New Mexico
Nonpoint Source Management Plan
~ 2014 ~

New Mexico Environment Department
Resource Protection Division
Surface Water Quality Bureau
Watershed Protection Section
1190 S. St. Francis Drive, N2100
P.O. Box 5469
Santa Fe, New Mexico USA 87502
Tel. 505.827.0187 505.827.0160 Fax

www.nmenv.state.nm.us/swqb/wps

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ACRONYMS

APRM	Advance Permittee-Responsible Mitigation Program
BAER	Burned Area Emergency Response
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practice
CAFO	Concentrated Animal Feeding Operation
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
CSP	Conservation Security Program
CTA	Conservation Technical Assistance
CWA	Clean Water Act
CWCS-NM	Comprehensive Wildlife Conservation Strategy for New Mexico
CWPP	Community Wildfire Protection Plan
DOE	United States Department of Energy
EMNRD	New Mexico Energy Minerals and Natural Resources Department
EPA	United States Environmental Protection Agency
EQIP	Environmental Quality Incentives Program
FERC	Federal Energy Regulatory Commission
FIP	Forest Improvement Program
FOTG	NRCS Field Office Technical Guide
FSA	Farm Service Agency
FSR	Financial Status Report
FWHO	Forest and Watershed Health Office
GIS	Geographical Information System
GRP	Grassland Reserve Program
GRTS	Grant Reporting and Tracking System
GWPPS	Ground Water Pollution Prevention Section
GWQB	Groundwater Quality Bureau
HWA	State Hazardous Waste Act
HUC	Hydrologic Unit Code
IPM	Integrated Pest Management
ISC	Interstate Stream Commission
LANL	Los Alamos National Laboratory
MARP	Mining Act Reclamation Program
MASS	Monitoring, Assessment, and Standards Section
MECS	Mining Environmental Compliance Section
MOU	Memorandum of Understanding
NAWQA	National Water Quality Assessment Program
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NMAC	New Mexico Administrative Code
NMCES	New Mexico Cooperative Extension Service
NMDA	New Mexico Department of Agriculture

NMDGF	New Mexico Department of Game & Fish
NMDOT	New Mexico Department of Transportation
NMED	New Mexico Environment Department
NMFWRI	New Mexico Forest and Watershed Restoration Institute
NMMA	New Mexico Mining Act
NPDES	National Pollutant Discharge Elimination System
NPS	Nonpoint source
NRCS	Natural Resources Conservation Service
NWQI	National Water Quality Initiative
ONRW	Outstanding National Resource Water
OSE	Office of State Engineer
PCB's	Polychlorobiphenyls
PSRS	Point Source Regulation Section
QAPP	Quality Assurance Project Plan
RFP	Request for Proposal
RGIS	New Mexico Resource Geographic Information System
RLF	Revolving loan fund
RMP	Resources Management Plans
SIP	Stewardship Incentives Program
SLO	State Land Office
SRF	Clean Water State Revolving Fund
SWCD	Soil and Water Conservation District
SWQB	Surface Water Quality Bureau
TMDL	Total Maximum Daily Load
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFS	United States Forest Service
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
WAP	Wetlands Action Plan
WCF	Watershed Condition Framework
WPS	Watershed Protection Section
WQA	Water Quality Act
WQCC	Water Quality Control Commission
WQS	New Mexico Water Quality Standards
WRAP	Watershed Restoration Action Plan
WRAS	Watershed Restoration Action Strategy
WRRI	New Mexico Water Resources Research Institute

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1 Executive Summary

The majority of surface water quality problems identified in New Mexico are caused by nonpoint source (NPS) water pollution[1*]. 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 ground water. Section 319 of the Clean Water Act (CWA), 33 U.S.C. §1329, hereafter "Section 319", requires states to assess NPS pollution and develop management programs to control the sources identified. The New Mexico Nonpoint Source Management Program (NPS Management Program) is described in this 2014 NPS Management Plan.

The purpose of the NPS Management Program is to develop dynamic programs and progressive actions to prevent NPS pollutants from entering both surface water and groundwater. This program will help New Mexico meet its surface water quality standards to protect designated uses and protect groundwater quality for municipal, domestic, and agricultural uses. These goals are shared by the New Mexico Water Quality Management Program, which incorporates the NPS Management Program by reference[2].

The NPS Management Program establishes a process to develop programs and activities within watersheds that will facilitate the achievement of surface water quality standards. The NPS Management Program supports local watershed-based implementation of Total Maximum Daily Loads (TMDLs), and coordinates with other agencies that have established resource protection programs and activities. To this end, the NPS Management Program emphasizes watershed-based planning as a means of coordinating watershed restoration efforts, fostering watershed associations, and encouraging partnership among agencies, nongovernmental organizations, and the public.

Section 2 of this document provides background information for the NPS Management Program, including a summary of the laws which established the program and a brief history of how it has been implemented. Section 2 also summarizes current guidance from the U.S. Environmental Protection Agency (EPA) that affects the NPS Management Program. Current guidance[3] includes the same nine elements of watershed-based plans found in the earlier *Nonpoint Source Program and Grants Guidelines for States and Territories*[4], and anticipates that states will put the primary focus of funding from 33 U.S.C. §1329 (h), "Section 319 funding", on implementing watershed-based plans to restore impaired waters. In addition, the new *Nonpoint Source Program and Grants Guidelines for States and Territories*[3] specify several conditions under which projects may implement other watershed plans.

Section 3 provides an overall goal for the program: "to meet and maintain water quality standards and designated uses of surface water and ground water resources" in New Mexico, following watershed approaches and with substantive involvement of stakeholders. Six objectives are described: watershed planning, improving water quality, protecting water quality, education and outreach, protecting groundwater quality, and interagency cooperation. A set of

[*] Superscript numbers indicate references found in Section 8.

actions is identified for each objective, and criteria are provided by which EPA, the public, and other organizations may evaluate our progress toward these objectives.

Section 4 expands upon some of the information in Section 3 in a narrative form, and describes how different Program components interact. It explains how the New Mexico Environment Department (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 improvement projects.

In Section 5, the "problem identification process" carried out by the SWQB is described, along with priorities for planning, water quality improvement, and water quality protection. With respect to watershed-based planning, the NPS Program will focus on streams with total maximum daily loads (TMDLs) that describe water quality impairments, and on a smaller category of streams with recognized water quality problems but for which a TMDL is not required because the impairment is thought to be due to reduced flow (Category 4C streams). New Mexico has 145 stream reaches with TMDLs that describe impairments, and 11 Category 4C streams. Water quality improvement efforts funded with Section 319 funds will focus on watersheds with completed watershed-based plans. Outstanding National Resource Waters (ONRWs) and their watersheds are the highest priority for water quality protection activities, but are sufficiently protected by existing management that water quality protection activities are more often directed to other areas. The SWQB Watershed Protection Section (WPS) engages in several programmatic activities that protect water quality, including federal consistency review, CWA Section 401 certification of Section 404 (33 U.S.C. §1344) permits, and review of documents required under the New Mexico Mining Act (Sections 69-36-1 et seq., NMSA 1978).

Section 6 describes programs and agencies that may assist with implementing the NPS Program. The section is organized by agency, starting with NMED, followed by federal, other state, and then local government agencies and programs. This section conveys expectations about what may be done under programs for which other agencies are responsible.

Section 7 deals with the programmatic considerations related to quality control, administrative procedures, adaptive management, and reporting. The procedures described 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 program and the problems it is intended to address.

The appendices to the document provide more detailed information about watershed planning, priority watersheds and streams, best management practices, sources of funding for implementation, and 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 ten priority watersheds by 2018. 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.

2 Preface

2.1 The Problem of Nonpoint Source Pollution

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 (WQS), including information on sources of pollutants, is the *State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report.* The report is revised every two years, with the most recent (as of early 2014) being designated the *2012-2014 Integrated Report*[1]. The majority of water quality problems identified in New Mexico's streams, rivers, and lakes are caused by nonpoint source (NPS) water pollution. 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 ground water. From a regulatory standpoint, NPS pollution is pollution not regulated through the Clean Water Act, other than through Section 319.

NPS pollution is recognized as the main category of surface water pollution in New Mexico. Appendix B of the *2012-2014 Integrated Report* tabulates causes (*i.e*., water quality parameters) and sources of pollution, including NPS pollution. Of the approximately 7,000 assessed (mostly perennial) stream miles in New Mexico, nearly 2,500 assessed miles, or 35 %, have identified impairments where water quality does not support a designated use. Fewer than 1,000 of these miles are estimated to be impaired by permitted stormwater discharges. Just over 600 stream miles are impaired by other municipal permitted discharges, and only about 34 miles are estimated to be impaired by industrial permitted discharges. Some of these stream miles are impaired by more than one regulated discharge. By comparison, about 1,900 stream miles are estimated to be impaired by rangeland grazing, 800 miles are estimated to be impaired by loss of riparian habitat (which may have been caused by a variety of factors), an estimated 700 miles are impaired by streambank modifications or destabilization, just under 700 miles are considered impaired by on-site treatment systems, and approximately 600 miles are impaired by flow alterations from water diversions. An assessed stream may be impaired by multiple point and nonpoint sources, but impairment by NPS pollution is clearly significant in New Mexico.

While some NPS pollution is naturally occurring, and sources are not always known, the majority of NPS pollution in New Mexico's streams is attributed to (in order of prevalence) rangeland grazing, loss of riparian habitat, streambank modification or destabilization, on-site treatment systems (*e.g*., septic systems), and flow alterations from water diversions. In lakes and reservoirs, atmospheric deposition, on-site treatment systems, and legacy disposal of industrial pollutants are the most common sources of NPS pollutants. For streams, the most common water quality parameters in excess of WQS are (in order of prevalence) temperature, suspended or settleable solids (including turbidity and stream bottom sediments), nutrients, bacteria (*E. coli* or fecal coliform), and metals (primarily, aluminum). In lakes and reservoirs, the most common water quality parameters in excess of WQS are mercury in fish tissue, polychlorobiphenyls (PCB's) in fish tissue, temperature, eutrophication (nutrient impacts), and aluminum. Most of these impairments are primarily or entirely caused by NPS pollution. These impairments prevent the full attainment of designated uses of New Mexico's surface waters, including support of fish

and other aquatic life, swimming and boating, irrigation, municipal and industrial water supplies, and livestock and wildlife watering.

2.2 The Clean Water Act

The leading causes of pollution in New Mexico and in the United States overall derive from nonpoint sources. This was officially recognized by the Federal Government in 1987, when Congress passed the *Water Quality Act of 1987*, amending the *Federal Water Pollution Control Act*, commonly referred to as the Clean Water Act (CWA). Section 319 of the amended CWA required states to assess the nature and extent of water quality impairment resulting from nonpoint sources of pollution and develop management programs to control the sources identified. NPS management programs for all states began with this amendment. The New Mexico Nonpoint Source Management Program is described in this 2014 NPS Management Plan, which is an update of the 2009 NPS Management Plan.

2.3 Legal Authority

The NMED Office of the General Counsel has reviewed this document as required by 33 U.S.C. §1329 and confirmed that the State of New Mexico has legal authority to implement the program. Specifically the New Mexico Water Quality Control Commission (WQCC), 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 developing a continuing planning process". NMSA 1978, 74-6-1, *et. seq*. Pursuant to this authority the Commission has adopted a *Statewide Water Quality Management Plan and Continuing Planning Process*[2] which includes an element focused on Nonpoint source management and control as required by 40 CFR 130.6(c)(4). Further, the most recent version of this document, the *New Mexico Nonpoint Source Management Program*, approved by the Commission, is adopted by reference into the *Statewide Water Quality Management Plan and Continuing Planning Process*. Existing statutes, regulations, and water quality criteria provide New Mexico with adequate authority necessary to implement this program.

2.4 Background

Section 319(b)(1) of the CWA states, "[t]he 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 four 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 U.S.C. §1329 (b)(1). An initial management plan for abating NPS pollution in New Mexico was developed in 1988 as New Mexico's NPS Assessment Report. This document was prepared and approved in accordance with the requirements of the CWA and adopted by the WQCC. The report was revised and along with a NPS Management Plan was approved by the EPA and WQCC in 1989. Since that time, tables that outline known impairments resulting from NPS causes and sources have been updated on a biennial basis as a part of the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* of assessed surface waters.

A 1994 NPS Management Program update was designed to provide future direction and goals for the state's program. The 1994 edition contained a wider look at how NPS pollution is handled throughout New Mexico. More focus was put on best management practices (BMPs) and how they are implemented. The 1994 NPS Management Program update included additions that were required by Section 319(b)(2) of the CWA (33 U.S.C. § 1329 (b)(2)) that identified sources of funding for NPS pollution abatement, identified federal programs that implement NPS pollution controls, and a certification from the Attorney General that the State of New Mexico can lawfully implement the NPS Management Program.

In May, 1996, EPA released the *Nonpoint Source Program and Grants Guidance for Fiscal Year 1997 and Future Years*[5], a result of collaboration among federal, state, tribal, and local entities, the purpose of which was to present a streamlined framework for the implementation of state NPS programs. Several key elements that facilitate achievement of program goals and a proven track record were included in the guidance. In December 1999, an NPS Management Plan was completed, and it was approved by EPA in January 2000[6]. That document incorporated the key elements and cited the *Clean Water Action Plan, Unified Watershed Assessment, New Mexico*[7], which provided categories of watersheds upon which the NPS Management Program based its priorities. These watersheds were fourth-level watersheds with eight-digit hydrologic unit codes. The main factors used to identify twenty-one watersheds with the highest priority (Category I watersheds) were the presence of drinking water systems that utilize surface water and the presence of impaired streams recognized in the *1998-2000 State of New Mexico CWA §303(d)/§305(b) Integrated List and Report*. New Mexico's first total maximum daily loads (TMDLs) were approved by EPA in August 1999, and the 1999 NPS Management Plan largely assumed that impaired reaches identified in the *1998-2000 State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* would ultimately have TMDLs established.

The 1999 NPS Management Plan also described a planning process that was used to further prioritize areas within Category I watersheds and activities to address NPS pollution. The NPS Management Program supported this process with Section 319(h) funds made available on a competitive basis for organizations or individuals that worked to form watershed groups and produce Watershed Restoration Action Strategies (WRASs). From 2000 through 2007, approximately thirty-two WRASs were produced through this program.[†]

Availability of CWA Section 319(h) funds to support on-the-ground projects was dependent on this component. During a transitional period (2000 – 2003), some projects of an essentially on-the-ground nature were funded which included development of WRASs among the early deliverables of the projects.

The use of Section 319(h) incremental funds changed with the 2004 Request for Proposals (RFP), to address water quality problems in waters with completed TMDLs or where impairment had been recently confirmed. This resulted in more consistent geographic prioritization of projects to address specific water quality problems, in large part because most watersheds of stream segments with TMDLs were smaller than Category I watersheds. Approval of a TMDL

[†] Most WRASs and a list of watershed groups are available at www.nmenv.state.nm.us/swqb/wps.

also indicated confirmation of a water quality problem, usually with more data and always with more analysis and public review.

In October, 2003, EPA published the *Nonpoint Source Program and Grants Guidelines for States and Territories*[4] in the Federal Register that supplemented and replaced related guidance. This document is referred to as the 2004 NPS Guidelines, because they took effect in federal fiscal year 2004. Until that time, the guidance from EPA regarding WRASs was relatively informal and not tied strongly to TMDLs. The 2004 NPS Guidelines specified the expected components of watershed-based plans". EPA did not, and still does not, approve watershed-based plans, but did require that a watershed-based plan be present in order to award Section 319(h) incremental funds for water quality improvement projects. The NPS Management Program was revised in 2009 to adapt to these changes in EPA Guidance, and to document program changes since 1999[8].

In November 2012, EPA released the *Key Components of an Effective State Nonpoint Source Management Program*[9] ("Key Components"), to replace the 1996 document described above. The guidance describes eight elements that EPA regions should consider when reviewing and approving state NPS management programs, and is the main EPA guidance document used to develop this 2014 NPS Management Plan. The Key Components document primarily interprets and elaborates on requirements stated in Section 319(b) of the Clean Water Act, and includes few substantive changes relative to the 1996 document. In brief, the Key Components are: 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.

One last program development prior to this revision was the release by EPA in April 2013 of the *Nonpoint Source Program and Grants Guidelines for States and Territories*[10]. This document, hereafter referred to as the "2014 NPS Guidelines" (because it applies in federal fiscal year 2014 and later), replaced the 2004 NPS Guidelines described above. The 2014 NPS Guidelines are narrower than the *Key Components of an Effective State Nonpoint Source Management Program*, because they describe the requirements that EPA regions must follow in approving CWA Section 319 grant funding. The Key Components by contrast, describe program elements that could (and should) be funded by other programs in addition to Section 319.

The 2014 NPS Guidelines differ from the 2004 NPS Guidelines in a few significant ways. The 2014 NPS Guidelines include the same nine elements of watershed-based plans found in the 2004 NPS Guidelines, and generally require that implementation projects funded with Section 319 funds be described in watershed-based plans, but unlike the 2004 NPS Guidelines, the 2014 NPS Guidelines specify several conditions under which projects may implement acceptable alternative plans. The 2014 NPS Guidelines outline separate requirements for "NPS program funds" and "watershed project funds", and establish that a minimum of fifty percent of awarded Section 319 funds must be used for watershed projects and closely related support activities. Under the 2014 NPS Guidelines, watershed-based planning must be funded with NPS program funds. Lastly, the 2004 NPS Guidelines required that incremental funds (similar to "watershed

project funds" in the new guidelines), when used for implementation activities, be focused exclusively on water quality improvement activities, whereas the 2014 NPS Guidelines provide some flexibility to protect unimpaired waters.

3 Program Goal and Objectives

The overall, long-term goal of New Mexico's NPS Management Program is:

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

Objectives are specific, verifiable, targets or conditions selected to meet the goal of the program. The objectives explain the effect they will have on water resources in New Mexico, list activities necessary to achieve the objective, and state verification criteria (milestones) that will be used to evaluate whether objectives have been attained. The six program objectives, activities, and verification criteria are described below.

3.1 Objective 1 – Watershed-Based Planning

> ***To produce watershed-based plans that meet all nine elements identified in the* Nonpoint Source Program and Grants Guidelines for States and Territories[10]*, and acceptable alternatives to watershed-based plans, for an average of ten priority watersheds per year.***

Stakeholder-driven planning processes will be used to reach this objective because stakeholders (resource management agencies, non-profit 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. The Watershed Protection Section (WPS) intends to rely on previous planning efforts and watershed groups that have already been developed, as much as practicable, in order to utilize the investment the program developed prior to 2014.

For the purposes of this plan, priority watersheds are considered to be sixth-level watersheds (those with 12-digit hydrologic unit codes) which contain or drain directly to impaired waters, or waters in immediate danger of impact following wildfire. Impaired waters are those with established TMDLs that describe loading of pollutants which are thought to be in excess, a limited category of streams without TMDLs which are thought to be impaired by a reduction in flow rather than excess pollutants, and another limited category (with no examples in New Mexico as of early 2014) of impaired waters for which a TMDL is not required because an alternative plan is already in place. Waters in immediate danger of impact following wildfire are waters with a coldwater or cool water aquatic life designated use, in which a major wildfire with severity outside the natural range of variability for the affected forest types occurs in 2014 or later.

On-the-ground projects supported with Section 319(h) watershed project funds will be conducted only in watersheds with nine-element watershed-based plans or alternative to watershed plans.

Priority watersheds, watershed-based planning, and the review process for watershed plans envisioned in this section are described in greater detail in Section 5.

3.1.1 Activities to Achieve Objective 1

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

- Provide watershed-based plans, alternative watershed plans, Wetlands Action Plans (WAPs), and earlier WRASs in an organized web page.
- Develop a process for watershed groups and others to submit watershed-based plans (and acceptable alternative plans) for review.
- Conduct requests for proposals (RFPs) for comprehensive projects that will revise existing watershed-based plans or develop new watershed-based plans, to be funded with Section 319(h) program funds or state funds.
- Conduct smaller procurements for short-term, non-comprehensive projects that will supplement, update, or complete existing watershed plans, to be funded with Section 319(h) program funds or state funds.
- Provide technical support to stakeholder groups preparing watershed-based plans.
- Participate in post-fire response planning, to develop burned area emergency response (BAER) plans, similar post-fire plans, or project workplans, that qualify as alternatives to watershed-based plans.
- Integrate WAPs supported by the New Mexico Wetlands Program (also managed by the WPS) and watershed-based plans intended to implement NPS TMDLs.
- Encourage participation of all stakeholders, including those in other states, Indian Nations, Pueblos, and Tribes, when watersheds cross jurisdictional boundaries, in watershed planning efforts, and incorporate TMDLs or water quality standards prepared by these jurisdictions into watershed-based plans when appropriate.
- Encourage participation of all stakeholders in watershed planning efforts, including those in other states, Indian nations, pueblos, and tribes when watersheds cross jurisdictional boundaries, and incorporate TMDLs or water quality standards prepared by these jurisdictions into watershed-based plans when appropriate.

Figure 1: Elephant Butte Irrigation District staff sampling the Rio Grande at Leasburg, Summer 2010, as part of the Paso del Norte Watershed Council watershed-based planning project. Photograph by Geoffrey Smith.

3.1.2 Objective 1 Verification Milestones

- In 2014, watershed-based plans, alternative plans, WAPs, and earlier WRASs will be made available to the public in a new organized web page. The web page will also provide instructions for submitting plans.

- In 2014, at least one new watershed plan, covering three priority watersheds, will be accepted as either meeting the nine elements of watershed-based plans, or as an alternative plan suitable for implementation. This milestone is based on one watershed-based planning project in progress in 2013.

- In 2015, at least three more watershed plans, covering nine priority watersheds, will be accepted as either meeting the nine elements of watershed-based plans, or as alternative plans suitable for implementation. This milestone is based on three watershed-based planning projects in progress in 2013.

- In 2016, at least two more watershed plans, covering thirteen priority watersheds, will be accepted as either meeting the nine elements of watershed-based plans, or as alternative plans suitable for implementation. This milestone is based on two watershed-based planning projects in progress or in development in 2013.

- In 2016, 2017, and 2018, at least two existing watershed plans per year, covering at least one priority watershed each, will be supplemented, updated, or completed, and at least one such plan per year will be accepted as either meeting the nine elements of watershed-based plans, or as alternative plans suitable for implementation. This milestone is based on small watershed-based planning projects expected to begin in 2015.

- In 2018, at least one watershed plan, covering at least one priority watershed, will be accepted as either meeting the nine elements of watershed-based plans, or as an alternative plan suitable for implementation. This milestone is based on one comprehensive watershed-based planning project expected to begin in 2015.

- In any year in which a major wildfire occurs in the watershed of one or more streams with a coldwater or cool water aquatic life designated use, with severity outside the natural range of variability for the affected forest types, EPA will accept that a submitted post-fire response plan or project workplan qualifies as an alternative to a watershed-based plan.

- Watershed plans will include information from major land owners and land management agencies, and all states, Indian nations, pueblos, and tribes, within their planning areas.

3.2 Objective 2 – Addressing Water Quality Problems

> ***Effective watershed-based NPS restoration programs are implemented, using multiple funding sources, in identified priority watersheds 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 3.1.

3.2.1 Activities to Achieve Objective 2

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

- Conduct an annual request for proposals for projects that will implement projects outlined in acceptable watershed plans, to be funded with Section 319 watershed project funds.

- Conduct smaller procurements for specific, targeted projects that will implement acceptable watershed plans, to be funded with Section 319 watershed project funds.

- Develop, manage, and provide oversight of state-funded watershed and riparian restoration projects. Applicable programs are discussed in Section 6.1.2.

- Implement and integrate Wetlands Program activities as a critical component of nonpoint source pollution reduction activities supported by the SWQB.

- Work with the NMED Construction Programs Bureau and local government entities to pursue the use of the Clean Water State Revolving Fund (SRF) to address water quality problems.

- Use scientific methods and weight of evidence reporting to measure and document progress made towards achieving water quality standards.

- Participate in the State Technical Committee and any subcommittees or work groups of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). 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) which address water quality problems.

- Coordinate with Soil and Water Conservation Districts (SWCDs) and local working groups to integrate water quality initiatives into EQIP.

Figure 2: The Cerro Pelon trick tank, constructed on the Polvadera Grazing Allotment in the Española Ranger District, provides an upland water source in a non-riparian pasture, to reduce grazing pressure along Polvadera Creek (Photo by Santa Fe National Forest, Espanola Ranger District staff, summer 2012).

3.2.2 Objective 2 Verification Milestones

- Water quality conditions will be improved in two priority watersheds annually in 2014 through 2018 using the watershed approach. For the purposes of this verification item, improvement of water quality will be counted for water quality problems that were recognized in the *2002-2004 State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* of assessed waters[‡]. The actions leading to this water quality improvement likely will have been initiated in 2014 or earlier.

[‡] This verification item is intended to be consistent with the 2014-2018 EPA Strategic Plan[17] that states that "improved" means "one or more of the impairment causes identified in 2002 are removed for at least 40 percent of the impaired water bodies or impaired miles/acres, or there is significant watershed-wide improvement, as demonstrated by valid scientific information, in one or more water quality parameters associated with the impairments."

- Begin implementation of watershed restoration projects described in acceptable watershed plans to reduce nonpoint source pollutant loads within two priority watersheds per year in 2014-2018.

- Water quality improvements will be documented in each *NPS Management Program Annual Report*.

- The NMED Construction Programs Bureau will provide a summary of activities related to use of the Clean Water SRF to protect or improve water quality for each *NPS Management Program Annual Report*.

- WAPs will be implemented in at least one priority watershed per year.

- Each year, NRCS will include among material provided for the *NPS Management Program Annual Report* information about specific actions that were taken by NRCS (or agricultural producers who successfully applied for assistance from NRCS) to address TMDLs.

3.3 Objective 3 – Water Quality Protection

The quality of surface water resources is maintained 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 general 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 two permitting programs.

3.3.1 Activities to Achieve Objective 3

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

- Implement and enforce the New Mexico WQA and WQCC regulations to prevent and abate water pollution.

- In any year in which a major wildfire occurs in the watershed of one or more streams with a coldwater or cool water aquatic life designated use, with severity outside the natural range of variability for the affected forest types, reserve a portion of Section 319 watershed project funds for implementing post-fire response plans that qualify as alternatives to watershed-based plans.

- Evaluate applications for permits to discharge fill, as required under Section 404 of the CWA. Conditionally certify these activities to protect WQS, as allowed under Section 401 and under state law, *e.g.*, 20.6.2 NMAC.

- Conduct water quality reviews at active and proposed mining sites. Review Mining Act permit applications, inspect mine sites, and ensure that mining activities will not violate WQS.

- Assist federal agencies with development and selection of alternatives for proposed projects by participating in the National Environmental Policy Act (NEPA) process. Reviews prepared by SWQB staff of NEPA documents will include consistency determinations indicating whether proposed actions will be undertaken in a manner protective of water quality to the maximum extent practicable, and will provide suggested modifications to proposed actions that will increase consistency with agency policies protecting water quality.

- 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 unnaturally intense wildfire.

- Assist designated management agencies with developing procedures to ensure that proposed actions will not result in significant degradation of water quality in Outstanding National Resource Waters (ONRWs).

- Participate in the State Technical Committee and any subcommittees or work groups of the USDA NRCS to help guide EQIP, including an update of criteria used to prioritize proposed projects funded under EQIP that protect water quality.

- 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 assist with completion of water quality assessments and TMDLs.

- Review the biennial draft of the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* and associated Record of Decisions prepared by MASS with particular emphasis on watersheds WPS staff are actively working in or familiar with to ensure accuracy and completeness.

- Foster protection of wetlands through development of the Wetlands Program, including identification of wetland stressors and abatement measures for wetland resources, conducting baseline assessments, monitoring and tracking of wetland resources, integrating wetlands-specific criteria into New Mexico's WQS, and developing and implementing WAPs.

- The SWQB will maintain a statewide Geographical Information System (GIS) database of water quality (305(b) Assessed Waters, 303(d) Listed Waters, SWQB Monitoring Stations, *etc*.) and related natural resources and land use information, and provide SWQB staff, cooperating organizations, and the public with information and analysis necessary

to understand and protect water quality in their areas of interest. SWQB will use the State's most current base reference layers from New Mexico's Resource Geographic Information System (RGIS), such as National Landcover data, political boundaries, roads, and geologic units, along with data from EPA, Bureau of Land Management (BLM), NRCS, United States Forest Service (USFS), Los Alamos National Laboratory (LANL) and other cooperating agencies.

- Work with the NMED Construction Programs Bureau to pursue the use of Clean Water SRF to protect water quality.

Figure 3: An unauthorized bridge over the Rio Bonito. The BLM, NMED, United States Army Corp of Engineers, and nearby landowners cooperated to remove the bridge, using the authorities of Sections 404 and 401 of the CWA. Photo by Mike McGee, September 22 2013.

3.3.2 Objective 3 Verification Milestones

- The *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* published in 2014, 2016, and 2018 will not indicate an increase in the percentage of assessed stream miles designated as impaired.

- In any year in which a major wildfire occurs in the watershed of one or more streams with a coldwater or cool water aquatic life designated use, with severity outside the natural range of variability for the affected forest types, NMED will fund post-fire actions that

reduce sedimentation and protect aquatic habitat, with support of Section 319 watershed project funds.

- A summary of CWA Section 401 certification activity will be reported annually in the *NPS Management Program Annual Report*.
- A summary of activities related to the New Mexico Mining Act will be reported annually in the *NPS Management Program Annual Report*.
- A summary of federal consistency review development will be reported annually in the *NPS Management Program Annual Report*.
- A summary of activities related to forest restoration will be reported annually in the *NPS Management Program Annual Report*.
- A summary of significant developments related to ONRWs will be provided in the *NPS Management Program Annual Report*.
- Each year, NRCS will include among material provided for the *NPS Annual Report* information about specific actions that were taken by NRCS or agricultural producers who successfully applied for assistance from NRCS, to protect water quality.
- The biennial *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* will provide summaries of water quality survey activity, analysis, and conclusions.
- A summary of activities and accomplishments under the Wetlands Program will be provided in each *NPS Management Program Annual Report*.
- The NMED Construction Programs Bureau will provide a summary of activities related to the use of the SRF to protect or improve water quality for each *NPS Management Program Annual Report*.

3.4 Objective 4 – Education and Outreach

General public awareness of NPS pollution and water quality is increased and maintained 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.

3.4.1 Activities to Achieve Objective 4

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

- Assist the Forest and Watershed Health Program housed within the Forestry Division of the New Mexico Energy, Minerals and Natural Resources Department, (EMNRD) with building and maintaining their Virtual Library of ecological restoration programs, publications, databases, watershed groups, and educational materials.

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

- Publish *Clearing the Waters,* a quarterly newsletter detailing lessons learned of Section 319(h) projects and other NPS news. The SWQB newsletter currently informs approximately 1,600 readers of NPS related issues and activities in New Mexico.

- Directly fund small publication projects to produce brochures and booklets describing BMPs, for landowners and land management agencies.

- Support education and outreach components of watershed-based plans and alternatives to watershed-based plans, with Section 319 watershed project funding. The annual request for proposals 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.

- Provide educational opportunities for the public and private sector by coordinating with other state and federal agencies, 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 BMP implementation sites.

Figure 4: Albuquerque Wildlife Federation volunteers learn how a Zuni rock bowl was built and functions, as part of a restoration workshop in Cebolla Canyon, within the El Malpais National Conservation Area (photo April 2013 by Kristina G. Fisher).

3.4.2 Objective 4 Verification Milestones

- The Virtual Library of the Forest and Watershed Health Program (www.allaboutwatersheds.org/library) will include easily accessible, high-quality publications relevant to protecting and restoring water quality, and will become a well-known resource for that information, as indicated by an annual increase in internet hits of at least 10% between 2014 and 2018.

- Watershed groups will address water quality problems as indicated by verification items listed above in Sections 3.1.2 and 3.2.2 above, accurately drawing on information resources for which the SWQB is responsible.

- *Clearing the Waters* will be published quarterly and the circulation will increase to 2000 by 2018.

- Educational opportunities provided for the public and private sector, and completed small publication projects, will be reported in the *NPS Management Program Annual Report*.

3.5 Objective 5 – Protect Groundwater Resources

The quality of groundwater resources is maintained through the water fair and water-quality outreach program along with permitting and compliance assistance for large capacity septic tank leachfields with efforts to understand water quality and protect groundwater from NPS pollution.

In order to identify possible NPS water quality problems in rural New Mexico communities, the 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 general public and continues to provide NMED with valuable information on ground water 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 nonpoint source water quality problems. The program will also be a great outreach tool, providing a visible and much appreciated service to the community.

In addition, ground water quality will be protected from NPS pollution attributed to large capacity septic tank/leachfield systems (septic systems) with permitting and compliance assistance. Technical personnel of the GWQB 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. It is critical to make sure that the systems are operating pursuant to their Discharge Permits so that ground water quality is monitored and, if contamination is detected, corrective action can be triggered.

3.5.1 Activities to Achieve Objective 5

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

- The water fair and water-quality outreach program 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:
  - Free testing of water samples from private domestic wells for nitrate, iron, sulfate, fluoride, conductivity, and pH using portable analytical equipment; and
  - Educational outreach activities on water quality issues that will be carried out through informative brochures, displays and individual contact with NMED staff.

- The GWQB will devote portions of staff time to permitting and compliance assistance activities for large capacity septic systems. Activities include, but are not limited to the list provided below.
  - 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; and
- Creating and distributing outreach materials to assist permit holders in understanding requirements.

3.5.2 Verification of Objective 5

- The GWQB will report to EPA-Region 6 in the Semi-Annual Report summarizing GWQB activities conducted under the CWA Section 319 grant for the New Mexico Water Fair and Water Quality Outreach Program and Permitting and Compliance for Large-capacity Septic Tank Leachfields.

3.6 Objective 6 – Interagency Cooperation

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

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 Indian Nations, Pueblos, and Tribes 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 U.S.C.§ 1701, *et. seq.*, to comply with federal and State water pollution control laws. Additionally, the 2014 Farm Bill includes significant provisions to protect and improve water quality. 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.

3.6.1 Activities that Achieve Objective 6

- Revisit, renew, or maintain existing agreements with the USFS Southwestern Region, BLM New Mexico State Office, and United States Department of Energy (DOE).

- Assist New Mexico Department of Transportation (NMDOT) and the United States Army Corps of Engineers (USACE) in developing an Advance Permittee-Responsible Mitigation (APRM) Program. APRM programs enable organizations such as NMDOT, which frequently must apply for Section 404 permit coverage, and which sometimes cannot avoid impacts to wetlands, to produce higher quality mitigation projects, streamline the permitting process, expedite project completion, and reduce mitigation costs.

- Coordinate two statewide New Mexico Wetlands Roundtables, for agencies and nongovernmental organizations. These groups will each meet two times a year and work

together to improve wetlands resources in New Mexico. Tasks of the Roundtable will include making wetlands regulations more effective, improving wetlands restoration and mitigation, and developing wetlands monitoring and assessment and an integrated statewide database.

- Participate in the State Technical Committee and any subcommittees or work groups of the NRCS to help guide conservation programs that include water quality improvement or protection among objectives.

- 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), and the Forest and Watershed Health Plan (Coordinated by the Forestry Division of EMNRD). The aim of this participation will be to communicate applicable regulations and information generated by SWQB programs, and encourage related programs to protect and restore water quality.

- Publish the New Mexico *NPS Management Program Annual Report*. Annual input from cooperating agencies will be sought to update programs and tasks.

- Revise the NPS Management Program in coordination with implementing agencies and organizations.

3.6.2 Objective 6 Verification Milestones

- The Memorandum of Understanding (MOU) between NMED and the Southwestern Region of the USFS, scheduled to expire in 2017, will be renewed.

- The MOU between NMED and the BLM New Mexico State Office, which does not have a termination date, will be reviewed and revised if appropriate, and implemented. The resulting activities will be reported in the *NPS Annual Report*.

- The grant from the DOE that currently supports the work of the DOE Oversight Bureau will be re-issued in 2018.

- In 2015, USACE will approve a programmatic agreement with NMDOT to establish the framework for an APRM program.

- The summary of activities and accomplishments under the Wetlands Program provided in each *NPS Management Program Annual Report* will include a description of the Wetlands Roundtable meetings.

- For each year starting in 2014 and through 2018, NRCS will report that agricultural BMPs funded under the National Water Quality Initiative or other conservation programs have been implemented during the year, and will provide sufficient details to enable WPS staff to estimate pollutant load reductions for water quality impairments identified by the State.

- Statewide planning efforts related to water resources will give serious consideration to water quality protection and restoration, and convey accurate summaries of information generated by SWQB programs.

- The *NPS Management Program Annual Report* will be submitted to EPA by January 31, and will be made available to the public in early February, each year.

- A revised plan describing the New Mexico NPS Management Program will be submitted by the Governor of New Mexico or by the Governor's designee, to the EPA Regional Administrator, in 2018. The plan will reflect input and review by implementing agencies and organizations.

3.7 Summary

The majority of activities identified above are programmatic and do not occur on set schedules, but are ongoing. For example, an activity that supports Objective 3 (Water Quality Protection) is to "evaluate applications for permits to discharge fill, as required under Section 404 of the CWA," and "conditionally certify these activities to protect WQS, as allowed under Section 401." There is no set schedule or quota for this activity, other than to report a summary of CWA Section 401 certification activity (annually) in the *NPS Management Program Annual Report*.

A few key activities are described above in terms of a schedule, and are listed in the table below for clarity. These activities and milestones are relatively critical aspects of the NPS Management Program and are specifically required of state NPS management programs by Sections 319(b)(2) (State Management Programs – Specific Contents) and Section 319(h)(11) (Reporting and Other Requirements) of the Clean Water Act.

Table: NPS Management Program Milestones on a Schedule

Objective number	Objective Short Name	Milestone (abbreviated)	Schedule
1	Watershed Based Planning	WBPs and related documents are available in an organized web page, which will also provide a WBP submittal process.	2014
1	Watershed Based Planning	A small procurement process is developed to update existing watershed plans.	2015
1	Watershed Based Planning	New watershed plans meet all nine planning elements, or are accepted by EPA as alternative plans.	2014: 1 plan, 3 watersheds. 2015: 3 additional plans, 9 additional watersheds. 2016: 2 additional plans, 13 additional watersheds. 2018: 1 additional plan, 1 additional watershed.
1	Watershed Based Planning	Existing watershed-based plans are updated.	2016, 2017, and 2018: 2 plans each year are updated, one plan each year is accepted by EPA.

