STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

In the Matter of:

IN THE MATTER OF THE PETITION FOR PROPOSED AMENDMENTS TO 20.6.4.9 NMAC, DESIGNATION OF WATERS OF THE UPPER PECOS WATERSHED AS OUTSTANDING NATIONAL RESOURCE WATERS

No. WQCC 20-18 (R)

San Miguel County, the Village of Pecos, the New Mexico Acequia Association, Molino de la Isla Organics LLC, and the Upper Pecos Watershed Association,

Petitioners.

NEW MEXICO ENVIRONMENT DEPARTMENT'S
NOTICE OF INTENT TO PRESENT TECHNICAL TESTIMONY

Pursuant to 20.1.6.202 NMAC and the *Procedural Order & Hearing Guidelines* issued November 20, 2020, the New Mexico Environment Department ("Department") submits this Notice of Intent to Present Technical Testimony for the hearing in this matter currently scheduled to begin April 13, 2021.

1. Entity for whom the witnesses will testify

The Surface Water Quality Bureau of the Water Protection Division of the Department.

2. Identity of witnesses

The Department will call the following witnesses to present technical testimony at the hearing:

Jennifer Fullam is the Standards, Planning and Reporting Team Supervisor and the Water Quality Standards Coordinator with the Department's Surface Water Quality Bureau. Her resume

describing her educational and professional background is attached as NMED Exhibit 1. A copy of Ms. Fullam's written direct testimony is attached as NMED Exhibit 2.

Diana Aranda is a Scientist/Specialist-Advanced on the Standards, Planning, and Reporting Team with the Department's Surface Water Quality Bureau. Her resume is attached as NMED Exhibit 3. A copy of Ms. Aranda's written direct testimony is attached as NMED Exhibit 4.

3. Estimated duration of direct oral testimony of witnesses

Ms. Fullam 15 minutes

Ms. Aranda 20 minutes

4. List of exhibits to be offered by the Department at the hearing

EXHIBIT NUMBER	TITLE OF EXHIBIT
NMED Exhibit 1	Resume of Jennifer Fullam
NMED Exhibit 2	Written Direct Testimony of Jennifer Fullam
NMED Exhibit 3	Resume of Diana Aranda
NMED Exhibit 4	Written Direct Testimony of Diana Aranda
NMED Exhibit 5	Excerpts from WQCC Statement of Reasons for the 2005 amendments to 20.6.4 NMAC
NMED Exhibit 6	WQCC Statement of Reasons approving the 2010 ONRW designation of all perennial waters within United States Forest Service Wilderness Areas
NMED Exhibit 7	20.6.4.7(B) NMAC - Best Management Practices
NMED Exhibit 8	20.6.4.8 NMAC - Antidegradation Policy and Implementation Plan
NMED Exhibit 9	20.6.4.9 NMAC - Outstanding National Resource Waters
NMED Exhibit 10	Section 101(a) of the federal Clean Water Act (CWA)
NMED Exhibit 11	40 C.F.R. § 131.12
NMED Exhibit 12	Data Dictionary
NMED Exhibit 13	Excerpts from 2018-2020 CWA §303(d)/§305(b) Integrated List
NMED Exhibit 14	20.1.6.201 and 20.1.6.202 NMAC
NMED Exhibit 15	Proposed Amendment Language

The Department reserves the right to introduce and move for admission of any other exhibit(s) in support of rebuttal testimony at the hearing.

Respectfully submitted,

NEW MEXICO ENVIRONMENT DEPARTMENT
OFFICE OF GENERAL COUNSEL

By: __*/s/ John Verheul*__
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *New Mexico Environment Department's Notice of Intent to Present Technical Testimony* was filed with the WQCC Administrator and served on the following via electronic mail on March 10, 2021:

Kelly E. Nokes
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Counsel for the Water Quality Control Commission

__*/s/ John Verheul*__
John Verheul

Curriculum Vitae (CV)
Jennifer T. Fullam

WORK HISTORY

March 2017- Present
State of New Mexico Environment Department, Santa Fe, New Mexico
Surface Water Quality Bureau
Standards, Planning and Reporting (SPR) Team Supervisor

- Serve as the coordinator for New Mexico's surface water quality standards which includes but is not limited to applying the procedures established for adopting changes to the surface water quality standards, petitioning for a hearing to the Water Quality Control Commission (WQCC), preparing and advertising public notices, providing written and oral testimony for a hearing before the WQCC, preparing for cross examination, understanding and applying hearing guidelines, assisting with the development of post-hearing submittals and filing rule changes to State Records and Archives in accordance with 20.1.24.10 NMAC.
- Maintain knowledge of State and Federal statutory requirements that affect surface water quality standards and standards development.
- Coordinate with the United States Environmental Protection Agency (EPA) on actions pertaining to the State's Water Quality Standards and the Federal Clean Water Act. This includes submitting surface water quality standards (new and revised) to EPA Region 6 for review and action (approval or disapproval).
- Conduct and review use attainability analysis and hydrology protocol surveys which propose to revise, remove or add segment specific water quality standards to 20.6.4 NMAC.
- Responsible for the daily management and oversight of work conducted by the Standards, Planning and Reporting Team which oversees the implementation of the Bureau's Quality Assurance requirements, technical and educational outreach activities and development of regulatory and rulemaking actions.
- Review and revise the Water Quality Management Plan and Continuing Planning Process as required under the Clean Water Act.
- Coordinate and provide guidance and appropriate training for staff on program procedures.
- Ensure that all written work products from the SPR team are of high quality, reflect the professionalism of the Bureau and Department, and support New Mexico Environment Department's (NMED's) role as the lead agency for surface water quality protection in New Mexico.
- Conduct employee performance reviews of staff under the SPR Team.
- Conduct recruitment, disciplinary and hiring actions in accordance with State Personnel and Human Resources policies and procedures.
- Conduct technical and educational public outreach for proposed rulemaking actions to the surface water quality standards. This includes coordinating public notices through the website, listserv, newspapers, media releases and public meetings, providing technical and regulatory information from members of the public and recognized stakeholders.
- Collaborate and facilitate dialogue with Tribes on water quality standard issues. Reviewing Tribal Water Quality Standards and providing input, as applicable.
- Participate on national issues pertaining to water quality standards such as variances, proposed rules on Waters of the United States (WOTUS) and proposed guidelines for standards.

- Facilitate positive working relationships with other state and federal agencies, stakeholders and cooperators involved in surface water quality standards activities.
- Oversee the development of quality assurance guidance documents such as the Quality Management Plan (QMP) and Quality Assurance Project Plan (QAPP), Standard Operating Procedures and Field Sampling Plans
- Oversee the Quality Assurance Manager responsible for quality assurance activities pertaining to surface water data collection both within the Bureau and with outside entities seeking to submit water quality data for assessment purposes.

March 2014-March 2017
State of New Mexico Environment Department, Santa Fe, New Mexico
Petroleum Storage Tank Bureau
Compliance Assistance Coordinator/Environmental Scientist Specialist-A

- Responsible for the implementation and daily management of the Delivery Prohibition enforcement program.
- Development and implementation of strategic data management processes.
- Create and maintain tracking tools to assist in data collection and case management.
- Effectively track specific violations and enforcement actions for approximately 300 new cases (1300 individual violations) per year in a consistent, objective and timely manner.
- Compile information, through active data mining within these internal tracking applications, the Department's database and facility owner's files, to be able to provide compliance and enforcement statistics to meet the Federal Environmental Protection Agency's mandates and State reporting requirements.
- Effectively communicate, both verbally as well as in writing to various audiences including peers, management, regulated community and legal counsel.
- Review and clarify observations documented by the inspectors in the field and prepare a legally defensible enforcement case.
- In the event enforcement actions are appealed to the Secretary, assist in preparing testimony for a hearing.
- Apply knowledge of Federal (specifically 40 CFR §280) and State regulations (20.5 NMAC) with technical and legal writing skills experience to draft and edit enforcement documents.
- Involved in the development of new regulations to meet 40 CFR § 280.
- Regularly coordinate with the Bureau Chief and Program Managers within the Bureau
- Seek input and collaborate with staff from other Bureaus as it applies towards implementation of State and Federal Regulations.
- Network with other States and Tribes on processes and regulatory implementation.
- Provide written and verbal notification to facility owners of upcoming enforcement actions and offer assistance on actions required to obtain compliance.
- Maintain open communication with inspectors to assemble the chronological histories of ongoing outreach with owners and operators facing enforcement actions.
- Gather, collaborate and discuss ongoing applicability of the regulations and disseminate this information to inspectors to ensure continuity within the delivery prohibition program.
- Manage and delegate tasks to technical and administrative staff assisting with the delivery prohibition program.
- Serve as a Bureau-wide web author, updating the Bureau's website as necessary using cloud-based programs and Adobe Contribute.
- Assist with additional projects such as with the development of standard operating procedures for the Prevention Inspection Program and database development and management.

- Assist the Bureau's Prevention Inspection Program by contributing to the ongoing program development and conducting compliance inspections at facilities around the State; which requires knowledge of the technical aspects of both UST and AST systems.

July 2007- March 2014
State of New Mexico Environment Department, Santa Fe, New Mexico
Ground Water Quality Bureau
Pollution Prevention Section
Environmental Scientist-O

- Ensuring the protection of ground water throughout the State of New Mexico by regulatory management for over 70 ground water discharge permits. The diversity of sites range from large federal industrial facilities, large domestic wastewater treatment plants and small septic tank/leachfield systems.
- Administering regulatory functions as they pertain to permitted and un-permitted facilities. Actions include but are not limited to management of records subject to the public information act, data entry of facility monitoring reports, database management for assigned facilities, ground water and wastewater sampling, response to unauthorized releases and enforcement actions.
- Successfully worked with Permittees and the general public in achieving voluntary compliance through non-enforcement actions. Refined experience in assessing potentially volatile situations and diffusing with effective and clear communication. Ground water protection has also been achieved through promoting cost-effective and source control mechanisms to reduce potential contaminants from reaching ground water. Discharge Permits are designed to address protection of ground water and human health while working towards long-term sustainability of small businesses.
- Maintain and continuously enhancing an already robust understanding of Federal Regulations such as the Clean Water Act, Resource Conservation and Recovery Act, Biosolids Standards the State of New Mexico's Clean Water act, Water Quality Control Commission regulations which have been used for evaluating site specific conditions and development of priority actions.
- Ongoing coordination and collaboration with Tribal entities including but not limited to compiling the annual Tribal Collaboration report for the Ground Water Quality Bureau, participation in the Annual Tribal Summit, planning and serving as a mentor and instructor for the annual Tribal Youth Environmental Science Camp.
- Effectively facilitate dialogue among a diverse group of individuals, with varying backgrounds and expertise, in order to develop and strategize a productive approach in resolving complex issues. Ongoing work includes facilitation of discussions between the GWQB, Hazardous Waste Bureau, Department of Energy Oversight Bureau, Surface Water Bureau and Los Alamos National Laboratory in order to maintain regulatory compliance and cross-departmental communications for the management of the facility.
- Provide assistance to legal counsel on litigation cases. These have included involvement with a federal negotiation case with the Hazardous Waste Bureau and Los Alamos National Laboratory as well as a Chapter 11 Bankruptcy Lawsuit against Mark IV Industries for the continued remediation of a contaminated ground water site in east Albuquerque which resulted in an Order of Consent.
- Actively participated and spearheaded discussions in various workgroups within the section to enhance the regulatory process and streamline the efficiency of the program to ensure protection of the State's resources as well as promoting economic development for rural communities. These have included the development of Best Management Practices for RV

Parks, Tribal Consultation Policy, Grease Trap Management Practices and Domestic Wastewater Discharge Permit Template.

- Development of sound investigative skills to truth information submitted to NMED through remote sensing technologies, ground-truthing or through various technological resources.
- Development of internal mechanisms and processes to effectively manage and increase efficiency in the management of regulatory processes.
- Serve as a Quality Assurance Manager (QAM) for the Radiation Control Bureau's Quality Assurance Project Plan (QAPP) ensuring all data collection activities are collected in a consistent and defensible manner.
- Applying federal laws and regulations, effective approaches to gain voluntary compliance and general management tools and resources to increase efficacy in job performance.
- General program administration functions to include preparing timesheets, vehicle logs, travel requests, along with submitting quarterly and annual reports to management as assigned.

