS-GTR-102 (September 2002)
Volume I: https://www.fs.usda.gov/research/treesearch/4815
Volume II: https://www.fs.usda.gov/research/treesearch/30630

Forest Service Handbook (FSH) 2509.22, USDA Forest Service, Region 3 (Southwestern Region), Albuquerque, New Mexico (October 1992)
https://www.fs.usda.gov/cgi-bin/Directives/get_dirs/fsh?2509.22

National Best Management Practices for Water Quality Management on National Forest System Lands. Volume 1: National Core BMP Technical Guide, FS-990a (April 2012)
https://www.fs.usda.gov/sites/default/files/FS_National_Core_BMPs_April2012_sb.pdf

USDA, Natural Resources Conservation Service (NRCS)

NRCS Field Office Technical Guide (FOTG) County Locator
https://efotg.sc.egov.usda.gov/

A Guide for Planning Riparian Treatments in New Mexico (2007)
https://www.nrcs.usda.gov/plantmaterials/nmpmcpg7685.pdf

Irrigation Guide: USDA-NRCS National Engineering Handbook: Part 652 (1997)
https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/north-dakota/irrigation-engineering

National Conservation Practice Standards
https://www.nrcs.usda.gov/resources/guides-and-instructions/conservation-practice-standards

National Range and Pasture Handbook (1997)
http://www.uwagec.org/wire/ResourcePages/NRPH.PDF

Seeding Native Grasses in the Arid Southwest
https://www.nrcs.usda.gov/plantmaterials/nmpmcmt8352.pdf

The Pole Cutting Solution, NRCS & Los Lunas Plant Materials Center
https://allaboutwatersheds.org/library/general-library-holdings/polecutting.pdf/view

U.S. Department of the Interior, Bureau of Land Management (BLM)

The Gold Book – *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development* (2007)
https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/the-gold-book

U.S. Department of Transportation, Federal Highway Administration (FHWA)

Environmental Review Toolkit
https://www.environment.fhwa.dot.gov/about/topic_list.aspx

Trail Construction and Maintenance Notebook (2007 Edition), Missoula, MT
https://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/07232806/index.cfm

FHWA Hydraulic Engineering
http://www.fhwa.dot.gov/engineering/hydraulics/

Gravel Roads: Maintenance and Design Manual (2000)
https://www.epa.gov/sites/production/files/2015-10/documents/2003_07_03_nps_gravelroads_intro_0.pdf

Bridge Scour and Stream Instability Countermeasures: Experience, Selection, and Design Guidance, Hydraulic Engineering Circular No. 23 (2009)
https://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=23&id=143

National Transportation Library

Low-Volume Roads Engineering, Best Management Practices Field Guide (2003)
https://rosap.ntl.bts.gov/gsearch?collection=&terms=low+volume+roads+engineering

Transportation Research Board, National Cooperative Highway Research Program (NCHRP)

Environmentally Sensitive Channel- and Bank-Protection Measures, NCHRP Report 544
http://www.trb.org/Publications/Blurbs/156479.aspx

American Association of State Highway Transportation Officials

Environmental Stewardship Practices, Procedures, and Policies for Highway Construction and Maintenance (2004)
https://environment.transportation.org/resources/aashto-publications/environmental-stewardship-practices-procedures-and-policies-for-highway-construction-and-maintenance/

Center for Watershed Protection

Various documents on urban watershed restoration and protection tools, including stormwater runoff BMPs (fee required)
http://www.cwp.org/

U.S. Environmental Protection Agency (EPA)

Considerations in the Design of Treatment Best Management Practices (BMPs) to Improve Water Quality (2002)
https://cfpub.epa.gov/si/si_public_record_Report.cfm?Lab=NRMRL&dirEntryId=99770&CFID=30649942&CFTOKEN=23826065

A Function-Based Framework for Stream Assessment & Restoration Projects, EPA 843-K-12-006 (May 2012)
https://www.epa.gov/sites/default/files/2015-08/documents/a_function_based_framework_for_stream_assessment_3.pdf

2022 Construction General Permit Information
https://www.epa.gov/npdes/2022-construction-general-permit-cgp

Nonpoint Source Information
https://www.epa.gov/nps

Nonpoint Source Information for Roads, Highways and Bridges
https://www.epa.gov/nps/nonpoint-source-roads-highways-and-bridges

National Management Measures to Control Nonpoint Source Pollution from Hydromodification, EPA 841-B-07-002 (2007)
https://www.epa.gov/sites/production/files/2015-09/documents/hydromod_all_web.pdf

Resources for Source Water Protection
https://www.epa.gov/sourcewaterprotection/resources-source-water-protection

Stormwater Pollution Prevention Plans for Construction Activities
https://www.epa.gov/npdes/stormwater-discharges-construction-activities

Natural Hazard Mitigation Resources
https://www.epa.gov/nps/natural-hazard-mitigation-resources

U.S. Fish and Wildlife Service (USFWS)

The Beaver Restoration Guidebook (2023)
https://www.fws.gov/media/beaver-restoration-guidebook

Federal Interagency Stream Restoration Working Group

Stream Corridor Restoration Principles, Processes, and Practices (1998, revised 2001)
https://www3.uwsp.edu/cnr-ap/UWEXLakes/PublishingImages/resources/restoration-project/StreamRestorationHandbook.pdf

Quivira Coalition

The Quivira Coalition, a nonprofit organization based in Santa Fe, New Mexico, has various sources available through its publications link:
https://quiviracoalition.org/techguides/

Hard-copy versions of the following publications are available for purchase at the above link, along with online versions that are free of charge:

- *Let the Water Do the Work: Induced Meandering, an Evolving Method for Restoring Incised Channels* (2009), Bill Zeedyk and Van Clothier
- *A Good Road Lies Easy on the Land: Water Harvesting from Low-Standard Rural Roads* (April 2006), Bill Zeedyk
- *An Introduction to Erosion Control* (March 2006), Earth Works Institute, Quivira Coalition, and Zeedyk Ecological Consulting
- *An Introduction to Induced Meandering: A Method for Restoring Stability to Incised Stream Channels* (2009), Bill Zeedyk, a Joint Publication from Earth Works Institute, The Quivira Coalition and Zeedyk Ecological Consulting

- *Rangeland Health and Planned Grazing Field Guide* (2009), Quivira Coalition, Earth Works Institute, and The New Ranch Network
- *The New Ranch Handbook: A Guide to Restoring Western Rangelands* (2013), Nathan F. Sayre

Rainwater Harvesting Books by Brad Lancaster

Rainwater Harvesting for Drylands and Beyond, Volume 1, 3rd Edition: Guiding Principles to Welcome Rain into Your Life and Landscape (2019)
https://www.harvestingrainwater.com

Rainwater Harvesting for Drylands and Beyond, Volume 2, 2nd Edition: Water-Harvesting Earthworks (2019)
https://www.harvestingrainwater.com

Additional Resources

Low-Tech Process-Based Restoration of Riverscapes: Design Manual, Version 1.0, Utah State University Restoration Consortium (2019)
http://lowtechpbr.restoration.usu.edu/manual

Resolving Beaver Conflicts Humanely, Animal Protection New Mexico
https://apnm.org/what-we-do/promoting-coexistence-with-wildlife/beavers-belong/resolving-beaver-conflicts-humanely/

Middle Rio Grande Stormwater Quality Team
https://keeptheriogrand.org/resources/

Appendix D Funding Sources

Funding Sources for Watershed Protection/Improvement Projects.

Watershed health affects people of all backgrounds, including communities, companies, schools, institutions, farmers, ranchers, and governments, among others. Many different organizations provide assistance in watershed protection efforts, and this list is meant to provide greater awareness of the funding sources that are available to benefit projects in New Mexico. The programs and grants in this document vary in mission and targeted audience, but all focus on improving environmental conservation efforts. Further information can be found by using the link or contact provided.

If you have information about a program that you feel should be added to this list, please contact: WPSprogram.manager@env.nm.gov

Web site addresses are current as of June 2024.

Grant Search Resources

1. U.S. Environmental Protection Agency (EPA) Water Finance Clearinghouse

https://www.epa.gov/waterdata/water-finance-clearinghouse

Water Finance Clearinghouse is a database of financial assistance sources available to fund a variety of watershed protection projects.

2. Foundation Center: Philanthropy News Digest

http://philanthropynewsdigest.org/rfps?search=1&tags_interest[]=environment

Compilation of recent requests for proposals and/or funding opportunities in the area of environment, both for individuals and organizations. Philanthropy News Digest publishes requests for proposals and notices of awards as a free service for grantmaking organizations and nonprofits.

3. FundsNet Grant Directory

http://www.fundsnetservices.com/

A collection of environment and conservation grants by FundsNet.

4. Global Council for Science and the Environment

https://www.gcseglobal.org/

A compilation of foundations providing grants for environmental purposes.

5. River Network

http://www.rivernetwork.org/index.php

River Network works to protect and restore America's rivers by building the capacity of grassroots organizations and acquiring threatened riverlands. River Network offers publications, fundraising tips, technical assistance and resources, and opportunities to network with other groups across the

country. River Network's Resource Library provides tools on how to raise more money, build stronger organizations, and protect rivers and their watersheds.