Objective number	Objective Short Name	Milestone (abbreviated)	Schedule
2	Addressing Water Quality Problems	Watershed restoration projects described in watershed-based plans or accepted alternative plans are initiated in two priority watersheds per year.	2 watersheds per year, 2014 through 2018.
2	Addressing Water Quality Problems	Wetlands Action Plans are implemented in at least one priority watershed per year.	1 watershed per year, 2014 through 2018.
2	Addressing Water Quality Problems	Improve water quality in priority watersheds, meeting EPA performance measures.	2 watersheds annually, 2014 through 2018.
3	Water Quality Protection	NMED will fund post-fire actions that reduce sedimentation and protect aquatic habitat.	Any year in which a major and unnaturally intense wildfire occurs in the watershed of a cold or cool water stream.
3	Water Quality Protection	The *CWA §303(d)/§305(b) Integrated Report* does not indicate an increase in the percentage of assessed stream miles designated as impaired.	The Integrated Report is scheduled for completion in 2014, 2016, and 2018.
4	Education and Outreach	*Clearing the Waters* is published quarterly.	Quarterly
4	Education and Outreach	*Clearing the Waters* circulation increases to 2000 by 2018.	2018
4	Education and Outreach	The Forest and Watershed Health Program Virtual Library experiences an annual increase in internet hits of at least 10% between 2014 and 2018.	Annually
6	Interagency Cooperation	NRCS reports that agricultural BMPs funded under NWQI or other conservation programs have been implemented, with sufficient details to enable WPS to estimate pollutant load reductions.	Annually
6	Interagency Cooperation	The *NPS Management Program Annual Report* is submitted to EPA by January 31 and made available to the public in February.	Annually
6	Interagency Cooperation	USACE approves a programmatic agreement with NMDOT to establish the framework for an APRM program.	2015

Objective number	Objective Short Name	Milestone (abbreviated)	Schedule
6	Interagency Cooperation	The MOU between NMED and USFS is renewed.	2017
6	Interagency Cooperation	The grant from DOE that supports the work of the DOE Oversight Bureau is re-issued.	2018
6	Interagency Cooperation	A revised NPS Management Plan is submitted to the EPA Regional Administrator.	2018

4 Balanced Approach to Nonpoint Source Pollution Control

The NPS Management Program's ultimate goal is to manage a balanced program that addresses both existing water quality problems and prevents future impairments. This plan provides direction and describes activities aimed at specific priority watersheds and statewide initiatives. The plan promotes water quality protection and improvement by outlining activities for SWQB staff and partner organizations that will accomplish watershed-based planning, implementation of watershed-based plans under a variety of programs and funding sources, and through oversight, inspection, enforcement, and public education and outreach activities.

Activities of a state-wide nature include:

- Coordinating with Indian nations, pueblos, tribes, and federal land management agencies such as the BLM and the USFS, regarding actions that regulate and affect water quality.
- Assisting other water quality oriented federal, state, and tribal programs (including funding programs) with improving consistency with goals and objectives of the NPS Management Program.
- Coordinating Section 319(h) funded projects with other agency and Tribal programs, using watershed priority information outlined in Section 5, to steer project development and implementation, and obtain the best use of funding on a watershed scale.
- Participating in education activities on a statewide basis (including on the lands of Indian Nations, Pueblos, and Tribes) to generate greater awareness of nonpoint source (NPS) pollution problems and solutions, and to provide guidance for restoration of impaired surface water and ground water resources.

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

4.1 Beyond Implementation of Section 319(h) Funded Activities and Projects

The NPS Management Program contains permanent program tasks and features beyond the annual implementation of Section 319(h) funded projects. These activities are tracked and reported in the *NPS Management Program Annual Report*, and include the following continuing programs and tasks:

- Outreach to schools and groups.
- Development and implementation of the Wetlands Program.
- Development and implementation of state funded watershed and riparian restoration projects.
- Participation in watershed groups to provide direction and target water quality problems.

- Consistency reviews of federal, State, and local projects.
- Oversight of CWA Section 404 permitted activities under the authority of Section 401.
- Training, technical assistance, and educational opportunities provided for the public and private sector.
- Cooperation with management agencies through agreements outlined in MOUs and other agreements.
- Quarterly publication of the NPS Management Program 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.
- Assist with the development of NPS TMDLs.
- Watershed-based planning and implementation utilizing a variety of funding programs.

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

Section 319(h) watershed project funds are directed primarily towards projects in priority watersheds where an anticipated reduction of pollutant loading is estimated prior to implementation. By directing these funds towards impaired waters with TMDLs (as described in Section 5.2), the NPS Management Program utilizes other portions of the CWA for problem characterization and goal-setting, and progress may be tracked in terms of water quality improvement and standards attainment.

Protection of water quality is also a key aspect of the NPS Management Program. Planning efforts supported with Section 319 NPS program funds will often focus on TMDL implementation and meeting watershed-based planning elements in the 2014 NPS Guidelines, but may also identify appropriate actions to protect water quality where water quality standards are met. A portion of watershed project Section 319 funds will be used to support projects that protect water quality following unnaturally intense wildfire. These projects will be developed through rapid planning processes, and will be conducted in watersheds with one or more streams with a coldwater or cool water aquatic life designated use, where a major wildfire has occurred with severity outside the natural range of variability for the affected forest types.

The watersheds with the highest priority for water quality protection are those containing ONRWs which in New Mexico are under USFS management. These waters are generally well-protected by Wilderness Act designation, in the case of Wilderness Area ONRWs, or other legal protection, in the case of the Valle Vidal ONRWs. The SWQB and WQCC 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 WQS, and in a MOU between NMED and the Southwestern Region of the USFS.

The watershed planning process uses an integrated approach for assessment, protection and remediation that links natural resource programs. Watershed-based 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 6.2 through 6.4). 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 providing information which is collected and summarized in a watershed-based plan, the watershed planning process also encourages partnerships. Participating organizations and stakeholders build the necessary knowledge and relationships to effectively utilize a variety of programs.

The contributions of other State and federal programs towards implementing the NPS Management Program are summarized in the *NPS Management Program Annual Report* and the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report*.

5 Priorities for Nonpoint Source Pollution Control

5.1 Assessment Process Overview

New Mexico WQS development, water quality surveys, assessment, and TMDL development are led by the MASS staff of the SWQB with significant assistance provided by WPS staff. Each of these components of the New Mexico Water Quality Management Program includes a public participation component, including public meetings or hearings (on WQS development, water quality surveys, and TMDLs) and formal public comment periods (on WQS development, assessment, and TMDLs).

Rotating, intensive, watershed surveys are used to identify water quality problems and associated data needs. Under this type of survey the state is divided into eight watersheds or groups of watersheds, and one area per year is intensively monitored, depending on staff and financial resources. This eight-year survey cycle identifies waterbodies where water quality problems exist, serves to prioritize and re-direct the water quality monitoring program, 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 discharge or to provide information necessary to calculate water quality based effluent limits. The surveys planned in 2013 through 2020 are depicted in Figure 6.

Through 2012, the State of New Mexico used fixed station monitoring at locations around the state to supplement the rotational, intensive, watershed survey data with long-term, continuous water quality data and help determine water quality trends throughout the state. These fixed stations were accomplished through a partnership between New Mexico and the United States Geological Survey (USGS), and monitored water quality at 33 stations at representative points on the state's major stream systems, as well as on various perennial tributaries. While no longer maintained due to a lack of funding, these fixed stations provided long-term data to determine spatial and temporal variation of water quality parameters of interest and provided a baseline for the rotational, intensive, watershed surveys. With the loss of these fixed stations, NMED is in the process of acquiring monitoring devices, as funding allows, to deploy around the state on a temporary basis to collect continuous, extended duration (e.g. several months) water quality data.

Additional short-term targeted monitoring designs are employed as the need arises to address special concerns such as citizen complaints, fish kills, or illegal dumping.

All collected data 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). All data available that are considered to be of good quality are assessed to determine designated use attainment status by using the assessment protocols described in the *Procedures for Assessing Water Quality Standards Attainment for the State of New Mexico CWA §303(d) /§305(b) Integrated Report: Assessment Protocol*[14]. All assessment units, *i.e.*, water bodies, in the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* identified under reporting categories 4 or 5 are impaired for one or more parameters.

Impairments identified through this process may originate from a combination of point- and non-point sources. The NPS component is the largest or only component in many New Mexico watersheds. The subsequently developed TMDLs determine the maximum amount of a pollutant that can enter a waterbody without causing impairment and estimate the amounts of loading (current and a desired maximum) contributed by point and nonpoint sources.

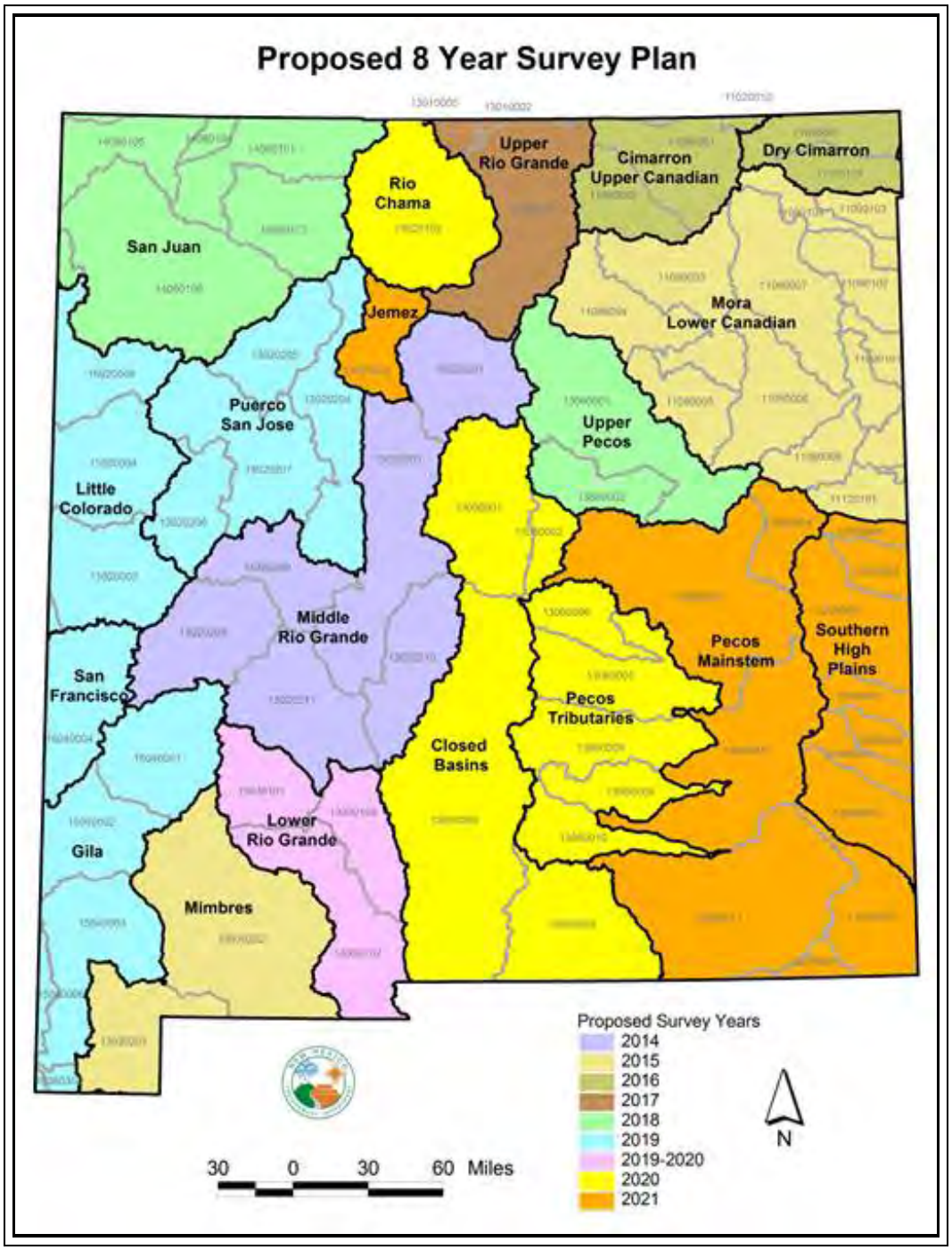

Figure 5: Surface Water Quality Bureau proposed eight-year water quality survey plan (from Surface Water Quality Bureau from staff records).

5.2 Priorities for Watershed-Based Planning

The nine elements of watershed-based plans and information on acceptable alternative plans are provided in Appendix A. Identification of priority watersheds for watershed-based 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, and as an aid to measuring progress. The basis for identifying priority watersheds for watershed-based planning in New Mexico is the TMDL program. TMDL writers look closely at existing data to confirm impairment, collect supplemental data as needed to characterize loading, and publish analyses using a public process. These final documents include estimates of load reductions required for a stream to meet the New Mexico WQS. 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 rather establish an overall load reduction goal. Despite this analytical gap, all impaired waters with TMDLs in New Mexico have NPS load allocations as part of their TMDLs. Further, watershed-based planning, which builds on the basic analysis provided with TMDLs and in essence provides implementation plans for TMDLs, can and should include accounting of both point and nonpoint sources. In the event that an assessment unit (i.e., water body) 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. Assessment units with approved TMDLs for all impairment parameters are identified as Category 4A waters on the Integrated List.

From the standpoint of protecting designated uses, another limited category of streams recognized in the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* are those streams where available information indicates that at least one designated use is 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). Addressing water quality issues in these streams was a newly identified priority in the 2009 NPS Management Plan, and in early 2014 appeared to be a growing legal concern, although no specific progress was made on these streams before 2014. Watersheds with Category 4C streams are retained as priority watersheds for watershed-based planning in this 2014 NPS Management Plan.

In addition, states propose assigning impaired waters to Category 4B where controls sufficient to achieve water quality standards in a reasonable period of time are available and in place. These proposals are part of the draft *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* process, and as such include public comment, and both WQCC and EPA approval. EPA does not require that controls relied on for Category 4B demonstrations occur pursuant to binding legal authority[11]. A watershed-based plan accepted by EPA may qualify a water body for placement in Category 4B, provided the plan addresses the six Category 4B elements outlined in the 2006 Integrated Report guidance[12]. For an example of this scenario, see Texas's Plum Creek Watershed Protection Plan[13], which EPA accepted as a watershed-based plan, and which enabled EPA to approve the Texas Integrated Report with Plum Creek in Category 4B. New Mexico does not currently have any Category 4B streams, but NMED has been approached by stakeholders requesting that NMED develop procedures for designating and working to improve Category 4B streams. Per the SWQB's Assessment Protocols[14], such designations may be proposed by stakeholders[§]. SWQB must be in general agreement with the proposal to include it in the draft Integrated List. As with any watershed-based plan, a plan for a Category 4B stream requires

[§] Appendix H in the 2014 SWQB Assessment Protocols describes a procedure for third parties to propose Category 4B designation.

periodic updates and revisions. As such, watersheds of Category 4B streams (if any are designated) will be included among priority watersheds for watershed-based planning. It is anticipated that minor technical revisions and updates described in Section 5.2.2 below will be sufficient for maintaining watershed-based plans for Category 4B streams.

USGS, NRCS, and EPA, working together as the Subcommittee on Spatial Water Data, have developed a watershed delineation system called the Watershed Boundary Dataset, used by many organizations across the United States for watershed-based planning and analysis[15]. The Watershed Boundary Dataset provides a system of nested hydrologic units in which the smallest units are sometimes referred to as sixth level, and are identified with twelve digits (and usually by name as well)[16]. This watershed delineation is meaningful for planning, implementing, and tracking watershed restoration and protection activities. There are 3,234 of these watersheds at least partly in New Mexico, with an average area near 38 square miles. TMDLs that describe impairments are established for 145 stream segments, and an additional eleven Category 4C stream segments are recognized in the *2012-2014 Integrated Report*. There are approximately 452 12-digit watersheds which contain or drain directly to these 156 streams, and are the priority watersheds for watershed-based planning. These streams and watersheds are depicted in Figure 6, and are further identified in Appendix B.

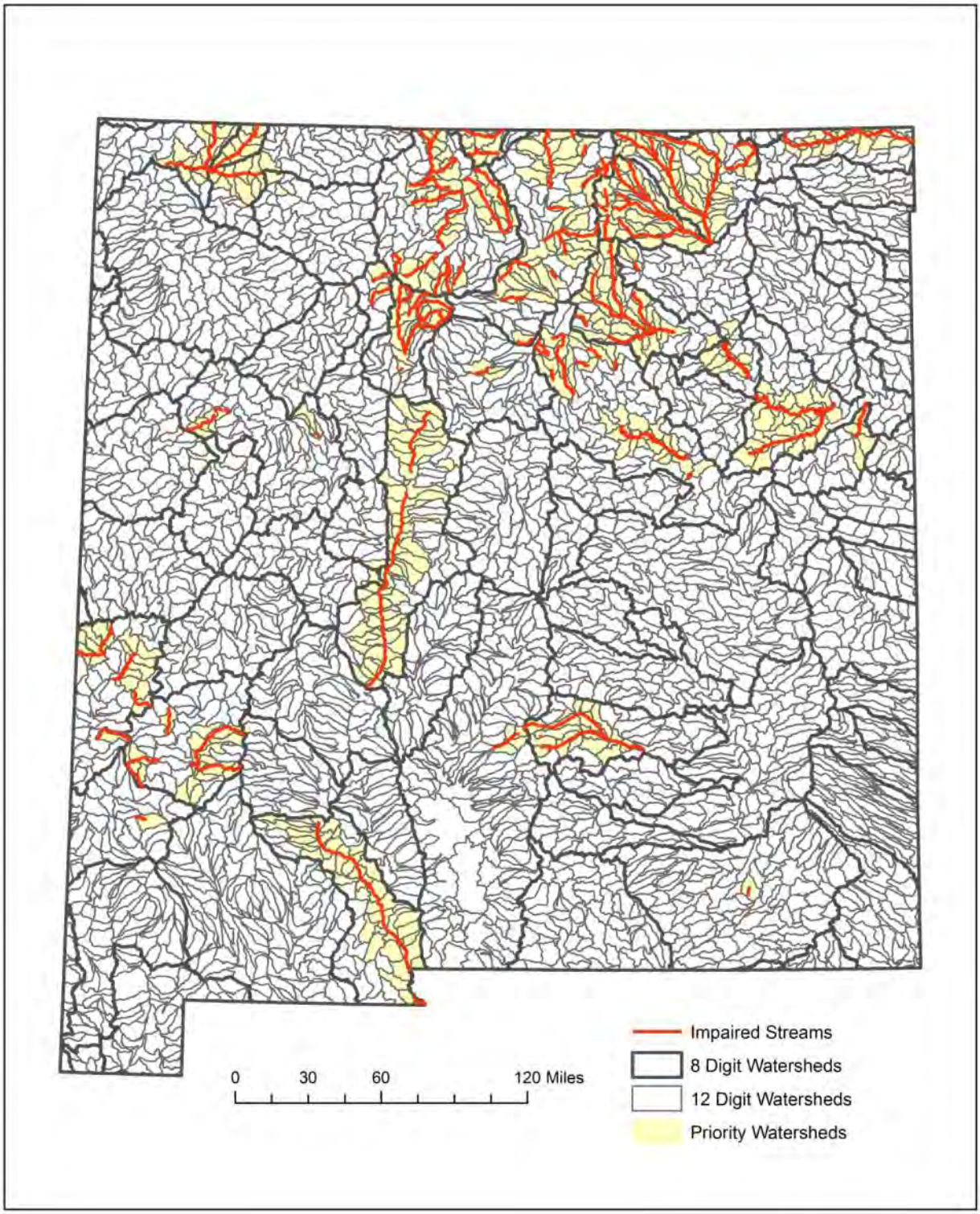

Figure 6: Priority streams and watersheds for watershed-based planning.

The list of priority watersheds and impaired waters in Appendix B is subject to change as the status of waters in the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* are changed from impaired to unimpaired, and as new TMDLs are completed for impaired waters. The dynamic nature of the Integrated Report and TMDL status of different streams makes tracking progress difficult. Streams or watersheds may be removed from, or added to, priority lists because water quality actually changed, because of changing water quality standards or assessment protocols, or because new information is available for streams that were not previously as well characterized. To remove these effects, and provide a baseline for water quality, EPA uses water quality impairments recognized in 2002 for some of their strategic planning performance measures[17].

The NPS Management Program does not limit use of Section 319 funds for implementation to waters listed as impaired in 2002 because assessment methodologies employed by SWQB improved after 2002. For example, the SWQB began systematically deploying thermographs around 2002 and applying an improved weight-of-evidence assessment protocol for plant nutrients starting in about 2003. The SWQB also obtained equipment for in-house or mobile *E. coli* analyses in 2004. For these reasons, there are many newly recognized (appearing in the *2004-2006 Integrated Report* or later) temperature, *E. coli,* and nutrient impairments. The quantity and quality of data used to perform assessments has also increased. On the other hand, water quality problems recognized in 2002, or earlier, and confirmed with newer data, are likely to be persistent and for that reason do warrant increased priority. To address these streams and increase the likelihood of meeting EPA's performance measures, proposals received under the RFP process that address water quality problems recognized in 2002 or earlier, will favor those proposals by allocating extra points during the evaluation process.

5.2.1 Comprehensive Watershed-Based Planning Projects

In 2009 through 2013, watersheds were selected for watershed-based plan development through a competitive RFP process. The resulting projects were relatively comprehensive multi-year planning efforts, some of which are still in progress in 2014. In 2014 and continuing through 2018, additional watersheds will be selected for development of comprehensive watershed-based plans, but at a lower rate than in 2009-2014, as specified in Section 3.1.2 above. As in the period 2009 through 2013, these watersheds will be selected through a competitive RFP process that favors projects that will result in watershed-based plans that can be accepted as such by EPA. The list of watersheds eligible under the RFP may be limited to ensure geographic representation in regions with no complete watershed based-plans. These projects will be funded with Section 319 NPS program funds or with state funds if state funds are made available for this purpose.

5.2.2 Strategic Revision of Watershed-Based Plans

Minor technical revisions and updates of existing watershed-based plans that have been accepted by EPA will be included as components of implementation projects funded with Section 319 watershed project funds. EPA permits this limited use of Section 319 watershed project funds for planning, but in these instances, "watershed project funds may not be used to conduct other planning work related to the watershed-based plans including more general updates to the plan,

soliciting public comment, etc."[10]. Addition of planning tasks to 319-funded implementation projects will be subject to review and approval by EPA.

Existing watershed-based plans lacking specific elements that are currently required will be revised and updated in 2014-2018, through small procurements for technical services such as water quality modeling. The WPS staff will conduct some of these activities without the assistance of a contractor, *e.g.,* in-house, and in cooperation with stakeholders. These small projects and staff activities will be funded primarily with Section 319 NPS program funds. Small watershed-based planning projects may also be funded with CWA Section 604(b) funds. The priorities for 604(b) funds are standards development or revision, *e.g.,* use attainability analyses and watershed-based planning related to permitted discharges, and these priorities receive more consideration, but watershed-based planning to solve NPS pollution problems is also eligible.

5.2.3 Alternatives to Watershed-Based Plans

EPA's *Nonpoint Source Program and Grants Guidelines for States and Territories*[10] recognize that watershed-based plans are not always necessary to successfully improve or protect water quality. The *Guidelines* describe four circumstances under which EPA may approve expenditure of Section 319 watershed project funds without a watershed-based plan. In these circumstances, the project work must be described in an "acceptable alternative plan", and EPA reserves the right to review and approve such plans. The New Mexico NPS Management Program will pursue development and implementation of acceptable alternatives to watershed-based plans under each of the four circumstances described below:

1) When water quality impairment is not due to excessive pollutant loading, but is instead caused by reduced flow or hydrologic alteration, and such impairment has been recognized by the state in the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* (i.e., through placement in Category 4C), then comprehensive watershed-based planning projects described in Section 5.2.1 (above) may develop plans that EPA will accept as meeting the requirements for acceptable alternatives to watershed-based plans.

2) When responding to a NPS pollution emergency or urgent NPS public health risk, EPA recognizes that the nine-element watershed-based planning approach is not applicable. In any year (starting in 2014) in which a major wildfire occurs in the watershed of one or more streams with a coldwater or cool water aquatic life designated use, with severity outside the natural range of variability for the affected forest types, WPS staff will participate in post-fire response planning. The objective of this activity will be to develop burned area emergency response (BAER) plans, similar post-fire plans, or project workplans, which may qualify as acceptable alternatives to watershed-based plans.

3) For the protection of assessed unimpaired or high quality waters a nine-element watershed-based plan is generally not warranted. In cases where a watershed-based plan was developed to address a water quality problem, and the stream is subsequently delisted for the impairment parameter, implementation of the existing watershed-based plan may protect water quality to maintain water quality standards. Because one management measure may mitigate multiple

pollutants, implementation of the existing watershed-based plan may also help address remaining impairments. Selection of such projects will be via the same competitive RFP process used to support implementation of more current watershed-based plans. Such implementation projects are expected to include planning components described in Section 5.2.2, to update the watershed-based plan.

4) When addressing an isolated, small-scale water quality problem resulting from one or a few sources of pollution a nine-element watershed-based plan may not be warranted. Although NPS pollution problems are sometimes quite obvious, this provision is not intended to permit states to use Section 319 funds to address obvious pollution sources. The *Nonpoint Source Program and Grants Guidelines for States and Territories* stipulate that, "the state must provide assurance that the proposed watershed project will fully address the water quality problem within one grant period." As obvious as a pollution problem may be, it is unlikely to be the only pollution problem in the watershed. EPA encourages watershed-based planning, to increase the likelihood that projects are prioritized and selected based on watershed scale analysis, and to prevent smaller problems from being dealt with in a piecemeal fashion. If such problems are brought to the attention of WPS staff, development of conventional (but simple) nine-element watershed-based plans will be pursued as described in the sections above.

State and EPA approved Integrated Reporting (IR) Category 4B assessment units, if they do not have nine-element watershed-based plans, fall under this fourth circumstance. Category 4B demonstrations are typically designed to ensure that pollution control requirements and activities are on a trajectory to achieve an applicable water quality standard for a particular pollutant in a stream rather than for a group of pollutants. Assessment units in Category 4B do not require TMDL development. The six Category 4B elements outlined in the 2006 IR guidance[12] and the nine elements of watershed-based plans are similar. Although Category 4B demonstrations are typically stand-alone documents for a particular pollutant-assessment unit pair, the control strategies described and envisioned will usually result in improved water quality for other parameters that move similarly through the environment. For example, a Category 4B demonstration to address a particular storm-driven heavy metal is likely to also help address other storm-driven heavy metals.

5.2.4 Submittal and Review of Watershed-Based Plans

Sections 5.2.1 through 5.2.3 above describe how WPS will support watershed-based planning, directly through staff activities, through small procurements for technical services, and through major procurements for comprehensive planning projects. WPS will submit draft watershed-based plans and alternative plans to EPA for review. EPA review, and time for revision in response to EPA review, will be included in the workplans for planning projects. All watershed-based plans and alternative plans that have been accepted as such by EPA will be made available on a NMED web page. The same page will provide information on how stakeholders may begin watershed-based planning, and how they may submit draft watershed-based plans to NMED for review and comment prior to submitting to EPA for review.

5.3 Priorities for Addressing Water Quality Problems

Identification of priority watersheds for implementation is primarily intended as encouragement for implementers to select project areas that increase the likelihood of producing measurable improvements in water quality, and as an aid to measuring progress. Implementation projects funded with Section 319 watershed project funding will be limited to watersheds with watershed-based plans or acceptable alternatives to watershed based plans that have been accepted as such by EPA, or State- and EPA-approved Integrated Reporting (IR) Category 4B demonstrations for a specific pollutant within a specific assessment unit. These watersheds are the priority watersheds for implementation. As of early 2014, New Mexico had 24 streams in 45 12-digit watersheds with completed watershed-based plans. Generally, these plans focus on streams with TMDLs that describe water quality impairments. These watersheds are depicted in Figure 7, and are further identified in Appendix B This list of priority watersheds will grow as additional watershed-based plans are completed. There were no Category 4B streams in New Mexico in early 2014. Water quality improvement projects funded under other programs, including state-funded programs detailed in Section 6.1.2, will not be limited to these priority watersheds, but it is anticipated that watershed groups and other project proponents in those areas will utilize a variety of programs to implement their watershed-based plans, and proposals supported by watershed-based plans are expected to be stronger than proposals without a basis in planning.

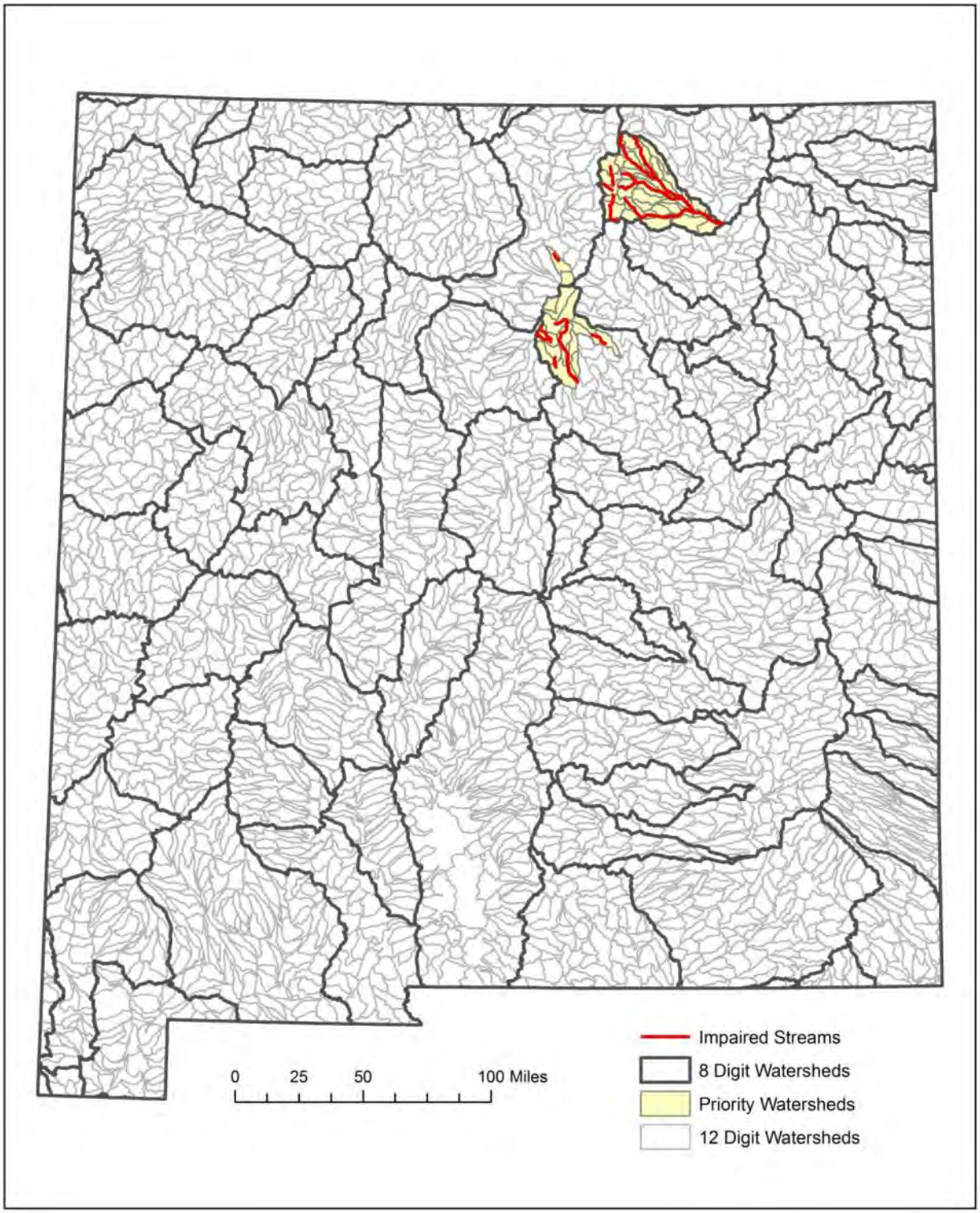

Figure 7: Watersheds with watershed-based plans. These watersheds are priority watersheds for water quality improvement projects supported with Section 319 funds.

The primary means of selecting projects for implementation with support of Section 319 watershed project funding will be through an annual RFP that will outline program priorities and eligible streams and watersheds, and request from applicants details on components of watershed-based plans or alternatives to watershed-based plans which they propose to implement. Applicants may include the same organization that prepared the watershed-based plan, or other organizations or individuals interested in implementing the plan. These efforts will be supplemented with smaller procurements for specific, targeted projects that will implement watershed-based plans or acceptable alternatives to watershed-based plans. These smaller projects will be developed 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, such as established agreements for fencing.

When the WPS conducts RFPs or smaller procurements for projects to address water quality impairments, the request will be for projects that address impaired waters (those with TMDLs or those impaired by reduced flow) rather than projects that lie within priority watersheds. The locations and other basic details of proposed projects should be identified within watershed-based plans (or acceptable alternatives to watershed-based plans). As with watershed-based planning, requests for proposals for on-the-ground projects will favor proposals that address water quality problems recognized in 2002 or earlier, by allocating points to those proposals in a scoring system.

5.4 Priorities for Water Quality Protection

5.4.1 Protection of Outstanding National Resource Waters

A significant tool for protecting water quality is the designation of ONRWs, a concept found in the EPA water quality standards regulations at 40 CFR 131.12. Since the late 1970's, the New Mexico WQS have contained antidegradation requirements to protect "high quality waters" from degradation. In 2000, the WQCC amended the WQS rules to include a statement about designating certain waters as ONRWs.

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. ONRW designation does not limit existing uses as long as these uses do not degrade water quality from levels present at the time of designation. The antidegradation provisions for ONRWs are contained in the WQS at 20.6.4.8 New Mexico Administrative Code (NMAC). Amendments to the antidegradation provisions were approved by EPA on April 11, 2013. These amendments allow for temporary and short-term ONRW degradation to occur under limited circumstances. This flexibility is intended to allow beneficial watershed protection and restoration activities that might temporarily reduce water quality.

Anyone may petition the WQCC to designate state waters under ONRW status. To assist interested parties in developing ONRW nominations, the SWQB offers an ONRW Nomination template. Parties should be familiar with the requirements in Subsections A, B and C of 20.6.4.9 NMAC and the guidelines for WQCC regulations hearings, as rule requirements and guidelines must be followed for successful petitioning of the WQCC.

The WQCC designated New Mexico's first two ONRWs under the WQS (now 20.6.4 NMAC) in 2005 and 2006. These were the Rio Santa Barbara and its forks within the Pecos Wilderness, and eighteen streams and a group of small lakes within the Valle Vidal Special Management Unit, both managed by the USFS.

The designation of the Rio Santa Barbara was proposed to the WQCC by Amigos Bravos, a Taos based environmental organization seeking a noncontroversial, relatively well-protected watershed for demonstrating ONRW designation procedures in New Mexico. The Valle Vidal designation was proposed by a broad coalition of environmental and business groups interested in protecting the water, wildlife, and fisheries of the Valle Vidal from oil and gas development.

In 2008, the Governor asked state agencies (coordinated by NMED) to pursue a much larger ONRW effort, aimed at all surface waters within New Mexico's established National Forest Wilderness and officially inventoried roadless areas in New Mexico. Ultimately, WQCC approved the statewide designation of wilderness waters (and not the inventoried roadless area waters) on December 15, 2010. EPA approved this designation on April 11, 2013. The designation includes 29 lakes, 700 miles of named perennial streams, and 4,930 acres of wetlands, and is intended to protect many of the state's headwater streams originating in high mountain forests.

The streams, lakes, and wetlands designated as ONRWs are listed in the WQS at 20.6.4.9 NMAC and also may be reviewed via the SWQB GIS mapping program at http://gis.nmenv.state.nm.us/ONRW. All of the state's ONRWs and the watersheds that drain directly to them are indicated in Figure 8. The watersheds are listed in Appendix B These watersheds are the priority watersheds for water quality protection under the NPS Management Program. Additional priority watersheds will be recognized as described in Section 5.4.2.

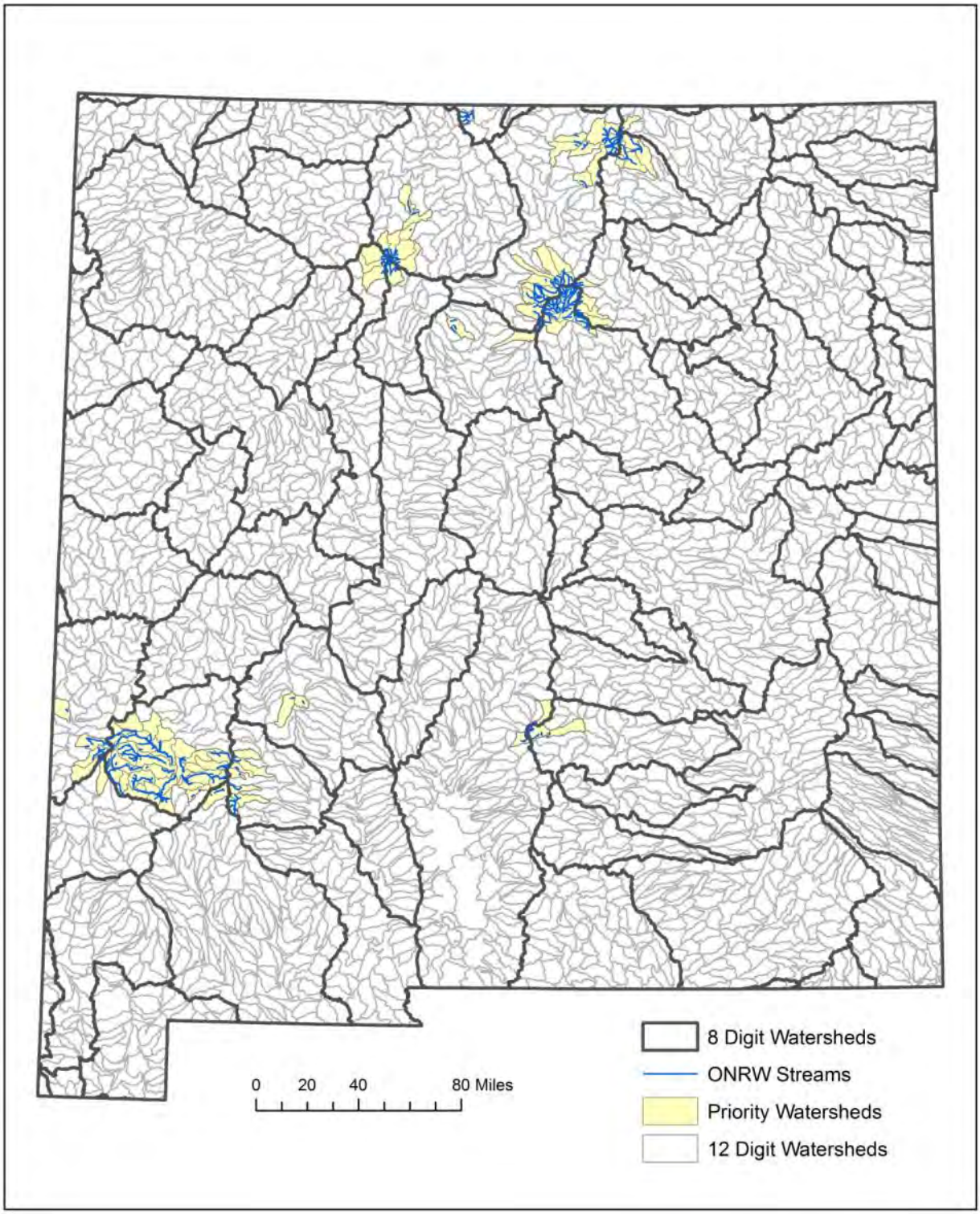

Figure 8: Priority watersheds for water quality protection. These are the 12-digit watersheds which contain or drain directly to ONRWs.

Because all of these ONRWs are located on USFS lands, coordination with USFS is essential for implementation of the antidegradation policy. USFS and NMED have developed procedures for USFS 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 monitor these potential impacts on ONRWs. NMED and USFS continue to discuss implementation of antidegradation provisions of the New Mexico Water Quality Standards, and are developing procedures to ensure that management changes, such as grazing management changes, trail realignments, or other changes in recreation management that may affect ONRWs do not lead to degradation in those waters.