April 2003-July 2007
Pueblo of Tesuque, Santa Fe, New Mexico
Environment Department
Biologist/Director

- Responsible for overseeing the management and execution of activities associated with the protection of environmental resources. The program included surface water quality, water rights, ground water, planning and development, forest restoration, wildlife habitat management, wildland fire response, emergency response as it pertained to the community and potential environmental impacts, general community assistance, education (pre-k through college) and outreach.
- Reported directly to the Tribal Administrator, Governor and Tribal Council on the department's activities.
- Supervised up to 11 individuals on routine and special projects undertaken by the department which included but were not limited to surface water, forest restoration, WUI fire suppression projects, wildlife surveys and habitat assessments, economic development projects, Aamodt water rights settlement committee, community activities, educational outreach (kindergarten through college), assistance with organic farm program, community assistance as requested.
- Worked and collaborated with numerous federal, state and local government agencies such as the Environmental Protection Agency (EPA), Army Corp of Engineers, Bureau of Indian Affairs, Indian Health Services, State of New Mexico Environment Department, Santa Fe County, City of Santa Fe, and various Tribal governments.
- Responsible for writing and managing over $1,000,000.00 in State and Federal grants through the U.S. Forest Service, Administration for Native Americans, Environmental Protection Agency, U.S. Fish and Wildlife, and New Mexico Clean and Beautiful, submitting quarterly and annual reports on a regular basis as well as auditing expenses to ensure allocation of funds was completed and reported appropriately.
- Served as a member on the Tribal Emergency Planning committee and Land Use Planning Committee, Board member of Inter-Tribal Bison Cooperative, Inter-Tribal Resource Advisory Committee, and Water Rights Committee and as a voting member for EPA Region 6 Regional Tribal Operations Committee.
- Responsible for writing and implementing Quality Assurance documents and the department's annual Quality Management Plan, Quality Assurance Project Plans for water quality monitoring, GIS/GPS, and the Elk Demonstration Project.
- Prepared and conducted the triennial review of Tesuque Pueblo's Water Quality Standards.

- Actively engaged with community members to better understand the needs and priorities of the Tribe in order to effectively target financial mechanisms and internal resources which could be utilized to achieve long-term goals.
- Designed and implemented a multi-parameter study to assess movement and habitat utilization of elk herds within lower pinon/juniper forests of Tesuque Pueblo. Field work consisted of off-road driving and heavy lifting of equipment and supplies, remote sensing and data management.
- Use of various field equipment for work pertaining to water quality monitoring (ground and surface water), riparian ecosystem rehabilitation projects, wildlife habitat and behavior. Data correction and management of files.

January 2002- April 2003
Los Alamos National Laboratory, Los Alamos, New Mexico
Contaminant Monitoring Team
Graduate Research Assistant

- Provided technical research support for the Ecology Group including compiling, writing and editing portions of the published technical reports as well as the annual Environmental Surveillance Report.
- Collected and processed field samples from remote areas with a wide array of equipment.
- Analyzed data in MS Excel for risk assessment of contaminant such as high explosives, radionuclide, polychlorinated biphenyls (PCBs), dioxins, furans and pesticides such as DDT.
- Actively participated in a cooperative group with the New Mexico Environment Department, Los Alamos County and Tribal entities to designed and implement a contaminant mobilization study in the Rio Grande to assess the possible PCB risk levels that may be associated with LANL's historic PCB releases and the potential of mobilization after the Cerro Grande fire using semi-permeable membrane devises (LANL Publication Gonzales and Montoya 2005).

EDUCATION

2002-2008 New Mexico Highlands University, Las Vegas, New Mexico
Master of Science (May 2008)

- Thesis on the unique characteristics of elk movement and habitat utilization within the pinon/juniper forests of Tesuque Pueblo
- Other studies included toxicology, environmental assessment, surface hydrology, dendrology, wildlife habitat assessment and research methods
- Research on the use of semi-permeable membrane devices to assess the effects of pulse flooding events on PCB concentrations in the Rio Grande river near Los Alamos
- Cumulative GPA 4.0

1999-2002 University of New Mexico, Albuquerque, New Mexico
Bachelor of Science, Biology with minor in Geography (May 2001)

- Studies in riparian ecology, conservation biology, animal behavior, zoology and physiology.
- Formal studies and research in Geographical Information Systems.
- Graduated Cum Laude.

1994-1997 Northern New Mexico Community College, Espanola, New Mexico
Associate of Science in Science

- Graduated with Honors

APPLICABLE CERTIFICATIONS/TRAININGS

Quality Assurance

- EPA QMP/QAPP Training, Santa Fe, NM(Certificate)
- EPA Training to Quality Assurance Management, Data Quality Objectives, Santa Fe, NM (Certificate)

Water and Wastewater

- EPA Tribal Water Quality Standards Academy Intermediate level, Kalispell Montana (Certificate)
- EPA Water Quality Standards Academy, Washington D.C. (Certificate)
- NMSU WTAP Advanced Secondary Treatment (certificate)
- National Onsite Wastewater Recycling Association A to Z Course (certificate)
- YSI Training on 6920 Multi-parameter water quality monitoring unit, Yellow Springs, OH
- Stream Habitat Assessment Training, Taos Pueblo, NM
- Biological Assessment Training, Santa Ana Pueblo, NM
- Fundamentals of Drilling (certificate)

Emergency Response/Safety

- FEMA National Incident management System (IS-700) Tesuque Pueblo, NM (Certificate)
- BIA Northern Pueblos Wildland Firefighter Training (S-110, S-133, S-134, I-100, L-180, S-130, S-190), Ohkay Owingeh, NM (Red Card Certification)
- Pandemic Flu, Train the Trainer, Albuquerque, NM (Certificate)
- Zoonotic Disease Training, Los Alamos National Laboratory, Los Alamos, NM
- HAZWOPER certified (2007-2017)
- AHMP Essentials of Hazardous Materials Management, Albuquerque, NM (Certificate)
- U.S. Dept of Transportation Awareness for Initial Response to Haz-Mat Incidents Course (Certificate)
- National Safety Council Defensive Driving Course (Certificate)
- Swiftwater Rescue for River Professionals Training; Level II NFPA-compliant 1670 “Operations” (Certificate)

Inspection and Enforcement

- Western States Project NMED Environmental Enforcement Procedure Training (certificate)
- UST Inspector Training (Certificate)
- State of NM HR and OGC Inspector Training (certificate)

Lawmaking and Regulations

- State of NM State Rulemaking Training
- State of NM Records and Information Management Training

Management

- EdX Online Audit Course Best Practices for Project Management Success

PUBLICATIONS/PROFESSIONAL ORGANIZATIONS

- Gonzales, G. and Montoya, J., 2005. Polychlorinated biphenyls (PCBs) in the Rio Grande Sampled Using Semi-permeable Membrane Devices. LA-14200.
- Fullam, J., 2008. Elk Habitat Utilization Within Lower Pinon Juniper Forests of Tesuque Pueblo, New Mexico Highlands University Graduate Thesis.
- Golden Key National Honor Society (2001-Present)
- Native American Fish and Wildlife Society (2003-2007)
- The Quivera Coalition (2003-2007)
- Ecological Society of America (2016)
- The Wildlife Society (2011-2017)
- Society of Environmental Toxicology and Applied Chemistry (2002-2007; 2017-Present)

STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF PROPOSED AMENDMENTS TO 20.6.4.9 NMAC DESIGNATION OF WATERS OF THE UPPER PECOS WATERSHED AS OUTSTANDING NATIONAL RESOURCE WATERS

No. WQCC 20-18(R)

DIRECT TECHNICAL TESTIMONY OF JENNIFER FULLAM

I. INTRODUCTION

My name is Jennifer Fullam, and I am presenting this written testimony (**NMED Exhibit 2**) on behalf of the New Mexico Environment Department ("Department" or "NMED") concerning the amended Petition ("Petition") filed with the Water Quality Control Commission ("WQCC" or "Commission") on September 24, 2020, by San Miguel County, the Village of Pecos, the New Mexico Acequia Association, Molino de la Isla Organics Limited Liability Corporation ("LLC"), and the Upper Pecos Watershed Association (hereto referred to as the "Petitioners") to designate the Waters of the Upper Pecos Watershed as Outstanding National Resource Waters ("ONRWs"). My testimony will outline the background of ONRWs, the implementation of protections as it pertains to the State's antidegradation policy, and the administrative process for changing the State's water quality standards which are codified under 20.6.4 of the New Mexico Administrative Code ("NMAC") as *Standards for Interstate and Intrastate Surface Waters*.

II. QUALIFICATIONS

I am currently employed as the Standards, Planning and Reporting Team Supervisor and serve as the Water Quality Standards Coordinator with the Department's Surface Water Quality Bureau ("SWQB") and have been in this position for four years as of March 27, 2021. Overall, I have been with the Department for over 13 years where, in addition to serving in my current role,

I served as an Environmental Scientist for the Ground Water Quality Bureau Pollution Prevention Section and as the Delivery Prohibition Coordinator for the Petroleum Storage Tank Bureau. Prior to my service with the Department, I was the Environment Department Director for Tesuque Pueblo where, among other duties, I managed the surface and ground water quality programs including conducting the triennial review for the Pueblo's surface water quality standards. I also served as a Graduate Research Assistant with Los Alamos National Laboratory investigating polychlorinated biphenyl ("PCB") exposure pathways in surface water and as a biologist and Geographical Information System specialist with the Pueblo of Pojoaque.

I hold a Bachelor of Science degree from the University of New Mexico in Biology with a minor in geography (emphasis in remote sensing and geographical information systems) and a Master of Science degree from New Mexico Highlands University in Environmental Science and Management. My publications include Gonzales, G. and Montoya, J. (Fullam), 2005. *Polychlorinated biphenyls (PCBs) in the Rio Grande Sampled Using Semi-Permeable Membrane Devices*. LA-14200 and Fullam, J., 2008. *Elk Habitat Utilization Within Lower Pinon Juniper Forests of Tesuque Pueblo*, New Mexico Highlands University Graduate Thesis. A copy of my resume is included as **NMED Exhibit 1**. It is accurate and up-to-date.

III. FUNCTION OF OUTSTANDING NATIONAL RESOURCE WATERS

Outstanding National Resource Waters ("ONRWs") are streams, lakes and wetlands that receive special protection against degradation under the State of New Mexico's *Standards for Interstate and Intrastate Surface Waters* ("Water Quality Standards") and the federal Water Pollution Control Act, also known as the "Clean Water Act" or "CWA".

In accordance with Section 101(a)(2) of the CWA **(NMED Exhibit 10)**, the goal, wherever attainable, is to provide for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water.

In accordance with 40 CFR § 131.12 (**NMED Exhibit 11**), states are required, as part of their water quality standards, to adopt an antidegradation policy to ensure the quality of surface waters does not degrade. The State of New Mexico's antidegradation policy has three tiers of protections for surface waters of the state, as codified under 20.6.4.8 NMAC (**NMED Exhibit 8**) which ensure continual measures are being taken to uphold the goal of the CWA.

At a minimum, the State's antidegradation policy prohibits the degradation of water quality for any water of the state to a level less than the existing use. Existing use, as defined under 20.6.4.7(E)(3) NMAC, "means a use actually attained in a surface water of the state on or after November 28, 1975, whether it is the designated use," or is currently being attained.

At the other end of the spectrum, the State's antidegradation policy has its highest protection of water quality for those waters designated as an ONRW. The antidegradation protections afforded to ONRWs under the state's antidegradation policy mirror those requirements established under 40 C.F.R. § 131.12 (**NMED Exhibit 11**) where the state is required to adopt a statewide antidegradation policy that, at a minimum, maintains and protects high quality waters which constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance.

By designating a waterbody as an ONRW, particular considerations are applied as it pertains to protection against degradation under the CWA and the state's *Standards for Interstate and Intrastate Surface Waters* (20.6.4 NMAC). In particular, pursuant to 20.6.4.8 NMAC, degradation of water quality is not permitted for waters designated by the WQCC as an ONRW except as

provided in 20.6.4.8(A)(3)(a) through (e) NMAC and 20.6.4.8(A)(4)(a) NMAC (**NMED Exhibit 8**). These exceptions include: temporary and short-term degradation if determined by the WQCC to be necessary to accommodate public health or safety; temporary and short-term degradation in response to an emergency action that is necessary to mitigate immediate threat to public health or safety; pre-existing land use activities allowed by federal or state law prior to designation as an ONRW that are controlled by best management practices and do not pose any new or increased discharges; acequia operation, maintenance and repair; and activities that result in the restoration or maintenance of the chemical, physical or biological integrity of the water. It is important to note that an ONRW designation does not prevent or preclude discharges or anthropogenic activities from occurring, but activities such as these require demonstration that they will not cause degradation of the ONRW, or are one of the permitted short-term and temporary activities identified under 20.6.4.8(A)(3) NMAC.

IV. BACKGROUND ON OUTSTANDING NATIONAL WATER RESOURCES

Prior to 2005, the procedures for nominating an ONRW were codified under the antidegradation policy in the State's *Standards for Interstate and Intrastate Surface Waters* (20.6.4 NMAC), predominately because the functionality of an ONRW designation directly relates to ensuring degradation of a water does not occur.

In 2005, the process and the list of designated ONRWs was moved to its own section under 20.6.4.9 NMAC. As discussed in the Statement of Reasons for the 2005 amendments to 20.6.4 NMAC (**NMED Exhibit 5**), this amendment was warranted because the antidegradation policy and implementation plan apply to all waters of the state and ONRWs are specifically designated waters that receive special consideration.