Specific Grant Programs

1. American Canoe Association/L.L. Bean: Club Fostered Community Grant Program

https://americancanoe.org/stewardship/partnerships/

The Club Fostered Community Grant Program provides small grants to local and regional paddling clubs and organizations that implement projects on local waterways. In partnership with L.L. Bean, the Club Fostered Community Grant Program's role is to support paddling opportunities and access for the Black, Indigenous, and People of Color (BIPOC) community through the framework of existing paddling clubs, nonprofits, and volunteer groups. Club Fostered Community funding is used to amplify diversity and inclusion efforts of existing groups/projects to promote long-term interest in experiencing and exploring the paddling world.

2. AmeriCorps

https://www.americorps.gov/partner/how-it-works

AmeriCorps provides support to organizations dedicated to the improvement of communities through funding and people power. AmeriCorps has six key areas of focus: disaster services, economic opportunity, education, environmental stewardship, healthy futures, and veterans and military families. AmeriCorps empowers service through its core programs and other funding opportunities, including AmeriCorps State & National, AmeriCorps Seniors RSVP, AmeriCorps Volunteers in Service to America, AmeriCorps National Civilian Community Corps, the Volunteer Generation Fund, and research and evaluation for civic engagement and national service.

3. Bureau of Land Management (BLM): Restore New Mexico

https://www.blm.gov/programs/fish-and-wildlife/wildlife/partnerships/new-mexico

In 2005, the New Mexico Office of BLM launched the Restore New Mexico initiative with the goal of restoring disturbed lands on a landscape scale through an ambitious partnership approach. What began as a concept has become a widely successful restoration and reclamation program involving numerous agencies, organizations, ranchers, and industry groups. Landscape restoration in New Mexico has focused on controlling invasive brush species, improving riparian habitat, reducing woodland encroachment, and reclaiming abandoned oil and gas well pads.

4. Cottonwood Foundation

http://www.cottonwoodfdn.org/

The Cottonwood Foundation is dedicated to promoting empowerment of people, protection of the environment, encouraging volunteerism, and promoting cultural diversity. The foundation focuses its funding on committed, grassroots organizations that rely strongly on volunteer efforts and where foundation support will make a significant difference.

5. Educational Foundation of America

https://theefa.org/

The Educational Foundation of America was established in 1959 to preserve the lifelong altruistic commitment of its founders, Richard Prentice Ettinger and his wife, Elsie P. Ettinger. The Educational Foundation of America provides grants for specific projects. The Educational Foundation of America advances progressive change through support for creative initiatives working toward sustainability, justice, and equity. They fund work in the arts, environment, reproductive health and justice, democracy, and civil rights. The Educational Foundation of America's environmental program currently has four funding initiatives: 1) increasing access to affordable clean energy, 2) national capacity for net-zero electricity system, 3) regional State policy coordination, and 4) coal ash containment for improvement of waterways through cleaning up coal ash.

6. EPA Brownfields and Land Revitalization Programs

http://www.epa.gov/brownfields/

Brownfield sites are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. The program objectives are to provide funding to 1) inventory, characterize, assess, and conduct planning and community involvement related to brownfield sites; 2) capitalize a revolving loan fund and provide subgrants to carry out cleanup activities at brownfield sites; and 3) carry out cleanup activities at brownfield sites that are owned by the grant recipient.

7. EPA Environmental Education Grants

https://www.epa.gov/education

Environmental Education Grants support environmental education projects that enhance the public's awareness, knowledge, and skills to help people make informed decisions that affect environmental quality. EPA's current educational priorities are for projects that: build State capacity to deliver environmental education programs; use environmental education to advance State education reform goals; improve teaching skills; educate the public through community-based organizations; educate teachers, health professionals, community leaders, and the public about human health threats from pollution, especially as it affects children; and promote environmental careers.

8. EPA Environmental Justice Grants

https://www.epa.gov/environmentaljustice/environmental-justice-grants-funding-and-technical-assistance

There are six environmental justice grant programs, including the Environmental Justice Thriving Communities Grantmaking Program, Environmental and Climate Justice Program, Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program, Environmental Justice Government-to-Government Program, Environmental Justice Thriving Communities Technical Assistance Centers Program, and Environmental Justice Small Grants Program. Each of these programs provides financial and/or technical assistance to communities, organizations, or governments to reduce barriers to underserved and overburdened groups applying for and receiving funding to address environmental, climate, or public health issues.

9. EPA Wetland Program Development Grants

https://www.epa.gov/wetlands/wetland-program-development-grants-and-epa-wetlands-grant-coordinators

Wetland Program Development Grants provide eligible applicants an opportunity to conduct projects that promote the coordination and acceleration of research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of water pollution.

10. Federal Emergency Management Agency (FEMA) Building Resilient Infrastructure and Communities

https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities

Building Resilient Infrastructure and Communities will support states, local communities, Tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards through capability and capacity building; encouraging and enabling innovation; promoting partnerships; and enabling large projects.

11. FEMA Hazard Mitigation Assistance Grants

https://www.fema.gov/grants/mitigation

FEMA's hazard mitigation assistance provides funding for eligible mitigation measures that reduce disaster losses. Project applications for FEMA grants must be consistent with Hazard Mitigation Plans. Coordination between the Nonpoint Source (NPS) Management Plan is encouraged, when possible, to support the use of nature-based solutions and climate resilience.

12. Freeport-McMoRan

http://www.freeportinmycommunity.com/nonprofits/

Freeport-McMoRan Copper & Gold lends its knowledge, business experience, and the generosity of employee volunteers to community programs. Freeport-McMoRan's group-wide philosophy for its community development activities is "Transforming Tomorrow Together" and has three main priority areas for funding, including Education and Workforce Development, Economic Opportunity, and Capacity and Leadership. The funding application must include a social impact and has items to choose from such as land protection, miles of river, species, ecosystems, and properties protected or restored, and protected or improved health, among many other impacts.

13. Maki Foundation

http://www.makifoundation.org/

The Maki Foundation, established in 1981, makes grants for environmental protection in the western United States. In particular, the foundation is concerned with protection and preservation of the Rocky Mountain West's remaining wild lands, rivers, and wilderness, as well as the wildlife that depends on these lands. The Maki Foundation's geographic area of interest includes New Mexico, Colorado, Utah, Idaho, Wyoming, and Montana.

14. Marisla Foundation

https://online.foundationsource.com/ws/index.jsp?site=marisla

The Marisla Foundation's Environment Program concentrates on activities that promote the conservation of biological diversity and advance sustainable ecosystem management. The Environment Program also supports the search for solutions to health threats caused by toxic chemicals.

15. Max and Anna Levinson Foundation

http://www.levinsonfoundation.org/

The Max and Anna Levinson Foundation makes grants to individuals and groups committed to developing a more just, caring, ecological, and sustainable world. The Environment Area of Interest includes the following themes (among many more): Protection of Ecosystems and Biological Diversity; Alternative Energy and Conversion from the Oil Economy; Alternative Agriculture and Local Green Economic Development; Breaking the Link Between Resource Extraction, Civil and International Conflict, and Markets; and the Development of Environmental Movements.

16. McCune Charitable Foundation

http://www.nmmccune.org/

The Marshall L. and Perrine D. McCune Charitable Foundation is dedicated to enriching the health, education, environment, and cultural and spiritual life of New Mexicans. The foundation memorializes its benefactors through proactive grantmaking that seeks to foster positive social change. The foundation's priorities include capacity building in the nonprofit sector, economic development and family asset building, education transformation, leveraging opportunities in health care, local food industry development, building links between arts and community engagement, stewardship in community, influencing planning of built environments, and strategies for rural development.

17. National Fish and Wildlife Foundation

http://www.nfwf.org/

The National Fish and Wildlife Foundation provides funding on a competitive basis to projects that sustain, restore, and enhance our nation's fish, wildlife, and plants and their habitats. The National Fish and Wildlife Foundation offers competitive grants across many programs with multiple funding opportunities available throughout the year.

18. National Fish and Wildlife Foundation Five Star Restoration Grant Program

https://www.nfwf.org/programs/five-star-and-urban-waters-restoration-grant-program?activeTab=tab-1

The Five Star and Urban Waters Restoration Grant Program brings together students, conservation corps, other youth groups, citizen groups, corporations, landowners, and government agencies to provide environmental education and training through projects that restore wetlands and streams. The program provides challenge grants, technical support, and opportunities for information exchange to enable community-based restoration projects.

19. National Park Service: Rivers, Trails, and Conservation Assistance Program

http://www.nps.gov/orgs/rtca/index.htm

The Rivers, Trails, and Conservation Assistance Program is the community assistance arm of the National Park Service. Rivers, Trails, and Conservation Assistance staff provide technical assistance to community groups and nonprofit organizations, community groups, Indigenous nations, Pueblos, and Tribes or their governments, and local, State, or federal government agencies so they can conserve rivers, preserve open space, and develop trails and greenways.