5.4.2 Post-Fire Watershed Protection Activities

MASS typically does not alter the survey schedule in response to wildfires. Streams impacted by wildfire may not be monitored specifically for WQS assessment until several years after a fire. Assessment of water quality data, 303(d) listing, TMDL development, and watershed-based planning in sequence would require several more years after a fire occurs. Thus, several years may pass before the NPS Management Program can respond to wildfire impacts, through support of conventional 319-funded water quality improvement projects. In order for the NPS Management Program to be more responsive following wildfires, additional priority watersheds for water quality protection will be recognized. In any year (starting in 2014) in which a major wildfire occurs in the watershed of one or more streams with a coldwater or cool water aquatic life designated use, with severity outside the natural range of variability for the affected forest types, the affected 12-digit watersheds will be identified as priority watersheds. WPS staff will participate in post-fire response planning, to assist USFS or other stakeholders with development of BAER plans, similar post-fire plans, or project workplans that qualify as alternatives to watershed-based plans.

In years in which such a fire occurs, a portion of Section 319 watershed project funds will be used to implement these plans, to reduce the impacts to water quality from specific categories of wildfire. As detailed in Section 6.2.1 below, the USFS budget for BAER implementation is typically much larger than New Mexico's annual Section 319 budget. The focus of Section 319 funds will be on non-federal lands, and on strategically reducing (rather than eliminating) the impacts of wildfire on water quality. Supported activities may include slope stabilization and other conventional rehabilitation approaches, but also are likely to include consultation and design to assist landowners with responding to flooding and erosion while minimizing further impacts to water quality. Projects funded in these new priority watersheds are likely to have terms of up to four years.

5.4.3 Programmatic Activities

The activities listed in Section 3.3 are programmatic activities intended to protect surface water quality, implemented by NMED staff supported, partially or entirely, with Section 319 NPS program funds. Examples are: 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.*, NEPA reviews; participation in statewide natural resources

planning efforts that may affect water quality; interagency cooperation on forest restoration planning; and GIS maintenance.

Several other NPS Management Program objectives described in Section 3 are pursued through activities often intended to protect water quality. Examples include developing WAPs, education and outreach activities (listed in Section 3.4), groundwater quality protection (described in Section 3.5), and several of the interagency cooperation activities listed in Section 3.6.

WPS staff will also implement the ongoing activities described in Section 4.1 and support the use of a variety of programs (identified in Sections 6.2 through 6.4) to materially participate in water quality protection activities.

5.5 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 which make use of natural processes are more economic, because they often cost less in the short run and require less maintenance in the long run than do “harder” engineering approaches. Examples of such BMPs include protection of vegetation on banks or in riparian buffers, reconnection of channels to floodplains, restoration of 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.

6 Programs that Protect and Improve 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, and 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. More detail on these funding sources, as well as funding through private sources, is provided in Appendix D.

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 portion of the State's waters located within federal lands. An additional 12% of lands are managed directly by State agencies. 11% lies within the lands of Indian Nations, Pueblos, and Tribes, and 44% is owned or managed by local governments and private landowners.

The NPS Management Program is focused 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 land owners, operators, and management agencies.

The SWQB hopes to improve coordination and cooperation by participating in planning efforts of other agencies and through the review and updating of interagency MOUs. The SWQB also intends to make Section 319 funds available to other agencies through competitive RFPs 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.

6.1 Nonpoint Source Management Program Lead Agency - New Mexico Environment Department

The Governor of New Mexico has designated NMED as 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 ground water, and for enforcement of specific regulations as adopted by the WQCC. The Cabinet Secretary of the Department, or a designated staff member, chairs the WQCC. The present organization of NMED is summarized in Figure 9. The SWQB is the main bureau which implements CWA programs, including much of the NPS Management Program. Staff members of the GWQB, Construction Programs Bureau, Department of Energy Oversight Bureau, Environmental Health Bureau, Drinking Water Bureau, and Solid Waste Bureau are also involved in management and control of surface water and ground water NPS concerns. Intra-agency meetings, as well as informal discussions, are held on a continuous basis to provide educational opportunities, ensure coordination, and to transfer information.

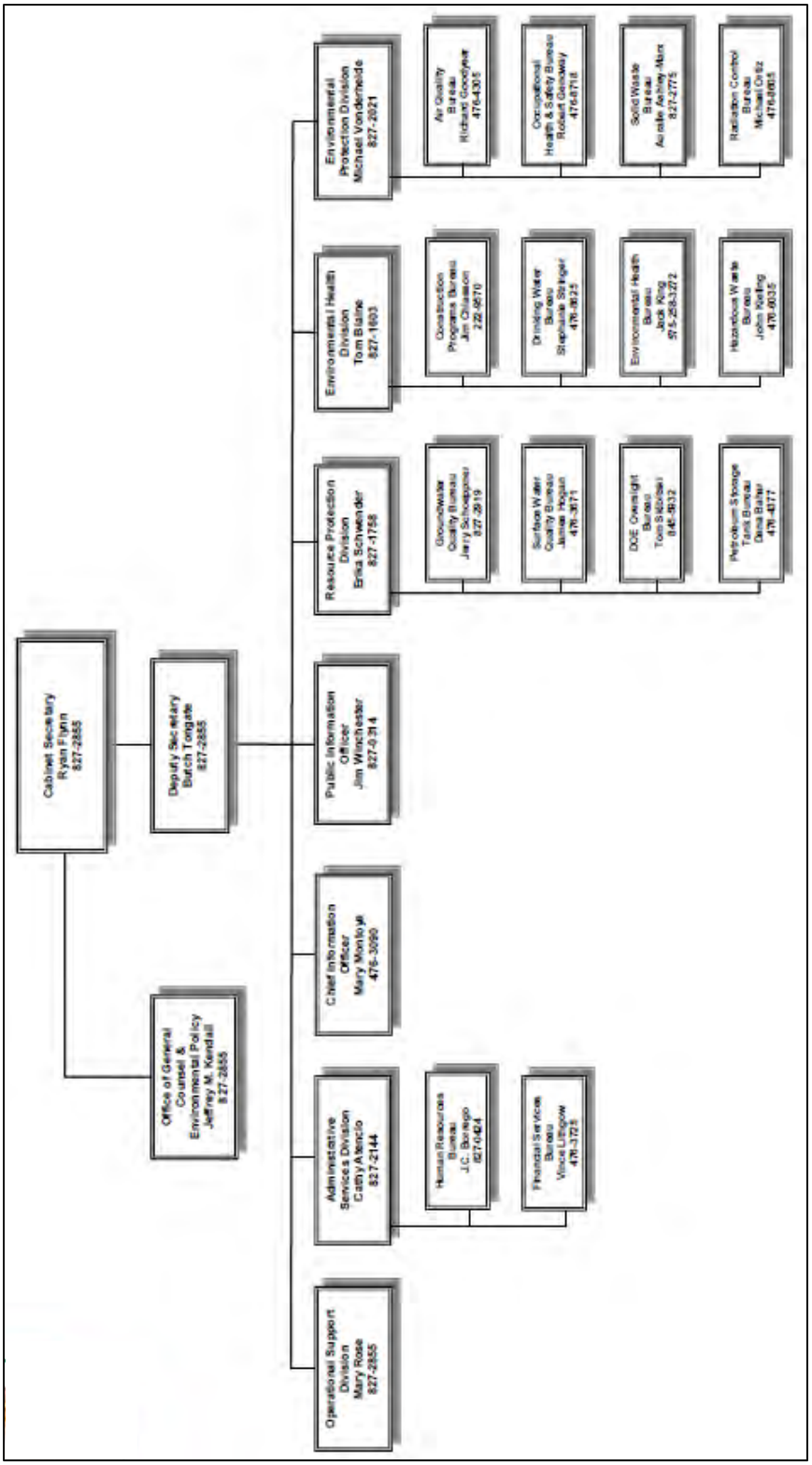

Figure 9: NMED Organizational Chart, as of February 28, 2014 (available on line at www.nmenv.state.nm.us/NMED/Org_Chart.pdf).

6.1.1 State Regulations

State regulations applicable to surface water protection under the NPS Management Program include reporting and clean-up of spills (20.6.2.1203 NMAC), and prohibiting placement of refuse in a watercourse (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 ground water quality. These include ground water discharge plans and certain underground injection control regulations under the WQA, petroleum storage tank regulations under the New Mexico Hazardous Waste Act (HWA), and hazardous waste management regulations under the HWA. 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 these regulations is not specifically addressed in the NPS Management Program because they are mainly applicable to point sources. NMED routinely uses these regulations to protect both surface water and ground water quality. Normal ongoing internal processes ensure that these regulatory programs are, and will be, coordinated with the NPS Management Program.

6.1.2 Surface Water Quality Bureau

The SWQB coordinates with other NMED programs to ensure that surface water and ground water 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 on a case-by-case basis.

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.

State Funded River Restoration Programs

In 2013, the current Governor, Susana Martinez, announced that she would call on state legislators in early 2014 to approve $1.5 million in capital outlay funding for the River Stewardship Program, a state-funded program to protect New Mexico streams and rivers. The Legislature supported the initiative, and increased the amount to $2.3 million dollars. House Bill 55 was signed into law in March, 2014. The initiative is expected to be funded annually. The language of the bill (in Section 16, paragraph 115) states, “SEVERANCE TAX BONDS...the following amounts are appropriated to the department of environment for the following purposes...115. two million three hundred thousand dollars ($2,300,000) to design and construct projects that improve surface water quality or river habitat statewide and to provide state matching funds required by the terms of any federal grant under the Clean Water Act.” The program will enhance the economic benefits of healthy river systems (such as improved opportunities to hunt, fish, and float), and improve the capacity of floodplains, where feasible, to handle overbank flows and reduce downstream flooding such as that experienced downstream of recently burned watersheds.

The River Stewardship Program will be managed by the SWQB. All of the funding will be used for projects and the costs of those projects will be used to match Section 319 funds or other Clean Water Act grants to ensure that New Mexico is able to continue receiving those federal funds. Section 319 NPS Management Program funds and other state funds will support staff in the WPS who manage the program. Projects will be selected through an RFP process following the state procurement rules. Evaluation criteria will ensure that projects are community-based and stakeholder driven and will favor projects that improve water quality, enhance fish and wildlife habitat, support local economies, and reduce downstream flood hazard. The proposal evaluation team will consist of representatives of state agencies that share common goals of natural resource management and protection. The projects will support jobs in New Mexico by primarily utilizing in-state contractors. Projects will be distributed statewide in areas prioritized through state, county or local natural resource plans, including but not limited to nine-element watershed-based plans. During the most recent legislative process, NMED senior management also presented three NPS program priorities that will be pursued through scoring preferences in the RFP evaluation. These priority areas are 1) urban waters (based on Census-defined urban areas that include many of New Mexico's smaller towns); 2) streams with recently burned watersheds; and 3) streams that are used for drinking water supplies.

NMED also has some responsibility for projects in the watershed restoration and management category funded by the State Water Project Fund, created by the Water Project Finance Act (NMSA 72-4A). 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 that recommends to the Legislature projects to be funded through the State Water Project Fund. The Water Trust Board also recommends to the Legislature funding 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 and protection among the purposes of watershed restoration and management projects, and dedicate 5-15% of funds to this category.

Some project oversight and administrative responsibilities for Water Trust Board projects are assigned to NMED. The watershed restoration and management projects may be assigned to the SWQB in the future. 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, and pending EPA review and approval may constitute a match for Section 319 funding.

Watershed Protection Section

Within SWQB, WPS coordinates and implements major portions of the NPS Management Program. Coordination allows for reporting of 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 3, 4, and 5 above), providing technical oversight of some state-funded river restoration projects, administering the New Mexico Wetlands Program, providing oversight to the USACE Section 404 permitting program through water quality certifications, and permit application reviews under the New Mexico Mining Act.

Wetlands are integral to preventing NPS pollution from impairing surface or ground water. 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 development of water quality standards for wetlands and development and implementation of appropriate monitoring methods to assess wetlands against their standards.

The State Water Quality Management Plan 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 if a proposed project will comply with applicable sections of the CWA and other provisions of State statutes. This review may result in an unconditional certification, conditional certification, or denial of certification under Section 401 of the federal CWA. The 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 the USACE.

The WPS participates in the Mining Act Reclamation Program administered by the Ground Water Quality Bureau. Pursuant to Subpart 302.G of the New Mexico Mining Act Rules (19.10.3 NMAC), SWQB is required to review permit applications and inspect the physical sites identified in the permit. 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 its National Pollutant Discharge Elimination System (NPDES) permitting program. New Mexico is one of the few states that do not directly issue NPDES permits, but PSRS meaningfully assists EPA with NPDES by conducting and maintaining a comprehensive surface water quality monitoring program for New Mexico's regulated community of industrial and municipal effluent dischargers. The PSRS also assures that point source discharges within the state comply, and are compatible, with applicable state law, WQS and the State Water Quality Management Plan. The PSRS conducts compliance inspections, provides information to the regulated community and the public, reviews federally issued NPDES permits for municipal wastewater treatment plants, electrical generating stations, fish hatcheries, mines, and other regulated entities, and provides oversight of discharging facilities.

Monitoring, Assessment, and Standards Section

The MASS utilizes an adaptive, 8-year rotational, watershed schedule for ambient water quality monitoring. The schedule establishes a timeline for conducting water quality monitoring, assessing attainment of water quality standards, developing TMDL documents, and applying water quality-based controls. Completion of TMDLs and watershed-based planning lead to on-the-ground projects, *i.e.*, BMPs to address surface water impairments in the watershed.

The water quality assessment program carried out by the SWQB, with the assistance of other agencies and bureaus, is a major component in evaluating the success of the NPS Management Program. These assessments are mandated by Section 106 of the CWA (33 U.S.C. § 1256).

6.1.3 Ground Water Quality Bureau

Ground water 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 ground water resources as mandated by the WQA and WQCC regulations (20.6.2 NMAC), and to identify, investigate and clean-up contaminated sites that pose significant risks to human health and the environment. The GWQB issues ground water pollution prevention permits; implements the Department's responsibilities under the New Mexico Mining Act, NMSA 1978, §69-36-1, *et. seq.*, to ensure that environmental issues are addressed and standards are met; oversees ground water 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 the voluntary remediation regulations. This bureau also strives to increase industry and public understanding and awareness of the importance of safe ground water supplies in sustaining the quality of life in New Mexico for this and future generations, and the importance of protecting ground water quality through pollution prevention initiatives. Two programs within the GWQB regulate facilities that have the potential to contaminate ground water : the Pollution Prevention 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 319 grant applications and work plans.

GWQB Pollution Prevention Section

The Pollution Prevention Section (GWPPS) reviews and approves ground water discharge plan applications and issues pollution prevention permits, known as "Discharge Permits," for discharges that have the potential to impact ground water quality pursuant to Subparts III and V of the WQCC regulations. Large septic systems that discharge greater than 2,000 gallons of domestic wastewater per day are regulated under this program[**].

Ground water Discharge Permits address discharges including domestic septic systems and CAFOs. The program also addresses unauthorized discharges such as spills and abatement of ground water contamination related to various permitted facilities. The discharge permitting

[**] GWQB petitioned WQCC to amend 20.6.2 NMAC to mirror and parallel recent and proposed changes to 20.7.3 NMAC, the Liquid Waste Disposal and Treatment Regulations. The Environmental Improvement Board revised the Liquid Waste Disposal and Treatment Regulations, effective September 1, 2013, and the NMED Environmental Health Bureau plans to file another petition to amend the definition of "liquid waste", to increase the maximum limit of "liquid waste" in 20.7.3.7(L)(5) NMAC from 2,000 gallons per day or less to 5,000 gallons per day or less. Correspondingly, the GWQB proposes to amend portions of 20.6.2 NMAC to remove and clarify the numerical threshold definitions of "liquid waste." Upon WQCC adoption of the proposed changes, the GWQB will regulate liquid waste from facilities receiving greater than 5,000 gallons per day instead of those have over 2,000 gallons per day. The timetable for adopting these regulatory changes has been proposed as early as July 2014 for the WQCC and August 2014 for EIB.

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. Currently the GWPPS manages approximately 506 permits for large capacity domestic waste disposal systems, including 182 for septic tanks and leachfields, and 324 for advanced treatment systems.

GWQB Mining Environmental Compliance Section

The GWQB Mining Environmental Compliance Section (MECS) conducts permitting, spill response, abatement and public participation activities listed above for mining facilities in New Mexico. The Mining Team consists of staff from other bureaus including the SWQB, who support these regulatory activities on an as-needed basis. The hard rock mines in New Mexico are responsible for significant NPS contamination of ground water and surface water from acid rock drainage. In addition, the MECS participates in the implementation of the New Mexico Mining Act by reviewing and commenting on mine permits and closeout plans, coordinating environmental protection requirements at mine sites with the Mining and Minerals Division of EMNRD, and providing determinations that environmental standards will be met after closure of New Mexico mining operations. Currently MECS manages approximately 44 active mining permits.

6.1.4 Environmental Health Division – Liquid Waste Program

NMED's Liquid Waste Program, of the Environmental Health Division (EHD), is directed at the prevention of ground water pollution resulting from individual liquid waste disposal systems-such as septic tanks. An ambitious, ongoing monitoring program, undertaken by the Liquid Waste Program, has documented serious ground water pollution from these sources in many parts of the state. The Liquid Waste Program addresses these problems through a permitting program for individual liquid waste systems discharging 2,000 gallons per day or less[††].

6.1.5 EHD Construction Programs Bureau

The EHD Construction Programs Bureau of NMED administers the Clean Water SRF program. This program is managed by the state and utilizes state and federal funding. Under the program, EPA provides grants to capitalize state loan funds. The states in turn, make zero percent or low interest loans to communities, individuals, and others 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, non-profit organizations and other groups or individuals for any activity that a state has identified in its NPS Management Program.

[††] As described in greater detail in the footnote above, Liquid Waste Program responsibility may increase to include regulation of systems discharging between 2,000 and 5,000 gallons per day.

6.1.6 Resource Protection Division- Department of Energy Oversight Bureau

The mission of the Department of Energy Oversight Bureau is to ensure that activities at DOE facilities in New Mexico are managed and controlled in a manner that is protective of public health, safety and the environment. The mission is achieved through four primary objectives:

- Assessing DOE management of its New Mexico facilities to ensure attainment of public health and environmental standards;
- Providing inputs to DOE for prioritization of its cleanup and compliance activities;
- Developing and implementing an independent monitoring and oversight program; and
- Increasing public knowledge and awareness of environmental matters at DOE facilities in New Mexico.

In order to meet these objectives, the DOE Oversight Bureau continues to develop and implement vigorous monitoring and assessment programs at LANL, Sandia National Laboratories, the Waste Isolation Pilot Plant, and areas surrounding these facilities. These programs include both joint and independent evaluations for environmental and public health protection of all media, including air, soils and sediments, groundwater, and surface water. The focus of these evaluations is on the potential contaminant levels of heavy metals, organic and inorganic compounds, and radionuclides.

This bureau's activities are funded through a grant from the DOE, in accordance with an ‘umbrella work plan.’

6.2 Federal Nonpoint Source Management Programs

6.2.1 USDA USFS (Forest Service)

- **NPS categories to be addressed: rangeland grazing, wildlife management, silviculture, recreation, construction, legacy roads and trails, resource extraction.**

The USDA USFS (also herein referred to the “Forest Service) manages approximately 9.2 million acres of land in New Mexico. These lands include approximately 3,776 miles of the state's 6,590 miles of perennial streams. Most of the stream miles on USFS land are high quality mountain streams. All of New Mexico’s ONRWs are on lands managed by the USFS. The USFS is a designated management agency for NPS control in New Mexico and 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 sediment and nutrient inputs from grazing and foraging activities, road construction and maintenance, timber harvest, and mining. Recreation impacts, largely related to sediment and litter impacts, occur in virtually all easily accessible lakes and along many accessible streams.

All land management activities on USFS lands are to be conducted in accordance with Forest Land Management Plans (Forest Plans), developed by the USFS 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 U.S.C §1600, *et. seq.*,

(NFMA) 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)[‡‡], Forest Service Technical Guide FS-990a (National Core BMP Technical Guide[§§]), and various Forest Service manuals and handbooks specific to different types of projects. Their analysis and recommendations are included in specialists' reports which accompany forest planning and decision documents.

Projects of the USFS requiring analysis under the NEPA that might affect water quality are reviewed 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, Environmental Impact Statements for forest restoration or forest fire hazard reduction projects, travel management plans that may affect the amount of use in certain areas by off-road vehicles, and Forest Plan revisions or amendments. Each national forest in New Mexico plans to complete a Forest Plan revision between 2014 and 2018. WPS staff will participate in forest planning in each forest to encourage future coordination and implementation of the NPS Management Program.

The Watershed Condition Framework (WCF) is a policy development within USFS that may be incorporated into Forest Plan objectives. WCF rates the condition of 12-digit watersheds according to several indicators that cross a range of resource concerns for which USFS has responsibility. WCF establishes performance measures in that each National Forest or Ranger District can identify the characteristics of watersheds which 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. USFS has begun developing plans called Watershed Restoration Action Plans (WRAPs) for watersheds that are targeted for improvement. WPS staff will assist USFS in developing these plans and, where applicable, will provide technical guidance to meet watershed-based planning elements such as load reduction estimates for management measures. More information on WCF (including links to WRAPs) is available at www.fs.fed.us/publications/watershed.

Of prime importance among USFS responsibilities is management of fire, including prescriptive wildland fire use, fire suppression, and rehabilitation of fire impacts to watersheds. USFS recognizes the importance of fire in New Mexico's forest ecosystems, and seeks to utilize fire or allow fire to function naturally where possible. A framework for restoring southwestern forests to withstand fire and other disturbances is described in a recent publication from the USFS Rocky Mountain Research Station[18].

[‡‡] Forest Service Handbook 1909.15 is available at www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?1909.15.
[§§] Technical Guide FS-990a is available at www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf.

In recent years, the size and intensity of forest fires has increased in New Mexico, largely in response to drought and fuel accumulations. In 2011-2013, over 800,000 acres burned on National Forests in New Mexico, over 100,000 of these acres burned with high severity, and BAER expenditures surpassed $35 million. BAER treatments included over 80,000 acres of seeding, approximately 35,000 acres of mulching, 122 miles of road work (often installation of proper drainage), stabilization or protection of over 1,200 cultural sites, hazard tree removal, and strategic channel treatments in 32 miles of streams (*e.g.*, installation of grade control structures, bank stabilization, and removal of debris near bridges and culverts), over this period. Similar post-fire rehabilitation on federal lands will continue to be critical for reducing the impacts of fire on water quality over the period covered by this plan.

6.2.2 USDA Farm Service Agency

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

The USDA Farm Service Agency (FSA) is responsible for administering the federal Conservation Reserve Program (CRP) and Conservation Reserve Enhancement Program (CREP).

The CRP encourages farmers to protect their most fragile farmland and marginal pastureland by conserving and improving soil, water, and wildlife resources. Farmers and ranchers are eligible for cost-share assistance for conservation on agricultural land to convert highly erodible and other environmentally sensitive acreage devoted to production of agricultural commodities to long term approved cover. Producers enrolled in the CRP are also offered annual rental payments and incentives for providing these conservation measures. Practices eligible for cost-share are those selected by a farmer-elected County Committee members from a list approved by state FSA Committees and the Secretary of the USDA.

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 the NRCS, each acre under CRP contract reduces erosion by an average of 19 tons of topsoil a 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.

The FSA administers the CRP while the NRCS, USFS, New Mexico State University Agricultural Extension Service, and other agencies provide technical and educational assistance.

The Farm Security and Rural Investment Act of 2002, or “2002 Farm Bill,” H.R. 2646, Pub. L. 101-171, 116 Stat. 134, included a national cap on the CRP area of 39.2 million acres. In April 2008, the total enrollment was 34.7 million acres. The 2008 Farm Bill, titled the “Food, Conservation, and Energy Act of 2008,” H.R. 2419, Pub. L. 110–234, 122 Stat. 923, authorized the CRP through fiscal year 2012, and capped program area at 32 million acres starting on Oct 1, 2009. For this reason, the CRP acres in New Mexico decreased in federal fiscal years 2010 and 2011. However, the 2008 Farm Bill explicitly recognized "addressing issues raised by state,

regional, and national conservation initiatives" with respect to management of the CRP, and the CRP does have a riparian buffer sub-program which is not subject to a cap. Currently, 7,880 acres in New Mexico are part of that program.

The CREP provides a flexible cost-effective means to address agricultural resource problems by targeting federal and state resources to specific geographic regions of particular environmental sensitivity over a 10 to 15 year period. The primary goals of the CREP are to:

- Create an opportunity where the resources of a state government and Commodity Credit Corporation can be targeted in a coordinated manner to address specific conservation and environmental objectives of that state and the nation.

- Improve water quality, erosion control, and wildlife habitat in specific geographic areas that have been adversely impacted by agricultural activities, with emphasis on addressing NPS water pollution and wildlife habitat restoration in a cost-effective manner.

USDA provides financial, educational, and technical assistance under the CREP to help producers voluntarily implement conservation practices that will enhance the environment in an economically efficient manner. Producers are eligible for cost-share assistance and annual rental payments under this program. Federal cost-share assistance for conservation practices cannot exceed 50 percent, while states and other entities may provide additional cost-share assistance or in-kind services.

The FSA also has primary responsibility for making producer eligibility determinations regarding compliance with the Food Security Act of 1985. This act requires farmers to reduce erosion on their highly erodible land that 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.

FSA shares administration of the EQIP with NRCS. EQIP provides educational, technical, and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. FSA is responsible for implementing administrative processes and procedures relating to contracting, financial performance reporting, and financial matters including allocation and program accounting. FSA also determines producer eligibility, approves contracts and contract modifications, approves contract payments and disbursement of funds, and assists NRCS with a statewide outreach program.

6.2.3 USDA Natural Resources Conservation Service

- **NPS categories to be addressed: Agriculture, Rangeland and Grazing/Wildlife Management, Recreation, Resource Extraction**

The USDA NRCS, through programs such as EQIP and the Conservation Technical Assistance (CTA), among others, provide 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 SWCDs, includes 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 on a voluntary basis by landowners and managers to affect wise land use. Cost-share funds are often available for implementation of conservation practices through both the NRCS and the FSA.

NRCS emphasizes surface water and ground water 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 data bases, computer programs, technical references, and other materials, available at www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/fotg. Other programs administered by the NRCS and provide educational and technical assistance are discussed below.

The Small Watershed Program is another federal program managed by NRCS. It works through local government sponsors and helps participants solve natural resource and economic problems on a watershed basis. 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 and financial assistance are available.

The Agricultural Act of 2014, H.R. 2642, Pub. L. 113–79, also known as the "2014 Farm Bill," passed the U.S. Congress in early 2014. In the area of conservation, and 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 subsidy 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 are still being implemented by the FSA and the NRCS through 2014. Additional information on Farm Bill programs is available at www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmbill.

The NRCS operates twenty-four (24) Plant Materials Centers around the country. The Los Lunas Plant Materials Center is located 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. Examples of current conservation priorities relating to water quality that have been addressed at the Los Lunas Plant Materials Center are testing and developing plants and planting techniques for riparian restoration, upland re-vegetation, wetland creation, and mine reclamation.

6.2.4 United States Department of the Interior, Bureau of Land Management

- **NPS categories to be addressed: Rangeland and Grazing/Wildlife Management, Resource Extraction, Recreation, and Construction**.

The BLM is a designated management agency for NPS control in New Mexico. Their 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 *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report*, and have TMDLs for the impairment parameters, or are listed as impaired under Category 4C. 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 goals is accomplished through individual activity plans that address a specific land area or watershed objectives and utilize an interdisciplinary multiple-use, sustained yield approach in their development.

Of particular state concern to New Mexico regarding NPS control on BLM lands, are development and implementation of standards and guidelines for rangelands and riparian areas. Development of grazing management to accomplish standards and guidelines on BLM land is accomplished through activity plans and site-specific NEPA analysis documents, such as Environmental Assessments, on proposed actions that establish site-specific objectives and mitigation within the general objectives of a particular RMP. The riparian area management program stresses improvement of water quality as a prime objective of the program. This is achieved by annual monitoring of riparian reaches to determine whether reaches are in proper functioning condition (PFC). 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,” a program of landscape-scale restoration efforts to restore grasslands, woodlands, and riparian areas to a healthy and productive condition. Restore New Mexico provides an opportunity for BLM to assist with meeting objectives described in Section 0.

Projects of the BLM requiring analysis under NEPA that might affect water quality are reviewed 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 resource management plans.

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

- **NPS categories to be addressed: Agriculture, rangeland grazing, wildlife management, recreation, construction.**

The 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 (*e.g.*, Environmental Contaminants, Partners for Fish and Wildlife, Wildlife and Sport Fish Restoration) 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, Indian nations, pueblos, and tribes, private organizations, corporations, schools, and others to restore and protect wildlife habitat on private or tribal lands. The USFWS focuses on projects in ecosystems and watersheds where conservation efforts will provide the greatest benefit for 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. Through cost-share agreements, up to $25,000 is available for each Partners for Fish and Wildlife Program 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 ten (10) years.

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

- **NPS categories to be addressed: Agriculture, rangeland grazing, wildlife management, recreation.**

The United States government has a unique legal and political relationship with Indian nations, pueblos, and tribes as provided by the Constitution of the United States, 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 American Indian and Alaska Natives. While the role of the BIA has changed significantly in the last three decades in response to a greater emphasis on Indian 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 assures compliance of other BIA programs with applicable environmental and cultural resource statutes.

6.2.7 U.S. Department of the Army, Corps of Engineers

- **NPS categories to be addressed: Recreation, hydromodification**

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 dredge and fill material into waters of the U.S.

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 dredge or fill materials into waters of the United States, including some wetlands and ephemeral waters. Section 401 of the CWA requires certification of compliance with state or tribal water quality standards for any discharge of dredged/fill material permitted under Section 404. For discharges to non-tribal waters in New Mexico, NMED's SWQB is responsible for the Section 401 certification process. The State Water Quality Management Plan describes SWQB responsibilities to certify CWA Section 404 permits. Current information on the USACE Albuquerque District Regulatory Program is available at: www.spa.usace.army.mil/Missions/RegulatoryProgramandPermits.aspx.

Through its civil works mission, USACE also implements ecosystem restoration projects that can directly or indirectly address water quality and NPS water pollution. The Middle Rio Grande Ecosystem Restoration project is an example of such an initiative. The project focuses on improvements to native bosque habitat, reestablishing fluvial processes to a more natural condition, and enabling scour and sediment mobilization within the Rio Grande channel. The project also restores hydrologic processes between the bosque and river by promoting overbank flows and increased groundwater recharge, while reducing the risk of catastrophic fires. The project protects, extends, and improves areas of potential habitat for listed species. There are approximately 916 acres to be restored within 26 miles of the Rio Grande valley at 18 locations.

Protecting surface water resources is also part of the USACE recreation mission. Of particular concern is the spread, through recreation 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 www.spa.usace.army.mil/Home.aspx.

6.2.8 Federal Energy Regulatory Commission

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

The Federal Energy Regulatory Commission (FERC) regulates modification of dams and waterways when modification is for hydroelectric generation. FERC permits for hydroelectric power generation include required use of BMPs during construction and operation of facilities. FERC consults with the state in development of permits and permit conditions.

6.2.9 U.S. Geological Survey

The Water Resources Division of the USGS collects data at numerous sites throughout New Mexico through the National Water Quality Assessment (NAWQA) 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 in conjunction with its TMDL development program.

The objectives of the NAWQA 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 this program include pesticides, volatile organic compounds, nutrients, 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 Water Resources Investigations for studies undertaken throughout New Mexico.

6.3 Other State Programs

6.3.1 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 the EMNRD as constituent agencies of the WQCC.

Mining and Minerals Division

- **NPS categories to be addressed: Resource Extraction.**

The Mining and Minerals Division 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. The Mining and Minerals Division 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 (MARP), which was created under the New Mexico Mining Act of 1993 to regulate hardrock mining reclamation activities for all minerals except, nonmetallic minerals used in construction and those used as sources of energy.

Forestry Division

- **NPS categories to be addressed: Silviculture, forest road construction.**

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 landowners and recommends application of NPS pollution BMPs in all silviculture activities. Types of technical assistance range from reforestation to 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 that include Forest Improvement Program and New Mexico Forest Stewardship Incentives Program (SIP). The SIP provides for the widest range of practices, such as wetlands protection, disturbed site rehabilitation, and protection or re-establishment of riparian vegetation.

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 defining what will be reserved after harvest and how steep slopes will be treated to minimize soil erosion, must be prepared. 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. An agreement between the New Mexico Forestry Division and the NRCS provides for a shared staff position to serve as the New Mexico NRCS State Forester, and the Division’s District staff serve as Technical Service Providers to NRCS Field Offices, Area Offices, and cooperators. 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 the Watershed Health and Management Subcommittee for the Office of the State Engineer's Drought Task Force.

The New Mexico Legislature significantly increased its support of forest restoration work in 2014, by authorizing the sale of $6.2M in severance tax bonds to "plan, design and construct watershed restoration improvements, including forest thinning, statewide". This legislation was signed into law in March, 2014, as part of House Bill 55.

Forest and Watershed Health Office

The New Mexico Forestry Division established the Forest and Watershed Health Office (FWHO) to facilitate and coordinate implementation of the New Mexico Forest and Watershed Health Plan (FWHP)[19]. The FWHP contains twenty recommendations for state-level actions needed to achieve ecological restoration across New Mexico's landscapes.

The FWHO coordinates with other entities to improve the efficiency and effectiveness of mutual efforts to protect and restore New Mexico's landscapes. The FWHO coordinator chairs the Coordinating Group whose members represent 20 agencies and organizations and the private sector. The Coordinating Group informs and advises the FWHO and makes recommendations to the State Forester in its role as the Watershed Management Subcommittee. The FWHO, together with other New Mexico Forestry Division staff, the Coordinating Group and its task teams implement action items recommended in the FWHP.

FWHO contributes to watershed health and water quality directly through collaborative project planning, oversight, and implementation and through grant writing to fund such projects. FWHO participates in state and regional groups and advisory bodies involved in natural resource policy, legislative analysis, grant development and proposal evaluation, outreach and education, and strategic planning that pave the way to more and better work getting done on the ground.

6.3.2 New Mexico Forest and Watershed Restoration Institute

- **NPS Categories to be addressed: Silviculture, rangeland grazing**

The New Mexico Forest and Watershed Restoration Institute (NMFWRI) was authorized by the U.S. Congress, and is funded by the USFS and the New Mexico State Legislature. It promotes, supports, and promulgates two inter-related 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 pre-commercial thinning should mimic historic patterns of clumps-and-openings. Second, it promotes re-establishing the historic fire regimes of New Mexico forests, especially the 2-7 year cycle of low-intensity fire in ponderosa pine forests. It is administratively part of New Mexico Highlands University with its office in Las Vegas. It has two sister Institutes at Colorado State University and Northern Arizona University.

The NMFWRI 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.

6.3.3 New Mexico Department of Transportation

- **NPS categories to be addressed: Road construction.**

The NMDOT is responsible for the planning, designing, construction and maintenance of New Mexico's federal and state roads and highways. BMPs to control erosion from disturbed areas and road embankments, for chemical de-icers, for herbicides used for weed control, and for other sources of NPS pollution are required for all road construction and maintenance work performed or contracted by NMDOT.

BMPs are routinely included in operational plans for construction and maintenance projects. The Design Division oversees design and implementation of BMPs. Additional controls are established under the NPDES Program (Section 402(p) of the CWA) for pollution prevention plans on all projects that disturb one 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 development of an APRM Program.

6.3.4 State Land Office

- **NPS categories to be addressed: Agriculture, Rangeland and Wildlife/Grazing Management, Road Construction, Resource Extraction, Silviculture.**

The New Mexico State Land Office (SLO) 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 SLO is required to manage the trust's assets in a manner that maximizes income to beneficiaries. At the same time, assets (renewable and non-renewable) must be protected from waste and dissipation to ensure sustainability. The SLO is not legally authorized to expend trust funds for improvement of trust land. However, Farm Service Agency funds and other funds may be expended on trust lands.

The SLO 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 the NRCS. Communications frequently occur with the approximately 4,000 grazing lessees regarding evolving range conservation practices.

The SLO has promulgated rules that stipulate BMPs designed to control sediment and other pollutants originating from construction and operation of roads. Similarly, the agency 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 SLO has the authority to cancel any lease that does not meet these conditions. SLO 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 guidance developed by the New Mexico Forestry Division.

6.3.5 New Mexico Department of Agriculture

- **NPS categories to be addressed: Agriculture.**

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

On July 1, 1997, responsibilities for New Mexico's Soil and Water Conservation Plan were transferred to the NMDA. The Agricultural Programs and Resources Division provides administrative support, program direction, planning assistance and some financial help to 48 SWCDs in New Mexico.

6.3.6 New Mexico State University

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

New Mexico Cooperative Extension Service

The 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 (http://aces.nmsu.edu/farmasyst/) contains the program's materials in an interactive format, including information about Integrated Pest Management (IPM), Nutrient Management, Pesticide Management, Animal Waste Management, and more.

New Mexico Water Resources Research Institute

The NMWRRI was established in 1963 by the New Mexico legislature and approved under the 1964 federal Water Resources Research Act. 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 key research priorities of the WRRI.

State appropriations support a substantial part of the program. Federal appropriations are provided through the Water Resources Research Act (42 U.S.C. Section 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 our water supplies, sources of water contaminants and methods of remediation, and training of research scientists, engineers, and technicians. Other important topics, such as water conservation, planning, and management, and atmosphere-surface-ground water relationships are represented in the program.

WRRI reports annually to SWQB on research related to NPS activities. In addition, NMED is represented on the Program Development and Review Board.

6.3.7 New Mexico Department of Game and Fish

- **NPS categories to be addressed: Agriculture, Road Construction, Recreation.**

The New Mexico Department of Game and Fish (NMDGF) strategic plan mandates providing information and technical guidance to hunters, anglers, non-consumptive wildlife interests, the Director and the State Game Commission, and all persons or agencies that manage lands resulting in the conservation and enhancement of wildlife habitat and recovery of indigenous species of threatened or endangered wildlife. The NMDGF collaborates with federal, state, and local agencies, tribal governments, non-governmental organizations, and private interests that manage significant land and water areas in New Mexico; to plan and implement habitat improvement projects consistent with the habitat conservation prescriptions recommended in the Comprehensive Wildlife Conservation Strategy for New Mexico (CWCS-NM). The NMDGF director, or a designated staff member, represents NMDGF as a constituent agency of the WQCC. NMDGF administers approximately 180,000 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. Administration and proper development of these properties contribute to ensuring viability of all wildlife species in New Mexico and providing for the present generation's enjoyment, appreciation, and recreational use of the state's wildlife and its habitat. NMDGF is also responsible for providing feed, through crop production on several thousand acres, for wintering populations of Central Flyway ducks, geese, and sandhill cranes in the Middle Río Grande and Lower Pecos valleys.

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.

Funding applied to NPS efforts by NMDGF comes from the Game Protection Fund (hunting and fishing license sales), the federal Wildlife and Sport Fish Restoration programs, the federal State Wildlife Grant program, and the NMDGF Habitat Stamp program.

NMDGF also administers several wildlife education programs, including Aquatic Resources Education, Project WILD, and Project Wild Aquatic. 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. The program is primarily funded by anglers through money provided by the Sports Fish Restoration Act, a federal program that taxes the equipment used by anglers. The goal of Project WILD and Project WILD Aquatic is to assist students of any age in developing the awareness, knowledge, skills, and commitment necessary to result in informed decisions, responsible behavior and constructive actions concerning the environment.