In addition, and as part of the 2005 amendments, language was amended to clarify the eligibility criteria that must be demonstrated for an ONRW designation. As reflected in the Statement of Reasons for the 2005 amendments to 20.6.4 NMAC (**NMED Exhibit 5**), this included an additional requirement to demonstrate the designation is beneficial to the state of New Mexico, to prevent allegations of "taking" of protections not otherwise substantiated. The 2005 amendments also expanded the eligibility to waters that demonstrated exceptional water quality not impacted by anthropogenic activities. The establishment of these requirements is important when considering the intent of designating ONRWs as they pertain to the Antidegradation Policy. These eligibility requirements have essentially remained the same since the 2005 amendments discussed herein.

V. DESIGNATION OF OUTSTANDING NATIONAL WATER RESOURCES

In accordance with 20.6.4.9(A) NMAC (**NMED Exhibit 9**), any person may nominate a surface water of the state for designation as an ONRW by filing a petition with the Commission pursuant to the applicable procedures. Pursuant to 20.6.4.9(B) NMAC, the WQCC may designate a surface water of the state as an ONRW where the Commission determines that the designation is beneficial to the state and it has been demonstrated that the water is part of a national or state park, wildlife refuge or wilderness area, or special trout water; or the water has exceptional recreational or ecological significance; or the water has exceptional water quality that has not been significantly modified by human activities.

Pursuant to 20.6.4.9(A) NMAC (**NMED Exhibit 9**), the nominated surface water of the state, among other things, must be delineated with the proposed upstream and downstream boundaries to which the eligibility criteria are being asserted**.** If the ONRW nomination is approved by the

WQCC, the designated water is listed under 20.6.4.9(D) NMAC. This delineation for the eligible water is critical to implement protections against degradation afforded to ONRWs.

There have been several petitions for ONRW designations since the current procedures were established, two of which set precedence regarding designation of a single waterbody and multiple waterbodies. Each of these two designations provides insight to the intent and application of designating surface waters of the state as ONRWs.

In the state's first adopted ONRW designation for the Rio Santa Barbara, which includes the west, middle and east forks from their headwaters downstream to the boundary of the Pecos wilderness area, the WQCC set precedence for designating an ONRW on a stream segment basis, given adequate demonstration that the waterbody met the eligible criteria within the delineated reach.

In 2010, a nomination for ONRW designation for all perennial waters within United States Forest Service ("USFS") Wilderness Areas was heard by the WQCC. In the Statement of Reasons approving the designation (**NMED Exhibit 6**), the WQCC recognized the regulations, as written, support designating multiple waters within a wilderness area as ONRWs as a single action, since all of the waters met the eligible criteria for an ONRW designation.

Although the 2010 nomination of USFS Wilderness Area waters included an inclusive land designation approach that characterized all perennial waters within the wilderness area, each waterbody was required to be identified and delineated, in accordance with 20.6.4.9(A)(1) NMAC. The statement of reasons for this matter also stipulated that only surface waters that were specifically identified in the table were designated as ONRWs and that any other waters, not identified, even if they met the criteria, must go through a new and full public process for nomination (**NMED Exhibit 6**). The statement of reasons also noted that there was satisfactory

evidence that all of the named nominated waters met the eligibility criteria for consideration as an ONRW (**NMED Exhibit 6).**

These examples illustrate how the demonstration of eligibility and information in a petition define the scope of ONRW protections afforded to nominated waters, which is critical to the implementation of the antidegradation policy and intent of ONRW designations. ONRW designation is the highest level of protection against degradation that can be afforded a waterbody under the State's *Standards for Interstate and Intrastate Surface Waters* (20.6.4 NMAC). In order to effectively implement protections, ONRWs are designated based on a water by water basis pending eligible criteria apply to that water.

It should be noted that, although a particular waterbody is designated as an ONRW, the antidegradation implementation plan requires consideration of water quality protections for downstream waters in addition to the waterbody under evaluation. This ensures consistency with maintaining the goal of the federal CWA.

VI. IMPLEMENTATION OF ANTIDEGRADATION POLICY AS IT PERTAINS TO OUTSTANDING NATIONAL WATER RESOURCES

As it pertains to water quality protection, although the designation of an ONRW is the highest level of water quality protection afforded to a waterbody under the State's *Standards for Interstate and Intrastate Surface Waters* (20.6.4 NMAC), an ONRW designation does not prevent all activities that cause degradation, nor does it prevent discharges to a waterbody designated as an ONRW. The Department evaluated the potential impact to both point and non-point source activities within the upper Pecos watershed, above the Dalton day use area, which may result from the State's antidegradation policy should these waters, as currently petitioned for, be designated as ONRWs.

As it pertains to pre-existing uses allowed by federal or state law, there are numerous types of activities that are currently occurring in the upper Pecos watershed, as demonstrated in the Petition. These pre-existing land use activities, so long as they are allowed by federal or state law and existed prior to the ONRW designation, may continue so long as they are controlled by best management practices, which are defined in part under 20.6.4.7(B)(1)(b) NMAC (**NMED Exhibit 7**), and there is no increase of activity after the designation of the ONRW. To ensure water quality is protected, designation of these waters as ONRWs will have implications for those individuals that have pre-existing land use activities.

Regarding the federal National Pollutant Discharge Elimination System ("NPDES") permitting program, there are currently no NPDES permits for discharges to any of the waters being considered in this ONRW Petition. The designation of an ONRW would not prohibit a permittee from applying to discharge to an ONRW so long as it can be demonstrated the discharge would not cause degradation of the water quality as established in baseline conditions or established existing uses, whichever is more stringent. Designation of these waters as ONRWs will not impact existing dischargers because there are none, but will pose restrictions on future point source dischargers should the nomination be approved.

However, as provided in Ms. Aranda's testimony, the Petition does not provide enough evidence to establish baseline water quality conditions to protect water quality under the antidegradation policy for the nominated waters in the upper Pecos watershed. Consistent with the State's antidegradation policy, additional information is needed to establish baseline conditions or establish existing uses should there be any applications for new or increased discharges to these waterbodies.

In accordance with 20.6.4.8(A)(3) NMAC, (**NMED Exhibit 8**) there are provisions that allow for temporary and short-term degradation of water quality so long as the activity undergoes a minimum 30-day public review and comment period and the WQCC deems the activity necessary to accommodate public health or safety. These types of activities include, but are not limited to, utility infrastructure and roadway construction, maintenance, and repair. As it pertains to the waterbodies being petitioned for ONRW designation in this matter, it should be noted the Pecos River from Dalton day use area to the wilderness boundary runs adjacent to state road 63. State road 63 is a narrow, paved two-lane road with several bridges that cross the Pecos river. As provided under the State's antidegradation policy in 20.6.4.8(A)(3) NMAC, service and repair of this road would be permitted, provided the requirements under 20.6.4.8(A)(3) NMAC have been met and approval has been granted by the WQCC. Other infrastructure service needs such as water, sewer and other utilities would also be subject to approval by the WQCC if the activity posed any temporary and short-term degradation of a water designated as an ONRW.

VII. PROCESS FOR DESIGNATING AN ONRW

In accordance with 20.6.4.9 NMAC (**NMED Exhibit 9)**, any person may nominate a surface water of the state as an ONRW by filing a petition with the WQCC in accordance with the requirements in 20.6.4.9(A) NMAC and other applicable procedures. Pursuant to 20.6.4.9(B) NMAC, a surface water of the state, may be designated as an ONRW where the Commission determines it to be of benefit to the state of New Mexico and it meets at least one of the eligibility criteria listed in 20.6.4.9(B) NMAC (**NMED Exhibit 9**). Although not required by state rule, in general, most petitioners engage with stakeholders and provide a period for the public to comment on the proposed designation prior to petitioning the WQCC. This affords the public the opportunity to actively participate in the process and provides the petitioner with the opportunity

to address comments or input prior to the hearing, allowing for effective use of the WQCC's time and resources.

In all water quality standards amendments, both the Department and the U.S. Environmental Protection Agency ("EPA") Region 6 consider themselves stakeholders, given the Department's responsibility for implementation of the State's water quality standards and EPA's obligation to ensure a state's water quality standards are adopted in accordance with the CWA. Outreach to stakeholders was conducted by the Petitioners at the time of filing the first petition with the WQCC on April 20, 2020. The Department is unaware and cannot testify to other stakeholder outreach activities or general public outreach afforded by the Petitioners for this matter.

As a stakeholder to this matter, and in accordance with 20.1.6.203 NMAC, the Department filed an entry of appearance on this matter on April 21, 2020. At the regularly scheduled WQCC meeting on May 12, 2020, the Petitioners brought forth a request for a hearing on the matter. The Department requested consideration for the hearing to be set for November 10, 2020, which the Petitioners did not object to and the Commission accommodated.

Following review of the Petition, the Department extended an invitation to the Petitioners to initiate a dialogue regarding potential information and data gaps in the Petition. A meeting was held on July 15, 2020, at which the Department provided the Petitioners with recommendations pertaining to the demonstration, eligibility criteria, and submittal requirements of 20.6.4.9 NMAC.

On September 24, 2020, the Petitioners filed an amended Petition with the WQCC and requested a new hearing date. The WQCC granted a hearing for April 13, 2021, at their regularly scheduled meeting on October 13, 2020.

During their regularly scheduled meeting on December 8, 2020, the WQCC appointed a new hearing officer, Gregory Chakalian, to this matter.

Notice of the public hearing, as required by 20.1.6.201(A) NMAC **(NMED Exhibit 14)**, must be published no less than 60 days prior to the hearing. The Petitioners published the notice in the State Register on February 9, 2021. The Department was notified the hearing notice was published in the Las Vegas Optic on January 29, 2021 and the Albuquerque Journal on February 1, 2021, a newspaper of general circulation, as required by 20.1.6.201(D) NMAC. It was outside the scope of the Department's role to evaluate or determine if there were any regulatory public notice deficiencies.

In accordance with 20.1.6.202 NMAC **(NMED Exhibit 14)**, the Department submitted a Notice of Intent to Present Technical Testimony, as found here, in accordance with the procedural order and applicable procedural rules.

VIII. FINDINGS

With respect to the State's antidegradation policy and administrative process, there were no findings that would prevent the Department from supporting ONRW designations for those waters where the Petitioners demonstrated adequate proof of eligibility pursuant to 20.6.4.9(B) NMAC as part of the Petition. Ms. Aranda's testimony will cover the Department's technical evaluation of the Petition, including submission requirements, eligibility criteria, and any findings as a result of that evaluation.

As part of any rulemaking proceeding, any amendment(s) to 20.6.4 NMAC must be effective before implementation can occur. Pending the outcome of this hearing, the Department will be the responsible party, as with any other amendments to 20.6.4 NMAC, for filing the amended rule with the State Records Center and Archives and submitting the effective state rule

to EPA Region 6 for approval under the CWA. It should be noted that the administrative process for standards amendments can take approximately six months before the amendment is effective for CWA purposes.

IX. PROPOSED AMENDMENTS TO 20.6.4 NMAC

Based on the findings of the Department, with consideration of Ms. Aranda's technical evaluation of the proposed ONRW designation, the Department recommends the WQCC consider an alternative list of waters to be designated as ONRWs, as provided in **NMED Exhibit 15**.

This concludes my direct testimony.

DIANA IXCHEL ARANDA
1190 St. Francis Drive, Suite N4050 Santa Fe, New Mexico 87505
Diana.Aranda@state.nm.us

Education

Nova Southeastern University Oceanographic Center - Ft. Lauderdale, FL. 4/2013
Master of Science in Coastal Zone Management

University of New Mexico - Albuquerque, NM. 5/2005
Bachelor of Science in Biology

Publication

Diana Ixchel Aranda, Jose V. Lopez, Helena M. Solo-Gabriele, and Jay Fleisher. 2016. Using Probabilities of Enterococci Exceedance and Logistic Regression to Evaluate Long Term Weekly Beach Monitoring Data. Journal of Water & Health, (1) : 81 -89.

Certification

Secondary Teacher Certification(7-12) 1/2017.

Current Employment

Environmental Scientist and Specialist Advanced. N.M. Department of Environment. 1/2017– Present.

ESS-A position in the Standards, Planning and Reporting Team. 2/2019-present.
Generates regulatory documentations that are scientifically defensible for the development and revisions to the State of New Mexico surface water quality standards in accordance with the federal Clean Water Act and NM Water Quality Act. These documents become public and undergo the Water Quality Control Commission and U.S. Environmental Protection Agencies approval process. Researches and reviews federal and state requirements, guidance's, public comment and historical information to guide document creation and decision making for standards. Investigates relevant scientific publications and data to aid in the development of standard regulatory documents. Collects relevant datasets from internal and external sources and conducts complex analysis of these data to aid in regulatory determinations. Creates maps and databases utilizing ArcGIS that can be included in public publication. Identifies key stakeholders and conducts the appropriate outreach. Presents findings in public and if appropriate, testify as an expert in the topic. Organize meetings, produce public notice documentation and adhere to regulatory deadlines. Advise third party constituents in the creation of documents pertaining the State's standards. Edit and consult internal departmental documents regarding standards.