20. Natural Resources Conservation Service (NRCS): Funding Programs

https://www.nrcs.usda.gov/getting-assistance/financial-help/applications-and-forms

The NRCS's natural resources conservation programs help people reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters. Programs include the Environmental Quality Incentives Program, Conservation Stewardship Program, Agricultural Management Assistance Program, Regional Conservation Partnership Program, and Agricultural Conservation Easement Program.

21. New Mexico Environment Department (NMED): Clean Water State Revolving Fund

https://www.env.nm.gov/construction-programs/clean-water-state-revolving-fund-cwsrf

The NMED Construction Programs Bureau maintains the Clean Water State Revolving Fund program, which provides low-interest loans to eligible entities for a wide range of wastewater or stormwater projects that protect surface water and groundwater resources. Funds may be used for projects that control NPS water pollution, including solid waste and septic tank installations.

22. New Mexico Department of Game and Fish (NMDGF): Various programs to protect wildlife, enhance habitat while providing education programs for individuals and agencies.

http://www.wildlife.state.nm.us/conservation/

NMDGF's mission is to conserve, regulate, propagate, and protect the wildlife and fish within the state of New Mexico using a flexible management system that ensures sustainable use for public food supply, recreation, and safety; and to provide for off-highway motor vehicle recreation that recognizes cultural, historic, and resource values while ensuring public safety. Habitat Stamp, Share with Wildlife Projects, and Big Game Enhancement Restoration Funds allocate available resources through multi-agency, multi-year collaborative agreements.

23. New Mexico Soil and Water Conservation Grant Program

https://www.nmacd.org/resources

Funds are awarded to the Water Quality and Conservation Grant Program from the New Mexico Legislature through the soil and water conservation districts (SWCDs). The goal of the grant program is to promote the health of New Mexico's watersheds and conserve the water resources they produce. A variety of eligible uses of the funding exists, including Watershed Improvement/Management, Irrigation Efficiency, Riparian Restoration, Natural Resource Information and Education, and Ground Water Protection/Conservation. New Mexico's SWCDs

have to be active participants in the proposal. Other funding opportunities are available from SWCDs, including funding for healthy soils, watershed dams, and Water Trust Board funding.

Contact conserve@nmacd.org for details.

24. New Mexico State Legislature: Water Trust Board

https://www.nmfinance.com/water-project-fund/

The Water Trust Board was established in 2001 to recommend water projects to the State Legislature for appropriation of funding, in the form of grants or loans, from the Water Project Fund. There are five project types eligible for this financial assistance: 1) water conservation or recycling, treatment, or water reuse projects; 2) flood prevention projects; 3) Endangered Species Act collaborative projects; 4) water storage, conveyance, or delivery projects; and 5) watershed restoration and management projects.

25. New Mexico Forestry Division: Various programs for communities, forests, plants and resource management.

https://www.emnrd.nm.gov/sfd/

The New Mexico Forestry Division is responsible for wildfire suppression on all non-federal, nonmunicipal, non-Tribal, and non-Pueblo lands. New Mexico State Forestry also provides technical advice on forest and resource management to private landowners, including topics such as commercial timber harvest to enhance wildlife habitat, increasing water yield, reducing the hazard of insect infestation, diseases, or fire, including various programs to assist in resource enhancement, management, and wildland urban interface fire protection for homeowners.

26. New Mexico State Parks Division: Land and Water Conservation

https://www.emnrd.nm.gov/spd/land-and-water-conservation-fund/

State Parks administers the Land and Water Conservation Fund federal grant program. Funds are provided through the U.S. Department of the Interior's National Park Service. The Land and Water Conservation Fund program is a 50% federal and 50% local matching grant program. The Land and Water Conservation Fund Act of 1965 created a program to stimulate, encourage, and assist State and local governments to acquire, develop, and improve viable outdoor recreation areas and facilities.

27. New Mexico Department of Transportation: Active Transportation and Recreational Programs

https://www.dot.nm.gov/planning-research-multimodal-and-safety/planning-division/multimodal-planning-and-programs-bureau/active-transportation-and-recreational-programs/

The New Mexico Department of Transportation has a section for the Active Transportation Programs, which include the Recreational Trails Program, Transportation Alternatives Program, Congestion Mitigation and Air Quality Improvement Program, and Carbon Reduction Program. Funding opportunities are available in each program and typically are received by Tribes and local public agencies.

28. Rio Grande Water Fund

http://riograndewaterfund.org/

The Rio Grande Water Fund is a wildfire and water source protection project started by The Nature Conservancy in 2014. The Rio Grande Water Fund invests in the restoration of forested lands upstream so fresh water can be protected for future generations. The Rio Grande Water Fund provides funding for projects that accelerate landscape-scale forest restoration, primarily in ponderosa pine and mixed conifer forests. Funding is periodically available for thinning, controlled burns, stream restoration, post-fire watershed restoration, restoration planning, education and outreach, and monitoring.

29. Patagonia: Environmental Grants

http://www.patagonia.com/grant-guidelines.html

Patagonia funds only environmental work. Patagonia supports innovative work that addresses the root causes of the environmental crisis and seeks to protect both the environment and affected communities. Patagonia believes in local battles-campaigns to protect a specific stand of forest, a stretch of river, a native wild species or a community suffering from pollution, build public support and confront larger, more complex issues like climate change, loss of biodiversity and environmental justice.

30. Sustainable Agriculture Research and Education Grant

http://www.sare.org/Grants

The Sustainable Agriculture Research and Education program of the U.S. Department of Agriculture offers competitive grants to fund research and education projects that advance sustainable agricultural practices in the United States. Grants are available for farmers, ranchers, researchers, extension agents and other educators, and graduate students.

Sustainable Agriculture Research and Education grants are used to increase knowledge about sustainable agricultural practices and to help farmers and ranchers adopt those practices.

31. Turner Foundation

http://www.turnerfoundation.org/passions/water/

The Turner Foundation is a private, independent family foundation committed to preventing damage to the natural systems: water, air, and land. The foundation makes grants in the areas of land, air, and water and focuses on four main components for water grants: natural infrastructure, water efficiency, restoring flows, and watershed organizations.

32. Bureau of Reclamation: WaterSMART

http://www.usbr.gov/WaterSMART/

The Bureau of Reclamation provides financial assistance to water managers for projects that seek to conserve and use water more efficiently, implement renewable energy, investigate and develop water marketing strategies, mitigate conflict risk in areas at a high risk of future water conflict, and accomplish other benefits that contribute to sustainability in the western United States. Cost-shared projects that can be completed within 2 or 3 years are selected annually through a

competitive process. Three categories of WaterSMART grants are offered in separate funding opportunities: Water and Energy Efficiency Grants, Small-Scale Water Efficiency Projects, and Water Marketing Strategy Grants.

33. U.S. Department of Agriculture (USDA) Agriculture and Food Research Initiative: Various competitive grants for education, community, agriculture and resource enhancement and management

https://nifa.usda.gov/program/agriculture-and-food-research-initiative-afri

The National Institute of Food and Agriculture is an agency within USDA. The National Institute of Food and Agriculture awards Agriculture and Food Research Initiatives research, education, and extension grants to improve rural economies, increase food production, stimulate the bioeconomy, mitigate impacts of climate variability, address water availability issues, ensure food safety and security, enhance human nutrition, and train the next generation of the agricultural workforce.

34. USDA National Forest: Collaborative Forest Landscape Restoration Program

https://www.fs.usda.gov/restoration/CFLRP/overview.shtml

The purpose of the Collaborative Forest Landscape Restoration Program is to encourage the collaborative, science-based ecosystem restoration of priority forest landscapes and encourage ecological, economic, and social sustainability; leverage local resources with national and private resources; facilitate the reduction of wildfire management costs, including through reestablishing natural fire regimes and reducing the risk of uncharacteristic wildfire; demonstrate the degree to which various ecological restoration techniques achieve ecological and watershed health objectives; and encourage use of forest restoration by-products to offset treatment costs, benefit local rural economies, and improve forest health. The Collaborative Forest Landscape Restoration Fund provides funding for requests by the Secretary of Agriculture of up to $80 million annually for fiscal years 2019 through 2023 and up to 50% of the cost of carrying out and monitoring ecological restoration treatments on National Forest System land for each proposal selected.

35. USDA NRCS: Financial Assistance Programs

https://www.nrcs.usda.gov/getting-assistance

NRCS offers voluntary programs to eligible landowners and agricultural producers to provide financial and technical assistance to help manage natural resources in a sustainable manner. Through these programs the agency approves contracts to provide financial assistance to help plan and implement conservation practices that address natural resource concerns or opportunities to help save energy, improve soil, water, plant, air, animal, and related resources on agricultural lands and non-industrial private forest land. Several of these programs have been funded under legislation commonly referred to as the Farm Bill.

36. USDA Rural Development New Mexico

https://www.rd.usda.gov/nm

Financial programs support such essential public facilities and services as water and sewer systems, housing, health clinics, emergency service facilities, and electric and telephone service.

Rural Development promotes economic development by supporting loans to businesses through banks, credit unions and community-managed lending pools. They offer technical assistance and information to help agricultural producers and cooperatives get started and improve the effectiveness of their operations. Rural Development provides technical assistance to help communities undertake community empowerment programs.