6.3.8 Office of the State Engineer and Interstate Stream Commission

- **NPS categories to be addressed: Agriculture, hydromodification, silviculture, land disposal.**

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

The Interstate Stream Commission (ISC) is charged with separate duties including protecting New Mexico's right to water under eight interstate stream Basins, ensuring the state complies with each of those Basins, as well as water planning. The State Engineer is the Secretary of the Interstate Stream Commission.

Office of the State Engineer

The Water Resources Allocation Program (WRAP) 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 are 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, the OSE maintains a Water Conservation Program that coordinates water conservation activities for the State of New Mexico. The program goals are to increase awareness regarding the value of our water resources; provide assistance to entities initiating water conservation plans and programs and, to assist in the development of state government policies which 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 but are not limited to, the effects of salinity, total dissolved solids on surface water supplies.

Interstate Stream Commission

In 1987, the New Mexico legislature created a regional water planning program to inventory New Mexico's water supplies to assure adequate water is available for the state's future growth and development. The regional water planning program requires technical investigations into water supply and future demand, and extensive public involvement to determine recommended alternatives for balancing a region's water supply with future demand. Sixteen (16) water planning regions have been established under the program. The State Water Plan Act, passed by the New Mexico Legislature in 2003, charged OSE and ISC with developing a State Water Plan which includes among its purposes "protecting both the water supply and water quality". A review and update of the New Mexico State Water Plan is required every five years.

In 2013 the ISC updated and revised the 1994 Regional Water Planning Handbook (available at www.ose.state.nm.us/Planning) to provide a common technical platform and process for updating the 16 regional plans by June 2015. This streamlined approach allows updates to be developed cost-effectively using a common methodology to ensure consistency with state water law and policy. The revised Regional Water Planning Handbook includes guidance on water quality, encouraging water planners to focus on key issues that limit or compromise water supplies in the region. This guidance provides an opportunity to strengthen the elements of Regional Water Plans and the State Water Plan related to water quality. The State Water Plan will integrate the information from the updated regional water plans and be completed in December of 2015.

Water supply investigations are required to assess water quality, identify sources and types of contamination, and provide water quality management plans relating to land use practices, water use practices, and waste water 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. The SWQB and the ISC are involved in a long-term water supply investigation of the Rio Grande below Elephant Butte Reservoir to develop solutions to concerns regarding water quality. SWQB has designed and implemented a salinity monitoring network from 2005 to present. The network is designed to improve our understanding of nonpoint sources of salinity and the natural and water resources management processes effecting changes in salinity in the Rio Grande from above Elephant Butte Reservoir at San Marcial, downstream to Courchesne Bridge near El Paso, Texas. The effort conducts water quality investigations targeted on understanding nonpoint sources of salinity, potential salinity control solutions; focusing response efforts in this critical border region; and providing the technical basis for an effective salinity control program.

6.4 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 State NPS Management Program is to provide information and assistance necessary to enhance county and municipal governments' ability to act as a partner with the state in NPS management.

6.4.1 Councils of Government

- **NPS categories to be addressed: Construction, Land Disposal**

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 inter-jurisdictional 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 ground water and surface water resources by cooperatively identifying NPS projects between local, State, and federal entities. An example of how a Councils may affect NPS management is the North Central New Mexico Economic Development District's efforts to secure funding for development of water and waste water treatment facilities for communities in their region.

6.4.2 Soil and Water Conservation Districts

- **NPS categories to be addressed: Agriculture.**

SWCDs in New Mexico are political subdivision of the state and are responsible under state law for directing soil and water conservation programs. Each of the 48 SWCDs in New Mexico are operated by a board of five to seven locally-elected District Supervisors who are familiar with local soil and water conservation problems. SWCDs can provide assistance at the local level to establish watershed groups, develop watershed-based plans, 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. For example, the BLM program Restore New Mexico has been implemented in concert with SWCDs, which have had a pivotal role in identifying and coordinating private landowners within the matrix of public and private lands in some Restore New Mexico project areas.

SWCDs encourage the use of BMPs such as riparian fencing and rotational grazing to reduce erosion and protect water quality and habitat in streams and in the watershed, and directly implement or coordinate these activities when personnel and funding allow. Work done with local landowners includes stream restoration to stop channel bank erosion, along with practices to increase riparian vegetation to protect banks and lower water temperatures. SWCDs teach erosion prevention, road drainage techniques, and rotational grazing, and have also assisted land

owners and other agencies with structures that stop headcuts and heal gullies, reduce runoff from irrigated fields, and reduce runoff from impervious surfaces. SWCDs also 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 also administer noxious weed programs, providing techniques for local and public landowners to address noxious weed problems in many parts of New Mexico.

7 NPS Management Program Efficiency and Effectiveness

7.1 Improved Watershed Planning Efforts

From 2009 through 2013, the NPS Management Program supported the development of four watershed-based plans that the EPA has recognized as meeting all of the elements specified in the *NPS Program and Grants Guidelines for States and Territories.* Five more watershed-based plans are in development: one is in review, and one was reviewed and found to not meet all nine planning elements. Each of these planning efforts and the partnerships that have developed represent a large investment of dollars, time, and the hopes of many program participants. These stakeholders would like to see faster progress towards meeting water quality standards, and their planning efforts should be utilized to the extent that they can be.

The WPS recognizes the need for, and encourages, improved watershed-based planning in a way that utilizes the past investment. In many cases, existing watershed plans may be revised to include all planning elements using existing information, for at least some of the priority watersheds or some water quality parameters within their respective planning areas. In other cases, additional research, data analysis, or data collection may be required to develop the necessary information.

The NMED will use Section 319(h) NPS program funds to support this activity through two approaches. A small number of comprehensive watershed-based planning projects will be identified and funded through RFPs to revise existing watershed-based plans or develop new watershed-based plans. Smaller procurements for short-term, non-comprehensive projects will be used to supplement, update, or complete existing watershed plans. More detail about each approach is provided in Section 5. Additional planning efforts are anticipated that will be funded by other means, including non-federal funding sources that may be used to match federal Section 319(h) funds. WPS staff will assist with development or revision of watershed plans in cases where technical assistance is requested.

The investment in watershed-based planning will also be strengthened with greater commitment by NMED to implement watershed-based plans. Section 319 watershed project funds will be used exclusively to implement watershed-based plans or alternatives to watershed-based plans that have been accepted by EPA, and NMED. WPS staff will promote awareness of watershed-based plans as a resource that may help effectively direct other funds.

7.2 Efficient Implementation of Watershed Projects

The NPS Management Program supports identification of effective project approaches through the watershed planning process described in Sections 3.1, 5.2, 7.1, and Appendix A. This level of planning is sufficient to describe the main features of future projects, including their approximate locations, costs, approaches towards achieving pollutant load reductions, and estimates of pollutant load reductions expected from implementation.

To support those planning efforts, and to develop project plans that are of sufficient detail to assure their effective implementation, the NMED issues RFPs on an annual basis, during which potential contractors or agency cooperators may submit proposals describing projects which they

are well-positioned to implement. Typically, one request for proposal will be designed to solicit proposals for watershed planning projects and one will be designed to solicit projects that implement portions of watershed plans.

An evaluation committee nominated by the procurement manager for the RFP evaluates the proposals against criteria specified in the RFP which 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 are notified that their proposal has been selected for development of a project workplan. In this way, applicants may submit proposals which provide more detail than that found in the watershed plan, and they develop workplans that describe the project in sufficient detail to assure effective implementation once they have reasonable assurance that they will receive funding to implement their workplans.

Project workplans are developed by the cooperators with assistance of a WPS project officer, to promote ownership of the projects and strong awareness of responsibilities under any resulting agreements. Project workplans are reviewed by the NMED project officer and the Procurement Manager before submittal to EPA. Following EPA review, any resulting modifications to the workplan, and EPA approval of the workplan, the workplan is attached to a contract or interagency agreement, and receives additional review by several people within NMED, the Taxation and Revenue Department, and the General Services Department or Department of Finance and Administration who check the workplan and the agreement for consistency with various administrative and legal requirements.

The result of this process is an annual set of workplans for watershed projects that are well-designed, with sufficient detail to assure effective implementation.

7.3 Program Effectiveness Monitoring

The SWQB established an effectiveness monitoring program in 2008, with the goal of documenting effects on water quality resulting from projects implemented with Section 319 funds, or "319 Projects." An effectiveness monitoring coordinator was hired within the SWQB WPS to implement the program and a strategic plan was developed to set and prioritize goals and objectives. The initial strategy was to inventory the Section 319 Projects and assess the potential to detect water quality improvements based on the availability of baseline data. The inventory revealed that a majority of projects did not have adequate baseline data for a quantitative analysis of project effectiveness. This was expected given that prior emphasis was on implementation monitoring and photographic monitoring to document improvements in riparian condition, but not necessarily on detecting improvements to water quality. A second strategy was to review data collected by MASS, and by cooperators such as the USFS, to assess changes in water quality in impaired waters where 319 projects have been implemented. Several projects were nominated and recognized as NPS Success Stories, as a reasonable case was made that they 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 (EPA, 2014). EPA established strategic planning elements (performance measures) that apply when water quality is improved (but water quality standards may not be fully met), or when an impaired

stream is no longer impaired (i.e., water quality standards are fully attained). In either case, the improvement must be demonstrated to be caused by changes in management within the watershed or other applications of the "watershed approach" such as successful outreach and education. In New Mexico, standards attainment is determined through application of the Assessment Protocol[14]. NPS Success Stories accepted by EPA are described at http://water.epa.gov/polwaste/nps/success319.

The effectiveness monitoring program is described in the SWQB Quality Assurance Project Plan (QAPP), and project level QAPPs have been developed for each of several project areas. The upstream/downstream before/after study design is commonly selected as the most practical and effective means to account for variations in hydrology, weather, and other variables.

Initially the WPS monitoring coordinator had the primary responsibility for the effectiveness monitoring of new projects. However, as new projects are added each year, the applicants are now encouraged to include effectiveness monitoring in their proposals in order to better distribute the workload. In these cases the WPS monitoring coordinator still provides training and assistance, and 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 will be conducted within each selected project area at least twice (before and after project implementation) in a three year period. In many cases, additional projects and the lag time in vegetation growth and channel response will require longer-term monitoring. In addition, effectiveness monitoring is coordinated with the MASS water quality surveys, which are conducted for a given basin approximately every eight years. This enables the two programs to supplement the data sets and avoid duplication, in compliance with the Quality Management Plan.

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 towards meeting its objectives.

7.4 Reporting

7.4.1 Nonpoint Source Management Program Annual Report

An *NPS Management Program Annual Report* is prepared near the end of each calendar year and submitted to EPA by January 31st of the following year. The annual report describes the progress of NMED and other agencies towards carrying out the NPS Management Program. Section 0 above provides lists of activities and verification items that will be reported in the annual report. In addition, summaries of projects completed during the year that were supported with Section 319 incremental funds will be provided, along with pollutant load reduction estimates for each of those projects. 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 NPS Management Program. The annual report is provided to the public on the NMED web site, at www.nmenv.state.nm.us/swqb/wps/AnnualReports.

7.4.2 Grants Reporting and Tracking System

The Grants Reporting and Tracking System (GRTS) is a financial and implementation reporting database administered by EPA specifically for state Section 319 grant programs. The WPS has a GRTS coordinator who assists staff with using this system, and who works with EPA on updating and refining GRTS to make it more useful and practical. The WPS Program Manager is responsible for entering into GRTS data describing each assistance agreement, and basic data for projects. NMED project officers are responsible for entering data describing individual 319 projects on a semi-annual basis.

To increase the accuracy of financial data in GRTS, the GRTS coordinator has programmed GRTS to generate a weekly report providing budget information for staff in the SWQB Financial and Administrative Section, which they use to confirm that records associated with a contract or interagency agreement agree with financial data in GRTS. In order for this comparison to be made, project officers must enter project budgets that correspond to contract amounts, and they must enter invoice amounts as the budgets are drawn down.

GRTS is a useful tool for the public to access information about 319 grants and projects. Anyone can access much of the information in GRTS without a user name or password. An orientation for potential GRTS users is available at www.nmenv.state.nm.us/swqb/wps/GRTS.

7.4.3 Project Reporting

Project workplans 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 contractor or cooperating agency on a quarterly 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 workplan tasks, describing activities planned for the next quarter, and on describing any developments that may require workplan amendments or that otherwise require the attention of NMED or EPA. Quarterly reports may be useful for cooperators, in that they provide structured opportunities to review progress and evaluate next steps. Quarterly reports may also be used by cooperators to maintain good communication with other project participants, their own management, board members, or the public.

7.5 Financial Management

The SWQB has four full-time employees who form the Financial and Administrative Section (Financial Section). The Financial Section assists, monitors, and ensures financial reporting and recording requirements are being 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, and will assure that required match is being met, and 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 the bureau is both financially and technically in compliance with the Section 319(h) grant agreements, and will ensure that a final Financial Status Report (FSR) and quarterly financial reports are filed when required.

The SWQB has developed and uses a fiscal accounting system capable of tracking expenditures of both Section 319(h) funds and non-federal matches. The SWQB requires documentation of matching funds when project contractors working on Section 319 projects submit requests for reimbursement. Funds will not be released without confirmation of available corresponding matching funds.

7.6 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"[20]. This section describes the concept of adaptive management as applied by the NPS Management Program.

The NPS Management Program will be revised in 2019 – approximately five 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 five years, NMED will apply for Section 319 funding from EPA to support the NPS Management Program. A core workplan that describes the activities of the NMED staff who implement the NPS Management Program will be used to document the activities that will be funded, in greater detail than described in this document. Lessons learned during each successive grant period will be used to refine the core workplan.

On an annual basis, the WPS will prepare a report for the NPS Management Program that describes (among other things) significant new developments affecting the program and problems encountered. This information will be used to make adjustments to the core workplan and the NPS Management Program when these documents are revised. The WPS also prepares annual RFPs to seek assistance from locally-based organizations who can help implement the NPS Management Program within specific watersheds, and is 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. Experience gained through this process may also be used to make adjustments to core workplans and the NPS Management Program when these documents are revised.

7.7 Public Input into the NPS Management Program

Public meetings for collection of input and comments on RFPs, TMDLs, monitoring, *State of New Mexico CWA §303(d)/§305(b) Integrated List and Reports*, NPS Management Program changes, and for other important program issues are held at strategic locations throughout the state. Public meetings are advertised primarily through public notices, press releases, messages to the SWQB email list, and the SWQB quarterly newsletter, *Clearing the Waters.*

The integration of the NPS Program in other programs administered by the 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 program and NPS pollution and its solutions. The 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 watershed-based plan, they have opportunities to provide input to the NPS Management Program, both in the process of developing the plan (through participation by SWQB staff in aspects of plan preparation), and in the content of the plan 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 the SWQB, and the scope of a watershed plan may include priorities (problems or resource issues) not identified by the SWQB. Where aspects of the NPS Management Program do not serve a watershed planning effort well, the watershed plan will be used as a vehicle to communicate to the bureau.

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.

7.8 Inconsistencies between Federal and State Programs

Federal consistency review activities are described in Sections 3.3, 3.6, and 6.2. 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. Potential inconsistencies are often resolved by the federal agency preparing a NEPA document, or by the USACE in their decisions regarding the applicability of Section 404 permitting requirements. When significant inconsistencies are not resolved, the state will seek EPA assistance to help resolve issues.

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Appendix A Watershed-Based Plans

The following is an excerpt taken directly from the 2014 Nonpoint Source (NPS) Program and Grants Guidelines for States and Territories, which are available in their entirety at http://water.epa.gov/polwaste/nps/cwact.cfm. These elements are identical to the planning elements first published as part of the 2004 NPS Guidelines, in the October 23, 2003 Federal Register.

Nine Elements of Watershed-based Plans (WBPs)

The nine elements, as well as short explanations of how each element fits in the context of the broader WBP, are provided below. Although they are listed as *a* through *i*, they do not necessarily take place sequentially. For example, element *d* asks for a description of the technical and financial assistance that will be needed to implement the WBP, but this can be done only after you have addressed elements *e* and *i*.

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 variety and complexity of pollution sources. For example, densely developed urban and suburban watersheds often have multiples 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. Plans will be more complex than in predominantly rural settings in these cases. For this reason, plans for urban and suburban watersheds may need to be developed and implemented at a smaller scale than watersheds with agricultural lands of a similar character.

Element a. Identification of causes of impairment and pollutant sources or groups of similar sources that need to be controlled to achieve needed 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 waterbody(ies) throughout the watershed, and include map(s) of the watershed that locates the major cause(s) 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 will usually include an accounting of the 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 TMDL or TMDLs exist for the waters under consideration, this element may be adequately addressed in those documents. If not, you will need to conduct a similar analysis (which may

involve mapping, modeling, monitoring, and field assessments) to make the link between 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?

On the basis of the existing source loads estimated for element *a*, you will similarly 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, recognizing the difficulty in precisely predicting the performance of management measures over time.

Estimates should be provided at the same level as that required in the scale and scope 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 for 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 reductions in the TMDLs. Applicable loads for downstream waters should be included so that 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 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 this plan.

What does this mean?

The plan should describe the management measures that need to be implemented to achieve the load reductions estimated under element *b*, as well as to achieve 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[9] 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 practices. Thought should also be given to the possible use of measures that protect important habitats (e.g. wetlands, vegetated buffers, and forest corridors) and other non-polluting areas of the watershed.

[9] Critical areas are those producing disproportionately high pollutant loads.

In this way, waterbodies would not continue to degrade in some areas of the watershed while other parts are being restored.

Element d. Estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon to implement this 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 (I/E) activities, monitoring, and evaluation activities. You should also document which relevant authorities might play a role in implementing the plan. Plan sponsors should consider the use of federal, state, local, and private funds or resources that might be available to assist in implementing the plan. Shortfalls between needs and 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 their early and continued participation in selecting, designing, and implementing the nonpoint source management measures that will be implemented.

What does this mean?

The plan should include an I/E component that identifies the education and outreach activities or actions that will be used to implement the plan. These I/E activities may support the adoption and long-term operation and maintenance of management practices and support stakeholder involvement efforts.

Element f. Schedule for implementing the nonpoint source 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 *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 nonpoint source management measures or other control actions are being implemented.

What does this mean?

The WBP should include interim, measurable implementation milestones to measure progress in implementing the management measures. These milestones

will be used to track implementation of the management measures, such as whether they are being implemented according to the schedule outlined in element *f*, whereas element *h* (see below) will develop criteria to measure the effectiveness of the management measures by, for example, 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 measured stream concentrations of that pesticide after 5 years and 50 percent of the users in the watershed have implemented Integrated Pest Management (IPM). The next milestone could be a 40% reduction after 7 years, when 80% of pesticide users are using IPM. The final goal, which achieves the water quality standard for that stream, may require a 50% reduction in 10 years. Having these waypoints lets the watershed managers know if they are on track to meet their goals, or if they need to re-evaluate 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 towards attaining water quality standards. The *criteria* in element *h* (not to be confused with *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, as well as the time needed for water quality indicators to respond, including lag times (e.g., water quality response as it is influenced by ground water sources that move slowly or the extra time it takes for sediment bound pollutants to break down, degrade or otherwise be isolated from the water column). Appendix B of these guidelines, "Measures and Indicators of Progress and Success," although intended as measures for program success, may provide some examples that may be useful. 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 management practices, 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 waterbody(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.

For more detailed information on developing watershed-based plans, please see *A Handbook for Developing Watershed Plans to Restore and Protect Our Waters*, U.S. EPA, EPA 841-B-08-002 March 2008, (water.epa.gov/polwaste/nps/handbook_index.cfm). Other resources for watershed planning are available on the Watershed Central website - including the Watershed Central Wiki and Plan Builder tool at water.epa.gov/type/watersheds/datait/watershedcentral/index.cfm.

The following excerpt detailing "alternatives to nine-element watershed-based plans" is also from the 2014 NPS Guidelines (http://water.epa.gov/polwaste/nps/cwact.cfm).

ii. Alternatives to Nine-Element Watershed-based Plans (WBPs)

As discussed in section V.A. of these guidelines, effective planning is always necessary to successfully guide watershed restoration or protection efforts. National experience indicates that WBPs provide an effective, integrated approach to address the diverse situations and needs of each NPS-impaired watershed. WBPs provide a framework to comprehensively assess the causes and sources of NPS pollutants contributing to impairment, and then prioritize restoration and protection strategies to address these water quality problems. The level of detail needed to address the nine elements of WBPs will vary depending on the scale and complexity of pollution sources. EPA continues to expect that states will put the primary focus of § 319-funded watershed projects on implementing WBPs to restore impaired waters.

EPA recognizes that many states and local groups already have in place or are developing watershed plans and strategies at varying levels of scale, scope, and specificity that might contribute significantly to the elements of a WBP. EPA encourages states and others to build on existing planning documents that adequately address some or all of the required (a) through (i) WBP elements. Existing planning documents, such as TMDLs and TMDL implementation plans, may serve as valuable building blocks for a WBP and where applicable, should be incorporated by reference in the WBP.

In a few select cases listed below, EPA recognizes that alternative plans to a WBP may provide an effective roadmap to achieve the water quality goals of § 319-funded restoration or protection efforts. In such cases, states must provide the EPA region with justification for why a complete WBP is not necessary and why an alternative plan is sufficient to guide watershed project implementation. This justification may be described through, or included in, the state's § 319 work plan.

Except when addressing a NPS pollution emergency or urgent NPS public health risk, EPA requires that all projects implementing a WBP or acceptable alternative plan directly address priorities outlined in the state NPS management program. Additionally, the state must ensure that alternative plans reflect a geographically-appropriate scale to achieve water quality goals. Prior to implementation, all plans should include analysis sufficient to ensure that the water quality problem or threat

can be fully addressed through the recommended management strategies outlined in the plan.

EPA regions will review and approve all alternative plans proposed for implementation in the state's § 319 grant work plan to ensure the following planning elements are adequately addressed:

- Identification of the causes or sources of NPS impairment, water quality problem, or threat to unimpaired/high quality waters;
- Watershed project goal(s) and explanation of how the proposed project(s) will achieve or make advancements towards achieving water quality goals;
- Schedule and milestones to guide project implementation;
- Proposed management measures (including a description of operation and maintenance requirements) and explanation of how these measures will effectively address the NPS impairment identified above; and
- Water quality results monitoring component, including description of process and measures (e.g., water quality parameters, stream flow metrics, biological indicators) to gauge project success.

EPA regions may approve the use of watershed project funding to implement alternative plans containing the above elements in the following circumstances:

a. **When the impairment is not specific to a pollutant.**
   The current WBP approach places emphasis on identifying major NPS pollutant sources in critical areas as well as planning for and achieving NPS pollutant load reductions. In scenarios where the impairment is not caused by a pollutant, but rather by a non-pollutant-based water quality problem (e.g., obstructions for migratory fish or addressing flow regime alterations), an alternative plan may be sufficient to guide § 319 funded watershed projects. In such cases, the state should provide assurance that appropriate watershed analyses were conducted to ascertain that the water quality problem will be fully addressed by dealing with the non-pollutant source of impairment.

b. **When responding to a NPS pollution emergency or urgent NPS public health risk.**
   In scenarios when the proposed § 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 (e.g., efforts to control erosion and re-establish vegetation in the immediate aftermath of a forest fire, to reduce pollution affecting drinking water safety), an alternative plan may be developed to ensure the timely, targeted use of watershed project funds.

c. When protecting assessed unimpaired/high quality waters.

Where a watershed includes both impaired and unimpaired/high quality waters, a WBP should be developed to address all actions needed to maintain and restore water quality. In scenarios where a state has assessed waters that are largely or fully attaining water quality standards and are located in watersheds where only protection actions are needed (i.e., measures to prevent future degradation), an alternative to a WBP may be warranted.

d. 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., a failing septic system). In such cases, the state must demonstrate (through up- 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 fully address the water quality problem within one grant period. In meeting these conditions, the state will ensure that multiple smaller problems are not dealt with in a piecemeal fashion when they are actually part of a larger water quality problem involving multiple pollution sources in the watershed.

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Appendix B New Mexico Priority Waters and Priority Watersheds

The following tables list priority waters and their watersheds, as defined in Section 5.

Priorities for Watershed-Based Planning

Table 1 lists 145 stream segments with approved total maximum daily loads (TMDLs) that characterize water quality impairments, and an additional 11 streams for which a TMDL is not required because the impairment is due to reduced flow rather than an excess of pollutants (Category 4C streams). These streams are the primary focus of watershed-based planning activities. This list is subject to change as new TMDLs are developed or as the status of waters in the State of New Mexico Clean Water Act (CWA) §303(d)/§305(b) Integrated Report are changed from impaired to unimpaired, or as streams are placed into Category 4B.

Table 1: Impaired streams with TMDLs describing the impairments, or impaired by low flow alteration

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
Animas Watershed (14080104)			
Animas River (San Juan River to Estes Arroyo)	NM-2403.A_00	Nutrients, *E. coli*, temperature	No
Animas River (Estes Arroyo to Southern Ute Indian Tribe bnd)	NM-2404_00	*E. coli*, Total phosphorus	No
Canadian Headwaters Watershed (11080001)			
Caliente Canyon (Vermejo River to headwaters)	NM-2306.A_151	Specific Conductance	No
Canadian River (Cimarron River to CO border)	NM-2305.A_200	Nutrients	No
Uña de Gato Creek (Chicorica Creek to HWY 64)	NM-2305.A_254	Nutrients	No
Uña de Gato Creek (HWY 64 to headwaters)	NM-2305.A_030	Nutrients	No
Vermejo River (Canadian River to Rail Canyon)	NM-2305.A_210	Low flow alterations	No
Vermejo River (Rail Canyon to York Canyon)	NM-2305.A_220	Specific Conductance	No
Vermejo River (Rail Canyon to York Canyon)	NM-2305.A_220	Temperature	No
Vermejo River (York Canyon to headwaters)	NM-2305.A_230	Temperature	No
York Canyon (Vermejo River to headwaters)	NM-2306.A_153	Specific Conductance	No
Cimarron Watershed (11080002)			
Cieneguilla Creek (Eagle Nest Lake to headwaters)	NM-2306.A_065	*E. coli*, Nutrients, Temperature, Turbidity, Sediment	Yes

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
Cimarron River (Canadian River to Cimarron Village)	NM-2305.1.A_10	Nutrients	No
Cimarron River (Cimarron Village to Turkey Creek)	NM-2306.A_040	Temperature, Arsenic	No
Cimarron River (Turkey Creek to Eagle Nest Lake)	NM-2306.A_130	Arsenic, Nutrients	No
Middle Ponil Creek (Greenwood Creek to headwaters)	NM-2306.A_124	Nutrients	No
Middle Ponil Creek (South Ponil to Greenwood Creek)	NM-2306.A_121	Temperature	Yes
Moreno Creek (Eagle Nest Lake to headwaters)	NM-2306.A_060	Nutrients, Temperature	No
North Ponil Creek (Seally Canyon to headwaters)	NM-2306.A_162	Temperature	Yes
North Ponil Creek (South Ponil Creek to Seally Canyon)	NM-2306.A_110	*E. coli*,Temperature, Turbidity	Yes
Ponil Creek (Cimarron River to US 64)	NM-2306.A_100	*E. coli*	No
Ponil Creek (US 64 to confl of North & South Ponil)	NM-2306.A_101	*E. coli*, Nutrients, Temperature, Turbidity	Yes
Rayado Creek (Cimarron River to Miami Lake Diversion)	NM-2305.3.A_80	Nutrients, Sediment	No
Rayado Creek (Miami Lake Diversion to headwaters)	NM-2306.A_051	*E. coli*, Temperature	No
Sixmile Creek (Eagle Nest Lake to headwaters)	NM-2306.A_064	*E. coli*, Nutrients, Temperature, Turbidity	No
South Ponil Creek (Ponil Creek to Middle Ponil Creek)	NM-2306.A_120	Temperature	No
Ute Creek (Cimarron River to headwaters)	NM-2306.A_068	Arsenic, *E. coli*, Temperature	No
Cimarron Headwaters [Dry Cimarron] Watershed (11040001)			
Dry Cimarron R (Perennial reaches OK bnd to Long Canyon)	NM-2701_00	Sulfates, Total Dissolved Solids	Yes
Dry Cimarron River (Long Canyon to Oak Ck)	NM-2701_02	*E. coli*, Total Dissolved Solids	Yes
Long Canyon (Perennial reaches abv Dry Cimarron)	NM-2701_20	*E. coli*, Selenium	No
Oak Creek (Dry Cimarron to headwaters)	NM-2701_10	*E. coli*, Nutrients	No
Conejos Watershed (13010005)			
Rio de los Pinos (New Mexico reaches)	NM-2120.A_900	Temperature	Yes
Rio San Antonio (Montoya Canyon to headwaters)	NM-2120.A_901	Temperature, *E. coli*	No

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
El Paso - Las Cruces Watershed (13030102)			
Rio Grande (International Mexico bnd to Anthony Bridge)	NM-2101_00	*E. coli*	No
Rio Grande (Anthony Bridge to Picacho Bridge)	NM-2101_01	*E. coli*	No
Rio Grande (Picacho Bridge to Leasburg Dam)	NM-2101_02	*E. coli*	No
Rio Grande (Leasburg Dam to one mile below Percha Dam)	NM-2101_10	*E. coli*	No
Jemez Watershed (13020202)			
Jemez River (Rio Guadalupe to Soda Dam nr Jemez Springs)	NM-2105.5_10	Temperature, Turbidity, Nutrients, Aluminum, Arsenic, Boron	Yes
Jemez River (Jemez Pueblo bnd to Rio Guadalupe)	NM-2105_71	Arsenic, Boron	No
Jemez River (Zia Pueblo bnd to Jemez Pueblos bnd)	NM-2105_75	Arsenic, Boron	No
Jemez River (Soda Dam nr Jemez Springs to East Fork)	NM-2106.A_00	Aluminum, Arsenic, Turbidity	No
East Fork Jemez (VCNP to headwaters)	NM-2106.A_10	Temperature, Turbidity	Yes
Jaramillo Creek (East Fork Jemez to headwaters)	NM-2106.A_12	Temperature, Turbidity	No
East Fork Jemez (San Antonio Creek to VCNP bnd)	NM-2106.A_13	Temperature, Arsenic	No
San Antonio Creek (East Fork Jemez to VCNP bnd)	NM-2106.A_20	Temperature, Arsenic, Turbidity	Yes
Redondo Creek (Sulphur Creek to VCNP bnd)	NM-2106.A_21	Turbidity	No
Redondo Creek (VCNP bnd to headwaters)	NM-2106.A_25	Temperature, Turbidity	No
San Antonio Creek (VCNP bnd to headwaters)	NM-2106.A_26	Temperature	No
Rio Guadalupe (Jemez River to confl with Rio Cebolla)	NM-2106.A_30	Temperature, Aluminum	Yes
Rio de las Vacas (Rio Cebolla to Clear Creek)	NM-2106.A_40	Temperature, Nutrients	Yes
Rito Peñas Negras (Rio de las Vacas to headwaters)	NM-2106.A_42	Temperature, Nutrients, Sediment	Yes
Rito de las Palomas (Rio de las Vacas to headwaters)	NM-2106.A_43	Temperature, Sediment	No
Rio Cebolla (Fenton Lake to headwaters)	NM-2106.A_52	Sediment	Yes
Middle San Juan Watershed (14080105)			
San Juan River (Navajo bnd at Hogback to Animas River)	NM-2401_10	*E. coli*	No
La Plata River (San Juan River to McDermott Arroyo)	NM-2402.A_00	*E. coli*, Sediment	No
La Plata River (McDermott Arroyo to So. Ute Indian Tribe bnd)	NM-2402.A_01	*E. coli*	No

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
Mora Watershed (11080004)			
Coyote Creek (Mora River to Black Lake)	NM-2306.A_020	Specific Conductance, Temperature	No
Little Coyote Creek (Black Lake to headwaters)	NM-2306.A_024	Nutrients, pH	No
Mora River (HWY 434 to Luna Creek)	NM-2306.A_000	Sediment, Specific Conductance	Yes
Mora River (USGS gage east of Shoemaker to HWY 434)	NM-2305.3.A_00	Nutrients, Dissolved Oxygen	No
Rito San Jose (Manuelitas Creek to headwaters)	NM-2305.3.A_22	Low flow alterations	No
Sapello River (Mora River to Manuelitas Creek)	NM-2305.3.A_20	Sediment	No
Wolf Creek (Mora River to headwaters)	NM-2305.3.A_10	Low flow alterations	No
Pecos Headwaters Watershed (13060001)			
Gallinas River (Las Vegas Diversion to USFS bnd)	NM-2212_00	Temperature	Yes
Pecos River (Canon de Manzanita to Alamitos Canyon)	NM-2214.A_003	Temperature	No
Cow Creek (Pecos River to Bull Creek)	NM-2214.A_090	Temperature	No
Cow Creek (Bull Creek to headwaters)	NM-2214.A_102	Temperature	No
Dalton Canyon Creek (Pecos River to headwaters)	NM-2214.A_070	Specific Conductance	No
Falls Creek (Tecolote Creek to headwaters)	NM-2212_12	Specific Conductance	No
Macho Canyon Creek (Pecos River to headwaters)	NM-2214.A_071	Specific Conductance	No
Willow Creek (Pecos River to headwaters)	NM-2214.A_030	Specific Conductance	No
Pecos River (Santa Rosa Reservoir to Tecolote Creek)	NM-2211.A_10	*E. coli*	No
Pecos Arroyo (Gallinas River to headwaters)	NM-2213_22	*E. coli*	No
El Rito Creek (Pecos River to headwaters)	NM_9000.A_050	*E. coli*	No
Revuelto Watershed (11080008)			
Revuelto Creek (Canadian River to headwaters)	NM-2301_10	Boron	No
Rio Chama Watershed (13020102)			
Rio Vallecitos (Rio Tusas to headwaters)	NM-2112.A_00	Temperature, Turbidity, Aluminum	Yes
Rio Tusas (Rio Vallecitos to headwaters)	NM-2113_30	Nutrients	No
Abiquiu Creek (Rio Chama to headwaters)	NM-2113_50	Dissolved Oxygen	Yes
Rio Puerco de Chama (Abiquiu Reservoir to HWY 96)	NM-2115_20	*E. coli*, Temperature	Yes

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
Rio Chama (El Vado Reservoir to Rio Brazos)	NM-2116.A_000	*E. coli*, Nutrients, Temperature	No
Rio Chama (Rio Brazos to Little Willow Creek)	NM-2116.A_001	*E. coli*, Nutrients, Temperature	Yes
Rio Chama (Little Willow Creek to CO border)	NM-2116.A_002	*E. coli*, Temperature	No
Cañones Creek (Abiquiu Reservoir to headwaters)	NM-2116.A_010	Aluminum, Fecal Coliform, Turbidity	Yes
Polvadera Creek (Cañones Creek to headwaters)	NM-2116.A_011	Temperature	Yes
Poleo Creek (Rio Puerco de Chama to headwaters)	NM-2116.A_023	Turbidity	Yes
Canjilon Ck (Perennial portions Abiquiu Rsrv to headwaters)	NM-2116.A_030	Specific Conductance, Temperature	Yes
Rio Capulin (Rio Gallina to headwaters)	NM-2116.A_041	*E. coli*	No
Rio Nutrias (Rio Chama to headwaters)	NM-2116.A_060	Turbidity	Yes
Rito de Tierra Amarilla (Rio Chama to HWY 64)	NM-2116.A_070	Temperature, Turbidity, Sediment	Yes
Rio Brazos (Rio Chama to Chavez Creek)	NM-2116.A_080	Temperature	Yes
Chavez Creek (Rio Brazos to headwaters)	NM-2116.A_081	Temperature	Yes
Rio Chamita (Rio Chama to CO border)	NM-2116.A_110	Aluminum, Ammonia (Un-ionized), *E. coli*, Nutrients, Temperature	Yes
Rio Grande - Albuquerque Watershed (13020203)			
Rio Grande (non-pueblo Alameda Bridge to HWY 550 Bridge)	NM-2105.1_00	*E. coli*	No
Rio Grande (San Marcial at USGS gage to Rio Puerco)	NM-2105_10	*E. coli*, Aluminum	No
Rio Grande (Rio Puerco to Isleta Pueblo bnd)	NM-2105_40	*E. coli*	No
Rio Grande (Isleta Pueblo bnd to Alameda Bridge)	NM-2105_50	*E. coli*	No
Rio Grande - Santa Fe Watershed (13020201)			
Santa Fe River (Cochiti Pueblo bnd to Paseo del Canon)	NM-2110_02	Sediment	No
Rio Hondo Watershed (13060008)			
Rio Bonito (Rio Ruidoso to NM 48 near Angus)	NM-2208_10	Low flow alterations	No
Rio Ruidoso (Rio Bonito to US Hwy 70 Bridge)	NM-2208_20	Nutrients	No
Rio Hondo (Perennial reaches Bonney Canyon to Rio Ruidoso)	NM-2208_30	Fecal Coliform	No
S. Fork Eagle Creek (Eagle Creek to Mescalero Apache bnd)	NM-2209.A_00	Low flow alterations	No

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
Rio Bonito (NM 48 near Angus to headwaters)	NM-2209.A_10	Fecal Coliform, Low Flow Alterations	No
Rio Ruidoso (US Hwy 70 Bridge to Mescalero Apache bnd)	NM-2209.A_20	Temperature, Turbidity	No
Carrizo Creek (Rio Ruidoso to Mescalero Apache bnd)	NM-2209.A_22	Fecal Coliform	No
Rio Puerco Watershed (13020204)			
Rio Puerco (Arroyo Chijuilla to northern bnd Cuba)	NM-2107.A_40	Aluminum, Ammonia (Un-ionized), Nutrients, Sediment	Yes
Rito Leche (Perennial reaches above HWY 126)	NM-2107.A_43	Low flow alterations	No
La Jara Creek (Perennial reaches abv Arroyo San Jose)	NM-2107.A_46	Aluminum	No
Rio San Jose Watershed (13020207)			
Bluewater Creek (non-tribal Rio San Jose to Bluewater Rsvr)	NM-2107.A_00	Nutrients, Temperature	Yes
Bluewater Creek (Bluewater Rsvr to headwaters)	NM-2107.A_01	Nutrients, Temperature	Yes
Rio Moquino (Laguna Pueblo to Seboyettia Creek)	NM-2107.A_10	Nutrients, Temperature	Yes
San Francisco Watershed (15040004)			
San Francisco River (Centerfire Creek to AZ border)	NM-2602_20	Temperature	Yes
Whitewater Creek (San Francisco R to Whitewater Campgrd)	NM-2603.A_10	Turbidity	Yes
Whitewater Creek (Whitewater Campgrd to headwaters)	NM-2603.A_12	Aluminum	Yes
Tularosa River (San Francisco R to Apache Creek)	NM-2603.A_40	Specific Conductance	Yes
South Fork Negrito Creek (Negrito Creek to headwaters)	NM-2603.A_43	Temperature	Yes
Centerfire Creek (San Francisco R to headwaters)	NM-2603.A_50	Nutrients, Specific Conductance	Yes
Tularosa Valley (13050003)			
Three Rivers (Perennial prt HWY 54 to USFS exc Mescalero)	NM-2802_00	Low flow alterations	No
Upper Canadian Watershed (11080003)			
Canadian River (Conchas River to Mora River)	NM-2305.A_000	*E. coli*	No
Ocate Creek (Ocate to Wheaton Creek)	NM-2306.A_070	Low flow alterations	No
Upper Canadian - Ute Reservoir Watershed (11080006)			
Canadian River (Ute Reservoir to Conchas Reservoir)	NM-2303_00	*E. coli*	No

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
Pajarito Creek (Canadian River to headwaters)	NM-2303_10	*E. coli*, Nutrients	No
Upper Gila Watershed (15040001)			
Mogollon Creek (Perennial reaches abv USGS gage)	NM-2503_02	Aluminum	Yes
East Fork Gila River (Gila River to headwaters)	NM-2503_20	Aluminum	Yes
Black Canyon Creek (East Fork Gila River to headwaters)	NM-2503_21	Temperature	Yes
Taylor Creek (Perennial reaches Beaver Creek to headwaters)	NM-2503_23	Temperature, Aluminum	Yes
Canyon Creek (Middle Fork Gila River to headwaters)	NM-2503_43	Nutrients, Turbidity	Yes
Upper Gila - Mangas Watershed (15040002)			
Mangas Creek (Gila River to Mangas Springs)	NM-2502.A_21	Nutrients	Yes
Upper Pecos - Black Watershed (13060011)			
Pecos River (Lake Carlsbad to Avalon Reservoir)	NM-2203.A_00	Low flow alterations	No
Upper Rio Grande Watershed (13020101)			
Rio Quemado (Santa Cruz River to Rio Arriba County Boundary)	NM-2118.A_52	*E. coli*	No
Santa Cruz River (Santa Clara Pueblo Boundary to Santa Cruz Dam)	NM-2111_50	*E. coli*	No
Rio Santa Barbara (Non-Pueblo Embudo Creek to USFS Boundary)	NM-2120.A_419	*E. coli*	No
Apache Canyon (Rio Fernando de Taos to headwaters)	NM-98.A_002	*E. coli*	No
Rio Grande (Ohkay Owingeh bnd to Embudo Creek)	NM-2111_10	Turbidity	Yes
Rio Grande (Santa Clara Pueblo bnd to Ohkay Owingeh bnd)	NM-2111_11	Turbidity	No
Embudo Creek (Rio Grande to Canada de Ojo Sarco)	NM-2111_41	Sediment, Turbidity	No
Little Tesuque Creek (Rio Tesuque to headwaters)	NM-2118.A_34	Aluminum	No
Rio Grande (Red River to CO border)	NM-2119_05	Temperature	Yes
Rio Pueblo de Taos (Rio Grande to Arroyo del Alamo)	NM-2119_20	Temperature	Yes
Rio Pueblo de Taos (Arroyo del Alamo to R Grande del Rancho)	NM-2119_30	Temperature	Yes
Rio Grande del Rancho (Rio Pueblo de Taos to HWY 518)	NM-2120.A_501	Specific Conductance	Yes
Rio Pueblo de Taos (Rio Grande del Rancho to Taos Pueblo bnd)	NM-2120.A_511	Temperature, *E. coli*	Yes
Rio Fernando de Taos (Tienditas Creek to Headwaters)	NM-98.A_001	*E. coli*	No
Rio Fernando de Taos (USFS bnd at canyon to Tienditas Creek)	NM-2120.A_513	*E. coli*	No
Rio Fernando de Taos (R Pueblo d Taos to USFS bnd at canyon)	NM-2120.A_512	Temperature, Specific Conductance, *E. coli*	Yes

Assessment Unit (AU) Name	AU ID	Impairments	2002 303(d) List?
Rio Hondo (Rio Grande to USFS bnd)	NM-2120.A_600	Temperature	Yes
Pioneer Creek (Red River to headwaters)	NM-2120.A_703	Turbidity	Yes
Bitter Creek (Red River to headwaters)	NM-2120.A_705	Aluminum	Yes
Costilla Creek (Rio Grande to CO border)	NM-2120.A_800	Low flow alterations	No
Costilla Creek (CO border to Diversion abv Costilla)	NM-2120.A_810	Low flow alterations	No
Cordova Creek (Costilla Creek to headwaters)	NM-2120.A_823	Sediment	Yes
Comanche Creek (Costilla Creek to headwaters)	NM-2120.A_827	Temperature	No
Gold Creek (Comanche Creek to headwaters)	NM-2120.A_835	Temperature	No
Holman Creek (Comanche Creek to headwaters)	NM-2120.A_837	Temperature	No
LaBelle Creek (Comanche Creek to headwaters)	NM-2120.A_839	Temperature	No
Upper San Juan Watershed (14080101)			
San Juan River (Animas River to Cañon Largo)	NM-2401_00	Sediment	Yes
Gallegos Canyon (San Juan River to Navajo bnd)	NM-9000.A_060	Selenium	No

Table 2 lists 452 identified priority watersheds, which contain or drain directly to the streams listed above in Table 1. These watersheds may also be reviewed with an on-line mapping tool at https://gis.web.env.nm.gov/SWQB, where they were indicated as "Priority Watersheds" in late 2013. These watersheds will generally be the primary focus of watershed-based planning, and will be used to track progress related to planning. The NPS Management Program recognizes that some of the best approaches to addressing water quality may lie outside of these areas. The locations of proposed projects should be identified within watershed-based plans. This list is subject to change as new TMDLs are developed or as the status of waters in the State of New Mexico CWA Section 303(d)/Section 305(b) Integrated Report are changed from impaired to unimpaired, or as new streams are placed into Category 4B.