Past Employment

Environmental Scientist TMDL Writer, N.M. Department of Environment. 2/2017-1/2019
Generated scientifically defendable department reports called, Total Maximum Daily Loads (TMDL) that establish the pollutant loading for specific surface waters in the State in according to The Clean Water Act. Assessed and analyzed water quality field data for the implementations of TMDLs. Participated in field work for gathering water quality data and habitat assessments following department standard operating procedures (SOP). Contributed in the evaluation of water quality impairments. Creates maps and databases utilizing ArcGIS that can be included in public publication. Conducted outreach with the public, state, federal, tribal, and municipal agencies to address stakeholders and constituent needs with individual groups and in public meetings, the State's Water Quality Control Commission and the Federal Environmental Protection Agency.

Biology High School Teacher, Santa Fe Public Schools. 8/2015 – 1/2017
Actively engaged students in academic learning with a Biology focus. Developed an exciting curriculum based on Common Core State Standards and an environment favorable to learning and personal growth. Instituted clear objectives for all lessons, assignments, units and projects in accordance with curriculum goals and communicates

objectives to students. Established effective rapport with students and motivated them to develop skills attitudes and knowledge needed to obtain a good foundation for continuous achievement growth and development in education. Cooperated with staff and support personnel in assessing and helping students with health, attitude, learning and behavioral problems. Utilized new and innovative ideas and technology in the classroom.

Surveillance Technician, Florid Keys Mosquito Control District. 8/2014 – 3/2015
Conduct mosquito surveillance for program operations designed to monitor and identify mosquito pest & disease vector species that affect the Florida Keys. Act as support to ongoing research projects such as the genetically modified mosquito project. Duties included; trap setup and retrieval, mosquito identification and data entry. Acted as public liaison for a door-to-door campaign and town hall meetings to educate the community about the release of genetically modified mosquito and assisted with public questions.

Project Manager, SWC Consultants. 8/2013-8/2014
Managed projects involving ecological, land use, and public involvement services for both public and private sector clients. Conducted Environmental Site Assessments (ESA) site visits, collected field and historical research data to produced technical reports for commercial real estate transaction due diligence under CERCLA. Collected historical and field data for several environmentally sensitive projects, conducted data analysis, created reports under an oversight of compliance timetables and budgets. Collaborated in the production of the Port Everglades Master Plan publication, and contributed with data collection and analysis, document review for existing conditions and impacts resulting from changes and expansion of the Port. Utilized ArcGIS software to create maps for reports and communications assignments.

Biologist I, Miami-Dade County, Coastal Resources Division. 8/2012- 4/2013
Processed Class I permits for coastal construction which included: assessment of benthic resources, plan review and report and permit writing. Reviewed and determine pre-construction conditions and created a report. Identified and notified of any code violations. Conducted quantitative underwater site transects and visual estimates of natural resource percent cover and evaluated on site benthic organisms, including sediment type, macroalgae, seagrass and corals.

Biological Technician, U.S. National Park Service - Biscayne National Park, 7/2011-6/2012
Assisted in the management and coordination of Biscayne National Park's water monitoring program within the park's marine waters. Conducted the deployment, data extraction, maintenance, and calibration of over 50 YSI instruments that our team managed. Planned and executed field work which involved: field safety planning, small boat operations, diving and maintenance of sites and equipment. Administer routine maintenance for the boat, the gear, the instruments and the lab. Prepared, collected, processed and analyzes data. Facilitated projects with partners and contractors.

Research Associate, National Oceanic and Atmospheric Administration (NOAA), University of Miami Cooperative Institute for Marine and Atmospheric Studies (CIMAS). 7/2008-6/2011

Research Associate II, (NOAA/AOML/PHOD) Ship of Opportunity Program, 9/2010-6/2011
Assisted in the management and coordination of the Ship of Opportunity Program Oceanographic program. Organized logistics of transatlantic sample transects which included and were not limited to updating cruise plans, monitoring the sampling progress in real time, trouble shooting and reporting any problems, participate in ship recruitment, and process completed cruise reports. Responded to request of information of monitoring transects by providing computer-generated maps. Replied to any of our constituent's request for information or troubleshooting. Maintained up-to date inventories within the program and its collaborators. Managed billing and payments of satellite transmissions and instrument upkeep. Maintained the programs web page maintenance.

Research Associate I, (NOAA)-Microbiology Laboratory, 7/2008 – 8/2010
Assisted in management, coordination, water quality sample processing, microbial plate and PCR molecular analysis, data management, report findings and execution of several projects for the Microbiology lab. Conducted water quality sampling and sediment sampling for the detection and enumeration of microbial contamination. Conducted qPCR-based microbial source tracking methods. Managed, processed and analyzed project data. Participated in various interagency collaborative research projects (USEPA, UM, FDEP, DOH, NOAA) that focused on the efficacy and development of microbial source tracking as well as surveillance to inform and improve water quality on recreational waters. The collaborative projects included: EPA 'STREAMS' (in collaboration with multi-

satellite projects and stakeholders to aid in science that will contribute to aquatic microbial field tracking; Miami-Dade, Department of Health's "Healthy Beaches" program; Marathon Key, "Little Venice" coastal construction technologies infrastructure improvement microbial source tracking assessment project. Prepared technical reports and communicated findings in the 2009 American Society for Microbiology, and the 2010 Ocean Sciences Meeting. Participated in oceanographic research cruises: Nancy Foster, (10 days); Walton Smith, (5 days).

Field Technician, Broward County Sea Turtle Conservation Program. 5-6/2008
Conducted beach surveillance for sea turtle tracks in order to locate and mark nests. Surveillance included: check existing nests for hatching and relocate nest as necessary, as well as record any pertinent field information such as false crawls and other observations.

Chemical analyst, Florida-Spectrum Environmental 4-6/2008
Analyze and report soil and water samples in the inorganic/wet chemistry department for; percent solids, total suspended solids, total dissolved solids, sulfides, MBAS, pH and Chemical oxygen demand, using EPA and SM methods. Upkeep and maintain the wet chemistry department. Assisted in other analysis assessments as needed and in other departments.

Teacher Assistant, Nova Southeastern University- Microbiology Division, 9/2007 – 5/ 2008
Facilitated the Microbiology laboratory. Prepared microbiology experiments for the undergraduate students. Instructed and trained students in specific laboratory techniques and laboratory protocols. Taught laboratory safety, protocol and microbiology methods such as: sample staining, enumeration, selective media, identification of unknown bacteria, RFLP, and transformation of plasmids. Coordinate and aid in management of a university Microbiology Laboratory. Prepared and conducted all necessary experiments for the day. Graded and provided comment to student's laboratory reports. Evaluated reports and prepared the class for the days experiment.

Program Intern, Arthur Marshall Foundation,5-7/2007
Traveled to different youth summer programs and educated them about the Everglades restoration efforts. Lead the rehabilitation of Palm Beach Science Museum wetlands exhibition. Educated the general public about wetlands and the protection of the Everglades Traveled the length of the Greater Everglades, viewed various restoration projects and learned about environmental management and mitigation processes. Managed and executed the rehabilitation/curation of a wetland in Palm Beach Science Museum to educate visitors about the ecology and protection of the Everglades. Assessed best management practices and delivered public comment to distinct audiences in government and public meetings.

Program Coordinator, AmeriCorps VISTA-Southwest Youth Services. 2/2006-2/2007
*S*upervised, designed and launched dynamic and positive strategies to sustain program development and implementation. Worked with diverse groups, established partnerships and collaborations with organizations to subsidized employees, saving the organization thousands of dollars. Managed and recruited staff and volunteers for our programs. Created and maintained the organizations website. Worked on advertisement products for the program using Photoshop and Publisher. Coordinated, developed and organized the annual Gala fundraiser for the program. Developed and implemented health curriculum to children ages 5-18. Mentored youth on leadership and tutored math and reading. Coordinated, planned, designed and launched dynamic and positive strategies to sustain program development and implementation for the non-profit. Built from the ground up a positive partnership that provided subsidized employees to implement our services within the communities we serve and saved the non-profit thousands of dollars. Supported the hiring of the subsidized employees and their management of up to four staff. Scheduled, monitored, communicated and coordinated staff's and volunteers (ranged from 2-20 volunteers) work-loads and hours. Developed, coached and implemented soccer and health curriculum for children ages 5-18. As well as traveled to the different communities to deliver our services. Managed communications through media relations, created and upkeeped the organizations website and worked on marketing and design using Photoshop. Coordinated, developed and organized the annual Gala fundraiser for our program.

Research Apprentice, Friday Harbor Laboratories-University of Washington. 9-12/2005
Investigated the physical-biological coupling of oceanographic processes and biota in the San Juan Archipelago. Conducted independent research with a final presentation and written report on the "Spatial and temporal variations of chlorophyll in the San Juan Islands, WA, in the Fall of 2005". Investigated the physical-biological coupling of oceanographic processes and biota in the San Juan Archipelago. I conducted independent research with a final oral presentation and written report: "Spatial and temporal variations of chlorophyll in the San Juan Islands, WA".

Oceanographic Cruises: Research Vessel Centennial, San Juan Archipelago, Washington. University of Washington (Sept. - Dec. 2005 six one-day cruises). Awarded the Apprenticeship to study the Pelagic Ecosystem Function in the San Juan Archipelago.

Teachers Assistant, Upward Bound Program, UNM. 6-8/2005
Instructed and tutored in Math and reading comprehension to high school students of various levels in an intensive summer session. Mentored students in academic achievement and college preparation. Prepared class, graded, disciplined the classroom, tutored, college prep counseled and chaperoned.

Research Assistant, Cancer Research and Treatment Center, University of New Mexico (UNM). 6– 8/2004
Conducted microbiology and genetic research on Myeloid cell regulation to better understand onset of Leukemia. Generated new and publishable data on the Homeobox Protein Hex and the regulation of the C-Kit Promoter. Implemented molecular techniques such as Northern and Western Blots, DNA purification, PCR amplification, cell transformations and transfections for the experiments. Presented final findings in the Minority Biomedical Research program's symposium.

Research Assistant, Mosquito Ecology and West Nile Virus Surveillance, UNM. 5/2003-5/2004
Operated and executed experimental field sampling of larval and adult mosquitoes. Collected blood samples from sentinel species. Processed data pertaining to an Environmental Health Project for the Environmental Health Department and Center for Disease Control (CDC) in the Rio Grande Valley, NM. Performed data analysis, public presentations and education, and wrote and co-authored our findings in a university research periodical.

Research Assistant, High-Performance Computational Biology Laboratory, UNM. 5/2002- 5/2004
Performed research on Phylogenetic tree reconstruction and molecular sequencing database tools. Programmed, using PERL, the reconstruction of complex evolutionary histories through computational modeling. Researched BLAST sequences and utilized sequences for tree reconstruction.

Lab Technician, Reproductive Ecology Laboratory, UNM. 5/2001-5/2002
Conducted botanical experiments of cross-pollinations. Microscopy analysis of pollen competition and gel electrophoresis. Collected and managed data.

Lab Technician, Yeast Genomic Research Laboratory, UNM. 9/2000 – 1/2001
Prepared molecular and chemical experiment setup, data collection and lab maintenance.

STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE PETITION FOR PROPOSED AMENDMENTS TO 20.6.4.9 NMAC, DESIGNATION OF WATERS OF THE UPPER PECOS WATERSHED AS OUTSTANDING NATIONAL RESOURCE WATERS

WQCC 20-18 (R)

San Miguel County, the Village of Pecos, the New Mexico Acequia Association, Molino de la Isla Organics LLC, and the Upper Pecos Watershed Association, Petitioners.

DIRECT TECHNICAL TESTIMONY OF DIANA I. ARANDA

I. INTRODUCTION

My name is Diana Aranda, and I am presenting this written testimony (**NMED Exhibit 4)** on behalf of the New Mexico Environment Department ("Department") concerning the amended petition ("Petition") filed by San Miguel County, the Village of Pecos, the New Mexico Acequia Association, Molino de la Isla Organics LLC, and the Upper Pecos Watershed Association ("Petitioners") to designate the Waters of the Upper Pecos Watershed as Outstanding National Resource Waters ("ONRWs"). My testimony will describe the Department's review of the proposed ONRWs as petitioned, pursuant to 20.6.4.9(A) New Mexico Administrative Code ("NMAC") and 20.6.4.9(B) NMAC (**NMED Exhibit 9**).

II. QUALIFICATIONS

I have been employed with the Department's Surface Water Quality Bureau ("SWQB") since February 2017. I have worked for the Total Maximum Daily Loads Team for two years, and currently work for the Standards, Planning, and Reporting Team ("Standards Team") since February 2019. I am an Environmental Scientist/Specialist-Advanced in the Standards Team

where I am responsible for various aspects of developing water quality standards for New Mexico's surface waters in accordance with the state Water Quality Act and the federal Clean Water Act.

I hold a Bachelor of Science degree in Biology from the University of New Mexico, and a Master of Science degree in Coastal Zone Management from Nova Southeastern University. My master's work focused on recreational water quality assessment, and my work was published in the Journal of Water & Health in 2016, with me as the principal author.