37. U.S. Fish and Wildlife Service (USFWS): Partners for Fish and Wildlife Program

https://www.fws.gov/program/partners-fish-and-wildlife

The Partners for Fish and Wildlife Program provides free technical and financial assistance to landowners, managers, Tribes, corporations, schools, and nonprofits interested in improving wildlife habitat on their land. Since 1987, USFWS has helped more than 60,000 landowners restore more than 7 million acres of forest, prairie, wetland, and stream habitat for wildlife. The projects are designed to benefit federal trust species, including migratory birds and endangered, threatened, and at-risk species.

38. USFWS: North American Wetlands Conservation Act grants

https://www.fws.gov/program/north-american-wetlands-conservation

The North American Wetlands Conservation Act grant program approves matching grants to public-private partnerships in the United States, Canada, and Mexico, consistent with the North American Waterfowl Management Plan, an international agreement that provides a strategy for the long-term protection of wetlands and associated upland habitats needed by waterfowl and other migratory birds in North America. Since 1991, more than $2 billion in grants have gone to over 3,300 projects in the United States, Canada, and Mexico. Over 6,790 partners have contributed another $4.2 billion in matching funds, affecting over 32 million acres of wetlands and associated uplands that benefit waterfowl and other wildlife.

39. Wilburforce

http://www.wilburforce.org/

The Wilburforce Foundation empowers conservation leaders to protect the irreplaceable lands, waters, and wildlife of western North America. The foundation supports and connects organizations and individuals that are committed to protecting wild places and the wildlife that depend on them. The foundation invests in science-based solutions, advocates for responsible policies, and strengthens grantees' capacities to achieve lasting outcomes. The organized funds efforts to preserve western North America's irreplaceable biological diversity and ecological integrity and defend and use environmental policies that safeguard wildlife and wild places.

40. William and Flora Hewlett Foundation

http://www.hewlett.org/Programs/Environment/

The William and Flora Hewlett Foundation Environment Program makes grants to protect people and places threatened by a warming planet by addressing climate change globally, expanding clean energy, and conserving the North American West. The foundation has two environmental strategies: 1) reduce greenhouse gas emissions and ensure clean and efficient supplies of energy to safeguard people from climate change, and 2) preserve landscapes and waterways in the western United States and Canada for the health and well-being of people and wildlife.

Appendix E Public Involvement and Approval Process

Early Public Input Workshop

On January 18, 2023, 90 staff from New Mexico's natural resources agencies and organizations attended an Early Public Input Workshop for the Nonpoint Source (NPS) Management Plan revision. The New Mexico Water Resources Research Institute conducted the meeting under an agreement with the New Mexico Environment Department (NMED). Several breakout sessions permitted in-depth discussions of the following topics:

- Engaging communities and improving environmental justice
- Organizational capacity building for watershed groups
- Technical capacity building for watershed groups
- Improving surface water quality
- Protecting groundwater quality
- Cooperation among agencies and Tribes
- Planning for water quality protection and improvement
- Regulatory programs
- Forest health
- Outstanding National Resource Water protection
- Building climate resiliency

A ranking exercise began with a preparation session during recommended revisions to activity descriptions, and entirely new activities developed by breakout groups were added to polls. Participants then voted on activities based on their likely effectiveness toward addressing NPS pollution. A report on the outcome of the workshop is available at www.env.nm.gov/surface-water-quality/nps-plan. Several of the ideas discussed at the workshop, including alternate watershed-based plans (WBPs), annual cooperator meetings, and funding capacity-building projects, were included in the initial draft of the NPS Management Plan provided to EPA for technical review.

Additional input and review were requested from agencies to update descriptions in Section 5 of programs that protect and improve water quality.

EPA Technical Review

NMED delivered the draft plan to EPA for technical review in June 2023. EPA provided comments to NMED in July 2023 and NMED incorporated EPA's comments into the public comment draft 2024 NPS Management Plan.

Public Involvement Plan

SWQB prepared a Public Involvement Plan (PIP) to identify how to provide proper and appropriate public participation opportunities for the NPS Management Plan. The PIP is available

at https://www.env.nm.gov/surface-water-quality/nps-plan/. The PIP describes steps taken under "Public Comment Period" below.

Public Comment Period

NMED advertised the 30-day public comment period on June 21, 2024, via posting of the public comment draft of the 2024 NPS Management Plan online at the following locations:

- NMED website at www.env.nm.gov/surface-water-quality/nps-plan,
- NMED public notices website at https://www.env.nm.gov/public-notices/,
- NMED Events Calendar at https://www.env.nm.gov/events-calendar/, and
- NMED Public Comment Portal at https://nmed.commentinput.com/comment/search,

and sending an email in English and Spanish to 1,799 recipients on the Surface Water Quality Bureau email list. The public comment period closed on July 22, 2024.

Comments were received from three organizations. The following table lists the comments received, which are in some cases paraphrased or edited slightly for clarity, along with a response to each comment. In cases noted below, the document was revised to address the public comments and questions, resulting in the Water Quality Control Commission draft of the 2024 NPS Management Plan. The original comments received are included below.

Comment Matrix

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
1	New Mexico Interstate Stream Commission, Hannah Riseley-White, Director	Sect. 5.3.8, Interstate Stream Commission, pg. 63	Text revision: A review ~~and~~ *or* update of the New Mexico State Water Plan is required every 5 years~~, the last of which occurred in 2018. In~~ *and in* 2023, the ISC Planning Program ~~updated the 50 year~~ *published a review of the* State Water Plan. Governor Lujan Grisham released the 50-Year Water Action Plan in January 2024.	The suggested revisions were incorporated.
2	New Mexico Interstate Stream Commission, Hannah Riseley-White, Director	Sect.5.3.8, Interstate Stream Commission, pg. 63	Text revision: In the coming years, the ~~State Water~~ *ISC's* Planning Program will be engaging water users throughout the state to shape a new approach to regional water planning. ~~NMED~~*ISC*'s goal is to be transparent in the trade-offs associated with different administrative strategies and geographic boundaries and to develop a process and framework for regions to organize and advocate for their needs.	The suggested revisions were incorporated.
3	New Mexico Interstate Stream Commission, Hannah Riseley-White, Director	Sect.5.3.8, Interstate Stream Commission, pg. 64	Text revision: Water supply investigations are required to assess water *quantity and* quality, identify sources and types of contamination, and provide water quality management plans relating to land use practices, water use practices, and wastewater treatment.	The suggested revisions were incorporated.
4	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 2, Program Goal, Objectives, Activities, and Milestones, pg. 8 Sect. 3, The NPS Management Program Is for All New Mexicans: Statewide Initiatives, Environmental Justice, and Climate Change, pg. 18–24 Sect. 4.3.1, Type 1 Watershed Planning Projects for Capacity Building, pg. 34	The NPS Management Plan (NPS plan) is well written and presents a well-structured strategy of elements in support of NPS emissions reductions. I appreciate the ways in which the plan has expanded into the subject areas of statewide activities, environmental justice, climate change, and supporting community capacity building. I recognize that the overall, long-term goal of the NPS plan (Section 2, page 8) is comprehensive and socially inclusive. It lays the basis for holistic, adaptive and collaborative planning. Innovations as described for environmental justice, climate change, and Type-1 planning for community capacity are very encouraging and will likely be helpful in increasing the effectiveness of the NPS program.	Thank you for your comments.

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
			I recognize that WPS has taken important steps in the direction of acknowledging the socio-economic conditions in New Mexico for which I called attention in the past. I appreciate how the NPS plan describes solutions to improve social justice conditions and increase stakeholder inclusion (Sections 3.1, 3.2, and to some extent 3.3, as well as section 4.3.1) which are innovations that will likely improve the NPS management approach.	
5	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 1.3.1, Key Components Document, pg. 4	**Emphasizing the socio-economic support aspects of the NPS plan** The NPS plan shows that it aims beyond the eight elements prescribed by EPA in Section 1.3.1. However, I believe that it would make the intention of this expansion in the NPS plan more explicit if a sentence is added in Section 1.3.1. that expresses that WPS adds a ninth element to the eight prescribed by EPA. I would like to suggest that this nineth element is: “stimulating the generation of ecosystem benefits from watershed restoration efforts as a more holistic approach to addressing root causes of NPS impairments”.	Embedded within the eight elements prescribed by the EPA (*Section 319 Program Guidance: Key Components of an Effective State Nonpoint Source Management Program* [EPA 2012]) is a focus on water quality improvement, which includes combinations of watershed management, restoration, and best management practices (BMPs) to reduce NPS pollution and future impairments, and protect both surface water and groundwater quality. Section 1.3.1 specifically describes the eight elements published in the Key Components document that drove the development of the 2024 NPS Management Plan.
6	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 3.1 and 3.2, pg. 18–19; Sect 4.31, pg. 34	I would like to suggest that WPS take an additional step by broadening its scope toward the social-economic drivers of NPS pollution and seek investment possibilities for this new, expanded way of working, which would provide more tangible implementation opportunities for the innovations expressed in 3.1, 3.2, and 4.3.1. Presently, the NPS plan expresses benefits to communities in terms of partnerships and outreach and education. However, the plan would gain strength if it would include authentic descriptions of how “the substantive involvement of stakeholders” is incentivized in project funding, easy contracting with local contractors, compensation of local participants, assessments and indicators of what communities need and want, and how more emphasis on implementing BMPs – by incentivizing behavior and land use changes - could mitigate the causes behind many NPS stressors.	The 2013 Section 319 Guidelines (*Nonpoint Source Program and Grants Guidelines for States and Territories* [EPA 2013]) that guided development of the 2024 NPS Management Plan and the new 2024 Section 319 Guidelines (*Nonpoint Source Program and Grants Guidelines for States and Territories* [EPA 2024]), support capacity building, education, and outreach for stakeholders in watersheds. However, there are limitations to how CWA Section 319 funding can be spent, as stated in 2 Code of Federal Regulations (CFR) 200 and as the State of New Mexico is bound to the Procurement Code (specifically, see Section 13-1-158, Payments for purchases, and Section 13-1-98, Exemptions from the Procurement Code).