Table 2: Priority watersheds for watershed-based planning

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Cimarron Headwaters	110400010303	3416	CO,NM	Cow Canyon
Cimarron Headwaters	110400010304	15730	CO,NM	Middle Long Canyon
Cimarron Headwaters	110400010305	9209	NM	Lower Long Canyon
Cimarron Headwaters	110400010401	24261	NM	Oak Creek-Dry Cimarron Creek
Cimarron Headwaters	110400010402	16071	NM	Briggs Canyon

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Cimarron Headwaters	110400010403	12030	NM	Briggs Canyon-Dry Cimarron Creek
Cimarron Headwaters	110400010404	12013	NM	Timber Mesa-Cow Canyon
Cimarron Headwaters	110400010405	15516	NM	Cow Canyon-Dry Cimarron Creek
Cimarron Headwaters	110400010406	20328	NM	Long Canyon-Dry Cimarron Creek
Cimarron Headwaters	110400010504	12541	NM	Lower Travesser Creek
Cimarron Headwaters	110400010603	1831	CO,NM	Cobert Canyon
Cimarron Headwaters	110400010604	1004	CO,NM	Jesus Canyon
Cimarron Headwaters	110400010605	21918	CO,NM	Travesser Creek-Dry Cimarron River
Cimarron Headwaters	110400011001	2418	CO,NM	Flathead Canyon
Cimarron Headwaters	110400011002	32734	NM	Flathead Canyon-Dry Cimarron River
Cimarron Headwaters	110400011003	1400	CO,NM	Sheep Pen Creek
Cimarron Headwaters	110400011004	24525	NM	Sloan Creek
Cimarron Headwaters	110400011005	24822	CO,NM	Miller Canyon-Dry Cimarron River
Cimarron Headwaters	110400011006	23665	NM,OK	Carrizozo Creek-Dry Cimarron River
Canadian Headwaters	110800010102	22940	NM	Little Water Creek
Canadian Headwaters	110800010103	39374	NM	Headwaters Una de Gato Creek
Canadian Headwaters	110800010104	28781	CO,NM	Raton Creek
Canadian Headwaters	110800010107	18870	NM	Outlet Una de Gato Creek
Canadian Headwaters	110800010108	20437	NM	Green Canyon Creek
Canadian Headwaters	110800010110	12202	NM	Lower Chicorica Creek
Canadian Headwaters	110800010201	35453	CO,NM	Six-Horse Canyon-Canadian River
Canadian Headwaters	110800010202	28601	CO,NM	Potato Canyon-Canadian River
Canadian Headwaters	110800010204	28238	NM	Dillon Canyon-Canadian River
Canadian Headwaters	110800010205	20139	NM	Arroyo del Mesteno
Canadian Headwaters	110800010205	20139	NM	Chicorica Creek-Canadian River
Canadian Headwaters	110800010301	31561	CO,NM	Gold Creek-Vermejo River
Canadian Headwaters	110800010302	15143	NM	Leandro Creek
Canadian Headwaters	110800010303	15414	NM	Rock Creek
Canadian Headwaters	110800010304	17270	CO,NM	Rock Creek-Vermejo River
Canadian Headwaters	110800010305	19303	NM	York Canyon
Canadian Headwaters	110800010306	31288	CO,NM	York Canyon-Vermejo River
Canadian Headwaters	110800010307	25114	NM	Headwaters Caliente Canyon
Canadian Headwaters	110800010308	22297	NM	Outlet Caliente Canyon
Canadian Headwaters	110800010309	27038	NM	Caliente Canyon-Vermejo River
Canadian Headwaters	110800010402	13518	NM	Saltpeter Creek
Canadian Headwaters	110800010404	31322	NM	Outlet Van Bremmer Creek
Canadian Headwaters	110800010405	18484	NM	Van Bremmer Creek-Vermejo River
Canadian Headwaters	110800010406	28079	NM	Stubble Field Arroyo-Vermejo River
Canadian Headwaters	110800010501	32273	NM	Lower Rio Bonita
Canadian Headwaters	110800010502	22235	NM	Willow Canyon
Canadian Headwaters	110800010504	22651	NM	Outlet Tinaja Creek

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Canadian Headwaters	110800010505	17529	NM	Crow Creek
Canadian Headwaters	110800010506	26919	NM	Crow Creek-Canadian River
Canadian Headwaters	110800010507	22400	NM	Curtis Creek
Canadian Headwaters	110800010508	11699	NM	Kappis Arroyo
Canadian Headwaters	110800010509	14649	NM	Spring Arroyo
Canadian Headwaters	110800010510	22701	NM	Maxwell National Wildlife Refuge
Canadian Headwaters	110800010511	10832	NM	Ladd Arroyo
Canadian Headwaters	110800010512	13203	NM	Vermejo River-Canadian River
Canadian Headwaters	110800010603	25960	NM	Dry Arroyo
Canadian Headwaters	110800010604	31850	NM	Outlet Rio del Plano
Canadian Headwaters	110800010606	28322	NM	Cimarron River-Canadian River
Cimarron	110800020101	28215	NM	Headwaters Moreno Creek
Cimarron	110800020102	22684	NM	Outlet Moreno Creek
Cimarron	110800020103	35158	NM	Headwaters Cieneguilla Creek
Cimarron	110800020104	13359	NM	Outlet Cieneguilla Creek
Cimarron	110800020105	18517	NM	Eagle Nest Lake
Cimarron	110800020106	10151	NM	Ute Creek
Cimarron	110800020107	28249	NM	Ute Creek-Cimarron River
Cimarron	110800020109	29431	NM	Cimarroncito Creek-Cimarron River
Cimarron	110800020201	10273	NM	Greenwood Canyon
Cimarron	110800020202	36872	NM	Middle Ponil Creek
Cimarron	110800020203	20427	NM	Headwaters North Ponil Creek
Cimarron	110800020204	14065	NM	South Ponil Creek
Cimarron	110800020205	34569	NM	Outlet North Ponil Creek
Cimarron	110800020206	14800	NM	Chase Canyon
Cimarron	110800020208	21084	NM	Outlet Cerrososo Creek
Cimarron	110800020209	32403	NM	Ponil Creek
Cimarron	110800020301	15764	NM	Agua Fria Creek
Cimarron	110800020302	20031	NM	Headwaters Rayado Creek
Cimarron	110800020303	31347	NM	Moras Creek
Cimarron	110800020304	15688	NM	Chicoso Creek
Cimarron	110800020305	26696	NM	Urraca Creek
Cimarron	110800020306	24481	NM	Outlet Rayado Creek
Cimarron	110800020401	15343	NM	Springer Lake
Cimarron	110800020402	36615	NM	Salado Creek
Cimarron	110800020403	36436	NM	Rayado Creek-Cimarron River
Cimarron	110800020404	26873	NM	110800020404-Cimarron River
Upper Canadian	110800030101	17575	NM	Wheaton Creek
Upper Canadian	110800030106	20574	NM	Chavez Creek-Ocate Creek
Upper Canadian	110800030512	26214	NM	Canon Encierro-Canadian River
Upper Canadian	110800030604	30917	NM	Outlet Canon Largo

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Upper Canadian	110800030605	20591	NM	Lagartija Creek
Upper Canadian	110800030609	14870	NM	Outlet Arroyo Alamocito
Upper Canadian	110800030610	25088	NM	Mora River-Canadian River
Upper Canadian	110800030701	22552	NM	Wade Canyon-Canadian River
Mora	110800040101	37262	NM	Upper Coyote Creek
Mora	110800040102	23171	NM	La Canada del Carro
Mora	110800040103	26353	NM	Middle Coyote Creek
Mora	110800040105	28724	NM	La Jara Creek
Mora	110800040106	29857	NM	Lower Coyote Creek
Mora	110800040201	16850	NM	Rito San Jose
Mora	110800040203	19509	NM	Outlet Manuelitas Creek
Mora	110800040204	25052	NM	Manuelitas Creek-Sapello River
Mora	110800040205	26952	NM	Arroyo de La Jara
Mora	110800040206	31440	NM	Sanguijuela Arroyo-Sapello River
Mora	110800040207	30902	NM	Lewis Ranch
Mora	110800040208	14839	NM	Phoenix Lake-Sapello River
Mora	110800040301	12336	NM	Luna Creek
Mora	110800040302	21801	NM	Quemado Canyon-Mora River
Mora	110800040303	28126	NM	Vigil Creek-Mora River
Mora	110800040304	15104	NM	Rio La Casa
Mora	110800040307	20379	NM	Rito Cebollla
Mora	110800040308	38753	NM	Coyote Creek-Mora River
Mora	110800040309	34177	NM	Sapello River-Mora River
Mora	110800040401	29875	NM	Headwaters Wolf Creek
Mora	110800040403	35431	NM	Outlet Wolf Creek
Mora	110800040501	31499	NM	Tiptun Creek-Mora River
Mora	110800040502	11274	NM	Dog Creek
Mora	110800040503	11241	NM	Cherry Valley Lake
Mora	110800040505	35355	NM	Arroyo Tierra Blanca-Mora River
Mora	110800040608	25167	NM	Tata Vique-Mora River
Upper Canadian-Ute Reservoir	110800060205	21627	NM	Tulosa Creek-La Cinta Creek
Upper Canadian-Ute Reservoir	110800060306	31825	NM	Rattlesnake Creek-Atarque Creek
Upper Canadian-Ute Reservoir	110800060402	19086	NM	Outlet La Manga Creek
Upper Canadian-Ute Reservoir	110800060403	38308	NM	Oso Creek
Upper Canadian-Ute Reservoir	110800060404	20443	NM	La Cinta Creek-Canadian River
Upper Canadian-Ute Reservoir	110800060405	15450	NM	Chical Creek
Upper Canadian-Ute Reservoir	110800060406	14838	NM	Alamosa Creek

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Upper Canadian-Ute Reservoir	110800060407	29011	NM	Alamosa Creek-Canadian River
Upper Canadian-Ute Reservoir	110800060408	13630	NM	Road Draw
Upper Canadian-Ute Reservoir	110800060409	36575	NM	Road Draw-Canadian River
Upper Canadian-Ute Reservoir	110800060502	36374	NM	Mesa del Gato-Pajarito Creek
Upper Canadian-Ute Reservoir	110800060503	18478	NM	Caracita Creek
Upper Canadian-Ute Reservoir	110800060505	25877	NM	Bull Canyon Creek-Pajarito Creek
Upper Canadian-Ute Reservoir	110800060602	29216	NM	Vigil Canyon
Upper Canadian-Ute Reservoir	110800060603	27002	NM	Vigil Canyon-Pajarito Creek
Upper Canadian-Ute Reservoir	110800060604	27615	NM	Blanca Creek
Upper Canadian-Ute Reservoir	110800060605	46757	NM	Blanca Creek-Pajarito Creek
Upper Canadian-Ute Reservoir	110800060606	34794	NM	Tucumcari Lake-Canadian River
Upper Canadian-Ute Reservoir	110800060701	24460	NM	Pajarito Creek-Canadian River
Upper Canadian-Ute Reservoir	110800060703	30763	NM	Outlet Carros Creek
Upper Canadian-Ute Reservoir	110800060705	28739	NM	Romero Draw-Canadian River
Revuelto	110800080501	27584	NM	Upper Revuelto Creek
Revuelto	110800080502	30295	NM	Wooten Ranch
Revuelto	110800080503	28733	NM	Middle Revuelto Creek
Revuelto	110800080504	25492	NM	Lower Revuelto Creek
Yellow House Draw	120500010503	15737	NM	Gamble Canyon-Three Rivers
Conejos	130100050202	16530	NM	Beaver Creek
Conejos	130100050203	14694	CO,NM	Toltec Creek-Rio de Los Pinos
Conejos	130100050204	33056	CO,NM	City of Ortiz-Rio de Los Pinos
Conejos	130100050301	33697	NM	Canada Tio Grande-Rio San Antonio
Conejos	130100050302	40362	CO,NM	Canada de Los Ranchos-Rio San Antonio
Upper Rio Grande	130201010102	27240	NM	Comanche Creek
Upper Rio Grande	130201010105	26710	NM	Ute Creek-Costillo Creek
Upper Rio Grande	130201010106	9355	CO,NM	CO
Upper Rio Grande	130201010110	21085	CO,NM	Costillo Creek-Eastdale Creek
Upper Rio Grande	130201010201	704	CO,NM	Mesita Hill-Rio Grande
Upper Rio Grande	130201010203	36441	NM	130201010204
Upper Rio Grande	130201010204	18735	CO,NM	130201010205-Rio Grande
Upper Rio Grande	130201010205	43518	NM	Urraca Canyon

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Upper Rio Grande	130201010206	22119	NM	Latir Creek
Upper Rio Grande	130201010207	31752	NM	Latir Creek-Rio Grande
Upper Rio Grande	130201010301	36175	NM	Upper Red River
Upper Rio Grande	130201010303	37322	NM	Middle Red River
Upper Rio Grande	130201010402	25624	NM	130201010402
Upper Rio Grande	130201010404	39077	NM	Cerrito Negrito
Upper Rio Grande	130201010501	21253	NM	Rito de la Olla
Upper Rio Grande	130201010502	25804	NM	Headwaters Rio Grande de Rancho
Upper Rio Grande	130201010503	25028	NM	Rio Chiquito
Upper Rio Grande	130201010504	22120	NM	Outlet Rio Grande del Rancho
Upper Rio Grande	130201010601	33058	NM	Headwaters Rio Fernando del Taos
Upper Rio Grande	130201010603	20896	NM	Rita del Gato
Upper Rio Grande	130201010604	12868	NM	Outlet Rio Fernando del Taos
Upper Rio Grande	130201010605	32384	NM	Rio Fernando del Taos-Rio Pueblo del Taos
Upper Rio Grande	130201010606	33856	NM	Arroyo Seco-Rio Pueblo de Taos
Upper Rio Grande	130201010607	20854	NM	Arroyo del Alameda-Rio Pueblo de Taos
Upper Rio Grande	130201010905	25031	NM	Outlet Rio Santa Barbara
Upper Rio Grande	130201010907	13832	NM	Canada del Oso Sarco
Upper Rio Grande	130201010908	38235	NM	Canada del Oso Sarco-Embudo Creek
Upper Rio Grande	130201010909	18838	NM	Arroyo la Mina-Embudo Creek
Upper Rio Grande	130201011003	27105	NM	Rio Quemado
Upper Rio Grande	130201011004	30668	NM	Santa Cruz Reservoir-Santa Cruz River
Upper Rio Grande	130201011101	10073	NM	Canada Comanche
Upper Rio Grande	130201011102	38401	NM	Canada Comanche-Rio Grande
Upper Rio Grande	130201011102	38401	NM	Ojito Canyon
Upper Rio Grande	130201011103	21487	NM	Rio Truchas
Upper Rio Grande	130201011104	30111	NM	Rio Truchas-Rio Grande
Upper Rio Grande	130201011105	35027	NM	Arroyo del Palacio-Rio Grande
Upper Rio Grande	130201011107	31498	NM	Rio Chama-Rio Grande
Upper Rio Grande	130201011202	26055	NM	Headwaters Rio Tesuque
Upper Rio Grande	130201011203	23870	NM	Arroyo del Pino
Rio Chama	130201020105	15701	NM	Chavez Creek
Rio Chama	130201020106	30071	NM	Chavez Creek-Rio Brazos
Rio Chama	130201020203	11871	CO,NM	Wolf Creek
Rio Chama	130201020204	20193	CO,NM	Rio Chamita
Rio Chama	130201020205	21176	CO,NM	Rio Chamita-Rio Chama
Rio Chama	130201020206	15091	NM	Canones Creek
Rio Chama	130201020207	24509	NM	Rio Brazos-Rio Chama
Rio Chama	130201020401	39141	NM	Rito de Tierra Amarilla

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Rio Chama	130201020402	26773	NM	El Vado Reservoir-Rio Chama
Rio Chama	130201020601	20787	NM	Rio Capulin
Rio Chama	130201020701	21804	NM	Upper Rio Nutrias
Rio Chama	130201020702	24007	NM	Middle Rio Nutrias
Rio Chama	130201020703	14707	NM	Rito de los Ojas
Rio Chama	130201020704	12294	NM	Lower Rio Nutrias
Rio Chama	130201020801	29534	NM	Poleo Creek
Rio Chama	130201020802	28842	NM	Coyote Creek
Rio Chama	130201020803	35386	NM	Headwaters Rio Puerco
Rio Chama	130201020804	36453	NM	Outlet Rio Puerco
Rio Chama	130201020901	22986	NM	Montoya Canyon-Canjilon Creek
Rio Chama	130201020902	17165	NM	Lopez Canyon-Canjilon Creek
Rio Chama	130201020903	15680	NM	Martinez Canyon
Rio Chama	130201020904	16127	NM	Martinez Canyon-Canjilon Creek
Rio Chama	130201020905	31563	NM	Arroyo del Yeso-Arroyo Seco
Rio Chama	130201021004	22136	NM	Polvadero Creek
Rio Chama	130201021005	36098	NM	Canones Creek
Rio Chama	130201021202	29449	NM	Abiquiu Creek
Rio Chama	130201021301	32452	NM	Canada Biscara-Rio Tusas
Rio Chama	130201021302	38294	NM	Canada del Aqua-Rio Tusas
Rio Chama	130201021303	14132	NM	Canada de los Comanches
Rio Chama	130201021304	27148	NM	Canada de los Comanches-Rio Tusas
Rio Chama	130201021305	14491	NM	Rio Vallecitos-Rio Tusas
Rio Chama	130201021401	31059	NM	Jarosa Creek-Rio Vallecitos
Rio Chama	130201021402	34860	NM	Canada Alamosa-Rio Vallecitos
Rio Chama	130201021404	25412	NM	Rio Tusas-Rio Vallecitos
Rio Grande-Santa Fe	130202010105	11441	NM	Cienega River
Rio Grande-Santa Fe	130202010106	19465	NM	Alamo Creek
Rio Grande-Santa Fe	130202010107	33765	NM	Outlet Santa Fe River
Rio Grande-Santa Fe	130202010302	35649	NM	Bull Canyon Creek
Jemez	130202020101	10881	NM	Rito Penas Negras
Jemez	130202020102	29729	NM	Headwaters Rio de Las Vacas
Jemez	130202020103	22733	NM	Headwaters Rio Cebolla
Jemez	130202020104	19628	NM	Outlet Rio Cebolla
Jemez	130202020105	37474	NM	Outlet Rio de Las Vacas
Jemez	130202020106	11447	NM	Virgin Canyon
Jemez	130202020107	39308	NM	Rio Guadalupe
Jemez	130202020201	36269	NM	Headwaters San Antonio Creek
Jemez	130202020202	16079	NM	Sulphur Creek
Jemez	130202020203	38120	NM	East Fork Jemez River
Jemez	130202020204	14801	NM	Outlet San Antonio Creek

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Jemez	130202020205	23309	NM	Church Canyon-Jemez River
Jemez	130202020403	23210	NM	Vallecita Creek-Jemez River
Jemez	130202020404	13683	NM	Bluewater Spring-Jemez River
Rio Grande-Albuquerque	130202030101	34581	NM	Arroyo Venado-Rio Grande
Rio Grande-Albuquerque	130202030102	33983	NM	Arroyo de Las Montoyas
Rio Grande-Albuquerque	130202030103	15928	NM	Arroyo de Las Baranca-Rio Grande
Rio Grande-Albuquerque	130202030104	19598	NM	Sandia Wash-Rio Grande
Rio Grande-Albuquerque	130202030106	24579	NM	Outlet Arroyo de Las Calabacillas
Rio Grande-Albuquerque	130202030107	26306	NM	Town of Corrales-Rio Grande
Rio Grande-Albuquerque	130202030108	30220	NM	City of Paradise Hills-Rio Grande
Rio Grande-Albuquerque	130202030203	27424	NM	Lower Tijeras Arroyo
Rio Grande-Albuquerque	130202030301	17889	NM	Arroyo de Domingo
Rio Grande-Albuquerque	130202030303	36775	NM	West Mesa Airport-Rio Grande
Rio Grande-Albuquerque	130202030304	37572	NM	City of Albuquerque
Rio Grande-Albuquerque	130202030305	27830	NM	City of Armijo-Rio Grande
Rio Grande-Albuquerque	130202030306	28043	NM	Cimarroncito Creek
Rio Grande-Albuquerque	130202030306	28043	NM	Isleta Lakes-Rio Grande
Rio Grande-Albuquerque	130202030406	34245	NM	White Rock Canyon
Rio Grande-Albuquerque	130202030410	17004	NM	Town of Ladera
Rio Grande-Albuquerque	130202030508	35634	NM	West and Pyle Ranch-Abo Arroyo
Rio Grande-Albuquerque	130202030602	23323	NM	Cedar Wash
Rio Grande-Albuquerque	130202030603	35339	NM	Cedar Wash-Rio Grande
Rio Grande-Albuquerque	130202030604	24930	NM	Town of Chavez-Rio Grande
Rio Grande-Albuquerque	130202030605	24413	NM	Arroyo del Cuervo
Rio Grande-Albuquerque	130202030607	36355	NM	Canon Monte Largo-Rio Grande
Rio Grande-Albuquerque	130202030608	21945	NM	Town of Jarales-Rio Grande
Rio Grande-Albuquerque	130202030701	40558	NM	Pino Draw

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Rio Grande-Albuquerque	130202030702	32647	NM	Pino Draw-Rio Grande
Rio Grande-Albuquerque	130202030703	28712	NM	Bootleg Canyon
Rio Grande-Albuquerque	130202030704	16636	NM	Maes Arroyo-Rio Grande
Rio Grande-Albuquerque	130202030705	17144	NM	Pascual Arroyo-Rio Grande
Rio Grande-Albuquerque	130202030802	14244	NM	Palo Duro Canyon-Rio Grande
Rio Grande-Albuquerque	130202030804	22222	NM	Cibola Canyon-Rio Grande
Rio Grande-Albuquerque	130202030902	25782	NM	Arroyo Alamillo
Rio Grande-Albuquerque	130202030903	24661	NM	Arroyo Alamillo-Rio Grande
Rio Grande-Albuquerque	130202030904	36649	NM	Puertecito del Lemitar-Rio Grande
Rio Grande-Albuquerque	130202030906	14562	NM	Arroyo de La Parida-Rio Grande
Rio Grande-Albuquerque	130202031003	25427	NM	Nogal Arroyo-Rio Grande
Rio Grande-Albuquerque	130202031004	17100	NM	Arroyo de Las Canas
Rio Grande-Albuquerque	130202031005	28527	NM	Arroyo de La Matanza
Rio Grande-Albuquerque	130202031006	38426	NM	Arroyo de La Matanza-Rio Grande
Rio Grande-Albuquerque	130202031101	18907	NM	Red Canyon
Rio Grande-Albuquerque	130202031102	30858	NM	San Pedro Arroyo
Rio Grande-Albuquerque	130202031103	21083	NM	Walnut Creek
Rio Grande-Albuquerque	130202031104	39638	NM	Walnut Creek-Rio Grande
Rio Grande-Albuquerque	130202031201	25285	NM	Chupadera Spring-Rio Grande
Rio Grande-Albuquerque	130202031202	30085	NM	Sand Mountain
Rio Grande-Albuquerque	130202031204	37868	NM	Willow Springs-Rio Grande
Rio Grande-Albuquerque	130202031207	12281	NM	Outlet Tiffany Canyon
Rio Grande-Albuquerque	130202031208	21396	NM	Town of San Marcial
Rio Grande-Albuquerque	130202031209	16657	NM	Tiffany Canyon-Rio Grande
Rio Puerco	130202040101	35450	NM	Headwaters Arroyo San Jose
Rio Puerco	130202040106	33553	NM	Arroyo San Jose-Rio Puerco
Rio Puerco	130202041104	23810	NM	130202041104-Rio Puerco

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Rio San Jose	130202070201	23847	NM	Agua Medio-Bluewater Creek
Rio San Jose	130202070205	16892	NM	Ojo Redondo-Bluewater Creek
Rio San Jose	130202070206	20034	NM	Bluewater Lake-Bluewater Creek
Rio San Jose	130202070207	13876	NM	Reynold Draw-Bluewater Creek
Rio San Jose	130202070701	12674	NM	Seboyetita Creek
Rio San Jose	130202070702	26683	NM	Seboyeta Creek
Rio San Jose	130202070704	10662	NM	Rio Paguate
Rio Salado	130202090503	15801	NM	Murphy Arroyo-La Plata River
Rio Salado	130202090707	22178	NM	Arroyo Tio Lino-Rio Salado
El Paso-Las Cruces	130301020103	21567	NM	130301020103
El Paso-Las Cruces	130301020104	13879	NM	Cuervo Arroyo
El Paso-Las Cruces	130301020201	32266	NM	Red River-Rio Grande
El Paso-Las Cruces	130301020201	32266	NM	Trujillo Canyon Creek
El Paso-Las Cruces	130301020202	12361	NM	Montoya Arroyo
El Paso-Las Cruces	130301020204	29734	NM	Outlet Tierra Blanca Creek
El Paso-Las Cruces	130301020206	18010	NM	Oak Spring Creek-Rio Grande
El Paso-Las Cruces	130301020209	17893	NM	Outlet Berrenda Creek
El Paso-Las Cruces	130301020210	23030	NM	Berrenda Creek-Rio Grande
El Paso-Las Cruces	130301020211	18614	NM	Cuervo Arroyo-Rio Grande
El Paso-Las Cruces	130301020304	17808	NM	Outlet Rincon Arroyo
El Paso-Las Cruces	130301020401	9868	NM	McLeod Arroyo
El Paso-Las Cruces	130301020402	21716	NM	Placitas Arroyo
El Paso-Las Cruces	130301020403	31627	NM	Placitas Arroyo-Rio Grande
El Paso-Las Cruces	130301020404	30720	NM	Rincon Arroyo-Rio Grande
El Paso-Las Cruces	130301020501	33211	NM	Tonuco Draw
El Paso-Las Cruces	130301020502	26540	NM	Tonuco Draw-Rio Grande
El Paso-Las Cruces	130301020504	20843	NM	Broad Canyon Creek
El Paso-Las Cruces	130301020505	19457	NM	Broad Canyon Creek-Rio Grande
El Paso-Las Cruces	130301020506	16879	NM	Faulkner Canyon Creek
El Paso-Las Cruces	130301020507	17188	NM	Faulkner Canyon Creek-Rio Grande
El Paso-Las Cruces	130301020601	34591	NM	Wagner Canyon-Rio Grande
El Paso-Las Cruces	130301020602	43799	NM	Box Canyon-Rio Grande
El Paso-Las Cruces	130301020606	31885	NM	130301020606
El Paso-Las Cruces	130301020608	31961	NM	Alameda Arroyo-Rio Grande
El Paso-Las Cruces	130301020701	38250	NM	Santo Tomas de Yturbide Colony
El Paso-Las Cruces	130301020702	31414	NM	Tortugas Arroyo
El Paso-Las Cruces	130301020703	27360	NM	Achenback Canyon
El Paso-Las Cruces	130301020704	43985	NM	Achenback Canyon-Rio Grande
El Paso-Las Cruces	130301020802	18571	NM	Anthony Wash
El Paso-Las Cruces	130301020803	48711	NM	Anthony Wash-Rio Grande
El Paso-Las Cruces	130301020902	33666	NM	City of Santa Teresa

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
El Paso-Las Cruces	130301020903	36887	NM	Black Mountain
El Paso-Las Cruces	130301020904	37273	NM	La Union-Rio Grande
El Paso-Las Cruces	130301020905	30139	NM,TX	Mulberry Dam-Rio Grande
El Paso-Las Cruces	130301020906	15543	NM,TX	Coronado Hills-Rio Grande
Rio Grande-Fort Quitman	130401000104	65	NM,TX	City of El Paso-Rio Grande
Tularosa Valley	130500030602	18186	NM	San Lorenzo Arroyo
Tularosa Valley	130500031101	13659	NM	Gamble Canyon
Tularosa Valley	130500031103	18388	NM	Golondrina Draw-Three Rivers
Tularosa Valley	130500031104	24376	NM	Crawford Draw-Three Rivers
Salt Basin	130500040606	23660	NM	Farmington Glade
Salt Basin	130500040705	22468	NM	Trout Creek-San Francisco River
Pecos Headwaters	130600010101	27622	NM	Headwaters Cow Creek
Pecos Headwaters	130600010102	17590	NM	Bull Creek
Pecos Headwaters	130600010103	14068	NM	Apache Creek
Pecos Headwaters	130600010104	22253	NM	Outlet Cow Creek
Pecos Headwaters	130600010204	29003	NM	Indian Creek-Pecos River
Pecos Headwaters	130600010205	27254	NM	Dry Gulch-Pecos River
Pecos Headwaters	130600010206	21416	NM	Glorieta Creek
Pecos Headwaters	130600010207	20252	NM	Glorieta Creek-Pecos River
Pecos Headwaters	130600010208	38367	NM	Tortolita Canyon-Pecos River
Pecos Headwaters	130600010302	23368	NM	Canon Mesteno-Tecolote Creek
Pecos Headwaters	130600010308	26409	NM	Arroyo Leguino-Tecolote Creek
Pecos Headwaters	130600010407	23022	NM	El Fileto Canon-Pecos River
Pecos Headwaters	130600010607	23962	NM	Canon del Rancho Alegre-Canon Blanco
Pecos Headwaters	130600010801	18029	NM	Porvenir Canyon
Pecos Headwaters	130600010802	16073	NM	Porvenir Canyon-Gallinas Creek
Pecos Headwaters	130600010803	27333	NM	130600010803
Pecos Headwaters	130600010804	33636	NM	Arroyo Pecos
Pecos Headwaters	130600010805	28940	NM	Arroyo Pecos-Gallinas River
Pecos Headwaters	130600010909	21419	NM	Payne Ranch-Gallinas River
Pecos Headwaters	130600011001	29745	NM	Canon Blanco-Pecos River
Pecos Headwaters	130600011002	10285	NM	Telephone Tank
Pecos Headwaters	130600011003	32971	NM	Spring Creek
Pecos Headwaters	130600011004	30495	NM	Spring Creek-Pecos River
Pecos Headwaters	130600011101	20851	NM	Canada de Arriba-Pecos River
Pecos Headwaters	130600011102	10534	NM	Laguna del Tul
Pecos Headwaters	130600011103	12879	NM	Red Lake
Pecos Headwaters	130600011104	25535	NM	Canada de Abajo-Pecos River
Pecos Headwaters	130600011110	26730	NM	El Rito Creek
Pecos Headwaters	130600011111	38845	NM	Esteros Creek-Pecos River

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Upper Pecos	130600030804	25224	NM	Outlet Arroyo Hondo
Upper Pecos	130600031003	33684	NM	Blanco Canyon-Canon Largo
Taiban	130600040303	12161	NM	Arroyo Needam
Taiban	130600040402	15080	NM	Rio La Casa-Mora River
Upper Pecos-Long Arroyo	130600070102	15447	NM	Mossman Arroyo
Rio Hondo	130600080101	15741	NM	Carrizo Creek
Rio Hondo	130600080103	30827	NM	Upper Rio Ruidoso
Rio Hondo	130600080104	13202	NM	Water Hole Canyon
Rio Hondo	130600080105	37237	NM	Devils Canyon
Rio Hondo	130600080106	37157	NM	Middle Rio Ruidoso
Rio Hondo	130600080107	20794	NM	Lower Rio Ruidoso
Rio Hondo	130600080201	25847	NM	Upper Rio Bonita
Rio Hondo	130600080205	20722	NM	Outlet Salado Creek
Rio Hondo	130600080206	14799	NM	Salazar Canyon
Rio Hondo	130600080207	32248	NM	Middle Rio Bonita
Rio Hondo	130600080303	33439	NM	Outlet Casey Canyon
Rio Hondo	130600080401	29647	NM	Chavez Canyon
Rio Hondo	130600080402	35284	NM	Alamo Canyon
Rio Hondo	130600080403	18983	NM	Casey Canyon-Rio Hondo
Rio Hondo	130600080405	19854	NM	Bonney Canyon-Rio Hondo
Rio Penasco	130600100302	30433	NM	Canada de Agua-Rio Vallecitos
Upper Pecos-Black	130600111007	34982	NM	Dark Canyon-Pecos River
Upper San Juan	140801011902	30309	NM	Canon Largo-San Juan River
Upper San Juan	140801011903	17573	NM	Armenta Canyon
Upper San Juan	140801011904	38147	NM	Armenta Canyon-San Juan River
Upper San Juan	140801012009	18061	NM	Gallegos Spring-Gallegos Canyon
Upper San Juan	140801012101	37360	NM	Kutz Canyon
Upper San Juan	140801012102	34086	NM	Kutz Canyon-San Juan River
Upper San Juan	140801012103	28362	NM	Gallegos Canyon-San Juan River
Upper San Juan	140801012104	19689	NM	Head Canyon-San Juan River
Animas	140801041001	12860	CO,NM	Cox Canyon
Animas	140801041002	18065	CO,NM	Ditch Canyon-Animas River
Animas	140801041003	27544	NM	Tucker Canyon-Animas River
Animas	140801041004	37045	NM	Estes Arroyo-Animas River
Animas	140801041005	27433	NM	Flora Vista Arroyo-Animas River
Animas	140801041006	21375	NM	City of Farmington-Animas River
Middle San Juan	140801050201	40	CO,NM	Johnny Pond Arroyo-La Plata River
Middle San Juan	140801050205	20866	NM	Blue Lake Wash-McDermott Arroyo
Middle San Juan	140801050301	24026	CO,NM	Barker Arroyo
Middle San Juan	140801050302	36815	NM	Cottonwood Arroyo-La Plata River
Middle San Juan	140801050403	32401	NM	Outlet Shumway Arroyo

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Middle San Juan	140801050504	14453	NM	Outlet Ojo Amarillo Canyon
Middle San Juan	140801050505	25543	NM	Ojo Amarillo Canyon-San Juan River
Middle San Juan	140801050506	32262	NM	Shumway Arroyo-San Juan River
Middle San Juan	140801050702	22138	NM	Eagle Nest Arroyo-San Juan River
Middle San Juan	140801050704	28444	NM	Rail Canyon-Vermejo River
Upper Gila	150400010401	27016	NM	Hoyt Creek
Upper Gila	150400010402	37993	NM	Taylor Creek
Upper Gila	150400010403	26665	NM	Taylor Creek-Beaver Creek
Upper Gila	150400010406	24887	NM	Outlet Diamond Creek
Upper Gila	150400010407	30879	NM	Diamond Creek-East Fork Gila River
Upper Gila	150400010504	30016	NM	Canyon Creek
Upper Gila	150400010701	13538	NM	Tom Moore Canyon
Upper Gila	150400010702	21633	NM	Headwaters Black Canyon
Upper Gila	150400010703	15171	NM	Apache Creek
Upper Gila	150400010704	34985	NM	Outlet Black Canyon
Upper Gila	150400010705	19097	NM	Black Canyon-East Fork Gila River
Upper Gila	150400010803	23386	NM	Lake Roberts-Sapillo Creek
Upper Gila	150400010804	16767	NM	Copperas Creek-Sapillo Creek
Upper Gila	150400010804	16767	NM	Willow Spring
Upper Gila	150400010805	25666	NM	Sheep Corral Canyon-Sapillo Creek
Upper Gila	150400010904	34757	NM	Upper Mogollon Creek
Upper Gila	150400010905	25272	NM	Middle Mogollon Creek
Upper Gila	150400010906	19631	NM	Lower Mogollon Creek
Upper Gila-Mangas	150400020304	38052	NM	Schoolhouse Canyon-Mangas Creek
San Francisco	150400040106	28852	NM	Apache Creek
San Francisco	150400040107	29325	NM	Apache Creek-Tularosa River
San Francisco	150400040108	31017	NM	Cold Springs Canyon-Tularosa River
San Francisco	150400040201	33558	NM	Long Canyon-Tularosa River
San Francisco	150400040203	31744	NM	South Fork Negrito Creek
San Francisco	150400040204	24217	NM	Outlet North Fork Negrito Creek
San Francisco	150400040206	25716	NM	Negrito Creek
San Francisco	150400040207	22516	NM	Negrito Creek-Tularosa River
San Francisco	150400040301	1946	AZ,NM	Stone Creek-San Francisco River
San Francisco	150400040302	13176	AZ,NM	Trout Creek
San Francisco	150400040304	26237	NM	Spur Draw
San Francisco	150400040305	22614	NM	SA Creek
San Francisco	150400040306	18574	NM	Headwaters Centerfire Creek
San Francisco	150400040307	20638	NM	Outlet Centerfire Creek
San Francisco	150400040308	16455	NM	Centerfire Creek-San Francisco River
San Francisco	150400040607	34943	NM	Whitewater Creek

Priorities for Addressing Water Quality Problems

Table 3 lists 24 streams with completed watershed-based plans. These streams are the highest priority for water quality improvement projects to be supported with CWA Section 319 watershed project funds. Water quality improvement projects funded under other programs, including state-funded programs such as the River Stewardship Program, will not be limited to these streams or their watersheds. This list is subject to change as new watershed-based plans or acceptable alternatives to watershed-based plans are developed, or as streams are placed into Category 4B.