I have worked on water quality issues in various capacities including: as a project manager in a consulting company; as a researcher for the National Oceanic and Atmospheric Administration ("NOAA") in collaborations with the U.S. Environmental Protection Agency ("EPA"), several universities, and local agencies; as a marine biologist for Biscayne National Park; and as a researcher-in-training at University of Washington, Friday Harbor Laboratories. I have additional technical, research, laboratory, and teaching experience in other biology disciplines as well. A copy of my resume is included as **NMED Exhibit 3**. It is accurate and up to date.

III. BACKGROUND

New Mexico's antidegradation policy, codified under 20.6.4.8 NMAC (**NMED Exhibit 8**), defines three tiers of protection against degradation for all surface waters of the state, including specific protections for waters designated as ONRWs under 20.6.4.8(A)(3) NMAC. These ONRW designations are listed under 20.6.4.9(D) NMAC. All ONRW designations are approved and adopted by the Water Quality Control Commission ("WQCC" or "Commission") under the authority of the New Mexico Water Quality Act ("WQA"). Any person may nominate an ONRW designation to the WQCC, as such, the Petitioners submitted the following Petition proposal for the following waterbodies:

"all named and unnamed surface waters of the Pecos River and its tributaries in the Upper Pecos Watershed that span from the U.S. Forest Service Dalton Fishing/Day Use area, approximately six miles north of the Village of Pecos, upstream to the Pecos Wilderness boundary, including the main stem of the Pecos River and all perennial, intermittent, and ephemeral streams, wetlands, and tributaries (named and unnamed). In addition to all unnamed waters, the designated waters include the following named tributaries: Jack's Creek, Panchuela Creek, Winsor Creek, Carpenter Creek, Rio Mora, Bear Creek, Willow Creek, Davis Creek, Doctor Creek, Holy Ghost Creek, Indian Creek, Sawyer Creek, Macho canyon Creek, Dalton Canyon Creek, and Wild Horse Creek."

For these waterbodies to be considered for an ONRW designation, their eligibility criteria must be demonstrated through scientific principles and meet the regulatory procedures and requirements for nominating ONRWs in accordance with 20.6.4.9(A) and (B) NMAC (**NMED Exhibit 9**). The Department reviewed the Petition for both eligibility criteria and for fulfilling the elements required of an ONRW petition.

IV. CRITERIA FOR DESIGNATING AN ONRW

In accordance with 20.6.4.9(B) NMAC, a surface water of the state may be designated as an ONRW if it is determined to benefit the state and fulfills one of the three listed eligibility criteria. It must be demonstrated, through evidence-based and scientific principles, that the nominated waters meet at least one of the required eligibility criteria, and the WQCC must determine that these designations are beneficial to the state of New Mexico.

There are three types of eligibility criteria pursuant to 20.6.4.9(B) NMAC. The first eligibility criterion is found in 20.6.4.9(B)(1) NMAC, and requires nominated waters to have significant attributes such as a state special trout water designation; located within a national or

state park, a national or state monument, a national state wildlife refuge, a designated wilderness area; or being part of a designated wild river under the federal Wild and Scenic Rivers Act. The second eligibility criterion is found in 20.6.4.9(B)(2) NMAC and requires the nominated waters to be of exceptional recreational or ecological significance. The final and third eligibility criterion is found in 20.6.4.9(B)(3) NMAC, and requires that the water quality of the nominated waters are equal to or better than the numeric criteria for protection of aquatic life, contact uses, and the human health-organism only criteria; and that the waters have not been significantly modified by human activities in a manner that substantially detracts from its value as a natural resource.

The Department reviewed the Petition to ascertain if it contained the required evidence for each nominated waterbody pursuant to 20.6.4.9(B) NMAC. The Department's review identified 16 named waterbodies in the Petition that included a description of their upstream and downstream boundaries with an associated evidence-based discussion on how each waterbody qualified for ONRW nomination under one or more of the eligibility criteria pursuant to 20.6.4.9(B) NMAC and these are discussed in this testimony.

For the Pecos River segment, from the U.S. Forest Service ("USFS") Lower Dalton Picnic Site and Upper Dalton Fishing access site ("Dalton Canyon Creek") upstream to the Pecos Wilderness boundary, the Petition provides evidence in support of all three eligibility criteria. For the segment of the Pecos River from Davis Creek upstream to the Pecos Wilderness boundary, the eligibility criterion for a wild river designation under 20.6.4.9(B)(1) NMAC is supported by evidence presented based on the federal Wild and Scenic Rivers Act. For the segment of the Pecos River from the confluence with the Rio Mora upstream to the bridge crossing at Cowles, the eligibility criterion for a state special trout water designation under 20.6.4.9(B)(1) NMAC is supported by evidence presented based on the New Mexico Department of Game and Fish

("NMDGF") designation as a state special trout water. For the segment consisting of the Pecos River from Dalton Canyon Creek upstream to the Pecos Wilderness boundary, the eligibility criterion for exceptional recreational or ecological significance under 20.6.4.9(B)(2) NMAC is supported for both recreational and ecological significance based on the NMDGF angler use data and wildlife and plant species data. For the segment consisting of the Pecos River from Dalton Canyon Creek to the Pecos Wilderness boundary, the eligibility criterion for existing water quality under 20.6.4.9(B)(3) NMAC is partially supported based on the assessment conclusions in Appendix A of the 2018-2020 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report ("Integrated List") (**NMED Exhibit 13**). The Integrated List includes a binary assessment of whether or not the water quality of a waterbody supports its designated uses established under the state's Water Quality Standards. The Integrated List does not establish a water quality numeric value baseline, nor does it establish that the waters have not been significantly modified by human activities in a manner that substantially detracts from its value as a natural resource.

For the segment consisting of Jack's Creek from the Pecos River upstream to the Pecos Wilderness boundary, the Petition provides support for all three eligibility criteria. For the segment consisting of Jack's Creek from the waterfalls located 0.25 miles downstream of N.M. Highway 63 crossing upstream to its headwaters, the eligibility criterion for a state special trout water designation under 20.6.4.9(B)(1) NMAC is supported by evidence presented based on the NMDGF designation as a state special trout water. For the segment consisting of Jack's Creek from the Pecos River upstream to the Pecos Wilderness boundary, the eligibility criterion for exceptional recreational significance pursuant to 20.6.4.9(B)(2) NMAC is supported based on the NMDGF angler use data. For the segment consisting of Jack's Creek from the Pecos River

upstream to the Pecos Wilderness boundary, the eligibility criterion for existing water quality under 20.6.4.9(B)(3) NMAC is partially supported based on the Integrated List (**NMED Exhibit 13**), which includes a binary assessment of whether or not the water quality of a waterbody supports its designated uses established under the state's Water Quality Standards.

For the segment consisting of Doctor Creek from Holy Ghost Creek upstream to the headwaters, Holy Ghost Creek from the Pecos River upstream to the Pecos Wilderness boundary, Indian Creek from the Pecos River upstream to the headwaters, Panchuela Creek from the Pecos River upstream to the Pecos Wilderness boundary, Rio Mora from the Pecos River upstream to the Pecos Wilderness boundary, and Winsor Creek from the Pecos River upstream to the Pecos Wilderness boundary, the Petition provides evidence-based support for both exceptional recreational and ecological significance pursuant to 20.6.4.9(B)(2) NMAC based on angler use data and wildlife and plant species data from the NMDGF. In addition, the eligibility criterion for existing water quality under 20.6.4.9(B)(3) NMAC is partially supported for these waters based on the Integrated List (**NMED Exhibit 13**), which includes a binary assessment of whether or not the water quality of that waterbody supports its designated uses established under the State's Water Quality Standards.

For the segment consisting of Bear Creek from the Rio Mora upstream to the Pecos Wilderness boundary, Carpenter Creek from the Pecos River upstream to the Pecos Wilderness boundary, Dalton Canyon Creek from the Pecos River upstream to the headwaters, Davis Creek from the Pecos River upstream to the headwaters, Macho canyon Creek from the Pecos River upstream to the headwaters, Sawyer Creek from the Pecos River upstream to the headwaters, Wild Horse Creek from Dalton Canyon Creek upstream to the headwaters, and Willow Creek from the Pecos River upstream to the headwaters, the Petition provides evidence-based support for both

exceptional recreational and ecological significance pursuant to 20.6.4.9(B)(2) NMAC based on angler use data and wildlife and plant species data from the NMDGF.

The Petition also proposes additional waterbodies, but these were not listed and discussed in the same manner as the other 16 waterbodies: unnamed tributaries to the Pecos River from Dalton Canyon Creek to the Pecos Wilderness boundary, and all perennial, intermittent, and ephemeral streams, wetlands, and tributaries (named and unnamed) within the Upper Pecos watershed boundary. The Petition mentions these waterbodies in Section II in two paragraphs: one nominating the waters and the second in a discussion of interconnectedness function within the Upper Pecos watershed. The Department recognizes the Petitioners' intent to propose an ONRW designation to all waterbodies within the Upper Pecos watershed, yet the Petition did not appear to contain evidence based on scientific principles in support of the nomination to meet the requirements of 20.6.4.9(B) NMAC.

In summary, the Department's review of the Petition found 16 waterbodies that were listed and discussed which fulfilled at least one of the eligibility criteria pursuant to 20.6.4.9(B) NMAC. For all other waterbodies proposed, apart from the 16 waterbodies mentioned, the Petition appears to lack the evidence to support designation as ONRWs at this time. That is not to say the evidence does not exist, only that in the Department's review it did not appear to be in the Petition.

V. SUBMITTAL REQUIREMENTS FOR AN ONRW DESIGNATION

In addition to meeting the eligibility criteria set forth in 20.6.4.9(B) NMAC, there are six elements contained in 20.6.4.9(A) NMAC that are required to be included in any petition nominating a waterbody for designation as an ONRW. In accordance with 20.6.4.9(A) NMAC, a petition for ONRW designation, must include: a map of the nominated surface water of the state, its location, and the upstream and downstream boundaries of the proposed ONRW; a written

statement that includes evidence-based scientific principles in support of the nomination, including specific references to one or more of the applicable ONRW eligibility criteria listed in 20.6.4.9(B) NMAC; if available, water quality data of chemical, physical or biological parameters to establish a baseline condition for the proposed ONRW; a discussion of activities that might contribute to the reduction of water quality in the proposed waters; a discussion of the economic impact of the designation on the local and regional economy within the state of New Mexico and its benefits to the state; and an affidavit of publication of notice of the petition in a newspaper of general circulation in the pertinent region. The Department reviewed the Petition to determine if the petition fulfilled each of the six elements identified above.

20.6.4.9(A)(1) NMAC requires all ONRW petitions to contain a geographical detailed description of the proposed ONRW waters including: a map with the waterbodies' location and a description of the waterbodies' upstream and downstream ONRW proposed boundaries. Under this requirement, the Department identified 16 waterbodies in the Petition that fulfilled these requirements: Bear Creek from the Rio Mora upstream to the Pecos Wilderness boundary, Carpenter Creek from the Pecos River upstream to the Pecos Wilderness boundary, Dalton Canyon Creek from the Pecos River upstream to the headwaters, Davis Creek from the Pecos River upstream to the headwaters, Doctor Creek from Holy Ghost Creek upstream to the headwaters, Holy Ghost Creek from the Pecos River upstream to the Pecos Wilderness boundary, Indian Creek from the Pecos River upstream to the headwaters, Jack's Creek from the Pecos River upstream to the Pecos Wilderness boundary, Macho canyon Creek from the Pecos River upstream to the headwaters, Panchuela Creek from the Pecos River upstream to the Pecos Wilderness boundary, Pecos River from Dalton Canyon Creek upstream to the Pecos Wilderness boundary, Rio Mora from the Pecos River upstream to the Pecos Wilderness boundary, Sawyer Creek from the Pecos

River upstream to the headwaters, Wild Horse Creek from Dalton Canyon Creek upstream to the headwaters, Willow Creek from the Pecos River upstream to the headwaters, and Winsor Creek from the Pecos River upstream to the Pecos Wilderness boundary.

However, the Petition did not include a map and a list of waterbodies with their proposed boundaries for the unnamed tributaries to the Pecos River from Dalton Canyon Creek to the Pecos Wilderness boundary, and all perennial, intermittent, and ephemeral streams, wetlands, and tributaries (named and unnamed) within the Upper Pecos watershed boundary. Therefore, the Department found that the Petition satisfied this requirement for some but not all proposed waters.

20.6.4.9(A)(2) NMAC requires evidence of eligibility, based on scientific merit, describing how each waterbody fulfills the qualifying eligibility criteria in 20.6.4.9(B) NMAC. The Department reviewed the scientific evidence contained in the Petition, including references, and found that this requirement was satisfied for the same 16 waterbodies listed in the previous discussion of 20.6.4.9(B) NMAC requirements. However, the Petition did not provide evidence of eligibility, based on scientific merit and describing how each waterbody fulfills the qualifying eligibility criteria in 20.6.4.9(B) NMAC for the following waterbodies: the unnamed tributaries to the Pecos River from Dalton Canyon Creek to the Pecos Wilderness boundary, and all perennial, intermittent, and ephemeral streams, wetlands, and tributaries (named and unnamed) within the Upper Pecos watershed boundary as required in accordance with 20.6.4.9(A)(2) NMAC. Therefore, the Department found that the Petition satisfied this requirement for some but not all proposed waters.