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
7	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 1.5, pg. 6	**Supporting long-term commitments** Section 1.5 states "Effective NPS pollution control efforts must acknowledge that improvements to water quality require long-term commitments of budget and personnel resources". However, beyond pointing toward the responsibility of partnerships, the NPS plan does not clarify how WPS will provide support for long-term commitments beyond a four-year project commitment. In fact, many funded projects allow contractors or grantees less than 3 years of effective project implementation time. Section 1.5 also states "Participating organizations and stakeholders build the necessary knowledge and relationships to effectively use a variety of programs". While this may be true for the duration of a project, in many NPS initiatives this statement remains largely aspirational for timelines beyond the project duration. To assist participating organizations and stakeholders live up to this statement, the NPS plan could identify **strategies for working more holistically, including the social-economic aspects of solutions, and over longer periods of time** with associated financing strategies. Not doing so risks that much of the NPS investments merely remain stuck in short-term, localized project solutions that address partial causes or just symptoms rather than root causes. Instead, it would be useful if the NPS plan helps incentivize people to make constructive changes toward cleaner water outcomes.	New Mexico continues to apply for CWA Section 319 grants from EPA to manage its NPS program in order to continue to provide long-term funding for multiple projects to improve and protect water quality in the state. Funding for projects is limited to a period of up to 4 years, based on appropriation dates and expiration deadlines of the funds provided, both State and federal. It is recognized that 3 years is challenging for effective implementation and encourages contractors or grantees to divide projects into manageable phases for implementation, including continuing to apply for funding for additional project phases. The localized strategies to holistically address NPS pollution should be identified in watershed-based plans that are the appropriate vehicle for identifying and implementing social-economic solutions long-term.
8	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 2, Program Goal, Objectives, Activities, and Milestones, pg. 8	To that end, I believe that the six program objectives (page 9) would benefit from **reformulating the second point**: "Support the development and implementation of long-term Watershed Restoration Initiatives and specific, short-term Watershed Projects within the Initiatives." In this context, initiatives would extend over several decades, aim to implement a complete watershed restoration plan, include multiple projects, and seek permanence in the initiatives by creating enduring coalitions of community organizations, local businesses, NGOs, universities, agencies and other relevant partners.	The 2024 NPS Management Plan guides the NPS Management Program for New Mexico as a whole. Watershed-based plans could develop "Watershed Restoration Initiatives" if the planning group desired that for their plan. New Mexico's goal for the NPS Management Program is not specific, nor prescriptive, enough to identify Watershed Restoration Initiatives for each watershed in New Mexico. If a Total Maximum Daily Load (TMDL) exists for an impaired water body within the watershed, that document may be used as a guide for watershed initiatives to improve water quality and reduce NPS pollution.

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
9	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 2.2, pg. 10	Objective 2.2 could then be described as: **2.2 Objective 2 – Implement Watershed Initiatives and Projects** ***Support and implement effective watershed-based NPS restoration initiatives and subordinate projects in identified priority watersheds, using multiple funding sources, at an average of three new watersheds per year.*** In support of the effective implementation of WBPs, as per section 2.1, WPS supports that creation of broad, collaborative, multi-stakeholder initiatives that aim to be operational for one or more decades conform to the recommended planning cycle of the WBPs. WPS actively seeks to provide successive funding and encourage the mobilization of additional resources for the long-term success of each initiative. It is anticipated that, grounded in well-integrated partnerships with broad stakeholder representation developed during the planning process described in Section 2.1., individual, shorter-term projects (durations of several years) may be implemented by specific agencies, organizations, and individuals as part of each initiative. Longevity of the partnership-driven initiatives is bolstered by the quality of the WBP, the strength of the partnership, diversity in funding, broad inclusiveness of partners, investment in local businesses, and a commitment of all partners toward long-term collaboration.	Thank you for your thoughtful comment on development of watershed initiatives.

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
10	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 2.2.1, pg. 10	**2.2.1 Activities to Achieve Objective 2** WPS will facilitate or carry out the following activities in support of Objective 2: a. Allocate staff for active participation in the steering teams of landscape-scale, long-term, collaborative watershed initiatives and in collaborative watershed fora at a state level (such as the NMFD Forest and Watershed Health Coordinating Group). b. Engage in MoUs and other instruments that regulate the long-term commitment of WPS in collaboration with other agencies and entities in a watershed restoration initiative. c. Conduct an RFA or RFP at least every other year for watershed implementation projects outlined in WBPs and alternative WBPs, to be funded with Section 319 watershed project funds. d. Conduct smaller procurements for specific, targeted projects that will implement or support implementation of WBPs and alternative WBPs, to be funded with Section 319 watershed project funds. e. Manage and provide oversight of Section 319–funded projects. f. Develop, manage, and provide oversight of State-funded watershed and riparian restoration projects. Section 5.1.2 discusses applicable programs. g. Use scientific methods and weight-of-evidence reporting to measure and document effectiveness of efforts toward achieving water quality standards.	Specifically, Sect. 2.4.1, Activities to Achieve Objective 4, pg. 13, states “WPS staff will . . . (c) Participate as active members in watershed groups, providing critical information about water quality programs as new developments occur and assist with technical aspects of watershed planning and project design as needed.” In addition, Sect. 2.6.1, Activities to Achieve Objective 6, pg. 16, states “WPS staff will . . . (a) Revisit, renew, and implement the New Mexico Water Quality Protection Agreement, a Memorandum of Understanding (MOU) between NMED and the U.S. Department of Agriculture (USDA) U.S. Forest Service (Forest Service) Southwestern Region.” Sect. 2.6.1, Activities to Achieve Objective 6, pg. 16, details how WPS will continue cooperation with other agencies to protect and improve water quality.

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
11	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 2.2.2, pg. 11	**2.2.2 Objective 2 Verification Milestones** a. Document water quality conditions and their experienced community benefits in one priority watershed that improved because of initiatives, projects or improvements in land management funded or encouraged by New Mexico's NPS Management Program by submitting at least one Success Story to EPA each year. Time frame: Annually. b. Begin watershed restoration initiatives and projects described in WBPs or alternative WBPs within two or more priority watersheds per year. Time frame: 2024 through 2029. c. Begin watershed or water quality restoration initiatives and projects that are State-funded in an average of three watersheds per year, which may include those listed under b. Time frame: 2024 through 2029. d. Document water quality improvements in the Grants Reporting and Tracking System (GRTS) by performing pollutant load reduction estimates for multi-year initiatives and their individual implementation projects where on-the-ground improvements were completed in the previous year. Time frame: Annually.	Thank you for your thoughtful comments to include watershed initiatives.
12	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 2.4.1, pg. 13–14	**Support to contractors and grantees** Section 2.4.1 states that WPS will "Conduct a statewide workshop for NPS Management Program cooperators (subgrant recipients, contractors, agencies, etc.) at least annually." I warmly welcome such a workshop if it is **interactive with participants and supporting contractors and subgrant recipients** who implement NPS projects (e.g., through 319 and RSP agreements). I also welcome the continuation of the Wetland Roundtables. I hope that such gatherings would address topics, such as (a) general NPS news updates, (b) a few project presentations, (c) contract related updates on new rules, rates, changes in contracting, upcoming RFPs, etc., and (d) troubleshooting conversations about concerns contractors have with community interactions, contract stipulations, reimbursement procedures, monitoring (e.g., QAPP rules), reporting, work plan changes, regulatory issues, etc.	Thank you for your thoughtful comments on WPS plans for conducting an annual workshop and continuing to host the Wetlands Roundtables. The topics you mentioned are intended to be included in these future meetings. The SWQB will be updating reimbursement processes and will be updating our cooperators as the new processes are rolled out. To address contracts specifically, the State is legally bound to the Procurement Code. All contracts and agreements must be consistent with the Procurement Code and any deviations from language in contracts must be approved by the legal divisions in NMED and the General Services Department State Purchasing Division. Regarding cash advances, the State of New Mexico does not allow payments in advance for services except in specific cases (see Section 13-1-158,

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			The NPS plan does not address challenges contractors and grantees experience with the specific provisions of contracts and agreements for project implementation. I have experienced a need to seek solutions to contract language that is innocuous, unequally benefiting the state and placing undue risk on the contractor or subgrant recipient, or implicitly curtailing the possibility of hiring local operators. Open conversations with WPS staff could help **clarify contracts** and lay out procedures for **making contracts more accessible and workable.** This could perhaps be accomplished as part of recommendation #1 and/or in separate meetings with contractors. It would be very helpful to make **contractor or grantee reimbursement procedures easier, less time-consuming, less prone to errors, and less costly for contractors and SWQB staff.** It would also help to have **cash advances**. Local and small-scale subcontractors often experience financial issues in terms of cash flow and are less likely to provide services to projects if there are gaps in pay. For example, would it perhaps be possible to use a portion of the water quality loan fund for upfront cash advances to ease cash flow on projects? USFS CFRP projects could be used as an example of how cash advances could be administratively set up.	Payments for Purchases, and Section 13-1-98, Exemptions from the Procurement Code). Upfront cash advances are not an option for the NPS Management Program and projects that it funds.