Table 3: Streams with watershed-based plans

Assessment Unit (AU) Name	AU ID	Impairments with TMDLs	2002 303(d) List?
Cimarron Watershed (11080002)			
Cieneguilla Creek (Eagle Nest Lake to headwaters)	NM-2306.A_065	*E. coli*, Nutrients, Temperature, Turbidity, Sediment	Yes
Cimarron River (Canadian River to Cimarron Village)	NM-2305.1.A_10	Nutrients	No
Cimarron River (Cimarron Village to Turkey Creek)	NM-2306.A_040	Temperature, Arsenic	No
Cimarron River (Turkey Creek to Eagle Nest Lake)	NM-2306.A_130	Arsenic, Nutrients	No
Middle Ponil Creek (Greenwood Creek to headwaters)	NM-2306.A_124	Nutrients	No
Middle Ponil Creek (South Ponil to Greenwood Creek)	NM-2306.A_121	Temperature	Yes
Moreno Creek (Eagle Nest Lake to headwaters)	NM-2306.A_060	Nutrients, Temperature	No
North Ponil Creek (Seally Canyon to headwaters)	NM-2306.A_162	Temperature	Yes
North Ponil Creek (South Ponil Creek to Seally Canyon)	NM-2306.A_110	*E. coli*,Temperature, Turbidity	Yes
Ponil Creek (Cimarron River to US 64)	NM-2306.A_100	*E. coli*	No
Ponil Creek (US 64 to confl of North & South Ponil)	NM-2306.A_101	*E. coli*, Nutrients, Temperature, Turbidity	Yes
Rayado Creek (Cimarron River to Miami Lake Diversion)	NM-2305.3.A_80	Nutrients, Sediment	No
Rayado Creek (Miami Lake Diversion to headwaters)	NM-2306.A_051	*E. coli*, Temperature	No
Sixmile Creek (Eagle Nest Lake to headwaters)	NM-2306.A_064	*E. coli*, Nutrients, Temperature, Turbidity	No
South Ponil Creek (Ponil Creek to Middle Ponil Creek)	NM-2306.A_120	Temperature	No

Assessment Unit (AU) Name	AU ID	Impairments with TMDLs	2002 303(d) List?
Ute Creek (Cimarron River to headwaters)	NM-2306.A_068	Arsenic, *E. coli*, Temperature	No
Pecos Headwaters Watershed (13060001)			
Gallinas River (Las Vegas Diversion to USFS bnd)	NM-2212_00	Temperature	Yes
Pecos River (Canon de Manzanita to Alamitos Canyon)	NM-2214.A_003	Temperature	No
Cow Creek (Pecos River to Bull Creek)	NM-2214.A_090	Temperature	No
Cow Creek (Bull Creek to headwaters)	NM-2214.A_102	Temperature	No
Dalton Canyon Creek (Pecos River to headwaters)	NM-2214.A_070	Specific Conductance	No
Macho Canyon Creek (Pecos River to headwaters)	NM-2214.A_071	Specific Conductance	No
Willow Creek (Pecos River to headwaters)	NM-2214.A_030	Specific Conductance	No
Upper Rio Grande Watershed (13020101)			
Rio Santa Barbara (Non-Pueblo Embudo Creek to USFS Boundary)	NM-2120.A_419	*E. coli*	No

Table 4 lists 45 priority watersheds, which contain or drain directly to the streams listed in Table 3. These watersheds will be made available for review and updated using an on-line mapping tool at https://gis.web.env.nm.gov/SWQB/. These watersheds will generally be the primary focus of implementation supported with CWA Section 319 watershed project funds, and will be used to track progress related to implementation. The NPS Management Program recognizes that some of the best approaches to addressing water quality may lie outside of these areas. The locations of proposed projects should be identified within watershed-based plans. Water quality improvement projects funded under other programs, including state-funded programs such as the River Stewardship Program, will not be limited to these watersheds. This list is subject to change as new watershed plans are developed, or as streams are placed into Category 4B.

Table 4: Priority watersheds for implementation supported with CWA Section 319 watershed project funds

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Cimarron	110800020101	28215	NM	Headwaters Moreno Creek
Cimarron	110800020102	22684	NM	Outlet Moreno Creek
Cimarron	110800020103	35158	NM	Headwaters Cieneguilla Creek
Cimarron	110800020104	13359	NM	Outlet Cieneguilla Creek
Cimarron	110800020105	18517	NM	Eagle Nest Lake
Cimarron	110800020106	10151	NM	Ute Creek
Cimarron	110800020107	28249	NM	Ute Creek-Cimarron River
Cimarron	110800020108	28043	NM	Cimarroncito Creek

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Cimarron	110800020109	29431	NM	Cimarroncito Creek-Cimarron River
Cimarron	110800020201	10273	NM	Greenwood Canyon
Cimarron	110800020202	36872	NM	Middle Ponil Creek
Cimarron	110800020203	20427	NM	Headwaters North Ponil Creek
Cimarron	110800020204	14065	NM	South Ponil Creek
Cimarron	110800020205	34569	NM	Outlet North Ponil Creek
Cimarron	110800020206	14800	NM	Chase Canyon
Cimarron	110800020207	23559	NM	Headwaters Cerrososo Creek
Cimarron	110800020208	21084	NM	Outlet Cerrososo Creek
Cimarron	110800020209	32403	NM	Ponil Creek
Cimarron	110800020301	15764	NM	Agua Fria Creek
Cimarron	110800020302	20031	NM	Headwaters Rayado Creek
Cimarron	110800020303	31347	NM	Moras Creek
Cimarron	110800020304	15688	NM	Chicoso Creek
Cimarron	110800020305	26696	NM	Urraca Creek
Cimarron	110800020306	24481	NM	Outlet Rayado Creek
Cimarron	110800020401	15343	NM	Springer Lake
Cimarron	110800020402	36615	NM	Salado Creek
Cimarron	110800020403	36436	NM	Rayado Creek-Cimarron River
Cimarron	110800020404	26873	NM	110800020404-Cimarron River
Upper Rio Grande	130201010904	16792	NM	Headwaters Rio Santa Barbara
Upper Rio Grande	130201010905	25031	NM	Outlet Rio Santa Barbara
Pecos Headwaters	130600010101	27622	NM	Headwaters Cow Creek
Pecos Headwaters	130600010102	17590	NM	Bull Creek
Pecos Headwaters	130600010103	14068	NM	Apache Creek
Pecos Headwaters	130600010104	22253	NM	Outlet Cow Creek
Pecos Headwaters	130600010201	14386	NM	Panchuela Creek
Pecos Headwaters	130600010202	34394	NM	Rio Mora
Pecos Headwaters	130600010203	37112	NM	Rio Mora-Pecos River
Pecos Headwaters	130600010204	29003	NM	Indian Creek-Pecos River
Pecos Headwaters	130600010205	27254	NM	Dry Gulch-Pecos River
Pecos Headwaters	130600010206	21416	NM	Glorieta Creek
Pecos Headwaters	130600010207	20252	NM	Glorieta Creek-Pecos River
Pecos Headwaters	130600010208	38367	NM	Tortolita Canyon-Pecos River
Pecos Headwaters	130600010801	18029	NM	Porvenir Canyon
Pecos Headwaters	130600010802	16073	NM	Porvenir Canyon-Gallinas Creek
Pecos Headwaters	130600010805	28940	NM	Arroyo Pecos-Gallinas River

Priorities for Water Quality Protection

Two hundred eighteen streams, 29 lakes or ponds, and 1,405 wetlands are designated as Outstanding National Resource Waters (ONRWs) in New Mexico. More information on these is available at www.nmenv.state.nm.us/swqb/ONRW, and their locations and identifying information may also be reviewed at https://gis.web.env.nm.gov/ONRW/. These streams, lakes, ponds, and wetlands are the highest priority for water quality protection. The majority of these waters lie within designated wilderness areas, and all of them are on public land managed by the United States Forest Service (USFS). In most cases, few actual threats to water quality are present in the watersheds of these waters, so most activity directed to these waters is the ongoing monitoring of their condition, review of proposed actions which may affect them, and other implementation of antidegradation provisions of the Water Quality Standards (WQS) by USFS and the New Mexico Environment Department (NMED). Although ONRWs are the highest priority for water quality protection, existing protections such as wilderness designation reduce the need for specific actions to increase their protection, and several activities listed in Section 3.3 will be more commonly implemented to protect water quality in other waters.

Table 5 lists 92 watersheds, which contain or drain directly to ONRWs. These watersheds will be added to the on-line mapping tool at https://gis.web.env.nm.gov/ONRW/. These watersheds are the primary focus of water quality protection activities to protect ONRWs.

Table 5: Priority Watersheds for Water Quality Protection – Watersheds with ONRWs

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Canadian Headwaters	110800010302	15143	NM	Leandro Creek
Cimarron	110800020201	10273	NM	Greenwood Canyon
Cimarron	110800020202	36872	NM	Middle Ponil Creek
Cimarron	110800020203	20427	NM	Headwaters North Ponil Creek
Cimarron	110800020205	34569	NM	Outlet North Ponil Creek
Mora	110800040201	16850	NM	Rito San Jose
Mora	110800040202	22070	NM	Headwaters Manuelitas Creek
Mora	110800040204	25052	NM	Manuelitas Creek-Sapello River
Mora	110800040304	15104	NM	Rio La Casa
Conejos	130100050202	16530	NM	Beaver Creek
Upper Rio Grande	130201010102	27240	NM	Comanche Creek
Upper Rio Grande	130201010103	16633	NM	Comanche Creek-Costillo Creek
Upper Rio Grande	130201010104	34795	NM	Latir Creek-Costillo Creek
Upper Rio Grande	130201010206	22119	NM	Latir Creek
Upper Rio Grande	130201010301	36175	NM	Upper Red River
Upper Rio Grande	130201010302	25136	NM	Cabresto Creek
Upper Rio Grande	130201010405	32266	NM	Red River-Rio Grande
Upper Rio Grande	130201010701	20524	NM	Headwaters Arroyo Hondo
Upper Rio Grande	130201010904	16792	NM	Headwaters Rio Santa Barbara
Upper Rio Grande	130201010905	25031	NM	Outlet Rio Santa Barbara
Upper Rio Grande	130201010908	38235	NM	Canada del Oso Sarco-Embudo Creek

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Upper Rio Grande	130201011001	24047	NM	Rio Frijoles
Upper Rio Grande	130201011002	34951	NM	Rio Medio
Upper Rio Grande	130201011003	27105	NM	Rio Quemado
Upper Rio Grande	130201011103	21487	NM	Rio Truchas
Upper Rio Grande	130201011201	31664	NM	Rio Nambe
Rio Chama	130201020601	20787	NM	Rio Capulin
Rio Chama	130201020603	18417	NM	Upper Rio Gallina
Rio Chama	130201020708	27178	NM	Huckbay Canyon-Rio Chama
Rio Chama	130201020801	29534	NM	Poleo Creek
Rio Chama	130201020803	35386	NM	Headwaters Rio Puerco
Rio Chama	130201021001	16371	NM	Ojitos Canyon
Rio Chama	130201021002	22639	NM	Ojito Canyon-Abiquiu Reservoir
Rio Grande-Santa Fe	130202010102	34775	NM	Headwaters Santa Fe River
Rio Grande-Santa Fe	130202010207	26889	NM	Capulin Canyon-Rio Grande
Jemez	130202020102	29729	NM	Headwaters Rio de Las Vacas
Rio Puerco	130202040101	35450	NM	Headwaters Arroyo San Jose
Rio Puerco	130202040102	19811	NM	Outlet Arroyo San Jose
Rio Puerco	130202040106	33553	NM	Arroyo San Jose-Rio Puerco
Elephant Butte Reservoir	130202110501	13612	NM	Indian Creek
Elephant Butte Reservoir	130202110702	33525	NM	San Mateo Canyon-Alamosa Creek
Caballo	130301010104	20227	NM	South Fork Cuchillo Negro Creek
Caballo	130301010204	11482	NM	Mud Spring Canyon
Caballo	130301010205	11775	NM	Circle Seven Creek
Caballo	130301010206	27809	NM	North Fork Palomas Creek
Caballo	130301010401	18453	NM	North Seco Canyon
Caballo	130301010404	15699	NM	Holden Prong
Caballo	130301010406	24310	NM	Headwaters Los Animas Creek
Mimbres	130302020101	34765	NM	Powderhorn Canyon-Mimbres River
Tularosa Valley	130500030502	24085	NM	Nogal Creek
Tularosa Valley	130500031102	15737	NM	Gamble Canyon-Three Rivers
Pecos Headwaters	130600010201	14386	NM	Panchuela Creek
Pecos Headwaters	130600010202	34394	NM	Rio Mora
Pecos Headwaters	130600010203	37112	NM	Rio Mora-Pecos River
Pecos Headwaters	130600010204	29003	NM	Indian Creek-Pecos River
Pecos Headwaters	130600010801	18029	NM	Porvenir Canyon
Rio Hondo	130600080201	25847	NM	Upper Rio Bonito
Rio Hondo	130600080207	32248	NM	Middle Rio Bonito
Upper Gila	150400010404	20905	NM	Headwaters Diamond Creek
Upper Gila	150400010405	25602	NM	South Diamond Creek
Upper Gila	150400010406	24887	NM	Outlet Diamond Creek

Eight Digit Watershed Name	Twelve Digit HUC	Area in NM (ac)	States	Twelve Digit Watershed Name
Upper Gila	150400010407	30879	NM	Diamond Creek-East Fork Gila River
Upper Gila	150400010502	25277	NM	Gilita Creek
Upper Gila	150400010503	31395	NM	Snow Canyon
Upper Gila	150400010504	30016	NM	Canyon Creek
Upper Gila	150400010505	32489	NM	Canyon Creek-Middle Fork Gila River
Upper Gila	150400010506	21888	NM	Indian Creek Canyon
Upper Gila	150400010507	21428	NM	Indian Creek Canyon-Middle Fork Gila River
Upper Gila	150400010508	29983	NM	Big Bear Canyon-Middle Fork Gila River
Upper Gila	150400010601	13979	NM	White Creek
Upper Gila	150400010602	23214	NM	Headwaters West Fork Gila River
Upper Gila	150400010603	26811	NM	Little Creek
Upper Gila	150400010604	40049	NM	Outlet West Fork Gila River
Upper Gila	150400010701	13538	NM	Tom Moore Canyon
Upper Gila	150400010702	21633	NM	Headwaters Black Canyon
Upper Gila	150400010703	15171	NM	Apache Creek
Upper Gila	150400010704	34985	NM	Outlet Black Canyon
Upper Gila	150400010705	19097	NM	Black Canyon-East Fork Gila River
Upper Gila	150400010801	15163	NM	Rocky Canyon
Upper Gila	150400010805	25666	NM	Sheep Corral Canyon-Sapillo Creek
Upper Gila	150400010901	26551	NM	Sapillo Creek-Gila River
Upper Gila	150400010902	25270	NM	Hells Canyon-Gila River
Upper Gila	150400010903	33012	NM	Turkey Creek
Upper Gila	150400010904	34757	NM	Upper Mogollon Creek
Upper Gila	150400010905	25272	NM	Middle Mogollon Creek
Upper Gila	150400010906	19631	NM	Lower Mogollon Creek
Upper Gila	150400010907	25592	NM	Mogollon Creek-Gila River
Upper Gila-Mangas	150400020203	26030	NM	Sacaton Creek
San Francisco	150400040602	27948	AZ,NM	Outlet Pueblo Creek
San Francisco	150400040607	34943	NM	Whitewater Creek
San Francisco	150400040801	33313	NM	Little Dry Creek
San Francisco	150400040802	25119	NM	Big Dry Creek

Appendix C Best Management Practices

Nonpoint source (NPS) pollution controls are typically established through implementation of Best Management Practices (BMPs) that are structural or nonstructural in nature. Structural practices include diversions, temporary sediment basins, animal waste lagoons, fencing, terraces, rock check dams and other constructed means of reducing pollutant loading to surface water and ground water. Nonstructural practices relate to resource management techniques, such as timing and rate of fertilizer or pesticide application, conservation tillage methods, livestock grazing rotation, riparian planting, upland revegetation and other techniques.

The list below is not intended to be comprehensive or exclusive, but represents a sample of current BMPs described in State and federal publications. Selection of appropriate BMPs for a particular project is made on a case-by-case basis, and should be described in a watershed-based plan. See the BMP Bibliography below for more information.

Agriculture

Crop and residue management practices to maintain soil cover:

- Contour stripcropping
- Stubble mulching
- Conservation tillage

Practices to reduce runoff:

- Terracing
- Diversions
- Contour farming
- Grassed waterways
- Vegetative filter strips

Practices to limit nutrient movement:

- Nutrient management
- Split fertilizer applications
- Nutrient balancing 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

Practices to minimize pesticide impacts on surface and ground water:

- Use least toxic compound which is effective on target species
- Pesticide application 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
- Do not apply when pesticide could drift off application site during spray application
- Follow recommended IPM practices when possible

- Calibrate spray equipment regularly
- Know surface area of 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
- Utilize New Mexico Farm*A*Syst, Farmstead Assessment, section 2

Irrigated crop production

Management practices used to maintain crop and residue cover:

- No-till/conservation tillage
- Utilize cover and green manure crops
- Soil moisture monitoring devices
- Irrigation scheduling when possible
- Split fertilizer applications

Irrigation water delivery and drainage systems:

- Irrigation water management
- Irrigation water measurement
- Irrigation pipeline
- Tailwater recovery systems
- Vegetation control
- Concrete or synthetic ditch lining
- Laser level fields
- Low output sprinkler systems

Animal waste management:

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

Urban agriculture (landscaping, gardening, turf management):

- Utilize urban IPM 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
- Planned grazing systems such as rest/rotation, seasonal or pasture rotation
- Control livestock/wildlife use in sensitive areas including riparian/wetland areas
- Livestock/wildlife water development to better distribute use

- Relocate livestock trails to better distribute livestock use
- Riding or herding to shift livestock locations
- Using salt or supplemental feed as tools to gain proper distribution of livestock

Gully erosion control:

- Grade stabilization structure
- Rock and brush dam
- Debris basin
- Diversion around eroding areas
- Reestablishment of vegetation in riparian areas
- Maintenance of erosion control structures

Critical area treatment to restore vegetative cover:

- Grazing land mechanical treatment
- Critical area planting
- Mulching

Vegetative management practices to improve cover:

- Brush management
- Range seeding
- 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
- 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
- Dispersion of subsurface drainage from cut and fill slopes
- Timely erosion control measures on actively eroding areas
- Properly orient, design and maintain stream crossings
- Construction of stable embankments
- Control sidecast materials
- Minimize in-channel excavation
- Divert flows around construction sites
- Spill prevention plans should be mandatory part of all construction projects
- Proper bridge and culvert installation
- Proper stream crossings on temporary roads

- Regulation of streamside gravel borrow areas
- Proper disposal of right-of-way and roadside debris
- Specify riprap composition
- Water source development 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:

- Determine the necessary culvert diameter for expected high flow
- Culvert should be 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
- Protect fill material with armoring

Road maintenance:

- Regular maintenance and inspection
- Inspect drainage structures frequently
- Road surface treatment to prevent erosion
- Correct erosion issues early
- Control traffic during wet periods
- Snow removal controls to avoid resource damage
- Obliterate 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 (ORV) 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/Exploration/Development

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
- Channel runoff around tailings

Oil and Gas Exploration and Production:

- Pit closures
- Plug orphan wells
- Provide secondary containment for above ground 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-materials cross-drains such as rolling dips

Hydrologic Habitat Modification

Flow regulation/modification:

- Flow management
- Encourage floodplain protection

Streambank modification/stabilization:

- Stream channel stabilization
- Streambank protection
- Revegetation

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 settling ponds to collect suspended material and preserve or restore pre-development hydrology
- Use public education methods to promote landscaping that utilizes rainfall on-site
- Use zoning and land-use planning to minimize impacts to streams and arroyos

Other

Watershed Management:

- When planning watershed restoration efforts, include goals related to 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 USFS lands
- Evaluate cumulative effects on a watershed basis of projects requiring NEPA analysis

Wildlife and Fisheries Management:

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

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www.wildlandhydrology.com/assets/SRITVOB.pdf

Coalbed Methane Best Practices Handbook, published by the Western Governors' Association, revised in 2006:
www.oilandgasbmps.org/docs/GEN10-WGACoalbedMethaneBMPs.pdf

Appendix D Funding Sources

Web site addresses are current as of December 2013.

1. American Canoe Association/L.L. Bean: Club Fostered Stewardship Program
www.americantrails.org/NewsAction/canoe2-07.html

The Club Fostered Stewardship (CFS) Program provides funding and logistical assistance to local paddling clubs that undertake stewardship projects on local waterways. The purpose of the program is to support volunteer stewardship efforts, and encourage local clubs to take an active role in helping to protect and improve the nation's recreational waterways. CFS grants are available for projects that utilize volunteers in efforts to protect, maintain or restore recreational waterways, provide for or improve public access, or enhance safe navigation.

2. Blue Moon Fund
www.bluemoonfund.org/grantmaking

The Blue Moon Fund makes grants to nonprofit organizations that have developed innovative, holistic approaches to improving human quality of life in harmony with the natural world. The Balancing Human and Natural Ecosystems initiative promotes new economic and culture approaches to reducing resource pressure and preserving biodiversity. The Blue Moon Fund is primarily concerned with the value of diverse ecosystems for human quality of life. The fund seeks economically sustainable development models that do not displace humans or take advantage of market forces.

3. Captain Planet Foundation
http://captainplanetfoundation.org

The mission of the Captain Planet Foundation is to fund and support hands-on, environmental projects for children and youths. The Foundation’s objective is to encourage innovative programs that empower children and youth around the world to work individually and collectively to solve environmental problems in their neighborhoods and communities.

4. Charles A. and Anne Morrow Lindbergh Foundation
www.thelindberghfoundation.org

The Foundation is dedicated to furthering Charles and Anne Morrow Lindbergh's shared vision of a balance between technological advancement and environmental preservation. The Foundation seeks to support present and future generations in working toward such a balance, that we may "...discern nature's essential wisdom and combine it with our scientific knowledge..." (Charles A. Lindbergh) and "balance power over life with reverence for life" (Anne Morrow Lindbergh). Lindbergh Grants are made in the following categories: agriculture; aviation/aerospace; conservation of natural resources; education; exploration; health; and waste minimization and management.

5. Cottonwood Foundation
www.cottonwoodfdn.org

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

6. Corporation for National Community Service, Learn and Serve grants
www.nationalservice.gov

Learn and Serve America provides direct and indirect support to K-12 schools, community groups and higher education institutions to facilitate service-learning projects by: providing grant support for school-community partnerships and higher education institutions; providing training and technical assistance resources to teachers, administrators, parents, schools and community groups; collecting and disseminating research, effective practices, curricula, and program models; and recognizing outstanding youth service through the Presidential Freedom Scholarship, President's Volunteer Service Awards and other program.

7. Educational Foundation of America
www.efaw.org

The Educational Foundation of America (EFA) was established in 1959 to preserve the lifelong altruistic commitment of its founders, Richard Prentice Ettinger and his wife, Elsie P. Ettinger. EFA provides grants for specific projects. EFA's priorities in environmental funding are the protection and restoration of land and water, and projects that focus on renewable energy, energy conservation, and sustainable production and consumption. The Foundation also funds: air quality protection, recycling programs, the conservation of parks and trails, ecological conservation, and technical assistance and training for environmental groups, policy-makers, and the public.

8. EPA Brownfields and Land Revitalization Program
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: (1) to inventory, characterize, assess, and conduct planning and community involvement related to brownfield sites; (2) to capitalize a revolving loan fund (RLF) and provide subgrants to carry out cleanup activities at brownfield sites; and (3) to carry out cleanup activities at brownfield sites that are owned by the grant recipient.

9. EPA Environmental Education Grants
www.epa.gov/enviroed/grants.html

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 EE 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.

10. EPA Environmental Justice Grants
www.epa.gov/Compliance/environmentaljustice/grants

The Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program provides financial assistance to eligible organizations working on or planning to work on projects to address local environmental and/or public health issues in their communities. The Environmental Justice Small Grants Program provides financial assistance to eligible organizations to build collaborative partnerships, to identify the local environmental and/or public health issues, and to envision solutions and empower the community through education, training, and outreach.

11. EPA Five Star Restoration Grant Program
www.epa.gov/owow/wetlands/restore/5star

The Five Star Restoration 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.

12. EPA Targeted Watersheds Grant Program
www.epa.gov/watershed/initiative

The Targeted Watersheds Grant program is designed to encourage successful community-based approaches and management techniques to protect and restore the nation's watersheds. Implementation Grant projects focus on a broad array of methods for addressing watershed concerns including water quality trading, agricultural BMPs, wetland and riparian restoration, nutrient management, fish habitat restoration and public outreach and education.

13. Freeport-McMoRan
www.freeportinmycommunity.com/nonprofits/search-our-grants#grants

Freeport-McMoRan Copper & Gold lends its knowledge, business experience, and the generosity of employee volunteers to community programs. Grants are made under five focus areas: Education; Community Safety; Environment; Arts and Culture; and Community/Civic Development. Under the Environment focus area, Freeport-McMoRan provides funds to organizations or programs that fall under one of the following environmental focus areas: Environmental Quality, Conservation & Management; and Environmental Education.

14. Jessie Smith Noyes Foundation
www.noyes.org

The Jessie Smith Noyes Foundation promotes a sustainable and just social and natural system by supporting grassroots organizations and movements committed to this goal. Some funding interests are in environment and legal rights, volunteers, water and/or toxicity; reproductive and/or women's rights; community development; and sustainable agriculture.

15. Lorrie Otto Seeds for Education Fund
www.wildones.org

Wild Ones members and chapters have worked with schools and nature centers to plant and maintain natural landscapes. Projects must emphasize involvement of students and volunteers in all phases of development and increase the educational value of the site. The use of and teaching about native plants and the native plant community is mandatory, and they must be appropriate to the local ecoregion and the site conditions (soil, water, sunlight).

16. Maki Foundation
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.

17. Marisla Foundation
https://online.foundationsource.com/public/home/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.

18. Max and Anna Levinson Foundation
www.levinsonfoundation.org

The 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: 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.

19. McCune Charitable Foundation
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 Programs include: Creating Prosperity in New Mexican Communities, New Energy Economy, Supporting Grassroots Economic Development, and the Arts Economy.

20. Merck Family Fund
www.merckff.org

The Merck Family Fund's goals include restoring and protecting the natural environment and ensuring a healthy planet for generations to come, and strengthening the social fabric and the physical landscape of the urban community.

21. National Fish and Wildlife Foundation: Bring Back Natives, Keystone Initiative
www.nfwf.org

www.nfwf.org/spirit/Pages/home.aspx

NFWF provides funding on a competitive basis to projects that sustain, restore, and enhance our nation's fish, wildlife, and plants and their habitats.

22. National Park Service: Rivers, Trails, and Conservation Assistance Program
www.nps.gov/orgs/rtca

The Rivers, Trails, and Conservation Assistance Program is the community assistance arm of the National Park Service. RTCA staff provides technical assistance to community groups and nonprofit organizations, community groups, Indian 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.

23. Natural Resources Conservation Service: Funding Programs
www.nrcs.usda.gov/wps/portal/nrcs/main/nm/programs

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.

24. New Mexico Environment Department: Clean Water State Revolving Fund
www.nmenv.state.nm.us/cpb/cwsrf.html

NMED maintains a revolving loan fund to provide a source of low-cost financing for a wide range of wastewater or storm drainage projects that protect surface and ground water. Funds may also be used for projects that control nonpoint source water pollution, such as solid waste and septic tank installations.

25. New Mexico Environment Department: EPA Wetland Program Development Grants
http://water.epa.gov/grants_funding/wetlands/grantguidelines

Wetland Program Development Grants (WPDGs) 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.

26. New Mexico Game and Fish Department: Various programs to protect wildlife, enhance habitat while providing education programs for individuals and agencies.
www.wildlife.state.nm.us/conservation
www.wildlife.state.nm.us/education

NM Game and Fish Department'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 and Big Game Enhancement Restoration Funds allocate available resources through multi-agency, multi-year collaborative agreements.

27. New Mexico Soil and Water Conservation Grant Program

These funds are awarded by the SWCC through the Water Quality and Conservation Grant Program. The goal of the grant program is to promote the health of New Mexico's watersheds and conserve the water resources they produce. A limited number of projects addressing one or more of the following areas will be funded over the next fiscal year; Watershed Improvement/Management, Irrigation Efficiency, Riparian Restoration, Natural Resource Information and Education, Ground Water Protection/Conservation. New Mexico's Soil and Water Conservation Districts have to be active participants in the proposal. Contact pdepner@nmda.nmsu.edu for details.

28. New Mexico State Legislature: Water Trust Board
www.nmfa.net/governance/water-trust-board

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. These water projects must be for: water storage, conveyance, or delivery of water to end users; implementation of federal Endangered Species Act of 1973 collaborative programs; restoration and management of watersheds; flood prevention; or water conservation.

29. New Mexico State Forestry Division: Various programs for communities, forests, plants and resource management.
www.emnrd.state.nm.us/SFD

New Mexico State Forestry is responsible for wildfire suppression on all non-federal, non-municipal, non-tribal and non-pueblo lands. We also provide technical advice on forest and resource management to private landowners, and may include a commercial timber harvest to enhance wildlife habitat, increase water yield, reduce 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.

30. New Mexico State Parks Division: Land and Water Conservation
www.emnrd.state.nm.us/SPD/Landandwater.html

State Parks administers the Land and Water Conservation Fund (LWCF) federal grant Program. Funds are provided through the U.S. Department of Interior's National Park Service. The LWCF Program is a 50 % federal and 50 % local matching grant program. The LWCF 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.

31. New Mexico State Parks Division: Recreational Trails
www.emnrd.state.nm.us/SPD/Rectrails.html

The State Parks Division of the Energy, Minerals and Natural Resources Department is responsible for administering the Recreational Trails Program (RTP). The RTP is a federal assistance program made possible through the U.S. Department of Transportation's Federal Highway Administration. The RTP provides up to 80% of project funds to develop, improve and maintain trails and trail-related facilities for motorized and non-motorized recreational trail uses.

32. Patagonia :Environmental Grants
www.patagonia.com/web/us/patagonia.go?assetid=2927

Patagonia has pledged 1% of sales to the preservation and restoration of the natural environment. Patagonia makes grants to grassroots organizations that identify and work on the root causes of environmental problems and that approach issues with a commitment to long-term change and to making a difference in their local communities.

33. Turner Foundation
www.turnerfoundation.org

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 the environment and population and focuses on four main components: Safeguarding Habitat; Growing the Movement; Creating Solutions for Sustainable Living; and Healthy Planet, Healthy Communities.

34. United States Bureau of Reclamation: Various water conservation programs
www.usbr.gov/WaterSMART

The Bureau of Reclamation is seeking proposals for its WaterSMART Water and Energy Efficiency Grant funding opportunity. Projects that are eligible must conserve water or result in other improvements that address water supply sustainability in the West.

35. USDA Agriculture and Food Research Initiative: Various competitive grants for education, community, agriculture and resource enhancement and management.
www.csrees.usda.gov/fo/funding.cfm

The National Institute of Food and Agriculture (NIFA) is an agency within the U.S. Department of Agriculture (USDA), part of the executive branch of the Federal Government. Congress created NIFA through the Food, Conservation, and Energy Act of 2008. NIFA replaced the former Cooperative State Research, Education, and Extension Service (REE). The USDA-REE agencies provide federal leadership in creating and disseminating knowledge spanning the biological, physical, and social sciences related to agricultural research, economic analysis, statistics, extension, and higher education.

36. USDA National Forest: Collaborative Forest Restoration Program
www.fs.usda.gov/detail/r3/workingtogether/grants/?cid=fsbdev3_022022

Since 2001 the Collaborative Forest Restoration Program (CFRP) has funded 175 projects including close to 500 partners in planning and implementing collaborative forest restoration and small diameter utilization projects in 20 counties across New Mexico. These projects have restored over 30,000 acres and created over 700 jobs.

37. USDA Natural Resources Conservation Service: Financial Assistance Programs
www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial

The Natural Resources Conservation Service (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.

38. USDA Rural Development
www.rurdev.usda.gov/RD_Grants.html

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.

39. USDI Bureau of Land Management: Restore NM
www.blm.gov/nm/st/en/prog/restore_new_mexico.html

In 2005, the New Mexico Bureau of Land Management (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.

40. U.S. Fish and Wildlife Service: Partners for Fish and Wildlife Program
www.fws.gov/southwest/es/NewMexico/PFW_home.cfm

The Partners for Fish and Wildlife Program is a voluntary partnership program that provides technical and financial assistance to non-federal landowners to improve fish and wildlife habitats for federal trust species (e.g., threatened, endangered, and candidate species, migratory birds, and other declining species).

41. U.S. Fish and Wildlife Service: Standard and Small Grants Program
www.fws.gov/birdhabitat/Grants/NAWCA

The Standard and Small Grant Programs are competitive, matching grant programs that support public-private partnerships carrying out projects in the United States that further the goals of the North American Wetlands Conservation Act. These projects must involve long-term protection, restoration, and/or enhancement of wetlands and associated uplands habitats for the benefit of all wetlands-associated migratory birds.

42. Western Sustainable Agriculture Research and Education (SARE) Grant
www.sare.org/Grants

SARE is a program of the U.S. Department of Agriculture that functions through competitive grants conducted cooperatively by farmers, ranchers, researchers and ag professionals to advance farm and ranch systems that are profitable, environmentally sound and good for communities. SARE grants are used to increase knowledge about sustainable agricultural practices and to help farmers and ranchers adopt those practices.

43. Wilburforce
www.wilburforce.org

The Wilburforce Foundation protects wildlife and targeted wildlands in Western North America by actively supporting organizations and leaders advancing conservation solutions. The foundation supports efforts to create a network of protected core reserves, corridors and buffer zones across Western North America that will support ecologically effective landscapes and viable wildlife populations.

44. William and Flora Hewlett Foundation
www.hewlett.org/Programs/Environment

The William and Flora Hewlett Foundation makes grants to address the most serious social and environmental problems facing society. The Foundation places a high value on sustaining and improving institutions that make positive contributions to society. One of the goals of the Environment Program is to save the great ecosystems of the North American West.

45. William C. Kenney Watershed Protection Foundation
http://kenneybrosfdn.org/

The Foundation funds projects that provide opportunity to change western water policy, defend environmental laws, or use a specific strategy to protect biologically important watersheds. Another program encourages research and analysis of western water issues, including water demand management alternatives, transfer mechanisms, and policy commentary.

Grant Search Resources

Boise State University Environmental Finance Center Directory of Watershed Resources
http://sspa.boisestate.edu/efc

Environmental Finance Center (EFC) at Boise State University created the Directory of Watershed Resources; an on-line, searchable database for watershed restoration funding. The Directory includes information on funding programs available from federal, state, private, and other sources. Users can query the information through a detailed search or searching by agency sources or keyword.

EPA Catalog of Federal Funding Sources for Watershed Protection
https://ofmpub.epa.gov/apex/watershedfunding/f?p=fedfund:1

The Catalog of Federal Funding Sources for Watershed Protection Web site is a searchable database of financial assistance sources (grants, loans, and cost-sharing) available to fund a variety of watershed protection projects.

Foundation Center: Philanthropy News Digest
www.philanthropynewsdigest.org

Compilation of recent requests for proposals and/or funding opportunities in the area of environment, both for individuals and organizations.

Fundsnet Grant Directory: A collection of environment and conservation grants by Fundsnet.
www.fundsnetservices.com/searchresult.php?sbcat_id=13
www.fundsnetservices.com/searchresult/70/New-Mexico-Grants.html

National Council for Science and the Environment: National Library for the Environment
www.ncseonline.org

A compilation of foundations providing grants for environmental purposes.

Red Lodge Clearinghouse
http://rlch.org/

Through case studies, funding information, handbooks, news stories, and summaries of laws, the Red Lodge Clearinghouse supports, connects and informs the partners of collaborative initiatives and others addressing natural resource challenges in their community.

River Network
www.rivernetwork.org

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.

USDA National Agriculture Library: Water Quality Information Center
http://wqic.nal.usda.gov/tools-and-guides/funding

This resource offers a large selection of links for specific water quality funding programs and opportunities across the US government. The funding opportunities come from departments such as the DOI, EPA, FHA, NOAA, USDA, and USGS, among others.

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Appendix E Public Process and Approval

Scoping

This document was prepared following a sixty-day scoping period conducted in September and October, 2013. The scoping period was announced with an email that was successfully delivered to 872 recipients. A presentation on the Nonpoint Source Management Program and upcoming scoping period was provided to the Forest and Watershed Health Coordinating Group (at a meeting on July 26, 2013, and via email), a presentation was provided to the Water Quality Control Commission (WQCC) via email on September 25, 2013, and the presentation was provided to several other individuals representing a variety of organizations who requested it.

Informal Consultation

While the document was being drafted in November and December, 2013, several organizations were consulted for current information about their programs. In general, each organization was contacted via email, and often by phone, and informed that NMED was beginning the process of revising the 2009 document. They were given a web address to the 2009 document, and were often given an excerpt of text from the working draft, and asked to review that text. They were also informed that a more formal public comment period would be conducted in early 2014. The United States Forest Service (USFS) was consulted on how the NPS program may complement USFS Burned Area Emergency Response (BAER) activities during an annual coordination meeting attended by representatives of the Regional Office and four of five New Mexico National Forests. In several cases, individuals consulted through this process provided revised text, or other program material, that was incorporated into the draft document prior to release for public comment.