20.6.4.9(A)(3) NMAC requires an ONRW petition to provide water quality data of chemical, physical or biological parameters, if available, with the intent to establish baseline conditions. The Petition includes a short discussion and raw data sheets that can be found in

Appendix C of the Petition. The raw data provided in Appendix C is divided into 17 parts and each part is labeled, however the label and the content of the data do not appear to match in all cases, and the data is not presented in an organized manner. It is unclear exactly what data is presented for which proposed waterway. The data sheets lack a discussion as to how the baseline is established for each waterway, and they lack citation to the source of the data. If the data sheets were explained and organized more clearly it would ease the understanding of the baseline data for each proposed waterbody. However, because the regulatory language of 20.6.4.9(A)(3) NMAC states that baseline conditions shall be established "if available", the lack of clear establishment of baseline data does not preclude designating these waters as ONRWs. It should be noted that establishing a baseline is important to implement the antidegradation policy and related protections, should there be a proposed or unintentional discharge to any of these waters. The Department found data to fulfill 20.6.4.9(A)(3) NMAC was provided, but the Petition did not clarify which proposed waters the baseline data represents, and for which proposed waters no data were available. In addition, the Department is providing a data dictionary as **NMED Exhibit 12**, to aid in the interpretation of the datasheets for the record.

20.6.4.9(A)(4) NMAC requires a discussion of activities that might contribute to the reduction of water quality, including the appropriate references. This appears to be discussed at a regional level in Section 4 of the Petition, therefore the Department found that this requirement was satisfied for all proposed waters.

20.6.4.9(A)(5) NMAC requires a discussion of the economic impact of the designation on the local and regional New Mexico economy, including the appropriate references. Sections 2.1, 2.1.3 and 5.1 of the Petition includes this discussion at a regional level, therefore the Department found that the Petition satisfied this requirement for all proposed waters.

20.6.4.9(A)(6) NMAC requires an affidavit of publication of notice of the petition in a newspaper of general circulation in the affected counties and in a newspaper of general statewide circulation. The Petition provided an affidavit description at a regional level in Section 6 of this Petition and the Department found that the evidence-based demonstration satisfied this requirement for all waters.

In summary, the requirements of 20.6.4.9(A)(1) NMAC and 20.6.4.9(A)(2) NMAC were met for 16 of the proposed waterbodies, but do not appear to have been met for: unnamed tributaries to the Pecos River from Dalton Canyon Creek to the Pecos Wilderness boundary, and all perennial, intermittent, and ephemeral streams, wetlands, and tributaries (named and unnamed) within the Upper Pecos watershed boundary. The Department found that data was submitted to make a determination that the requirements of 20.6.4.9(A)(3) NMAC were fulfilled, yet the Department would prefer clarification on the baseline data status of each proposed waterbody and a statement for those waterbodies were no baseline data was found. The Department found the Petition fulfilled the requirements of 20.6.4.9(A)(4) NMAC, 20.6.4.9(A)(5) NMAC, and 20.6.4.9(A)(6) NMAC for all proposed waters at a regional level.

VI. SUMMARY OF FINDINGS

The Department finds that 16 of the proposed waterbodies in the Petition have satisfactorily met one or more of the eligibility criteria of 20.6.4.9(B) NMAC and have also fulfilled the submittal requirements of 20.6.4.9(A) NMAC. These waterbodies are:

1. Bear Creek from the Rio Mora upstream to the Pecos Wilderness boundary.
2. Carpenter Creek from the Pecos River upstream to the Pecos Wilderness boundary.
3. Dalton Canyon Creek from the Pecos River upstream to the headwaters.
4. Davis Creek from the Pecos River upstream to the headwaters.

5. Doctor Creek from Holy Ghost Creek upstream to the headwaters.
6. Holy Ghost Creek from the Pecos River upstream to the Pecos Wilderness boundary.
7. Indian Creek from the Pecos River upstream to the headwaters.
8. Jack's Creek from the Pecos River upstream to the Pecos Wilderness boundary.
9. Macho Canyon Creek from the Pecos River upstream to the headwaters.
10. Panchuela Creek from the Pecos River upstream to the Pecos Wilderness boundary.
11. Pecos River from Dalton Canyon Creek upstream to the Wilderness boundary.
12. Rio Mora from the Pecos River upstream to the Pecos Wilderness boundary.
13. Sawyer Creek from the Pecos River upstream to the headwaters.
14. Wild Horse Creek from Dalton Canyon Creek upstream to the headwaters.
15. Willow Creek from the Pecos River upstream to the headwaters.
16. Winsor Creek from the Pecos River upstream to the Pecos Wilderness boundary.

For the additional waterbodies mentioned in the Petition and not included in the 16 waterbodies listed above, the Department recognizes that the intent of the Petitioners was to nominate these waterbodies as a hydrologic unit within the Petition's described watershed, rather than as individual, distinct waterbodies. These waterbodies are:

- All unnamed tributaries to the Pecos River from Dalton Canyon Creek to the Pecos Wilderness boundary.
- All perennial streams, wetlands, and tributaries (named or unnamed) within the Pecos Headwaters watershed boundary.
- All intermittent streams, wetlands, and tributaries (named or unnamed) within the Pecos Headwaters watershed boundary.

- All ephemeral streams, wetlands, and tributaries (named or unnamed) within the Pecos Headwaters watershed boundary.

The Department does not assert that any of the proposed waterbodies listed above should not be designated as ONRWs, only that the Petition does not appear to have sufficiently demonstrated eligibility criteria pursuant to 20.6.4.9(B) NMAC or the submittal requirements pursuant to 20.6.4.9(A) NMAC. For these watershed focused waterbodies the Petition lacked the following components: a clear delineation of the waters including the upstream and downstream boundaries as required in 20.6.4.9(A)(1) NMAC, sufficient evidence to indicate that the waterbodies met the eligibility requirements pursuant to 20.6.4.9(A)(2) NMAC and 20.6.4.9(B) NMAC, and a clear baseline data submittal or a statement identifying that there was no data available to meet the eligibility requirements pursuant to 20.6.4.9(A)(3) NMAC. However, the Petition did meet the requirements of 20.6.4.9(A)(4) NMAC, 20.6.4.9(A)(5) NMAC, and 20.6.4.9(A)(6) NMAC at a regional level for these watershed-based proposed waterbodies.

Historically, a watershed approach designation represents a departure from previously adopted ONRW petitions that have fulfilled the state regulations for 20.6.4.9(A) and 20.6.4.9(B) NMAC. This departure imposes challenges in the implementation of the antidegradation policy, to which these waters are protected under. Should the Commission assign an ONRW designation to all the waterbodies as proposed, the Department requests clarification as to the extent of water quality protections, particularly as it pertains to the State's antidegradation policy and implementation plan.

The evaluations for the state's antidegradation policy and administrative processes are discussed and can be found in the testimony of my colleague, Jennifer Fullam, **NMED Exhibit 2**.

VII. PROPOSED AMENDMENTS TO 20.6.4 NMAC

Based on the findings of the Department's review of the proposed ONRW designation, the Department recommends alternative language for consideration that can be found in **NMED Exhibit 15**.

This concludes my direct testimony.

Excerpts from the :
State of New Mexico Water Quality Control Commission-
WQCC 03-05(R) Statement of Reasons for Amendment of Standards
Pages 22-24

122. The Commission adopts NMED's proposal to make minor changes in paragraphs (2) and (3); in (2) the language would more accurately reflect the procedure used to conduct a water quality survey. The Commission deletes the word "voluntary" and adds language to the end of paragraph 13 for clarity and consistency with the language in the definition of BMPs.

123. The Commission rejects UC's proposal to outline the process in paragraph (16) for development and approval of the 303(d) list. The Commission has already rejected this proposal, and already plans to approve and submit future 305(b) and 303(d) reports as a combined document.

20.6.4.9 OUTSTANDING NATIONAL RESOURCE WATERS:

A. Procedures for nominating an ONRW: Any person may nominate a surface water of the state for designation as an ONRW by filing a petition with the commission pursuant to the *Guidelines for water quality control commission regulation hearings*. A petition to classify a surface water of the state as an ONRW shall include:

(1) a map of the surface water of the state, including the location and proposed upstream and downstream boundaries;

(2) a written statement and evidence based on scientific principles in support of the nomination, including specific reference to one or more the applicable ONRW criteria listed in Subsection B of this section;

(3) water quality data including chemical, physical or biological parameters, if available, to establish a baseline condition for the proposed ONRW;

(4) a discussion of activities that might contribute to the reduction of water quality in the proposed ONRW;

(5) any additional evidence to substantiate such a designation, including a discussion of the economic impact of the designation on the local and regional economy within the state of New Mexico and the benefit to the state; and

(6) affidavit of publication of notice of the petition in a newspaper of general circulation in the affected counties and in a newspaper of general statewide circulation.

124. The Commission adopts with some modification NMED's proposal to relocate and revise the ONRW nominating process. Merging paragraphs 2 and 3 simplifies the section. Adding the phrase "if available" regarding water quality data revises language which might unnecessarily burden the ONRW nomination process, and, as EPA has articulated the concern, to force a formal assessment of water quality prior to nomination could "effectively bar the general public from nominating any waters."

125. The Commission rejects NMED's and AB's proposal to delete a consideration of economic benefit altogether, but does replace "analysis" with "discussion" to address concerns that the requirement is currently overly rigorous.

126. The Commission adopts SJWC's proposal to reference in paragraph (2) ONRW criteria in Subsection B as clarification.

B. Criteria for ONRWs: A surface water of the state, or a portion of a surface water of the state, may be designated as an ONRW where the commission determines that the designation is beneficial to the state of New Mexico, and:

(1) the water is a significant attribute of a state gold medal trout fishery, national or state park, national or state monument, national or state wildlife refuge or designated wilderness area, or is part of a designated wild river under the federal Wild and Scenic Rivers Act; or

(2) the water has exceptional recreational or ecological significance; or

(3) the existing water quality is equal to or better than the numeric criteria for protection of aquatic life uses, recreational uses and human health uses, and the water has not been significantly modified by human activities in a manner that substantially detracts from its value as a natural resource.

C. Pursuant to a petition filed under Subsection A of this section, the commission may classify a surface water of the state or a portion of a surface water of the state as an ONRW if the criteria set out in Subsection B of this section are met.

127. The Commission adopts SJWC's proposal to aid the public and the Commission by identifying the procedures required for nominating an ONRW and the criteria for designating an ONRW. The Commission concurs with the Hearing Officer's notes on the petitioner's burden of creating an analysis and EPA's position. If the petitioner's economic discussion is not sufficient, the commission will have the opportunity to request more information or deny the request. The burden of proof should be placed on the petitioner to persuade the Commission at a hearing. The federal government places the burden on the petitioner in wildlife and landmark requests. The burden standard of "beneficial to the state" is not light and thus will protect against allegations of a "taking."

128. The criteria proposed accurately reflect EPA regulations concerning ONRWs (40 C.F.R. § 131.12(a)(3)) and the ONRW characteristics referred to in the existing surface water quality standards (20.6.4.8(A) and (B) NMAC).

D. Waters classified as ONRWs: Rio Santa Barbara, including the West, Middle and East Forks from their headwaters downstream to the boundary of the Pecos Wilderness.

[20.6.4.9 NMAC - Rn, Subsections B, C and D of 20.6.4.8 NMAC, XX-XX-05; A, XX-XX-05]

129. The Commission considered extensive public comment in support of and in opposition to AB's proposal to classify the Rio Santa Barbara as an ONRW, in addition to the technical testimony offered. Recognizing historic uses, including livestock grazing, the Commission adopts AB's proposal because it has fulfilled all the current ONRW designation requirements in its Nomination for the Rio Santa Barbara as New Mexico's First Outstanding National Resource Water. The Commission was persuaded based on the information that was presented at the hearing that the

Rio Santa Barbara is a water of both exceptional ecological and recreational significance, and exceeds the criteria for the designated use of high quality coldwater fishery.

130. EPA has expressed concerns that no ONRWs have been nominated in New Mexico, but, particularly with changes being made concurrently to the anti-degradation policy, the Commission is comfortable with the designation.

[~~20.6.4.9~~]20.6.4.10 REVIEW OF STANDARDS; NEED FOR ADDITIONAL STUDIES:

A. Section 303(c)(1) of the federal Clean Water Act requires that the state hold public hearings at least once every three years for the purpose of reviewing water quality standards and proposing, as appropriate, necessary revisions to water quality standards.