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
13	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 2.2, pg. 10–11	**Easing of hiring local contractors and compensating local participants** The NPS plan acknowledges the importance of including **local stakeholders** for reasons of inclusivity and carbon emission reduction. Including **local contractors** who can bring in local equipment and knowledge helps accomplish project goals, keeps budgets down, encourages the creation of local jobs and income, stimulates equitable relationships with the individual and the community, and reduces carbon emissions in comparison with contracting with contractors who have to come from urban areas located at greater distance. However, including local contractors at the time of proposal writing may be problematic because many small local contractors do not want to promise availability more than a few months out at a time. Many of them also do not carry the required insurance and / or feel challenged registering with SAM or obtaining a federal Unique Entity Identifier (UEI). This disqualifies many local contractors and limits WPS support to local contractors in a watershed partnership. It would be beneficial to develop information and support systems that could navigate around these barriers and lead to a greater successful inclusion of local contractors in watershed restoration projects.	Thank you for your thoughtful comments about capacity building for local stakeholders and contractors. See comment #6 and comment #12 above.

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14	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 4.3.1, pg. 34	In support of the Type-1 watershed planning funding aimed at community capacity building I would like to recommend that WPS allows in such projects that **community members are reimbursed for their time and knowledge** in the planning and capacity building process. Such reimbursement will have to be enabled without any needs for local participants to be approved as contractors by WPS, obtain a UEI or register with SAM. Rural communities in New Mexico, where most restoration projects take place, are underserved and often disenfranchised. Reimbursement of community members for their time and knowledge within planning activities should be made easy and considered an appropriate use of project funding, so that the relationship is not extractive but rather reciprocal. Effective community participation and communication affects durable change on the land through more responsible land use behavior and changes in BMPs to achieve NPS goals, which helps to build capacity in communities to affect this change with less emphasis on outside consultants and NGO involvement.	Thank you for your thoughtful comments about capacity building for local stakeholders and contractors. See comment #6 and comment #12 above.
15	Ecotone Landscape Planning, LLC, Jan-Willem Jansens, Owner/Principal	Sect. 3.2.2, pg. 21	I appreciate the potential reduction in matches to 10% of total project costs, which will help alleviate pressures on disadvantaged communities who are usually creating projects on surrounding federal lands. I would like to suggest that WPS staff engage in conversations with contractors and subgrant recipients, including community members where possible, to talk about more **mechanisms to better serve underserved communities** in NM. Many solutions can come from **on-the-ground perspectives**.	Thank you for your thoughtful comment. WPS staff look forward to continuing conversations to better serve underserved communities in New Mexico. The NPS Management Plan addresses this in Sect. 3, The NPS Management Program Is for All New Mexicans: Statewide Initiatives, Environmental Justice, and Climate Change, pg. 18–24.

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
16	Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)	Sect. 5, pg. 40	Must consider stormwater that is received, conveyed, and discharged by Flood Control Districts and MS4s as also requiring nonpoint source pollution reduction objectives.	Thank you for your thoughtful comment about including Flood Control Districts and MS4 entities. This has been incorporated in Sect. 5, Programs that Protect and Improve Surface Water Quality, pg. 40, in the third paragraph: "The NPS Management Program focuses on federal, State, and local programs that can influence and support beneficial land management by public agencies and private individuals. Land management practices, including water quality BMPs, are implemented by landowners, operators, and management agencies. *For example, stormwater runoff is typically managed by Flood Control Districts in New Mexico. MS4s may have permits issued to multiple stakeholders, agencies, and districts in a watershed to implement BMPs to reduce NPS pollution.*"
17	Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)	Sect. 5, pg. 40	Flood Control Districts and MS4s can utilize and implement traditional nonpoint source reduction strategies.	See comment #16.
18	Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)	Sect. 4.1, pg. 25	TMDLs need to reflect the overall proportion of pollution by nonpoint sources that contribute to water quality exceedances in stormwater discharges.	Thank you for your comment. All New Mexico TMDL calculations include a load allocation, margin of safety, and waste load allocation (WLA) (when a NPDES permit is present). The New Mexico TMDL program uses the jurisdictional area approach when assigning an MS4 WLA; the MS4 permittee is only responsible for meeting assigned WLA, not the NPSs contributing to the overall impairment of the waterbody. All land uses within the individual MS4 jurisdictional boundaries are included when the jurisdictional area MS4 WLA is calculated, and those uses within the MS4 jurisdictional boundary are the responsibility of the MS4 permittee. Every New Mexico TMDL also includes a list of probable sources, but the probable sources are not quantified and so an overall proportion of the sources is outside of the scope of the TMDL.

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
19	Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)	Sect. 2.6, pg. 16	Flood Control Districts and MS4s should be listed as those that should be coordinated with in Section 2.6	This has been incorporated in Sect. 2.6.1, Activities to Achieve Objective 6, pg. 16, in activity (d): "Work with local governments and nongovernmental organizations, including Flood Control Districts and the SWCDs identified in Section 5.4.2 with the greatest number of assessed stream miles, to develop their programs and projects to protect and improve water quality."
20	Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)	Sect. 4, pg. 25	Overlap in Section 4 with MS4s for programs that have priorities and approaches for nonpoint source pollution control. MS4s receive nonpoint source pollution but are regulated as a point source when discharging to water bodies.	Thank you for your thoughtful comment about overlapping priorities and approaches for NPS pollution control.
21	Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)	Sect. 5.4, pg. 65	Flood Control Districts and MS4s recognized as programs that protect and improve surface water quality in Section 5.4.	A new section, 5.4.3, Flood Control Districts, has been added to the text: ***6.8.1 Flood Control Districts*** • ***NPS categories to be addressed: Stormwater Management*** *New Mexico's Flood Control Districts are political subdivisions of the State that exist to protect inhabitants of a district from flooding. The role of a Flood Control District in NPS pollution management may include reducing flooding risks and damages and improving water quality. Flood Control Districts can use a variety of tools to protect and improve water quality, including implementing structural and nonstructural BMPs, maintaining infrastructure maintenance, increasing stormwater conveyance capacity in drainage channels and arroyos, and excavating stormwater detention basins and dams.*
22	Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA)	Sect. 4.7, pg. 38–39, and App C	Potentially list Best Management Practices under a "Flood Control Water Quality" section in Appendix C?	A new section, "Stormwater Management" was added to Appendix C, Best Management Practices, pg. C-8 and C-9. *Stormwater Management:* • *Pick up after dogs regularly and dispose of bags in a trash container* • *Never put cat litter down the drain or in the toilet*

Comment Number	Commenter Organization	Comment Section and Page Number	Comment Text*	Agency Response
				• *Dispose of fats, oils, and grease (FOG) properly, including throwing FOG into the trash and not disposing of FOG in garbage disposals* • *Dispose of wash water at a sanitary cleanout, not a storm drain* • *Take leftover paints, solvents, oils, and construction materials to waste disposal centers* • *Do not wash, sweep, or blow any materials into the street where they can enter storm drains* • *When not in use, keep materials such as chemicals or other hazardous materials stored properly with lids secured to reduce potential for spills* • *Discard grass clippings and other yard waste in bags and dispose of in the trash receptacle* • *Keep yard waste from the street where it can enter storm drains* • *Do not wash fertilizers, weed killers, pesticides, or other chemicals into the street where they can enter storm drains* • *Use commercial car washes whenever possible because they are equipped to collect and recycle wash water* • *If you wash your car yourself, use minimal soap and place your vehicle on grass to wash whenever possible* • *Dispose of used motor oil and hydraulic fluids at a local automotive part store or a certified hazardous waste facility* • *Never put motor oil, antifreeze, or any other vehicle fluid down a storm drain, sink, or toilet and never pour these fluids on the ground* • *If vehicle fluids leak onto your driveway, clean the fluids using adsorbent materials such as cat litter and throw it away in a trash receptacle*

* Proposed new text is shown in italics, while text proposed for deletion has been struck through by the commenter organization.