In addition to several bureaus within the New Mexico Environment Department (NMED), the following organizations were contacted during the informal consultation period:

- New Mexico Association of Conservation Districts (NMACD)
- New Mexico Department of Agriculture (NMDA)
- New Mexico Department of Energy, Minerals, and Natural Resources (EMNRD)
- New Mexico Department of Game and Fish (NMDGF)
- New Mexico Department of Transportation Environmental Development Section
- New Mexico Forest and Watershed Restoration Institute
- New Mexico Office of the State Engineer and Interstate Stream Commission
- New Mexico State Land Office
- Pueblo of Picuris
- United States Army Corps of Engineers (USACE)
- United States Department of Agriculture (USDA) Farm Service Agency
- USDA Natural Resources Conservation Service (NRCS), state office
- United States Fish and Wildlife Service (USFWS) Southwest Region
- USDI Bureau of Land Management New Mexico State Office
- USEPA Region 6 Ecosystem Protection Branch
- USFS Southwestern Region and individual Forest hydrologists

Formal Public Comment Period

A public comment draft of this document was released for a ninety-day public comment period beginning on January 6, 2014, and ending on April 7, 2014. Notices of the public comment period were published in the Las Cruces *Sun News* and *Albuquerque Journal* on Sunday, January 5, 2014. The public notice was also emailed to the Surface Water Quality Bureau statewide email distribution list of over 900 people.

Comments were received from eight organizations and one citizen. 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 proposed final 2014 NPS Management Plan. The original comments received are included below.

#	Commenter	Comment	Response
1	Linda S. Butler	I request that the NMED SWQB recognize the importance and special nature of the Tijeras Creek watershed (Carnuel, NM area south of I-40) and include it someday, somehow, in plans for watershed studies and restoration efforts.	The Lower Tijeras Arroyo watershed (Hydrologic Unit Code 130202030203) is designated a priority for watershed-based planning in the NPS Management Program plan, because it drains to a section of the Rio Grande (from the Isleta Pueblo boundary upstream to the Alameda bridge) with an *E. coli* impairment listing and TMDL. The Tijeras Arroyo from Four Hills Bridge to its headwaters has an impairment listing for nutrients. If one or more TMDLs are approved for the upper portion of Tijeras Arroyo, the Middle and Upper Tijeras Watersheds (HUCs 130202030202 and 130202030201) will also become priority watersheds for watershed-based planning, to better characterize the watershed and sources of pollutants there. For any of these three watersheds, the expectation is that watershed-based planning will be undertaken by local agencies and stakeholders, possibly (but not necessarily) with support from NMED with competitively awarded Section 319 funding.

#	Commenter	Comment	Response
2	Linda S. Butler	It surprises me at how long it takes to assess a watershed; it's years in the making. I wonder why it takes so long.	Several reasons exist why watershed-based planning may require several years. A year or two may be required after sampling before water quality data are fully provided by the laboratory, compiled and checked for quality, assessed to make an impairment determination, and published in a 303(d)/305(b) Integrated Report. Preparation of a TMDL to confirm and better quantify the impairment (including establishing point source and nonpoint source components) may require additional water quality data, and always requires review by the public, WQCC, and EPA, adding perhaps an additional two years to the timeline. Development of a watershed-based planning project may require one or two years, for such aspects as developing a proposal (including establishing initial partnerships) and obtaining funds (e.g., through the state procurement process). Watershed-based planning projects then may require two to three years to implement (e.g., to characterize pollutant sources during different seasons and develop stakeholder involvement to support implementation). NMED recognizes that this is a lengthy process and welcomes suggestions for streamlining. The proposed streamlined process for addressing impacts to water quality caused by wildfire in this revised NPS Management Program will be tested over the term of this plan, and may further inform solutions to this problem.
3	Cedar Hill Clean Water Coalition (Jake Hottell)	The State of New Mexico should look into the problem of Durango's wastewater treatment plant discharge to the Animas River. The wastewater treatment plant should have to clean up their sewage well enough to meet regulations that could have allowed their water into the inlet of the Animas-La Plata Project. The Bureau of Reclamation should be held responsible for this violation	Regulation of point sources, such as the Durango Wastewater Treatment Plant, is beyond the scope of the Nonpoint Source Management Program. We recommend that you contact Kenan Diker at the Colorado Department of Public Health and Environment (303-692-3597, kenan.diker@state.co.us) for current information on how the plant is regulated, including nutrient effluent limits.
4	Elephant Butte Irrigation District (Samantha R. Barncastle)	The Elephant Butte Irrigation District (EBID) encourages continued focus on watershed management planning. Watershed based planning has become increasingly important during the drought for reasons beyond water quality improvement. Protection of unimpaired waters should remain a priority in watershed planning. Protection of unimpaired waters goes hand in hand with work EBID does to manage waters within its district, such as watershed management to provide additional sources of water not previously developed or relied upon for use within the agriculture industry.	NMED appreciates this comment regarding the importance of watershed-based planning, and that watershed-based plans should include elements pertaining to water quality protection or protection of unimpaired waters, along with planning for water quality improvement.

#	Commenter	Comment	Response
5	Elephant Butte Irrigation District (Samantha R. Barncastle)	NMED should be cautious about implementing programs that may affect EBID's ability to manage and deliver water to its membership.	NMED recognizes its responsibility for making technically sound recommendations to WQCC regarding water quality standards and TMDLs proposed for WQCC adoption, and intends to look for solutions to water quality problems that will achieve water quality standards but that will not take away or modify property rights in water (consistent with the WQS and New Mexico Water Quality Act).
6	Elephant Butte Irrigation District (Samantha R. Barncastle)	EBID is concerned about and wishes to work with NMED to establish the criteria that will be used to determine the TMDLs for lakes and reservoirs as such criteria could substantially impact EBID and its membership.	No TMDLs in lakes or reservoirs have been adopted in New Mexico, but development of several TMDLs for lakes or reservoirs is scheduled for approximately 2017. NMED will encourage public involvement (including involvement by other agencies and water users) as they are being developed, and WQCC may also consider public comments. Because of technical challenges with developing TMDLs for lakes and reservoirs, and because NMED does not yet have significant experience with these TMDLs, the public involvement and attention to detail are expected to be relatively high for these TMDLs.
7	Elephant Butte Irrigation District (Samantha R. Barncastle)	While EBID believes delisting procedures should be included in this document, if they are not, EBID is also interested in working with NMED to determine delisting procedures for streams designated as "impaired" but which have been rehabilitated to a point where they may be considered for delisting.	The NPS Management Program Plan cites the Assessment Protocol as the source for the requested procedures. An error was noted in the citation, however, and has been corrected in Section 5.1. The Assessment Protocol is reviewed every other year by US EPA, other natural resource professionals, and interested stakeholders. More information on the Assessment Protocol, including current and past versions, is available at www.nmenv.state.nm.us/swqb/protocols/2014.
8	Elephant Butte Irrigation District (Samantha R. Barncastle)	Such a procedure for delisting would be properly included in Section 7 of this document, entitled NPS Management Program Efficiency and Effectiveness.	NMED concurs that Section 7 should clarify that water quality standards attainment (as determined using the Assessment Protocol) is an important aspect of documenting and recognizing success. Section 7.3 was expanded to add more information on EPAs strategic planning elements ("Performance Measures") and to state that water quality standards attainment is determined through use of the Assessment Protocol. A more recent version of EPA's strategic plan (which is not substantively different from early versions, with respect to water quality improvement) was also cited.
9	Elephant Butte Irrigation District (Samantha R. Barncastle)	EBID further recommends delisting the reach of the Lower Rio Grande from Caballo to Leasburg Dam for *E. coli*.	NMED is aware of water quality data indicating possible standards attainment in a section of the Rio Grande below Caballo Reservoir that does not meet standards according to the *2012-2014 Integrated Report*. We encourage EBID to review those portions of the Draft 2014-2016 Integrated List, during the List's public comment period.

#	Commenter	Comment	Response
10	Elephant Butte Irrigation District (Samantha R. Barncastle)	Comments such as that found in the executive summary, which states "while some NPS pollution is naturally occurring, the majority of NPS pollution in New Mexico is attributed to factors such as loss of riparian habitat, stream bank destabilization, irrigated agriculture, rangeland grazing, urban runoff, recreation, roads, and even flow diversions" are overly broad. Such comments should be accompanied by references to sources that support the comment or should be excluded from the document altogether.	Agreed. Consistent with the purpose and style of an executive summary, the introductory paragraph of Section 1 (Executive Summary) has been modified to briefly summarize the purpose of the NPS Management Plan, including a brief statement of the problem of NPS pollution. A new Section 2.1, "The Problem of NPS Pollution", has been added to Section 2, with more information from the *2012-2014 State of New Mexico Clean Water Act §303(d)/§305(b) Integrated Report*. Appendix B of the Integrated Report summarizes data on causes and sources of impairment. In recent years, probable sources of pollution have been identified through a Standard Operating Procedure described at www.nmenv.state.nm.us/swqb/SOP. Pollutant sources thus identified are merely "probable", but represent the best data that are available on a statewide basis.
11	Elephant Butte Irrigation District (Samantha R. Barncastle)	References to "sedimentation" should be changed to read "suspended or settleable solids" pursuant to NMAC 20.6.4.13.	At the first use of the term sediment or sedimentation (in the new Section 2.1), the phrase "suspended or settleable solids (including turbidity and stream bottom sediments)" is used to relate these terms to the Water Quality Standards (NMAC 20.6.4.13). Elsewhere, the terms sediment or sedimentation are used, for brevity.
12	Elephant Butte Irrigation District (Samantha R. Barncastle)	Section 2.3 references updating "waterbody tables that outline known impairments resulting from NPS causes" on a "biennial" basis, however, that statement is incorrect as it should say "triennial" basis.	The noted reference is to the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report*, which has been revised every other year since 1998.
13	Elephant Butte Irrigation District (Samantha R. Barncastle)	Section 3 references post fire response plans as an alternative to watershed based plans. EBID supports the general concept of such alternatives in the event of wildfires, but encourages the continued management of watersheds as preferable to such alternatives. Protection of unimpaired waters through proper watershed management should be prioritized ahead of alternatives which only seek to clean up impaired waters that result from failure to properly manage a watershed.	NMED also supports proactive watershed management that can prevent water quality problems resulting from unnaturally intense wildfire. One of the requirements of NPS Management Programs stated in the Clean Water Act is to provide "an identification of programs ... to achieve implementation of the best management practices by the categories, subcategories, and particular nonpoint sources designated under subparagraph (A)". Section 6 of the NPS Management Plan is intended to identify those programs. Several of the subsections describe agencies with programs that proactively manage forests, and NMED considers these to be "agencies with a role in implementing the NPS Management Program". Section 6.3.1 includes a section on the Forestry Division of the Energy Minerals and Natural Resources Department that has been updated to reflect the outcome of the 2014 Legislature.
14	Elephant Butte Irrigation District (Samantha R. Barncastle)	3.4.2 Objective 4 Verification Milestones. Under the first bullet point, please provide the http web address for the virtual library referenced.	The link www.allaboutwatersheds.org/library was added to Section 3.4.2 as requested.

#	Commenter	Comment	Response
15	Elephant Butte Irrigation District (Samantha R. Barncastle)	5.2.3 Alternatives to Watershed-Based Plans. Please provide more specificity and detail regarding what constitutes a "small scale water quality problem".	EPA's *Nonpoint Source Program and Grants Guidelines for States and Territories* (EPA, 2013) provide more detail on that topic. The example given by EPA of an "isolated, small-scale water quality problem" is "a failing septic system"). NMED believes that the analysis appropriate for such an isolated small-scale water quality problem would essentially be the same as found in a nine-element watershed-based plan. The NPS Management Plan states that in the event that small scale water quality problems are brought to the attention of WPS staff, development of conventional (but simple) nine-element watershed-based plans will be pursued. It is unclear how precise definitions of small scale water quality problems and larger scale water quality problems would be used.
16	Elephant Butte Irrigation District (Samantha R. Barncastle)	5.4.1 Protection of Outstanding National Resource Waters. While EBID does not oppose the opportunity for "anyone" to petition WQCC to designate state waters under ONRW status, scientific standards must be developed and applied uniformly to such petitions to avoid encouraging bully tactics sometimes employed by environmental groups.	Nominations for an ONRW must adhere to the requirements in the water quality standards [20.6.4.9 NMAC] and the Water Quality Act [74-6-1 NMSA 1978]. In particular, the WQCC must "…adopt WQS for surface and ground water based on credible scientific data and other evidence appropriate under the Water Quality Act [74-6-1 NMSA 1978]." Procedures for developing or adopting water quality standards are beyond the scope of the NPS Management Plan.
17	Elephant Butte Irrigation District (Samantha R. Barncastle)	Also under Section 5, as previously stated, the criteria for establishing TMDLs for lakes and reservoirs continues to be an important issue to EBID and its members. EBID encourages collaboration among stakeholders to develop and implement such criteria in a manner that avoids excessive impact to EBID and the Rio Grande Project's purposes. Such information should be included in this document.	NMED will encourage public involvement (including involvement by other agencies and water users) as any TMDLs for lakes or reservoirs are developed, and WQCC may also consider public comments. One of the purposes of the public involvement will be to find solutions to water quality problems that will lead to water quality standards attainment while minimizing impacts to water users. A statement regarding public input was added to the first paragraph in Section 5.1 (Assessment Process Overview).

#	Commenter	Comment	Response
18	Elephant Butte Irrigation District (Samantha R. Barncastle)	5.4.2 Post-Fire Watershed Protection Activities. How many years until TMDL development and watershed-based planning will occur after a wild fire?	A TMDL would only be written to characterize impairment caused by a wildfire if the water quality data used were collected prior to the fire or three or more (generally, a maximum of eight) years after the fire, once the environment has partially recovered from the fire impairment. Otherwise, the data would not be considered representative of water quality in the subject stream. Data collected in a water quality survey are normally assessed for the *§303(d)/§305(b) Integrated List and Report* produced two or three years after the survey. TMDLs are normally prepared one to three years after an impairment is first published in the §303(d)/§305(b) Integrated List and Report, and watershed-based planning may commence one or two years after the TMDL is approved. In summary, TMDL development may occur six to fourteen years after a wildfire, and watershed-based planning may commence seven to sixteen years after a wildfire. It is partly because of this timeline, and the challenges of characterizing water quality in rapidly changing fire-affected streams, that the State proposes in the NPS Management Plan to explore an accelerated process for using a limited amount of Section 319 funds to protect water quality soon after a fire (rather than only seeking to improve water quality several years after the fire).
19	New Mexico Department of Agriculture (Julie Maitland, Director, Agricultural Programs and Resources Division)	The EPA is currently in the process of clarifying their definition of "Waters of the United States", which are those water bodies subject to the jurisdiction of the Clean Water Act. A proposed rule with docket number EPA-HQ-OW -2011-0880 would focus on the proximity; physical, chemical, and biological connection in between waters; and focus less on the significant nexus and navigability of waters as the criterion for jurisdictional determinations. Although the rule has not yet been finalized, its outcome could significantly impact the NPS Plan.	The potential impact of this rule, which is currently in draft form, is difficult to gage, but preliminarily NMED reviewers have not found that the rule would significantly change which waters are recognized as Waters of the United States in New Mexico. As proposed, it would provide clarification and guidance for regulatory agencies (EPA and USACE) on how those waters are defined, and allow those agencies to more efficiently and consistently identify their regulatory jurisdiction. The rule will probably have little effect on how the State assesses water quality or works to solve water quality problems.

#	Commenter	Comment	Response
20	New Mexico Department of Agriculture (Julie Maitland, Director, Agricultural Programs and Resources Division)	The objectives, activities, and milestones are not presented in a concise manner. The reader must reference several pages to determine the relationship and overlap important information and dates. The length of the section could be significantly reduced if the dates were presented on a single consolidated graphical timeline. This same measure could also reduce the risk of a misunderstanding when aligning objectives, goals, and milestones within the document and with the SWQB annual reports. Information from Section 7 could also be included in this graphic - particularly relating to feedback, programmatic considerations, administrative procedures, adaptive management, and reporting.	NMED agrees that the information in Section 3 should be presented in a more concise and clear manner. Some of the wording may seem excessive, but in general the additional words were inserted to answer questions asked earlier. To provide a clearer picture of how the objectives, activities, and milestones relate to one another and how the program will be implemented over time, a table utilizing abbreviated language has been added, in a new Section 3.7 (Summary).
21	New Mexico Department of Agriculture (Julie Maitland, Director, Agricultural Programs and Resources Division)	The NPS Plan places high importance on watershed-based planning, yet it does not include a map showing the geographic scope of existing watershed based plans, anticipated plans, and regions that currently lack such a plan. Such a map will be helpful to current planners and groups thinking of creating a watershed-based plan in the future.	Figure 7 (Page 5-11) indicates which watersheds have completed watershed-based plans. Watersheds where plans are nearing completion are listed and discussed in *Nonpoint Source Management Program Annual Reports* (e.g., the *2013 NPS Annual Report*, available at www.nmenv.state.nm.us/swqb/wps/2013NPSAnnualReport). Under the revised NPS Management Program, and as stated in Section 3, NMED will provide watershed-based plans, alternative watershed plans, Wetlands Action Plans (WAPs), and earlier WRASs in an organized web page in 2014.

#	Commenter	Comment	Response
22	New Mexico Department of Agriculture (Julie Maitland, Director, Agricultural Programs and Resources Division)	There is a lack of guidance pertaining to how watershed-based planning groups form from interested parties into an organized group whose responsibility it is to report to NMED. It is unclear if there are any requirements or requisites for these groups of interested stakeholders to take on this responsibility or if NMED precipitates the coalescence of these groups.	Only watershed planning groups working under contract or through an interagency agreement with NMED have responsibility to report to NMED. Prior to 2009, NMED supported "watershed-group formation projects", and has since shifted to an outcome-based model for planning projects, where a watershed-based plan is the main deliverable or expectation of a project. The means of producing WBPs are as varied as New Mexico's watersheds, and were NMED to impose more limits on methods, or to establish eligibility requirements, fewer watershed-based plans might be completed. As with any state-funded program, a responsible entity must be identified for the state to contract with. Eligible entities include agencies (federal, tribal, state, or local), nonprofits, and for-profits. Project proponents are asked to demonstrate in their proposals how their proposed projects are stakeholder-driven. More detail on how NMED selects watershed-based planning projects to support with funding is provided in the annual Request for Proposals. The Nonpoint Source Management Program as proposed also allows for the possibility that watershed-based plans will be completed without direct NMED involvement (for example, when a Forest Service planning document includes the watershed-based planning elements), and will provide a process in 2014 for watershed groups and others to submit watershed-based plans (and acceptable alternative plans) for review.
23	New Mexico Department of Agriculture (Julie Maitland, Director, Agricultural Programs and Resources Division)	On page 5-1, the 'rotating intensive watershed surveys' and 'short-term targeted monitoring designs' are not defined. Similarly, it is unclear what a 'fixed station monitoring design' is or what will replace their functionality since they were phased out in 2012. Without some sort of fixed monitoring program, there is a distinct lack of proactive measures to determine when to apply additional 'short-term targeted monitoring designs'. The NPS Plan instead is reactive in that it intends to rely on "citizen complaints, fish kills, or illegal dumping" to determine when the need arises to employ additional measures.	Clarifying language was added to section 5.1 to define "rotating intensive watershed surveys" and "short-term targeted monitoring designs". In addition, language was added to clarify what a "fixed station monitoring design" is. There is actually no connection between these three terms. The "short term monitoring" occurs solely as a response to citizen complaints, the "rotating watershed surveys" are part of our programmatic approach to assessing surface water quality in the state, and the "fixed station monitoring" was accomplished through a partnership with the USGS, to augment our rotating watershed surveys, which unfortunately is no longer able to be funded. These fixed stations provided valuable, long-term data from around the state. In an attempt to collect additional long-term data, NMED is purchasing loggers and sondes, as funding allows, that allow extended monitoring in select locations for one or more water quality parameters.

#	Commenter	Comment	Response
24	New Mexico Department of Agriculture (Julie Maitland, Director, Agricultural Programs and Resources Division)	On page 6-4, the NPS Plan mentions $1.5 million for the River Stewardship Program, however, the figure may be different as stated in the version of House Bill 55. The finalized bill mentions the amount of $2.3 million for this program.	The New Mexico Legislature increased the funding for the River Stewardship Program from $1.5 million, to $2.3 million, as part of House Bill 55. The language of the bill states, "SEVERANCE TAX BONDS...the following amounts are appropriated to the department of environment for the following purposes...115. two million three hundred thousand dollars ($2,300,000) to design and construct projects that improve surface water quality or river habitat statewide and to provide state matching funds required by the terms of any federal grant under the Clean Water Act." The text in the NPS Management Program Plan has been updated to reflect these recent events.
25	New Mexico Department of Agriculture (Julie Maitland, Director, Agricultural Programs and Resources Division)	Page 6-11 refers to older figures from previous versions of the Farm Bill. Since the NPS Plan was published before the finalized 2014 Farm Bill, these figures will need to be updated.	A new paragraph was added at the end of Section 6.2.3 (the section on NRCS), listing the highlights of the Agricultural Act of 2014 (compared with the previous 2008 Farm Bill), in the area of conservation. These changes are still being implemented by FSA and NRCS, through 2014.
26	New Mexico Department of Game and Fish (Matthew Wunder, Chief, Ecological and Environmental Planning Division)	The New Mexico Department of Game and Fish (Department) has reviewed the planning document and commends NMED's efforts to work with state and federal agencies, non-government agencies and the public to implement the Nonpoint Source Program as described in the draft planning document. Addressing nonpoint source pollution, particularly at the watershed-based planning level, is crucial not only to ensure water quality for public consumption but also enhances and promotes wildlife and wildlife habitat values as well. The Department has worked cooperatively with the NMED Surface Water Quality Bureau on numerous projects and looks forward to our continued partnership.	NMED appreciates these positive comments, and looks forward to continued partnership with the New Mexico Department of Game and Fish, as well.
27	New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division (Susan Rich, Forest and Watershed Health Coordinator)	On page 6-18, we request that "NPS categories to be addressed: Silviculture, rangeland grazing, wildlife management, road construction" be changed to "NPS categories to be addressed: Silviculture and forest road construction ".	The suggested change has been made.

#	Commenter	Comment	Response
28	NMED/SWQB (internal comment from Jeff Scarano, Program Manager, Monitoring, Assessment & Standards Section)	An outdated figure was inserted into the NPS Management Plan. Below is the correct figure, which should replace Figure 6 on page 5-2 of the draft plan.	An updated graphic (now Figure 5, Surface Water Quality Bureau proposed eight-year water quality survey plan) now appears on Page 5-3.
29	San Juan Water Commission (L. Randy Kirkpatrick, Executive Director)	Section 6.1.3 describes the roles of the Ground Water Quality Bureau ("GWQB") and the Ground Water Pollution Prevention Section ("GWPPS"). In particular, Page 6-7 notes that "[l]arge septic systems that discharge greater than 2,000 gallons of domestic wastewater per day are regulated under" the GWPPS discharge permit program. However, GWQB recently petitioned the Water Quality Control Commission ("WQCC") to amend 20.6.2 NMAC to mirror and parallel recent and proposed changes to 20.7.3 NMAC, the Liquid Waste Disposal and Treatment Regulations. The Environmental Improvement Board ("EIB") recently revised the Liquid Waste Disposal and Treatment Regulations, effective September 1, 2013, and the NMED Environmental Health Bureau ("EHB") will soon file another petition to amend the definition of "liquid waste" so that it will increase the volumetric maximum limit of "liquid waste" in 20.7.3.7(L)(5) NMAC from two thousand (2,000) gallons per day or less to facilities receiving five thousand (5,000) gallons per day or less of liquid waste. Correspondingly, GWQB proposes to amend portions of 20.6.2 NMAC to remove and clarify the numerical threshold definitions of "liquid waste." Upon WQCC adoption of the proposed changes, GWQB will in essence regulate "liquid waste" from facilities receiving greater than five thousand (5,000) gallons per day instead of two thousand (2,000) gallons per day. The timetable for adopting these regulatory changes has been proposed as: July 2014 for EIB and August 2014 for WQCC. Therefore, the NPS Management Program may want to consider amending the language in Section 6.1.3 or perhaps adding a footnote on page 6-7 disclosing the anticipated regulatory changes. Likewise, similar language or a footnote on page 6-8 under Section 6.1.4 (Environmental Health Division-Liquid Waste Program) may be desirable.	Footnotes describing these proposed changes have been added to Pages 6-6 and 6-7, in the sections on NMED's Ground Water Pollution Prevention Section and Liquid Waste Program.

#	Commenter	Comment	Response
30	United States Forest Service Southwestern Region (Robert G. Trujillo, Deputy Director, Ecosystem Analysis and Planning)	Page 3-3, 3.1.2 Objective 1 Verification Milestones Bullet 2 – at least one new watershed plan covering three priority watersheds (this sounds odd, should there be one watershed plan per watershed?) Bullet 3 – same comment Bullet 4 – same comment	The text on page 3-1 mentions the selection of sixth-level watershed delineation (watersheds with 12-digit hydrologic unit codes) for identifying priority watersheds and marking progress. More information on this watershed delineation system (the Watershed Boundary Dataset) has been added to Page 5-5. A stream may drain more than one 12-digit watershed, and a watershed-based plan may cover more than one 12-digit watershed.
31	United States Forest Service Southwestern Region (Robert G. Trujillo, Deputy Director, Ecosystem Analysis and Planning)	Page 5-7, 5.2.3 2) …WPS staff will participate in post-fire response planning. The objective of this activity will be to develop BAER plans…. Comment: Forest Service BAER reports are specific to NFS lands. Will NMED prepare separate BAER plans for all lands affected? Currently, the Forest Service only has the authority to prepare BAER reports for NFS lands. The FS will participate in multijurisdictional BAER planning when FS lands are involved, preparing the BAER report for the NFS lands involved in the multijurisdictional effort.	NMED is not planning to prepare separate BAER reports or to lead multijurisdictional BAER planning. NMED will participate in Forest Service BAER planning or multijurisdictional BAER planning. The quoted sentence continues as, "The objective of this activity will be to develop burned area emergency response (BAER) plans, similar post-fire plans, or project workplans". This means that NMED may develop plans that outline post-fire rehabilitation work and that in some respect resemble BAER plans, or may limit the planning document to a format typically used to describe proposed use of Section 319 funds ("project workplans"), over which EPA will have approval authority.

#	Commenter	Comment	Response
32	United States Forest Service Southwestern Region (Robert G. Trujillo, Deputy Director, Ecosystem Analysis and Planning)	The next comment refers to pages 5-9 and 5-11: Page 5-9: Implementation projects funded with Section 319 watershed project funding will be limited to watersheds with watershed based plans….These watersheds are the priority watersheds for implementation. Page 5-11, Paragraph 1: The primary means of selecting projects for implementation with support of Section 319 watershed project funding will be through an annual RFP… Page 5-11, paragraph 2: When the WPS conducts RFPs or smaller procurements to address water quality impairments, the request will be for projects that address impaired waters...rather than projects that lie within priority watersheds. This seems confusing. Page 5-9 says that 319 funding will be limited to watersheds with WBPs and these are priority watersheds for implementation. Page 5-11 says that RFPs to address water quality impaired waters rather than projects in priority watersheds. Are the RFPs and smaller procurements funded with non-319 funds?	The source of the confusion lies mainly with the statement, "the request will be for projects that address impaired waters...rather than projects that lie within priority watersheds". This statement is included because the objective of the projects will be to protect or improve water quality in specific stream segments. The use of a standard watershed delineation for tracking progress adds to the confusion. Cases exist where a full 12-digit watershed designated a "priority watershed" does not drain to the impaired water. For example, the Gallinas River upstream of Las Vegas has a temperature TMDL for the reach upstream of the Las Vegas diversion. Much (but not all) of the priority watershed "Arroyo Pecos-Gallinas River" drains to the Gallinas River downstream of the diversion. Cases may also exist where effective implementation may occur outside of the waterbody of interest. For example, outreach to recreational users of the Outlet San Antonio watershed (in the larger Jemez River watershed) may effectively be conducted in Albuquerque. Watershed-based plans may include several priority watersheds, or portions of priority watersheds, within their planning areas. They may also describe work that would be implemented outside of priority watersheds. Projects identified with RFPs intended for 319 projects (and smaller procurements) may be supported with state funds (with the exception of River Stewardship funds), in addition to Section 319 funds.
33	United States Forest Service Southwestern Region (Robert G. Trujillo, Deputy Director, Ecosystem Analysis and Planning)	Page 6-1, paragraph 4: Consider adding to the first sentence Watershed Action Plans and Forest Plans.	Section 6.2.1 describes Forest Service programs, and mentions that "Each National Forest in New Mexico plans to complete a Forest Plan revision between 2014 and 2018." A statement was added that "WPS staff will participate in Forest Planning in each Forest, to encourage future coordination and implementation of the NPS Management Program by USFS". A paragraph was also added to Section 6.2.1 to summarize the Watershed Condition Framework, including the development by USFS of Watershed Restoration Action Plans (WRAPs), and a statement that WPS staff will assist USFS with WRAP development.

#	Commenter	Comment	Response
34	United States Forest Service Southwestern Region (Robert G. Trujillo, Deputy Director, Ecosystem Analysis and Planning)	Page 6-9, 6.2.1, first paragraph: Water quality concerns identified in National Forests include sediment….and mining. Comment: include legacy roads and trails.	Section 6.2.1 was revised as requested.

Franklin, Abraham, NMENV

From: lindabutlernm@aol.com
Sent: Tuesday, March 11, 2014 11:29 AM
To: Franklin, Abraham, NMENV
Subject: NPS MGT PLAN

Follow Up Flag: Follow up
Flag Status: Completed

Dear Abraham Franklin,

I would like to acknowledge receipt of the draft New Mexico Nonpoint Source Management Plan and invitation to comment by way of the following comments.

1. The NPS Management Plan as prepared by the The New Mexico Environment Department's (NMED) Surface Water Quality Bureau (SWQB) seems to be quite thorough and comprehensive.

2. This is to request that the NMED SWQB recognize the importance and special nature of the Tijeras Creek Watershed (Carnuel NM area south side of I40) and include it some day, some how, in plans for watershed studies and restoration efforts.

3. It surprises me at how long it takes to assess a watershed; its years in the making. I wonder why it takes so long.

Thank you for all the efforts in putting this NPS Management Plan together.

Linda S. Butler, Biologist
Environmental Specialist

Franklin, Abraham, NMENV

From: JK Chair <chcwc@hotmail.com>
Sent: Friday, March 07, 2014 7:32 PM
To: Franklin, Abraham, NMENV
Subject: RE: REMINDER: Public Comments Open for the 2013 NPS Annual Report

Follow Up Flag: Follow up
Flag Status: Completed

Hi Abraham,

I am Jake Hottell.....We have met a few times at various meetings. I was the chairman of the Clean Water Coalition for several years. We went up against big gas companies and found poorly cemented wells etc. Problems with Land farms, compressors stations etc...

I was involved in many of the BOR's public hearings concerning the ALP. One of the requests we made to one of the Supplements to the Environmental Impact Statement was....To include their impacts to the Animas River basin. They said it was "beyond the scope of their hearings." If you can believe that one. We also asked them what would happen to the discharge of Durango's sewage! They said they would move it to below the inlet of the ALP.
Which they did.

The discharge is just across from Walmart in Durango now. It really stinks! Every time I have gone down the little road that goes down the west side of the Animas just across from Walmart, it is unbelievable. The flow rate is very low there usually.

So not only are they reducing the flushing capability of the Animas River with the ALP which we all knew would happen. New Mexico is getting some smelly raw sewage out of the deal now!

The State of New Mexico should look into this problem. The sewage plant should have had to clean up their sewage well enough to meet regulations that could have allowed their water into the inlet of the ALP. The BOR should be held responsible for this violation.

Thanks Abraham
Have a good day
Jake Hottell

CHCWC@ hotmail.com
505-334-2679
c 505-320-5429

Law Office of Steven L. Hernandez, P.C.
2100 North Main Street
P.O. Box 13108
Las Cruces, New Mexico 88013
Phone: (575) 526-2101

April 7, 2014

Abraham Franklin
NMED SWQB
P.O. Box 5469
Santa Fe, NM 87502
E-Mail: Abraham.franklin@state.nm.us

Via Email to Abraham.franklin@state.nm.us
Via Facsimile to (505) 827-0160

Re: **Comments of Elephant Butte Irrigation District (New Mexico) on the New Mexico Environment Department Surface Water Quality Bureau's Draft Nonpoint Source Management Plan.**

Dear Mr. Franklin,

The Elephant Butte Irrigation District (EBID), located in southern New Mexico, hereby submits its comments on the NMED SWQB's Draft Nonpoint Source Management Program as follows.

General Comments

EBID encourages continued focus on watershed management planning. Watershed based planning has become increasingly important during the drought for reasons beyond water quality improvement. Protection of unimpaired waters should remain a priority in watershed planning. Protection of unimpaired waters goes hand in hand with work EBID does to manage waters within its district, such as watershed management to provide additional sources of water not previously developed or relied upon for use within the agriculture industry.

NMED should be cautious about implementing programs that may affect EBID's ability to manage and deliver water to its membership. EBID is concerned about and wishes to work with NMED to establish the criteria that will be used to determine the TMDLs for lakes and reservoirs as such criteria could substantially impact EBID and its membership.

While EBID believes delisting procedures should be included in this document, if they are not, EBID is also interested in working with NMED to determine delisting procedures for streams designated as "impaired" but which have been rehabilitated to a point where they may be considered for delisting. EBID further recommends delisting the reach of the Lower Rio Grande from Caballo to Leasburg Dam for *E. Coli*. Such a procedure for delisting would be properly included in Section 7 of this document, entitled NPS Management Program Efficiency and Effectiveness.

Section Specific Comments

Executive Summary. Comments such as that found in the executive summary, which states "while some NPS pollution is naturally occurring, the majority of NPS pollution in New Mexico

is attributed to factors such as loss of riparian habitat, streambank destabilization, irrigated agriculture, rangeland grazing, urban runoff, recreation, roads, and even flow diversions" are overly broad. Such comments should be accompanied by references to sources that support the comment or should be excluded from the document altogether.

References to "sedimentation" should be changed to read "suspended or settleable solids" pursuant to NMAC 20.6.4.13.

Section 2.3 references updating "waterbody tables that outline known impairments resulting from NPS causes" on a "biennial" basis, however, that statement is incorrect as it should say "triennial" basis.

Section 3 references post fire response plans as an alternative to watershed based plans. EBID supports the general concept of such alternatives in the event of wildfires, but encourages the continued management of watersheds as preferable to such alternatives. Protection of unimpaired waters through proper watershed management should be prioritized ahead of alternatives which only seek to clean up impaired waters that result from failure to properly manage a watershed.

3.4.2 Objective 4 Verification Milestones. Under the first bullet point, please provide the http web address for the virtual library referenced.

5.2.3 Alternatives to Watershed-Based Plans. Please provide more specificity and detail regarding what constitutes a "small scale water quality problem".

5.4.1 Protection of Outstanding National Resource Waters. While EBID does not oppose the opportunity for "anyone" to petition WQCC to designate state waters under ONRW status, scientific standards must be developed and applied uniformly to such petitions to avoid encouraging bully tactics sometimes employed by environmental groups.

Also under this section, as previously stated, the criteria for establishing TMDLs for lakes and reservoirs continues to be an important issue to EBID and its members. EBID encourages collaboration among stakeholders to develop and implement such criteria in a manner that avoids excessive impact to EBID and the Rio Grande Project's purposes. Such information should be included in this document.

5.4.2 Post-Fire Watershed Protection Activities. How many years until TMDL development and watershed-based planning will occur after a wild fire?

Sincerely,

LAW OFFICE OF STEVEN L. HERNANDEZ, P.C.

By 
Samantha R. Barncastle, Esq.

Xc: Gary Esslinger, Treasurer-Manager Elephant Butte Irrigation District, via email
Dr. Ferndando Cadena, via email
SRB/jlc

NM STATE UNIVERSITY

New Mexico Department of Agriculture
Agricultural Programs and Resources Division
MSC APR
New Mexico State University
P.O. Box 30005
Las Cruces, NM 88003-8005
575-646-2642, fax: 575-646-1540

March 31, 2014

Mr. Abraham Franklin
Program Manager
NMED SWQB
P.O. Box 5469
Santa Fe, NM, 87502

Dear Mr. Franklin:

New Mexico Department of Agriculture (NMDA) submits the following comments in response to the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) Draft Nonpoint Source Management Plan (NPS Plan).

One part of NMDA's role is to provide proactive advocacy and promotion of New Mexico's agricultural industries. Agriculture contributed $4 billion in cash receipts to New Mexico's economy in 2012 (New Mexico Agricultural Statistics 2012). NMDA maintains a strategic goal to promote responsible and effective use and management of natural resources in support of agriculture. We have organized our comments in accordance with the Plan's section titles.

Section 1: Executive Summary

NMDA shares NMED's sentiment elucidated in the executive summary in that the management of nonpoint source pollution will enable the full attainment of designated uses, including agriculture.

Section 2: Preface

A sentence in Section 2.3 in the NPS Plan states that "Court precedent clarified that 'navigable waters' include most waters connected to downstream waters that are actually navigable." Since the courts have not consistently applied the 'significant nexus' criterion, the Environmental Protection Agency (EPA) is currently in the process of clarifying their definition of 'Waters of the United States,' which are those water bodies that are subject to the jurisdiction of the Clean Water Act.

A proposed rule with docket number EPA-HQ-OW-2011-0880 would instead focus on the proximity; physical, chemical, and biological connection in between waters; and focus less on the significant nexus and navigability of waters as the criterion for jurisdictional determinations. Although the rule has not yet been finalized, its outcome could significantly impact the NPS Plan.

Section 3: Program Goal and Objectives

The objectives, activities, and milestones are not presented in a concise manner. The reader must reference several pages to determine the relationship and overlap important information and dates. The length of the section could be significantly reduced if the dates were presented on a single consolidated graphical timeline. This same measure could also reduce the risk of a misunderstanding when aligning objectives, goals, and milestones within the document and with the SWQB annual reports.

Lastly, information from Section 7 could also be included in this graphic — particularly relating to feedback, programmatic considerations, administrative procedures, adaptive management, and reporting.

Additionally, The NPS Plan places high importance on watershed-based planning, yet NPS Plan does not include a map showing the geographic scope of existing watershed based plans, anticipated plans, and regions that currently lack such a plan. Such a map will be helpful to current planners and groups thinking of creating a watershed-based plan in the future.

Similarly, there is a lack of guidance pertaining to how watershed-based planning groups form from interested parties into an organized group whose responsibility it is to report to NMED. It is unclear if there are any requirements or requisites for these groups of interested stakeholders to take on this responsibility or if NMED precipitates the coalescence of these groups.

Section 5: Priorities for Nonpoint Source Pollution Control

On page 5-1, the 'rotating intensive watershed surveys' and 'short-term targeted monitoring designs' are not defined. Similarly, it is unclear what a 'fixed station monitoring design' is or what will replace their functionality since they were phased out in 2012.

Without some sort of fixed monitoring program, there is a distinct lack of proactive measures to determine when to apply additional 'short-term targeted monitoring designs'. The NPS Plan instead is reactive in that it intends to rely on "citizen complaints, fish kills, or illegal dumping" to determine when the need arises to employ additional measures.