B. It is recognized that, in some cases, numeric [~~standards~~]criteria have been adopted [~~which~~]that reflect use designations rather than existing conditions of surface waters of the state. Narrative [~~standards~~]criteria are required for many constituents because accurate data on background levels are lacking. More intensive water quality monitoring may identify surface waters of the state where existing quality is considerably better than the established [~~standards~~]criteria. When justified by sufficient data and information, the water quality [~~standards~~]criteria will be modified to protect the [~~designated~~]attainable uses [~~which are attainable~~].

C. It is also recognized that contributions of water contaminants by diffuse nonpoint sources of water pollution may make attainment of certain [~~standards~~]criteria difficult. Revision of these [~~standards~~]criteria may be [~~required~~]necessary as new information is obtained on nonpoint sources and other problems unique to semi-arid regions.

[20.6.4.10 NMAC - Rp 20 NMAC 6.1.1102, 10-12-00; Rn, 20.6.4.9 NMAC, XX-XX-05; A, XX-XX-05]

131. The Commission adopts NMED's proposal to simplify the language.

132. The Commission rejects EBID's proposal to replace "standards" with designated uses and their associated criteria" as duplicative and unnecessary. The Commission rejects EBID's proposal to repeat in this section a process set out elsewhere in the WQS to change a designated use as duplicative and unnecessary.

[~~20.6.4.10~~]20.6.4.11 APPLICABILITY OF WATER QUALITY STANDARDS:

A. [~~**Livestock Watering and Wildlife Habitat Uses**~~]**Waters Created by Discharge**:

[~~**(1)**~~] When a discharge [~~creates a water which could be used by livestock and/or wildlife in a non-classified,~~]to an otherwise ephemeral or intermittent, non-classified surface water of the state[~~, such water shall be protected for the uses of livestock watering and/or wildlife habitat by the standards applicable to these uses as set forth in 20.6.4.900 NMAC.~~

~~**(2)** Designated uses of such water will be limited to livestock watering and/or wildlife habitat only when such a water does not enter a classified surface water of the state with criteria which are more restrictive than those necessary to protect livestock watering and/or wildlife habitat, except in direct response to precipitation or runoff. The commission shall adopt any additional designated uses for such surface waters of the state by rulemaking proceedings.~~

~~**(3)** When such a water, except in direct response to precipitation or runoff, enters a classified~~]causes water to enter a surface water of the state with criteria [~~which~~]that are more restrictive than [~~those necessary to protect livestock watering and/or wildlife habitat, the numeric standards established for the classified surface water of the state~~]the criteria listed in 20.6.4.97 or 20.6.4.98 NMAC, the more restrictive criteria shall apply at the point such a water enters the [~~classified~~] surface water of the state with the more restrictive criteria. If discharge to such otherwise ephemeral or intermittent, non-classified waters of the state ceases or is diverted elsewhere[~~, all uses adopted under this section or subsequently under additional rulemaking proceedings for such waters of the state shall be deemed no longer designated, existing, or attainable~~] the criteria listed in 20.6.4.97 or 20.6.4.98 NMAC shall apply.

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF:
Petition to Nominate Surface Waters
In Forest Service Wilderness Areas as
Outstanding National Resource Waters

WQCC 10-01(R)

New Mexico Environment Department,
New Mexico Department of Game and Fish and
New Mexico Energy, Minerals and Natural Resources Department,
Petitioners.

AND

IN THE MATTER OF:
Petition to Amend Antidegradation Policy
and
Request to Amend Antidegradation Policy
Implementation Procedures
and
To Issue Guidance for Nonpoint Source
Discharges in Areas Designated as ONRWs

New Mexico Environment Department,
Petitioner.

ORDER AND STATEMENT OF REASONS

THIS MATTER comes before the New Mexico Water Quality Control Commission ("Commission") upon an amended petition ("amended petition" or "nomination") jointly filed by the New Mexico Environment Department, New Mexico Game and Fish Department and New Mexico Energy, Minerals and Natural Resources Department ("Petitioners") proposing to nominate surface waters in United States Forest Service Wilderness Areas as Outstanding National Resource Waters ("ONRW") and an amended petition filed by the New Mexico Environment Department ("NMED") to amend: (1) the Antidegradation Policy; (2) the

Antidegradation Policy Implementation Procedures and (3) to issue Guidance for Nonpoint Source Discharges in Areas Designated as an Outstanding National Resource Waters. A public hearing was held in Santa Fe, New Mexico on September 14-17 and October 12-14, 2010, before a hearing officer, with many Commissioners present during the hearing. On November 30, 2010, the Commission deliberated and voted to adopt the amended petition and Antidegradation Policy with its implementing documents, with minor amendments, set forth below in relevant part, for the reasons that follow.

II. STATEMENT OF REASONS

1. The state regulation regarding a petition to nominate a surface water of the State as an Outstanding National Resource Water is found at 20.6.4.9.A NMAC.
2. Petitioners initially prepared a draft proposal in 2008 for public input that included all waters in Wilderness and Inventoried Roadless Areas as ONRWs.
    (a) The 2009 New Mexico Legislature adopted House Joint Memorial 49.
    (b) The Petitioners, in an effort to address the concerns in the memorial, scaled back their proposal to exclude Inventoried Roadless Areas and non-perennial streams. See Petitioners' Exhibit #38, p. 11; Tr. vol. 2, p. 372, ll. 9-11.
    (c) The 2010 New Mexico Legislature did not attempt to convert the 2009 memorial into statute. Tr. vol. 2, p. 372, ll. 12-14.
    (d) The 2010 New Mexico Legislature did not follow up with another memorial. Tr. vol. 2, p. 372, ll. 11-12.
3. Petitioners held twenty-one public meetings throughout the state and used the sign-up sheets to create interested party mailing lists. Tr. vol. 7, p. 1759, ll. 22-24.

4. Petitioners formalized the draft proposal into a formal petition and submitted it to the Commission's hearing clerk in February 2010. Petitioners' requested review of the petition in one composite hearing. Tr. vol. 1, p. 40, ll. 12-16.
5. The Commission voted to accept the petition at its March 2010 monthly meeting. The Commission voted to assign a Hearing Officer and schedule the matter for hearing for multiple days for September 2010.
6. Petitioners, in response to continued concerns from the public regarding the breadth of the petition and after receiving procedural permission from the Hearing Officer, amended its petition on May 17, 2010 to further limit its scope by excluding intermittent waters and tributaries from the nominated waters. See Petitioners' Exhibit # 38, p. 15.
7. Petitioners' amended petition nominated specifically identified perennial waters, lakes, and wetlands within twelve United States Forest Service Wilderness Areas as ONRWs. Tr. vol. 7, p. 1899, ll. 8-9. The amended petition included approximately:
   (a) 700 miles of 195 perennial rivers and streams;
   (b) 29 lakes;
   (c) 4,930 acres of 1,405 wetlands. Tr. vol. 1, p. 40, ll. 12-16.
8. The twelve Wilderness areas part of the amended petition were Aldo Leopold Wilderness, Apache Kid Wilderness, Blue Range Wilderness, Chama River Canyon Wilderness, Cruces Basin Wilderness, Dome Wilderness, Gila Wilderness, Latir Peak Wilderness, Pecos Wilderness, San Pedro Park Wilderness, Wheeler Peak Wilderness and White Wilderness. See Petitioners' Exhibit #1-SUB.
9. There is precedent for the Commission approving ONRW petitions on a Wilderness basis (Valle Vidal) or on stream segment basis (Rio Santa Barbara).

10. There is precedent in other western states, such as Wyoming, to have ONRWs for waters within multiple Wilderness areas. See Petitioners' Exhibit # 38, p. 9.

11. The Commission's hearing notice requirements for rule-making are found at NMSA 1978, Section 74-6-6(C) and state: "At least thirty days prior to the hearing date, notice of the hearing shall be published in the New Mexico register and a newspaper of general circulation in the area affected and mailed to all persons who have made a written request to the commission for advance notice of hearings and who have provided the commission with a mailing address."

12. Notice of this hearing was published in the New Mexico Register, Albuquerque Journal and newspapers of general circulation in the affected counties sixty days prior to the hearing and sent to those persons on the Commission's interested party list and the New Mexico Environment Department's stakeholder list. See Petitioners' Exhibit #38, p. 15 & Exhibit 51.

    (a) Notice of the hearing was published in the twelve counties in which the Wilderness areas that were subject to the amended petition are located including Catron, Grant, Lincoln, Mora, Otero, Rio Arriba, Sandoval, San Miguel, Santa Fe, Sierra, Socorro and Taos. See Petitioners' Exhibit # 51.

    (b) The notices identified the area in which the waters were located and directed the public how to obtain copies of the amended petition. See Petitioners' Exhibits #32, 51.

    (c) The amended petition included a complete listing of all waters nominated. See Petitioners' Exhibit #1 SUB-2.

(d) The Cuba News does not qualify as a publication in which a legal notice may be published because it is published monthly. See NMSA 1978, § 14-11-2.

(e) Residents of Cuba, New Mexico reside in Sandoval County and notice was timely published in the Rio Rancho Observer and Albuquerque Journal. See Petitioners' Exhibit # 51.

13. Petitioners' notice of the hearing stated: "The proposed amendments ...nominate all perennial waters within United States Forest Service Wilderness Areas as outstanding national resource waters (ONRW)." See Petitioners' Exhibit #51, at 4.

(a) "This notice also gives notice pursuant to 20.6.4.9.A(6) that the parties have amended their original petition to exclude intermittent waters and tributaries to the waters nominated." See Petitioners' Exhibit #51, at 4.

(b) The New Mexico Environment Department's website stated: "The proposal is limited to surface waters within National Forest Wilderness areas...[a]ny future ONRW nomination must, by law, go through a new, full public process including a full public hearing where all parties can participate." See Petitioners' Exhibit #47.

(c) The notice represented the culmination of a multi-year process for the amended petition with Petitioners deciding to narrow the boundaries and types of water. See Petitioners' Exhibit #38, p. 21.

14. The Commission held public hearings on September 14, 15, 16 & 17 and October 12, 13 & 14, 2010, with multiple parties providing technical testimony and approximately eighty citizens providing public comment.

15. State Regulation 20.6.4.9.A NMAC states a "petition to classify a surface water of the state as an ONRW shall include: (1) a map of the surface water of the state, including the location and proposed upstream and downstream boundaries."

(a) Petitioners provided maps as part of its amended petition on May 17, 2010.

(b) Petitioners provided maps in its August 9, 2010 submission of its technical testimony.

(c) Petitioners provided maps of all waters nominated, including the location and proposed upstream and downstream boundaries. See Petitioners' Exhibits # 4 (statewide reference map); ## 5-30 (maps of individual wildernesses); #31 (basin maps within wildernesses), #100-SUB, pp. 4-5; #102 (wetlands maps on CD); #103-SUB (list of wetlands by coordinates).

(d) The perennial surface waters were identified in a table. See Petitioners' Exhibits #1-SUB; #38, p. 5. Only surface waters that are specifically identified in the table are nominated.

(e) The United States Forest Service informed Petitioners on August 13 that a number of the features within the interior of the boundaries of the maps did not have perennial waters. Petitioners took this information and excluded these incorrect features from the maps. See Letter to Commission from Mr. Corbin Newman, USFS Regional Forester (Aug. 13, 2010).

(f) The exterior boundary of the maps did not change based on this information.

(g) Petitioners presented the maps with the corrected interior features to the parties and Commission on September 14, 2010.

16. State Regulation 20.6.4.9.A NMAC states a "petition to classify a surface water of the state as an ONRW shall include: (2) a written statement and evidence based on scientific principles in support of the nomination, including specific reference to one or more of the applicable ONRW criteria listed in Subsection B of this section."

17. Petitioners provided scientific data to support the nomination based on one or more of the criteria in 20.6.4.9.B NMAC.

18. There was evidence that some of the nominated waters are a significant attribute of Special Trout Waters under 20.6.4.9.B(1) NMAC. See Petitioners' Exhibits # 72, pp. 3-4; ## 6, 8, 10, 20-23, 109. Seven of the nominated streams, Black Canyon in the Aldo Leopold Wilderness, Iron and Mogollon Creeks in the Gila Wilderness, Jack's Creek, Pecos River and Rio Valdez in the Pecos Wilderness and Capulin Creek in the Dome Wilderness, are considered "Special Trout Waters." See Petitioners' Exhibit #109.

19. There was evidence that all of the nominated waters are a significant attribute of Wilderness under 20.6.4.9.B(1) NMAC. See Petitioners' Exhibits # 38, pp. 21-23; #57-59.

    (a) Wilderness areas may only be "designated by an act of Congress." See Petitioners' Exhibit #38, pp. 21. This action is rare as Wilderness in Forest Service land in New Mexico has been designated primarily through only three congressional acts in the last fifty years. See Petitioners' Exhibit #38, p. 22.

    (b) In 1964, Congress designated the Gila, Pecos, San Pedro Parks, White Mountain and Wheeler Wildernesses. In 1978, Congress designated Chama River Canyon Wilderness. In 1980, Congress designated the Aldo Leopold, Apache Kid, Blue Range, Cruces Basin, Dome and Latir Peak Wildernesses and added to the Gila,

Pecos, Wheeler Peak and White Mountain Wildernesses. See Petitioners' Exhibit #38, p. 22.