NEW MEXICO INTERSTATE STREAM COMMISSION

COMMISSION MEMBERS

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July 22, 2024

Comments submitted electronically to: WPSProgram.manager@env.nm.gov

Subject: New Mexico Interstate Stream Commission Comments on the Draft 2024 Nonpoint Source Management Plan (Public Comment Draft)

To Whom It May Concern:

Thank you for the opportunity to review and comment on the New Mexico Environment Department's *Draft 2024 Nonpoint Source Management Plan*. The New Mexico Interstate Stream Commission (NMISC) offers the following suggested edits on Section 5.3.8, *Office of the State Engineer and Interstate Stream Commission*, for clarity. Proposed new text is shown in italics while text proposed for deletion has been struck through.

Interstate Stream Commission

In 1987, the New Mexico Legislature created a regional water planning program to inventory New Mexico's water supplies to ensure that adequate water is available for the state's future growth and development. The 1987 regional water planning statute required technical investigations into water supply and future demand and extensive public involvement to determine recommended alternatives for balancing regional water supply with future demand. This program established 16 water planning regions, and two rounds of regional planning have been completed. The State Water Plan Act, passed by the New Mexico Legislature in 2003, charged the ISC, with help from OSE and the Water Trust Board, with developing and implementing a comprehensive State Water Plan. The statute includes "protecting both the water supply and water quality" as one of the eight stated purposes. A review ~~and~~ *or* update of the New Mexico State Water Plan is required every 5 years~~, the last of which occurred in 2018. In~~ *and in* 2023 the ISC Planning Program

~~updated the 50-year~~ *published a review of the* State Water Plan. Governor Lujan Grisham released the 50-Year Water Action Plan in January 2024.

In the 2023 legislative session, ISC presented an agency-sponsored bill intended to reinvigorate regional water planning. The bill, SB337 or the Water Security Planning Act of 2023, passed the house and senate with unanimous support and only minor edits before being signed into law on April 4. The Water Security Planning Act of 2023 calls for a public rulemaking process to revisit regional boundaries and identify strategies that allow regions the autonomy to identify needs and projects in a manner consistent with the needs of the State relative to interstate compacts and endangered species.

In the coming years, the ~~State Water~~ *ISC's* Planning Program will be engaging water users throughout the state to shape a new approach to regional water planning. ~~NMED~~*ISC*'s goal is to be transparent in the trade-offs associated with different administrative strategies and geographic boundaries and to develop a process and framework for regions to organize and advocate for their needs. These efforts will dovetail with efforts across the state to improve monitoring and climate science to ensure equitable, efficient, and long-term water management strategies that are responsive to local needs and developed with scientific integrity.

Water supply investigations are required to assess water *quantity and* quality, identify sources and types of contamination, and provide water quality management plans relating to land use practices, water use practices, and wastewater treatment. Elevated salinity in the Rio Grande Project area, which extends from above Elephant Butte Reservoir, New Mexico, to Fort Quitman, Texas, has long been recognized as an issue. ISC and OSE are cooperators in the USGS's Mesilla Basin Monitoring Program, which collects basic data on groundwater level, groundwater quality, and surface water quality at sites between Caballo Dam and El Paso, Texas.

As the San Juan River, which flows through the northwest corner of New Mexico, is a tributary of the Colorado River, the State of New Mexico maintains membership in the Colorado River Basin Salinity Control Forum and the Colorado River Basin Salinity Control Advisory Council. In compliance with the CWA and the Colorado River Basin Salinity Control Act, the forum works with federal agencies to improve agricultural practices, remove nonnative vegetation, and intercept extremely saline water sources in the interest of reducing the amount of salt that enters the Colorado River. Projects in New Mexico have been done on Tribal and non-Tribal lands.

Please contact me or Michelle Hunter (michelle.hunter@ose.nm.gov) if you have any questions about these comments or require additional information.

Sincerely,

HM

Hannah Riseley-White, Director
New Mexico Interstate Stream Commission

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22 July 2023

New Mexico Environment Department
Watershed Protection Section
1190 St. Francis Drive
Suite N4050
Santa Fe, NM 87505

RE: Public Statement on Draft 2024 Nonpoint Source Management Plan

To whom it may concern:

Thank you for the opportunity to make a public statement on the "Draft 2024 Nonpoint Source Management Plan." I am writing to share a few recommendations in response to the draft document.

Ecotone has been an active partner of the NPS program for 25 years through such programs as Section 319 and the River Stewardship Program. With these opportunities, Ecotone has been able to accomplish many NPS goals, has made efforts to improve the health of streams and wetlands throughout northern New Mexico, and attempted to provide associated environmental benefits to local residents. I am grateful to NMED and the work we have accomplished together for more than two decades.

Over the years, certain aspects of the NPS program I experienced have left me with growing concerns. I know that I am not alone with some of my concerns as I have discussed a few points with colleagues. Ecotone has presented these concerns in a letter to Abe Franklin on February 7, 2023, during a recent Wetlands Round Table, and on other occasions. This letter is another step in offering continued constructive support to the improvement of the NPS program.

I have organized my feedback in the form of a list of (A) acknowledgements of strengths and in (B) a list of suggestions and recommendations. I would like to ask you and your NPS team to consider the following:

A: Acknowledgements of strengths and improvements

The NPS Management Plan (NPS plan) is well written and presents a well-structured strategy of elements in support of NPS emissions reductions. I appreciate the ways in which the plan has expanded into the subject areas of statewide activities, environmental justice, climate change, and supporting community capacity building. I recognize that the overall, long-term goal of the NPS plan (Section 2, page 8) is comprehensive and socially inclusive.

1

It lays the basis for holistic, adaptive and collaborative planning. Innovations as described for environmental justice, climate change, and Type-1 planning for community capacity are very encouraging and will likely be helpful in increasing the effectiveness of the NPS program.

I recognize that WPS has taken important steps in the direction of acknowledging the socio-economic conditions in New Mexico for which I called attention in the past. I appreciate how the NPS plan describes solutions to improve social justice conditions and increase stakeholder inclusion (Sections 3.1, 3.2, and to some extent 3.3, as well as section 4.3.1) which are innovations that will likely improve the NPS management approach.

B: Suggestions and Recommendations

1. *Emphasizing the socio-economic support aspects of the NPS plan*

The NPS plan shows that it aims beyond the eight elements prescribed by EPA in Section 1.3.1. However, I believe that it would make the intention of this expansion in the NPS plan more explicit if a sentence is added in Section 1.3.1. that expresses that WPS adds a ninth element to the eight prescribed by EPA. I would like to suggest that this nineth element is: **"stimulating the generation of ecosystem benefits from watershed restoration efforts as a more holistic approach to addressing root causes of NPS impairments".**

I would like to suggest that WPS take an additional step by **broadening its scope toward the social-economic drivers of NPS pollution** and seek investment possibilities for this new, expanded way of working, which would provide more tangible implementation opportunities for the innovations expressed in 3.1, 3.2, and 4.3.1. More concrete examples for these ideas are presented below.

Presently, the NPS plan expresses benefits to communities in terms of partnerships and outreach and education. However, the plan would gain strength if it would include authentic descriptions of how "the substantive involvement of stakeholders" is incentivized in project funding, easy contracting with local contractors, compensation of local participants, assessments and indicators of what communities need and want, and how more emphasis on implementing BMPs – by incentivizing behavior and land use changes - could mitigate the causes behind many NPS stressors.

2. *Supporting long-term commitments*

Section 1.5 states "Effective NPS pollution control efforts must acknowledge that improvements to water quality require long-term commitments of budget and personnel resources". However, beyond pointing toward the responsibility of partnerships, the NPS plan does not clarify how WPS will provide support for long-term commitments beyond a four-year project commitment. In fact, many funded projects allow contractors or grantees less than 3 years of effective project implementation time.

Section 1.5 also states "Participating organizations and stakeholders build the necessary knowledge and relationships to effectively use a variety of programs". While this may be true for the duration of a project, in many NPS initiatives this statement remains largely aspirational for timelines beyond the project duration.

To assist participating organizations and stakeholders live up to this statement, the NPS plan could identify **strategies for working more holistically, including the social-economic aspects of solutions, and over longer periods of time** with associated financing strategies. Not doing so risks that much of the NPS investments merely remain stuck in short-term, localized project solutions that address partial causes or just symptoms rather than root causes. Instead, it would be useful if the NPS plan helps incentivize people to make constructive changes toward cleaner water outcomes.

To that end, I believe that the six program objectives (page 9) would benefit from **reformulating the second point**: "Support the development and implementation of long-term Watershed Restoration Initiatives and specific, short-term Watershed Projects within the Initiatives." In this context, initiatives would extend over several decades, aim to implement a complete watershed restoration plan, include multiple projects, and seek permanence in the initiatives by creating enduring coalitions of community organizations, local businesses, NGOs, universities, agencies and other relevant partners.