On page 6-4, the NPS Plan mentions $1.5 million for the River Stewardship Program, however, the figure may be different as stated in the version of House Bill 55. The finalized bill mentions the amount of $2.3 million for this program.

Page 6-11 refers to older figures from previous versions of the Farm Bill. Since the NPS Plan was published before the finalized 2014 Farm Bill, these figures will need to be updated.

Thank you for your consideration of these comments. Please contact Ms. Julie Maitland, division director for Agricultural Programs and Resources, at (575) 646-2642.

Sincerely,

Julie Maitland

JM/rw/ll

References

New Mexico Agricultural Statistics 2012:
http://www.nass.usda.gov/Statistics_by_State/New_Mexico/Publications/Annual_Statistical_Bulletin/bulletin12.asp

2014 Farm Bill. Available at:
http://www.gpo.gov/fdsys/pkg/BILLS-113hr2642enr/pdf/BILLS-113hr2642enr.pdf

Proposed Rule: Definition of Waters of the United States Under the Clean Water Act:
http://www2.epa.gov/uswaters/definition-waters-united-states-under-clean-water-act

U.S. EPA Clean Water Act Section 404(f)(1)(A) Interpretive Rule for Agricultural Practices:
http://www2.epa.gov/sites/production/files/2014-03/documents/cwa_section404f_interpretive_rule.pdf

2014 Work New Mexico Act, Final Chaptered Version:
http://www.nmlegis.gov/Sessions/14%20Regular/final/HB0055.pdf

GOVERNOR
Susana Martinez

ACTING DIRECTOR AND SECRETARY
TO THE COMMISSION
R.J. Kirkpatrick

DEPUTY DIRECTOR
Daniel E. Brooks

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507

Post Office Box 25112, Santa Fe, NM 87504

Tel: (505) 476-8000 | Fax: (505) 476-8123

For information call: (888) 248-6866

www.wildlife.state.nm.us

April 7, 2014

Abraham Franklin
NMED Surface Water Quality Bureau
Post Office Box 5469
Santa Fe, NM 87502

Re: New Mexico 2014 Nonpoint Source Draft Management Plan; NMDGF No. 16266

Dear Mr. Franklin:

The New Mexico Department of Game and Fish (Department) has reviewed the above referenced planning document and commends you and your Bureau's efforts to work with state and federal agencies, non-government agencies and the public to implement the Nonpoint Source Program as described in the draft planning document.

Addressing nonpoint source pollution, particularly at the watershed-based planning level, is crucial not only to ensure water quality for public consumption but also enhances and promotes wildlife and wildlife habitat values as well.

The Department has worked cooperatively with the NMED Surface Water Quality Bureau on numerous projects and looks forward to our continued partnership.

Thank you for the opportunity to review and comment on your draft planning document. Please contact me at (505) 476-8118 or matthew.wunder@state.nm.us if you have any questions.

Sincerely,

Matthew Wunder, Ph.D., Chief
Ecological and Environmental Planning Division

cc: USFWS NMES Field Office

Franklin, Abraham, NMENV

From: Rich, Susan , EMNRD
Sent: Tuesday, February 18, 2014 10:13 AM
To: Franklin, Abraham, NMENV
Cc: Frederick, Andrew G, EMNRD; Griego, Donald, EMNRD
Subject: NPS Plan FY14 comment from Forestry Division.docx
Attachments: NPS FY14 Forestry Division REV140218 clean copy.docx; NPS FY14 Forestry Division REV140218 mark-up.docx

Follow Up Flag: Follow up
Flag Status: Completed

Good morning, Abe –
While reviewing the Draft NPS Plan, our Resource Protection Bureau Chief noticed an error in the write-up I sent you last December. This appears on page 6-18 of the draft.

I am submitting a corrected version of the doc I sent you on 12/12/13. Please substitute the corrected language into the final NPS Plan. I have attached a clean copy and a mark-up with the redlined correction and a question about NPS terminology.

Since you are in the middle of the comment period, do you need a formal letter requesting the change or will this email suffice?
Regards,
Susan

Susan Rich
Forest and Watershed Health Coordinator
EMNRD Forestry Division
4001 Edith NE
Albuquerque, NM 87107
505.345.2080 (o)
505.228.4880 (c)
susan.rich@state.nm.us

www.nmforestry.com
www.allaboutwatersheds.org

Forestry Division

NPS categories to be addressed: Silviculture~~, rangeland grazing, wildlife management,~~ and road construction.

Comment [SER1]: Abe, can this say "forest road construction", or do you have to keep it to official NPS categories?

The New Mexico Forestry Division's forest resource management programs involve the application of both regulatory and voluntary silvicultural 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 landowners and recommends application of NPS pollution BMPs in all silvicultural activities. Types of technical assistance range from reforestation to 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 that includes the Forest Health Improvement Program (FHI), which specifically addresses forest health issues and forest management planning, as well as various thinning programs that address wildfire threats to communities and watersheds.

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 calendar year. Harvesting is conducted under a permit issued by the New Mexico Forestry Division. As a requirement of the permit application, a harvest plan defining what will be reserved after harvest and how steep slopes will be treated to minimize soil erosion, as well as minimizing any potential impacts to stream courses, must be prepared. 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 silvicultural water pollution-NPS assessment to determine the types of BMPs applied.

The 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. A Cooperative Agreement between the Division and the Natural Resources Conservation Service (NRCS) provides for a shared staff position to serve as the New Mexico NRCS' State Forester, and the Division's District staff serve as Technical Service Providers to NRCS Field Offices, Area Offices, and cooperators. A Financial Assistance Agreement with the Bureau of Land Management (BLM) enables the 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 Division also partners with sister agencies to support common state objectives, such as managing the Watershed Health and Management Subcommittee for the Office of the State Engineer's Drought Task Force.

Forest and Watershed Health Office

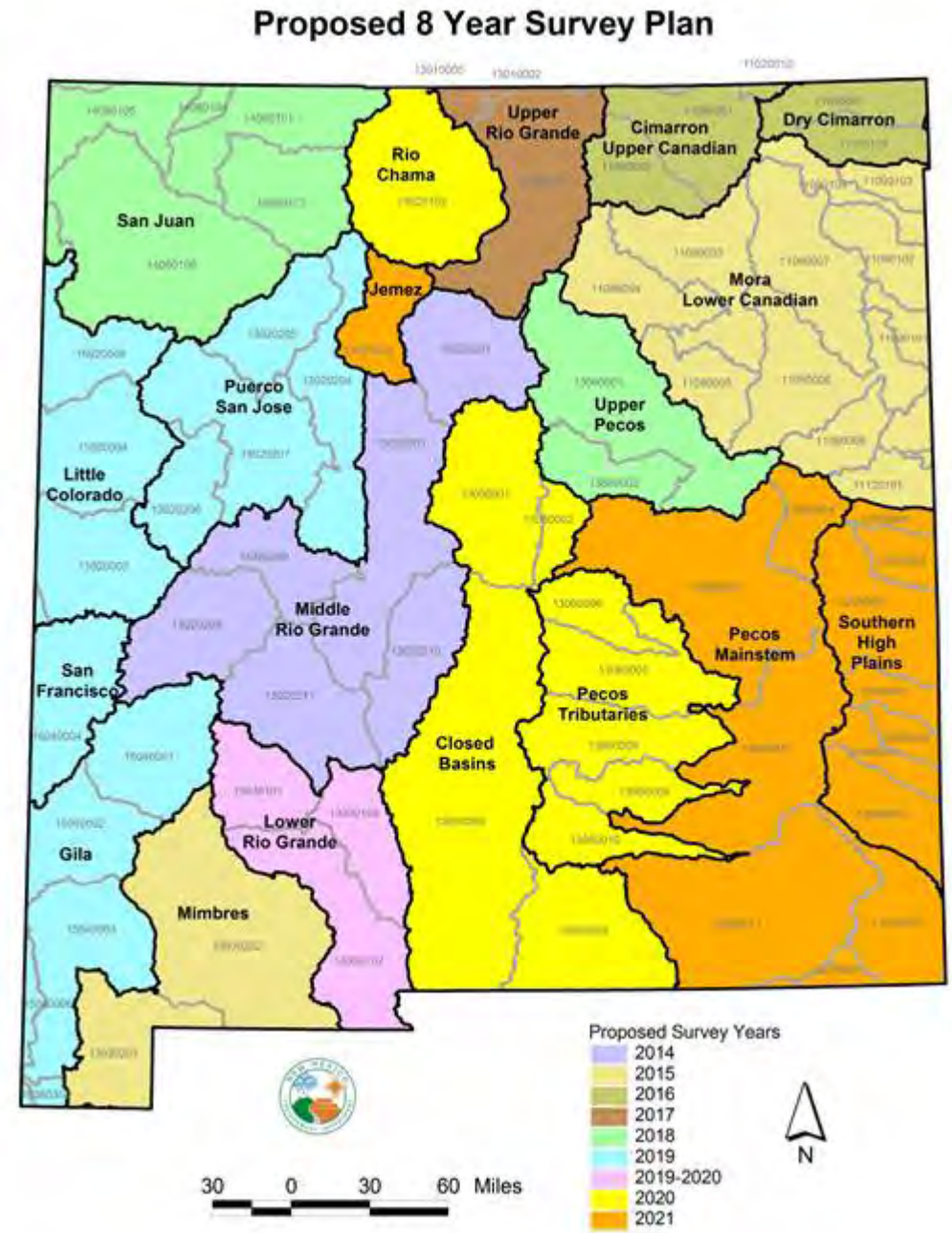
Franklin, Abraham, NMENV

From: Scarano, Jeff, NMENV
Sent: Tuesday, March 25, 2014 8:31 AM
To: Guevara, Lynette, NMENV; Franklin, Abraham, NMENV
Cc: Henderson, Heidi, NMENV; Murray, Scott, NMENV
Subject: RE: 8-year rotation

Importance: High

Follow Up Flag: Follow up
Flag Status: Completed

Abe,
Turns out the wrong figure was inserted into the NPS Mgmt Plan. My apologies.
Below is the correct figure, which should replace Figure 6 on page 5-2 of the draft report.



Jeff Scarano
Program Manager- Monitoring, Assessment & Standards
New Mexico Environment Department- Surface Water Quality Bureau

San Juan Water Commission

7450 East Main Street, Suite B • Farmington • New Mexico • 87402
Ph: 505-564-8969 • Fax: 505-564-3322 • Email: sjwcoffice@sjwc.org

MEMBERS:
City of Aztec
City of Bloomfield
City of Farmington
San Juan County
S.J. County Rural Water Users Association

March 25, 2014

Abraham Franklin
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, NM 87502

Via U.S. Mail and E-mail (*abraham.franklin@state.nm.us*)

Re: Comments of San Juan Water Commission on January 2014 Public Comment Draft of the New Mexico Nonpoint Source Management Plan

Dear Mr. Franklin:

Thank you for publishing, and accepting public comment on, the New Mexico Environment Department's ("NMED") Public Comment Draft of the New Mexico Nonpoint Source Management Plan ("NPS Management Plan"). SJWC appreciates the opportunity provided by NMED to remark on the Public Comment Draft, which describes dynamic and progressive actions to prevent nonpoint sources from entering both surface and ground water.

The NMED/SWQB's NPS Program should be commended for the thorough and detailed manner in which the Public Comment Draft of the 2014 NPS Management Plan was prepared. In particular, the Public Comment Draft presents a well-organized and thoughtful update to the 2009 NPS Management Plan, including an enhanced narrative that expands on the previous plan and elaborates with substantial detail on various program elements. The appendix to the Public Comment Draft contains valuable information on watershed priorities, best management practices and sources of funding for watershed projects.

In addition to its general support for the NPS Management Plan, SJWC has one substantive comment on the Public Comment Draft. Section 6.1.3 describes the roles of the Ground Water Quality Bureau ("GWQB") and the Ground Water Pollution Prevention Section ("GWPPS"). In particular, Page 6-7 notes that "[l]arge septic systems that discharge greater than 2,000 gallons of domestic wastewater per day are regulated under" the GWPPS discharge permit program. However, GWQB recently petitioned the Water Quality Control Commission ("WQCC") to amend 20.6.2 NMAC to mirror and parallel recent and proposed changes to 20.7.3 NMAC, the Liquid Waste

Disposal and Treatment Regulations. The Environmental Improvement Board ("EIB") recently revised the Liquid Waste Disposal and Treatment Regulations, effective September 1, 2013, and the NMED Environmental Health Bureau ("EHB") will soon file another petition to amend the definition of "liquid waste" so that it will increase the volumetric maximum limit of "liquid waste" in 20.7.3.7(L)(5) NMAC from two thousand (2,000) gallons per day or less to facilities receiving five thousand (5,000) gallons per day or less of liquid waste.

Correspondingly, GWQB proposes to amend portions of 20.6.2 NMAC to remove and clarify the numerical threshold definitions of "liquid waste." Upon WQCC adoption of the proposed changes, GWQB will in essence regulate "liquid waste" from facilities receiving greater than five thousand (5,000) gallons per day instead of two thousand (2,000) gallons per day. The timetable for adopting these regulatory changes has been proposed as: July 2014 for EIB and August 2014 for WQCC. Therefore, the NPS Management Program may want to consider amending the language in Section 6.1.3 or perhaps adding a footnote on page 6–7 disclosing the anticipated regulatory changes. Likewise, similar language or a footnote on page 6-8 under Section 6.1.4 (Environmental Health Division–Liquid Waste Program) may be desirable.

Thank you for your consideration of these comments. If you have any questions about SJWC's position, or would like to discuss these issues in more detail, please do not hesitate to call me. SJWC looks forward to receiving your response to these comments.

Sincerely,

L. Randy Kirkpatrick
Executive Director
San Juan Water Commission

United States Department of Agriculture **Forest Service** **Southwestern Region Regional Office**
333 Broadway SE
Albuquerque, NM 87102
FAX (505) 842-3800
V/TTY (505) 842-3292

File Code: 2500
Date: April 7, 2014

Abraham Franklin
Program Manger
NMED SWQB
PO Box5469
Santa Fe, NM 87502

Dear Mr. Franklin,

The USFS Southwestern Region is pleased to provide the following observations and comments regarding the draft New Mexico Nonpoint Source Management Plan released January 4, 2014 for public comment. First and foremost I wish to express appreciation for the acknowledgement made throughout the document of the close and amicable working relationship that exists between our agencies aimed at protecting and improving the quality of water on the national forests in New Mexico.

While we feel the document is comprehensive, well written and organized, we would like to offer the following observations and comments.

Page 3-3, 3.1.2 Objective 1 Verification Milestones
Bullet 2 – at least one new watershed plan covering three priority watersheds (this sounds odd, should there be one watershed plan per watershed?)
Bullet 3 – same comment
Bullet 4 – same comment

Page 5-7, 5.2.3 2) …WPS staff will participate in post-fire response planning. The objective of this activity will be to develop BAER plans….

Comment: Forest Service BAER reports are specific to NFS lands. Will NMED prepare separate BAER plans for all lands affected? Currently, the Forest Service only has the authority to prepare BAER reports for NFS lands. The FS will participate in multijurisdictional BAER planning when FS lands are involved preparing the BAER report for the NFS lands involved in the multijurisdictional effort.

The next comment refers to pages 5-9 and 5-11:
Page 5-9: Implementation projects funded with Section 319 watershed project funding will be limited to watersheds with watershed based plans….These watersheds are the priority watersheds for implementation.

Page 5-11, Paragraph 1: The primary means of selecting projects for implementation with support of Section 319 watershed project funding will be through an annual RFP…

Page 5-11, paragraph 2: When the WPS conducts RFPs or smaller procurements to address water quality impairments, the request will be for projects that address impaired waters...rather than projects that lie within priority watersheds.

This seems confusing. Page 5-9 says that 319 funding will be limited to watersheds with WBPs and these are priority watersheds for implementation. Page 5-11 says that RFPs to address water quality impaired waters rather than projects in priority watersheds. Are the RFPs and smaller procurements funded with non-319 funds?

Page 6-1, paragraph 4: Consider adding to the first sentence Watershed Action Plans and Forest Plans.

Page 6-9, 6.2.1, first paragraph: Water quality concerns identified in National Forests include sediment….and mining.
Comment: include legacy roads and trails.

Should you have any comments regarding these comments, please contact Roy Jemison (regional Hydrologist) on my staff at 505-842-3255 or rjemison@fs.fed.us.

Sincerely,

/s/Roy Jemison

WQCC Approval

The proposed final 2014 NPS Management Plan was provided to the WQCC on June 25, 2014 for their review. WQCC approved the document during their July 8, 2014 meeting, and incorporated it into the Statewide Water Quality Management Plan. WQCC approval is documented in an order of adoption included below.

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE APPROVAL OF THE STATE OF NEW MEXICO NONPOINT SOURCE MANAGEMENT PROGRAM AND INCORPORATION INTO THE STATEWIDE WATER QUALITY MANAGEMENT PLAN AND CONTINUING PLANNING PROCESS

ORDER

This matter came before a quorum of the New Mexico Water Quality Control Commission ("Commission") on July 8, 2014 at a regularly scheduled meeting. The Commission is this state's water pollution control agency. NMSA 1978, § 74-6-3 (E). As such it is responsible for adopting a "comprehensive water quality management program" and "developing a continuing planning process." NMSA 1978, § 74-6-4 (B). Having considered the proposed final *New Mexico Nonpoint Source Management Plan, 2014* that is part of this state's continuing planning process, and together with oral presentation at the meeting, **IT IS HEREBY ORDERED THAT:**

The *New Mexico Nonpoint Source Management Plan, 2014*, is hereby approved and adopted by the Commission and is incorporated into the New Mexico Water Quality Management Plan.

Butch Tongate
Butch Tongate, Chair
Water Quality Control Commission

7/8/14
Date:

Submittal of NPS Management Plan by the Governor of New Mexico

After approval by WQCC, Governor Martinez submitted the 2014 NPS Management Plan to EPA Region 6 Administrator Ron Curry on August 28, 2014. Her letter follows.

State of New Mexico

Susana Martinez
Governor

Ron Curry
Regional Administrator
USEPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Curry:

Enclosed please find the updated New Mexico Water Quality Control Commission's (WQCC) Clean Water Act Section 319(b) *New Mexico Nonpoint Source Management Program - 2014* document for EPA review and approval. The WQCC approved the program document at its July 8, 2014 meeting. This document replaces the formerly approved 2009 version of the *NM Nonpoint Source Management Program.* The Nonpoint Source Management Program is also incorporated by reference in the State of New Mexico Statewide Water Quality Management Plan (Section VII) [WQMP] adopted in fulfillment of separate requirements in Clean Water Act Sections 208 and 303.

Public participation in the development of the Nonpoint Source Management Program document included informal consultation with sixteen organizations conducted in November and December, 2013. Public notice was provided for a 90-day public comment period from January 6 through April 7, 2014, during which two public meetings were also conducted. In sum, nine organizations and individuals submitted thirty-four comments during the comment period, resulting in some changes to the document. These and other efforts to engage the public and cooperating agencies while developing the plan are described in Appendix E of the document.

EPA regulations at 40 CFR 130.6(e), address procedural requirements for transmitting updates to the WQMP and require a letter from the Governor or the Governor's designee. As Governor of the State of New Mexico, I hereby certify that the WQMP updates are consistent with all other updates of the plan.

Electronic versions of both the new *Nonpoint Source Management Program - 2014* and the New Mexico Statewide Water Quality Management Plan are available on the Environment Department's website at:
www.nmenv.state.nm.us/swqb/wps/Plan
www.nmenv.state.nm.us/swqb/Planning/WQMP-CPP

State Capitol • Room 400 • Santa Fe, New Mexico 87501 • 505-476-2200 • fax: 505-476-2226

If you have any questions or concerns please feel free to contact Secretary Flynn of the New Mexico Environment Department at (505) 827-2855 or Abraham Franklin, Watershed Protection Section Manager at (505) 827-2793.

Sincerely,

Governor Susana Martinez

Enclosures

Cc:(w/enclosures)
Jane Watson, EPA R6, Ecosystems Protection Branch Chief
Troy Hill, EPA R6, Assistance Programs Branch Chief

EPA Review

EPA Region 6 staff provided comments and questions on the 2014 NPS Management Plan on October 8, 2014. EPA's questions and NMED's responses follow. NMED provided these responses to EPA on November 13, 2014.

EPA Comments on
New Mexico's 2014 Nonpoint Source Management Program

(NMED responses are in italics.)

Following are comments and questions received from EPA Region 6, followed by NMED responses and clarifications. This text has not been reviewed by the public or the Water Quality Control Commission, and therefore is not a binding part of the Nonpoint Source Management Plan. It is included to provide supplemental explanation for the NPS Management Plan.

1. Page 3-1: How will wildfire severity be determined? By what agency?

The United States Forest Service typically classifies burned acreage by severity, using the Field Guide for Mapping Post-Fire Soil Burn Severity *(General Technical Report RMRS-GTR-243).*

2. Page 3-2: The activity, "develop a process for watershed groups and others to submit watershed-based plans (and acceptable alternative plans) for review" should be described in more detail. Is the Watershed Protection Section going to produce guidance on how to streamline WBP submission? Or will this language be added to the RFP?

Section 5.2.4 (Submittal and Review of Watershed-Based Plans) provides more detail on the process that will be employed. Instructions will be provided on the NMED web site for interested individuals and organizations to submit watershed based plans to NMED. NMED will conduct preliminary review of submitted WBPs, and if a WBP appears to meet the nine elements, the WBP will be forwarded to EPA for review. The web site will describe the process in greater detail. We do not anticipate adding information on the WBP review process to the Request for Proposals.

3. Page 3-2: The activity, "provide technical support to stakeholder groups preparing watershed-based plans" should be described in more detail. Does this mean help collecting data? Calculating loads? Help writing the plans? Help recruiting stakeholders? A brief description of the types of support would be useful.

The technical support provided by Watershed Protection Section staff to stakeholder groups preparing watershed-based plans is wide ranging, and includes each of the example activities listed in the question. The assistance focuses on the needs of the stakeholder group, and depends greatly on the specifics of the watershed, the skills of those working on a watershed-based planning project, and the requirements of the project outlined in the project workplan. Each project supported with Section 319 funds is reviewed and approved by EPA, and EPA will have the opportunity to discuss details and require specific changes during that process. This review and approval authority will extend to small procurements for watershed-based planning (or implementation) supported with Section 319 funds as well.

4. Page 3-2: A brief description of how NMED staff evaluate WBPs before they are submitted to EPA for formal review would be appreciated. Are WBPs evaluated in the context of the EPA review guide for WBPs? This could even be a separate activity with its own verifiers.

WBPs will often be evaluated by NMED staff using the Region 6 WBP review guide prior to submittal to EPA. In a few cases, formal feedback from EPA is warranted even when NMED staff are aware that the WBP does not contain all nine elements identified in the Nonpoint Source Program and Grants Guidelines for States and Territories. *EPA review of WBPs is considered to be objective and thorough, and represents the final word on WBP adequacy. Review of WBPs also will help EPA become informed about the specifics of New Mexico's watersheds and the capacity of NMED staff and cooperators to conduct watershed-based planning, and will provide important background for evaluating workplans for implementation projects.*

Evaluation of watershed-based plans that may or may not meet the requirements for watershed-based plans may be a valid activity for New Mexico's workplan for the Nonpoint Source Management Program. The workplan is consistent with the NPS Management Plan and provides more detail about activities to be completed in a two year period. The workplan is subject to EPA review and approval, and EPA will have the opportunity to discuss details and require specific changes during the review process.

5. Page 3-2: Two paragraphs at the bottom of the page are nearly identical.

Respecting the Water Quality Control Commission action on the document, the text will be left as is.

6. Page 3-3: In reference to "instructions for submitting plans", again, it would be useful to detail whether this would be in the form of a guidance document, RFP, or just instructions on the website.

We plan to provide instructions for submitting WBPs on the NMED web site.

7. Page 3-4: NMED may wish to consider changing the sentence which reads "EPA will accept that a submitted post-fire response plan or project workplan qualifies as an alternative to a watershed based plan," to "a post-fire response plan or project workplan will be submitted for EPA review as an acceptable alternative to a watershed-based plan."

The sentence in question describes a program milestone. NMED views whether or not EPA accepts a submitted plan as meeting program requirements as critical for determining whether the planning efforts and the plan itself are valid.

8. Page 3-4: A brief description of "information", including listing kinds of information, mentioned in the milestone which reads, "watershed plans will include information from major land owners and land management agencies, and all states, Indian nations, pueblos, and tribes, within their planning areas", would be helpful for understanding the milestone.

The milestone is intended as a basic indicator of whether the activity for encouraging stakeholder participation in watershed-based planning has been successful, regardless of the quality or quantity of information provided. Whether or not watershed-based plans are accepted as meeting the nine elements (corresponding to other key milestones) is another milestone that depends more strongly on information that is collected. The kinds of information collected from various sources are well described in several EPA documents, such as the Handbook for Developing Watershed Plans to Restore and Protect Our Waters.

9. Pages 3-5 and 3-6: The activity, "Use scientific methods and weight of evidence reporting to measure and document progress made towards achieving water quality standards" and corresponding milestone on page 3-6 should be modified to specifically state that the program is using these methods to gauge progress toward removing waterbodies from the Clean Water Act Section 303(d) list, thereby achieving water quality standards and producing nationally recognized NPS success stories under EPA performance measure WQ-10.

The milestone refers to the 2014-2018 EPA Strategic Plan for more information. We view the EPA Strategic Plan as the primary reference for EPA goals and strategy, and the EPA Strategic Plan corresponds approximately with the period covered by the Nonpoint Source Management Plan. In contrast, EPA's National Program Guidance is issued once per year, and includes the performance measure definitions and identifiers such as WQ-10. The definitions and especially the identifiers are subject to change, as are EPA and state priorities. NMED expects that a task will be included in each core workplan for effectiveness monitoring and success story reporting,

that will specify NMED reporting in support of the EPA performance measure WQ-10, subject to details in the National Program Guidance for future years.

10. Page 3-5: The activity which begins, "Participate in the State Technical Committee and any subcommittees or work groups…" should include NMED's involvement in National Water Quality Initiative (NWQI) activities and possibly the upcoming Regional Conservation Partnership Program (RCPP) program from NRCS as well.

NWQI and RCCP are initiatives or subprograms within EQIP. The activity description emphasizes EQIP, and thus potentially includes any relevant subprograms. A description of RCCP wasn't available when the 2014 NPS Management Plan was drafted. Results of NWQI to be reported are specifically mentioned in a milestone corresponding to a similar activity under Objective 6 (Interagency Cooperation).

11. Page 3-6: The milestone that begins "Water quality conditions will be improved in two priority watersheds annually in 2014 through 2018 using the watershed approach…" should specify "two WQ-10 NPS success stories per year using the watershed approach" or something to that effect to ensure that the reader knows this milestone is verified by the achievement of WQ-10 success stories.

As noted above, the definitions and identifiers for EPA performance measures are subject to change, and we considered the 2014-2018 EPA Strategic Plan to be the better reference. However, NMED does intend to report two WQ-10 NPS success stories per year using the watershed approach. Readers interested in how the WQ-10 performance measure is defined may refer to http://water.epa.gov/resource_performance/planning for that information. Information specific to FY 2015 is available at http://water.epa.gov/resource_performance/planning/FY-2015-NWPG-Measure-Definitions-Water-Quality.cfm.

12. Page 3-7: The milestone, "Water quality improvements will be documented in each *NPS Management Program Annual Report*" could be expanded to include implementation status of on-the-ground and WBP projects. These could be separate verification milestones or combined into one.

Each project has specific goals and a schedule that translate into a much larger amount of information or milestones achieved at the watershed- or project-scale than would be appropriate to include in the statewide NPS Annual Report. NMED reports on individual projects semi-annually to EPA in the Grants Reporting Tracking System (GRTS). NMED also promotes the use of GRTS by the public for researching individual projects. More information is available at http://www.nmenv.state.nm.us/swqb/wps/GRTS.

13. Page 3-7: The milestone that reads, "WAPs will be implemented in at least one priority watershed per year," should be expanded to specify "and documented in each NPS Management Program Annual Report."

A section on Wetlands Program activities in each NPS Annual Report will indicate when WAPs have been implemented in priority watersheds.

14. Page 3-7: The milestone that reads, "Each year, NRCS will include among material provided for the *NPS Management Program Annual Report* information about specific actions that were taken by NRCS (or agricultural producers who successfully applied for assistance from NRCS) to address TMDLs" could specifically mention the National Water Quality Initiative.

NMED requests information from NRCS each year for the NPS Annual Report. The request will specify that NMED is particularly interested in the National Water Quality Initiative, and would like to include an update on that effort in the NPS Annual Report. NMED will also discuss NWQI in a narrative section on interagency coordination, and if applicable in a section on NPS Management Program Problems and Concerns.

15. Page 3-7: Consider expanding the activity for implementing post-fire response plans to include writing post-fire plans.

That activity is under the Water Quality Protection objective. Participation in post-fire response planning is an activity under the Watershed-Based Planning objective.

16. The activity for WPS staff to "Review the biennial draft of the *State of New Mexico CWA §303(d)/§305(b) Integrated List and Report* and associated Record of Decision" could also be conducted to look for potential NPS success stories.

The activity for staff to review the Integrated List and Report *is mainly intended to increase the quality and usefulness of the document as a basic reference for water quality conditions in New Mexico. In recent listing cycles, delisted (removed) impairments are provided in a spreadsheet for each edition of the list, available at www.nmenv.state.nm.us/swqb/303d-305b. The spreadsheet makes identification of potential NPS success stories quite easy. An activity found under the Water Quality Improvement objective ("Use scientific methods and weight of evidence reporting to measure and document progress made towards achieving water quality standards") will include review of changes in the* State of New Mexico CWA §303(d)/§305(b) Integrated List and Report *as a component of success story reporting. More details are found in Section 7.3 (Program Effectiveness Monitoring).*

17. Page 3-9: Would the activity, "Work with the NMED Construction Programs Bureau to pursue the use of Clean Water SRF to protect water quality" be in priority watersheds or in any watershed interested in making improvements?

The activity may apply to watersheds where current or potential drinking water treatment challenges diverge somewhat from the problems identified in the State of New Mexico CWA §303(d)/§305(b) Integrated List and Report. *For example, in forested watersheds that are key municipal water supplies and are threatened by wildfire, SRF funds may hypothetically be used to support forest restoration. In another example, a City may be interested in improved watershed management to reduce nutrient and organic carbon loading. These constituents can contribute to undesirable disinfection byproducts and create compliance challenges relative to Safe Drinking Water Act standards, even though NMED may not have recognized a nutrient impairment in the stream. Further, New Mexico does not presently have a water quality standard for total organic carbon. If SRF funds are used for watershed management activities,*

some of these activities could occur in priority watersheds for water quality protection. Priority watersheds for water quality protection are primarily within designated wilderness, but often include some areas without that designation that might be critical for watershed management.

18. Page 3-10: The milestone that includes that NMED will fund post-fire actions that reduce sedimentation and protect aquatic habitat with support of Section 319 watershed project funds should probably include that 319 funds will also be used to write alternatives to WBPs.

This milestone on p. 3-10 is under the objective for Water Quality Protection. The Watershed-Based Planning objective includes an activity (p. 3-2) and associated milestone (p. 3-4) related to post-fire planning to produce acceptable alternatives to WBPs. Those plans would be developed with assistance of staff supported with Section 319 funds, and those may be considered watershed project funds in keeping with staff activities eligible for watershed project funding outlined in the Nonpoint Source Guidelines, such as "providing technical expertise with siting and designing BMPs."

19. Page 3-10: NMED may wish to consider including another bullet that details the number or frequency of meetings such as the NRCS State Technical Committee meetings that NMED will attend as a verifiable milestone, as in "NMED staff will attend one State Technical Committee Meeting a year." Another potential verifiable milestone is "NMED will consult with NRCS on NWQI watershed selection once a year."

NMED plans to attend every State Technical Committee meeting, and generally has been doing that. Likewise, consultation with NRCS has been occurring several times per year. The related milestone ("Each year, NRCS will include among material provided for the NPS Annual Report information about specific actions that were taken by NRCS or agricultural producers who successfully applied for assistance from NRCS, to protect water quality") is intended to encapsulate and convey the result of those and other efforts. Specific numbers of meetings, consultations, or other activities may alternatively be specified in the workplans for Nonpoint Source program activities supported with Section 319 funds.

20. Page 3-10: The milestone under Objective 3 (Water Quality Protection) that begins, "Each year, NRCS will include among material provided for the *NPS Annual Report…*" should be expanded, or an additional milestone should be added, to specify that a yearly report about the status of NWQI participation and monitoring of NWQI projects will be included in the *NPS Annual Report*. An additional milestone could alternatively be provided under Objective 6 on Interagency Cooperation.

This comment is similar to one that EPA provided under Objective 2 (Water Quality Improvement), and the response is similar. NMED requests information from NRCS each year for the NPS Annual Report. The request will specify that NMED is particularly interested in the National Water Quality Initiative, and would like to include an update on that effort in the NPS Annual Report. NMED will also discuss NWQI in a narrative section on interagency coordination, and if applicable in a section on NPS Management Program Problems and Concerns.

21. Page 3-10: EPA recommends that the milestone, "A summary of activities and accomplishments under the Wetlands Program will be provided in each *NPS Management Program Annual Report*" be expanded to specify a number of Wetlands Action Plans completed per year, or specify some other measure of this activity. EPA further notes that this isn't imperative for the 319 program, but would help provide another trackable milestone for NMED's purposes.

While NMED agrees that it is important to set measurable goals, the Water Quality Improvement Objective as currently drafted contains eleven milestones. Additional milestones would increase the relative effort of reporting, and may detract from making progress on key objectives related to completion of watershed-based plans and helping EPA meet performance measures. The goals for the Wetlands Program are stated in greater detail in the New Mexico Wetlands Program Plan available at http://water.epa.gov/type/wetlands/wpp.cfm, and numeric targets are included in the workplans for individual Wetlands Program projects.

22. Page 3-12: The Education and Outreach objective could use another verifiable milestone. For example, NMED conducts routine outreach events such as the water fair and various public meetings for RFPs throughout the year. These could be included as trackable milestones such as "NMED will conduct one water fair per year reaching X number of people" or "NMED will hold public meetings in X locations/priority watersheds to discuss the two RFPs." The normal activities that NMED conducts can easily be captured as trackable milestones for the outreach portion of the NPS management plan.

NMED agrees that another numeric target type milestone for Education and Outreach would be practical. The Education and Outreach objective does include three quantitative milestones on a schedule in Section 3.7, but none of these are for outreach events or meetings. The slightly reduced emphasis on education relative to the previous (2009) Nonpoint Source Management Plan is a result of reduced Section 319 funding, the 50% limit on spending of Section 319 grant funding on "program" activities, and shifted emphasis towards water quality improvement and protection.

23. Page 3-13: NMED may wish to link the "approximately 10 water fair events per State Fiscal Year (July 1 to June 30), conducted in rural communities throughout New Mexico" (part of the description of an activity under the Protect Groundwater Quality objective) as a verifiable milestone under the Outreach objective.

This target of 10 water fair events per year will essentially be applied as a verifiable milestone for the program.

24. Page 3-14: As with the above Education and Outreach objective, the verification milestone that reads , "The GWQB will report to EPA-Region 6 in the Semi-Annual Report summarizing GWQB activities conducted under the CWA Section 319 grant for the New Mexico Water Fair and Water Quality Outreach Program and Permitting and Compliance for Large-capacity Septic Tank Leachfields" should be converted to a trackable number of water fairs (as in the above activity section). Also, another separate milestone that gives an estimate for the number of permitting and compliance actions expected to take place each year should possibly be included.

The numeric target given within the activity description ("approximately 10 water fair events per [year will be] conducted") will be applied as the numeric milestone for this activity. The number of permitting actions will be reported for each year in the NPS Annual Report, but numeric targets are generally not appropriate for permitting activity.

25. Page 3-15: The two statewide New Mexico Wetlands Roundtables could serve as a trackable milestone under the Education and Outreach objective.

The New Mexico Wetlands Roundtables have become more important as a forum for agencies to share information related to wetlands and nonpoint source pollution control activities. Less prescriptive milestones were included for most Wetlands Program activities (e.g., "The summary of activities and accomplishments under the Wetlands Program provided in each NPS Management Program Annual Report will include a description of the Wetlands Roundtable meetings") partly because Wetlands Program goals and grant deliverables are specified in other documents. Also, the products of the Wetlands Program are dependent on competitive grant funding (under Section 104(b)(3) of the Clean Water Act) and are subject to different and more variable requirements set by EPA than are the parameters of the 319 program.

26. Page 5-9: Section 5.2.4 (Submittal and Review of Watershed-Based Plans) leaves open the possibility that the Watershed Protection Section may assume responsibility for review of some watershed-based plans in the future. This may be an option to explore at some point in the future.

NMED values the review of watershed-based plans by EPA Region 6 because that review is more objective. NMED may have a bias towards finding that WBPs do meet the planning requirement, because the Nonpoint Source Management Plan contains milestones for WBP completion. Also, EPA review of WBPs provides EPA staff with more background information on New Mexico watersheds and water quality problems, which can provide useful context for review of workplans for on-the-ground projects. NMED anticipates submitting approximately three WBPs per year to EPA Region 6 for review.

27. Page 5-15: In Section 5.4.2 (Post-Fire Watershed Protection Activities), will 319 funds be used to develop and write the plans too or just to implement them?

Section 319 program funds will support NMED staff who participate in post-fire planning. Separate 319-funded projects for post-fire planning activities are not envisioned.

28. Page C-3: EPA Region 6 cannot support prescribed burning activities with Section 319 funds. However, prescribed burning may be listed as a Best Management Practice in the NPS plan though since it could be funded through other sources.

NMED acknowledges the policy of EPA Region 6 prohibiting the use of Section 319 funds for prescribed burning.

29. Page C-4: Does the Best Management Practice, "Use fire and fuel management activities to reduce frequency, intensity and destructiveness of wildfires," include activities such as forest thinning?

Yes.

EPA Approval

After considering these responses, EPA technical staff recommended approval of the plan, and EPA Region 6 Administrator Ron Curry approved the 2014 NPS Management Plan on January 13, 2015. Mr. Curry's letter follows.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202 – 2733

Office of the Regional Administrator

January 13, 2015

The Honorable Susana Martinez
Governor of New Mexico
490 Old Santa Fe Trail, Room 400
Santa Fe, New Mexico 87501

Dear Governor Martinez:

Thank you for your letter to the U.S. Environmental Protection Agency submitting the updated 2014 New Mexico Nonpoint Source Management Plan. The EPA appreciates the efforts of the New Mexico Environment Department's Surface Water Quality Bureau in submitting this update to the 2009 SMP.

Pursuant to the Clean Water Act §319(d), the Watershed Management Section reviewed the SMP for consistency with requirements under the CWA §319(b). The NMED has agreed to address the EPA's comments in an addendum so the EPA hereby approves the SMP. This approval concurrently updates New Mexico's Water Quality Management Plan.

The EPA recognizes the exceptional efforts of New Mexico to control nonpoint source pollution and restore water quality. The 2013 *Nonpoint Source Program and Grants Guidelines for States and Territories* suggests states review and update their program every five years, so future interim updates and revisions may be made at any time.

I look forward to continued cooperation between our agencies. If you have any questions, please feel free to contact me at (214) 665-2100, or have your staff contact Ms. Carmen Assunto, State and Local Government Liaison, at (214) 665-2200.

Sincerely,

for Ron Curry
Regional Administrator


NEW MEXICO
ENVIRONMENT DEPARTMENT