Objective 2.2 could then be described as:

> **2.2 Objective 2 – Implement Watershed Initiatives and Projects**
>
> ***Support and implement effective watershed-based NPS restoration initiatives and subordinate projects in identified priority watersheds, using multiple funding sources, at an average of three new watersheds per year.***
>
> In support of the effective implementation of WBPs, as per section 2.1, WPS supports that creation of broad, collaborative, multi-stakeholder initiatives that aim to be operational for one or more decades conform to the recommended planning cycle of the WBPs. WPS actively seeks to provide successive funding and encourage the mobilization of additional resources for the long-term success of each initiative. It is anticipated that, grounded in well-integrated partnerships with broad stakeholder representation developed during the planning process described in Section 2.1., individual, shorter-term projects (durations of several years) may be implemented by specific agencies, organizations, and individuals as part of each initiative. Longevity of the partnership-driven initiatives is bolstered by the quality of the WBP, the strength of the partnership, diversity in funding, broad inclusiveness of partners, investment in local businesses, and a commitment of all partners toward long-term collaboration.
>
> **2.2.1 Activities to Achieve Objective 2**
>
> WPS will facilitate or carry out the following activities in support of Objective 2:
>
> a. Allocate staff for active participation in the steering teams of landscape-scale, long-term, collaborative watershed initiatives and in collaborative watershed fora at a state level (such as the NMFD Forest and Watershed Health Coordinating Group).

b. Engage in MoUs and other instruments that regulate the long-term commitment of WPS in collaboration with other agencies and entities in a watershed restoration initiative.
c. Conduct an RFA or RFP at least every other year for watershed implementation projects outlined in WBPs and alternative WBPs, to be funded with Section 319 watershed project funds.
d. Conduct smaller procurements for specific, targeted projects that will implement or support implementation of WBPs and alternative WBPs, to be funded with Section 319 watershed project funds.
e. Manage and provide oversight of Section 319–funded projects.
f. Develop, manage, and provide oversight of State-funded watershed and riparian restoration projects. Section 5.1.2 discusses applicable programs.
g. Use scientific methods and weight-of-evidence reporting to measure and document effectiveness of efforts toward achieving water quality standards.

2.2.2 Objective 2 Verification Milestones

a. Document water quality conditions and their experienced community benefits in one priority watershed that improved because of initiatives, projects or improvements in land management funded or encouraged by New Mexico's NPS Management Program by submitting at least one Success Story to EPA each year. Time frame: Annually.
b. Begin watershed restoration initiatives and projects described in WBPs or alternative WBPs within two or more priority watersheds per year. Time frame: 2024 through 2029.
c. Begin watershed or water quality restoration initiatives and projects that are State-funded in an average of three watersheds per year, which may include those listed under b. Time frame: 2024 through 2029.
d. Document water quality improvements in the Grants Reporting and Tracking System (GRTS) by performing pollutant load reduction estimates for multi-year initiatives and their individual implementation projects where on-the-ground improvements were completed in the previous year. Time frame: Annually.

3. Support to contractors and grantees

Section 2.4.1 states that WPS will "Conduct a statewide workshop for NPS Management Program cooperators (subgrant recipients, contractors, agencies, etc.) at least annually." I warmly welcome such a workshop if it is **interactive with participants and supporting contractors and subgrant recipients** who implement NPS projects (e.g., through 319 and RSP agreements). I also welcome the continuation of the Wetland Roundtables. I hope that such gatherings would address topics, such as (a) general NPS news updates, (b) a few project presentations, (c) contract related updates on new rules, rates, changes in contracting, upcoming RFPs, etc., and (d) troubleshooting conversations about concerns contractors have with community interactions, contract stipulations, reimbursement

procedures, monitoring (e.g., QAPP rules), reporting, work plan changes, regulatory issues, etc.

The NPS plan does not address challenges contractors and grantees experience with the specific provisions of contracts and agreements for project implementation. I have experienced a need to seek solutions to contract language that is innocuous, unequally benefiting the state and placing undue risk on the contractor or subgrant recipient, or implicitly curtailing the possibility of hiring local operators. Open conversations with WPS staff could help **clarify contracts** and lay out procedures for **making contracts more accessible and workable.** This could perhaps be accomplished as part of recommendation #1 and/or in separate meetings with contractors.

It would be very helpful to make **contractor or grantee reimbursement procedures easier, less time-consuming, less prone to errors, and less costly for contractors and SWQB staff.** It would also help to have **cash advances**. Local and small-scale subcontractors often experience financial issues in terms of cash flow and are less likely to provide services to projects if there are gaps in pay. For example, would it perhaps be possible to use a portion of the water quality loan fund for upfront cash advances to ease cash flow on projects? USFS CFRP projects could be used as an example of how cash advances could be administratively set up.

4. *Easing of hiring local contractors and compensating local participants*

The NPS plan acknowledges the importance of including **local stakeholders** for reasons of inclusivity and carbon emission reduction. Including **local contractors** who can bring in local equipment and knowledge helps accomplish project goals, keeps budgets down, encourages the creation of local jobs and income, stimulates equitable relationships with the individual and the community, and reduces carbon emissions in comparison with contracting with contractors who have to come from urban areas located at greater distance. However, including local contractors at the time of proposal writing may be problematic because many small local contractors do not want to promise availability more than a few months out at a time. Many of them also do not carry the required insurance and / or feel challenged registering with SAM or obtaining a federal Unique Entity Identifier (UEI). This disqualifies many local contractors and limits WPS support to local contractors in a watershed partnership. It would be beneficial to develop information and support systems that could navigate around these barriers and lead to a greater successful inclusion of local contractors in watershed restoration projects.

In support of the Type-1 watershed planning funding aimed at community capacity building I would like to recommend that WPS allows in such projects that **community members are reimbursed for their time and knowledge** in the planning and capacity building process. Such reimbursement will have to be enabled without any needs for local participants to be approved as contractors by WPS, obtain a UEI or register with SAM. Rural communities in New Mexico, where most restoration projects take place, are underserved and often disenfranchised. Reimbursement of community members for their time and knowledge within planning activities should be made easy and considered an

appropriate use of project funding, so that the relationship is not extractive but rather reciprocal. Effective community participation and communication affects durable change on the land through more responsible land use behavior and changes in BMPs to achieve NPS goals, which helps to build capacity in communities to affect this change with less emphasis on outside consultants and NGO involvement.

I appreciate the potential reduction in matches to 10% of total project costs, which will help alleviate pressures on disadvantaged communities who are usually creating projects on surrounding federal lands. I would like to suggest that WPS staff engage in conversations with contractors and subgrant recipients, including community members where possible, to talk about more **mechanisms to better serve underserved communities** in NM. Many solutions can come from **on-the-ground perspectives**.

I would appreciate your consideration of these suggestions. Please contact me if you have any questions. I am interested in explaining my observations and suggestions.

Best regards,

Jan-Willem Jansens, Owner/Principal
Ecotone Landscape Planning, LLC

New Mexico Nonpoint Source Management Plan

Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) Comments

July 22, 2024

Must consider stormwater that is received, conveyed, and discharged by Flood Control Districts and MS4s as also requiring nonpoint source pollution reduction objectives.

Flood Control Districts and MS4s can utilize and implement traditional nonpoint source reduction strategies.

TMDLs need to reflect the overall proportion of pollution by nonpoint sources that contribute to water quality exceedances in stormwater discharges.

Flood Control Districts and MS4s should be listed as those that should be coordinated with in Section 2.6

Overlap in Section 4 with MS4s for programs that have priorities and approaches for nonpoint source pollution control. MS4s receive nonpoint source pollution but are regulated as a point source when discharging to water bodies.

Flood Control Districts and MS4s recognized as programs that protect and improve surface water quality in Section 5.4.

Potentially list Best Management Practices under a "Flood Control Water Quality" section in Appendix C?

Changes Made in Response to Internal Comments

SWQB made the following changes after the public comment period in response to comments received from NMED staff and prior to presenting to the Water Quality Control Commission (WQCC).

- Added a verification milestone (2.1.2.c) to complete one advance restoration plan, in cooperation with TMDL staff, within 5 years.
- Added additional stormwater management BMPs (Appendix C).
- Added a section (5.4.3) about Flood Control Districts in New Mexico that also manage NPS pollution.
- Minor revisions to language about ISC's State Water Plan.

WQCC Review and Approval

The proposed final 2024 NPS Management Plan was provided for WQCC review on [date]. WQCC approved the document during their [date] meeting and incorporated it into the Statewide Water Quality Management Plan and Continuing Planning Process (WQMP/CPP). WQCC approval is documented in an order of adoption shown below.

[Insert an image clip of the order here.]

Submittal of NPS Management Plan by the Governor of New Mexico

Cabinet Secretary of the Environment Department, James C. Kenney, submitted the 2024 NPS Management Plan on behalf of Governor Michelle Lujan Grisham to EPA Regional Administrator Dr. Earthea Nance on [date]. Secretary Kenney's letter is included below.

[Insert an image clip of the letter here.]

EPA Review and Approval

EPA Region 6 staff reviewed the 2024 NPS Management Plan and recommended approval. Regional Administrator, Dr. Earthea Nance, approved the Plan on [date]. Dr Nance's approval letter is included below.

[Insert an image clip of the letter here.]