(c) The Federal Wilderness Act, 16 U.S.C. Sections 1131-36, states: "[a] wilderness...is further defined to mean...[f]ederal land retaining its primeval character and influence...which is protected and managed so as to preserve its natural conditions...." Petitioners' Exhibits #38, p. 21.

(d) The natural condition of the Wilderness areas named in the amended petition is its rivers, streams, lakes and wetlands. See Petitioners' Exhibit #38, p. 21.

(e) In a study conducted of the values of Wilderness, members of the public were surveyed and asked to rate the importance of various Wilderness benefits. The study showed that maintaining water quality is consistently the highest ranked benefit by the public. See Petitioners' Exhibit #38, p. 23.

20. There was evidence that some of the nominated waters are part of designated wild rivers under Wild and Scenic Act under 20.6.4.9.B(1) NMAC. See Petitioners' Exhibit # 100-SUB pp. 5-6 & 15, 20, 21, 23. The Chama River Canyon Wilderness contains 4.9 miles of the Rio Chama designated as wild. The Pecos Wilderness contains 13.5 miles of the Pecos River designated as wild. See Petitioners' Exhibit # 100-SUB pp. 5-6 & 15 (map of Rio Chama), ## 20, 21, 23 (maps of Pecos River).

21. There was evidence that all of the nominated waters have exceptional recreational value under 20.6.4.9.B(2) NMAC. See Petitioners' Exhibits #100-SUB, pp. 7-26.

(a) Streams and lakes in Wilderness provide visitors with fishing, swimming, canoeing, kayaking, wading and non-motorized boating opportunities, in addition to hiking and camping water. Tr. vol. 1, p. 145, to p. 146, l.4.

(b) The Federal Wilderness Act provides "wilderness" as a place "where the earth and its community of life are untrammeled by man...has outstanding opportunities for solitude or... unconfined type of recreation...." Petitioners' Exhibit #38, p. 21.

(c) Riparian zones and wetlands in Wilderness provide habitat for plants, birds and other wildlife, which in turn provide hunting and wildlife viewing opportunities. Tr. vol. 1, p. 145, to p. 146, l.4.

(d) Visitors rely on clean water sources in Wilderness for drinking and cooking. Tr. vol. 1, p. 145, to p. 146, l.4.

(e) There was public comment throughout the hearing stating that waters in these Wildernesses provide exceptional recreational value.

22. There was evidence that all of the nominated waters have exceptional ecological significance or value under 20.6.4.9.B(2) NMAC. See Petitioners' Exhibits # 72 pp. 4-19; ##78-99.

(a) Wilderness waters embody the ecological and scenic values that the Federal Wilderness Act seeks to preserve and protect. See Petitioners' Exhibit #38, pp. 21-22.

(b) These waters help support flora—alpine meadows, dark spruce-fir forests, pine-oak woodlands, mixed-conifer forests and open grasslands. See Tr. vol. 1, p. 74, l.21 to p. 77, l.1.

(c) They provide habitat for a broad array of wildlife—elk, bear and beaver—and to threatened, rare and declining species such as the northern leopard frog, Gila

springsnail, New Mexico springsnail, narrow-headed garter snake and Lillijeborg's peaclam. See Tr. vol. 1, p. 75, l. 1 to p. 76, l.10; p 77, ll. 21-24.

(d) These waters provide essential habitat to common and rare fishes—the Rio Grande cutthroat trout, the Gila trout, headwater chub, Sonora sucker, desert sucker, loach minnow and speckled dace. Tr. vol. 1, p.75, l.17 to p. 76, l.4; vol. 1, p. 77 l.2 to p.78, l.6.

23. State Regulation 20.6.4.9.A NMAC states a "petition to classify a surface water of the state as an ONRW shall include: (3) water quality data including chemical, physical or biological parameters, if available, to establish a baseline condition for the proposed ONRW."

24. Petitioners presented available water quality data for the waters nominated. See Petitioners' Exhibits #33-34; #100-SUB, pp. 25-30.

(a) 362.9 miles of the 705.5 miles of perennial stream miles have sufficient data for water quality assessment. See Petitioners' Exhibit #100-SUB, p. 28.

(b) NMED Surface Water Quality Bureau staff does not have the resources to assess all waters but many of the perennial waters in the Wildernesses contribute to larger streams and rivers that already have been assessed. See Petitioners' Exhibit # 100-SUB, pp. 27-28.

25. State Regulation 20.6.4.9.A NMAC states a "petition to classify a surface water of the state as an ONRW shall include: (4) a discussion of activities that might contribute to the reduction of water quality in the proposed ONRW."

26. Petitioners provided a discussion of activities that might contribute to the reduction of water quality in the proposed ONRWs. See Petitioners' Exhibit #100-SUB, pp. 31-32.

27. State Regulation 20.6.4.9.A NMAC states a "petition to classify a surface water of the state as an ONRW shall include: (5) any additional evidence to substantiate such a designation, including a discussion of the economic impact of the designation on the local and regional economy within the state of New Mexico and the benefit to the state."

28. Petitioners provided a discussion of the economic impact of the designation on the local and regional economy within the state and the benefit to the state. See Petitioners' Exhibits #38, pp. 18-21, ## 23-31 and #35.

29. Petitioners presented evidence on the economic and welfare benefits to the state.

    (a) These benefits include hunting, fishing, visitors, recreation and the jobs created by those activities. See Petitioners' Exhibit # 38, pp. 23-31.

    (b) The benefits include a clean water supply for human uses, livestock watering, recreational uses, and wildlife habitat within Wilderness areas and for downstream drinking water and domestic, agricultural, industry, and recreational uses will help maintain a clean water supply for human uses, agricultural uses, and wildlife habitat. See Petitioners' Exhibit #38, p. 18.

    (c) The benefits include that the protection of these headwaters will maintain healthy ecosystems, preserve habitat, support biodiversity, and protect endangered and vulnerable specific within Wilderness areas and downstream. See Petitioners' Exhibit #38, p. 18.

    (d) The benefits include that the ONRW status can help the Forest Service and other entities better access competitive watershed and wetland restoration funds, such as Clean Water Act Section 319 and Section 604.b funding. Tr. vol. 1, p. 53, ll. 18-23.

(e) The benefits include that the designation will give primacy to the state's interests in these waters. If the Wilderness waters are designated, the Forest Service will be required to make the state's water quality a primary consideration in its forest management decisions. Tr. vol. 1, p. 52, l. 14 to p. 53, l.17.

(f) The University of New Mexico's Bureau of Business & Economic Research ("BBER") provided information on the socioeconomic impact on local and regional economy. See Petitioners' Exhibit #35; #38, p. 26.

30. The United States Forest Service provided written support of the goals of the amended petition and that it would work to implement the applicable requirements.

31. Petitioners presented evidence that the ONRW designation will have no adverse economic effect on existing economic activities. See Petitioners' Exhibit #38, p. 24.

(a) Acequia operations are exempted from the ONRW requirements. Tr. vol. 6, p. 1467, l. 24.

(b) All pre-existing users that implement Best Management Practice documents ("BMP") are exempted. See Petitioners' Exhibit #38, p. 24.

(c) This language was "developed in consultation with the Forest Service." Tr. vol. 7, p. 1751, ll. 15-16.

(d) There are approximately 39 grazing allotments in the Forest Service Wilderness covered by the nomination. See Petitioners' Exhibit #38, p. 24; Tr. vol. 1, p. 57, ll. 7-14.

(e) All current grazing permittees are exempt because grazing permits are subject to BMPs under their Forest Service grazing permits. See Petitioners' Exhibits #37; #38, p. 24; Tr. vol. 4, p. 957, ll. 9-16; vol. 6, p. 1580, ll. 4-7.

(f) There was no evidence presented in the record that the Forest Service will change BMPs as a result of the ONRW designation or lead to more activities being subject to federal court litigation.

(g) The New Mexico Cattle Growers organization ("Cattle Growers") provided a witness who did not provide any economic data showing that permittees would suffer a negative effect as a result of designation. Tr. vol. 3, p. 887, ll. 15-21.

(h) The Cattle Growers witness acknowledged they had no evidence that ONRW designation in New Mexico or other states had resulted in "fence-out" practices, a decrease in the number of cows, or ranching operations being put out of business. Tr. vol. 3, p. 897, l.3 to p. 898, l. 14; vol. 3, p. 900, ll. 19-22.

(i) The Commission asked: "Are you aware of any aspects of this petition, given the exemptions that are provided, that would drive someone out of business?" Tr. vol. 3, p. 915, ll. 22-24. The Cattle Growers witness stated: "No." Tr. vol. 3, p. 915, l. 25.

(j) Another witness for the Cattle Growers acknowledged that they knew of no lawsuits in New Mexico or around the country brought against cattle grazers based on ONRW designation. Tr. vol. 4, p. 958, ll. 11-16; vol. 4, p. 959, ll. 1-8.

32. State Regulation 20.6.4.9.A NMAC states a "petition to classify a surface water of the state as an ONRW shall include: (6) affidavit of publication of notice in a newspaper of general circulation in the affected counties and in a newspaper of general statewide circulation."

(a) Petitioners submitted affidavits of publication of notice in a newspaper of general statewide circulation in affected counties. See Petitioners Ex. #32.

33. NMED filed an amended petition to make amendments to: (1) the Antidegradation Policy; (2) the Antidegradation Policy Implementation Procedures and (3) to issue Guidance for Nonpoint Source Discharges in Areas Designated as an Outstanding National Resource Water.

34. NMED petitioned the Commission to amend the Antidegradation Policy and its implementing documents in order to revise the standards framework for protection of surface waters of the state. See Petitioners' Exhibit #38, p. 31. These three documents govern matters beyond just ONRW waters.

35. NMED has been working to update the Antidegradation Implementation Procedures for United States Environmental Protection Agency ("EPA") review, and in 2009 the EPA expressed additional concerns regarding the state's approach of combining watershed restoration projects and temporary and short-term degradation into a single provision. EPA believed the two types of activities should be differentiated. NMED proposed new amendments herein to the Antidegradation Policy in 20.6.4.8.A NMAC and detailed amendments to Antidegradation Implementation Procedures in order to address each of the concerns put forth by EPA. See Petitioners' Exhibit #38, p. 32; Exhibit # 68.

36. Amendments to the Antidegradation Policy and its implementing documents would implement NMED's proposed amendments to 20.6.4.8(A)(3) NMAC, governing for temporary and short-term degradation of ONRWs, and 20.6.4.8(A)(4) NMAC, governing for degradation for watershed restoration projects in surface waters. See Petitioners' Exhibit #38, p. 40.

37. Amendments to the Antidegradation Policy and its implementing documents Implementation Procedures track EPA guidance in its WQS Handbook, allowing

temporary and short-term degradation in ONRWs only in limited circumstances. See Petitioners' Exhibit #38, p. 40.

38. The Nonpoint Source Guidance is intended to provide guidelines for NMED and oversight agencies to implement the Antidegradation Policy as it applies to nonpoint source discharges in ONRW areas. In crafting the Nonpoint Source Guidance, NMED has taken into consideration comments from the Forest Service and forest users, such as grazing permittees and acequia users, and has tried to address all concerns while also ensuring that the Guidance meets all water quality standard requirements. See Petitioners' Exhibit #38, p. 41.

39. The Hearing Officer's Pre-Hearing Procedural Order stated that parties may provide proposed changes to the Petitioners' proposed language in these documents, when they filed their Notice of Intent to Present Technical Testimony, pursuant to the Commission's Rule-Making Procedures, Section 303(A)(5).

40. San Juan Water Commission, WildEarth Guardians and the River Groups submitted technical testimony in their Notice of Intent to Present Technical Testimony regarding concerns with specific wording within the Antidegradation Policy and its implementing documents. Members of the public testified during the hearing regarding concerns with one specific phrase of language in these documents. See, e.g. Tr. vol. 1, p. 118, ll. 21-22; p. 124, ll. 13-14; p. 134, ll. 21-22; p. 137, ll. 5-8; vol. 2, p. 451, ll. 16-17, p. 470, ll. 22-25, p. 471, ll. 1-25, p. 472, ll. 23-25; p. 473, ll. 1-13; p. 507, ll. 24-25; p. 508, ll. 1-9; p. 512, ll. 5-11; p. 513, ll. 11-12.

41. NMED chose to negotiate with parties over possible modified language to the Antidegradation Policy and its implementing documents on October 1, 2010. Tr. vol. 6, p. 1691, ll. 4-7.

42. The Petitioners negotiated with those parties, such as San Juan Water Commission, WildEarth Guardians and River Groups, who had submitted technical testimony in their Notice of Intent to Present Technical Testimony on the Antidegradation Policy and its implementing documents.

43. The Cattle Growers did not submit any proposed language changes to the Antidegradation Policy and its implementing documents in its Notice of Intent to Present Technical Testimony. Tr. vol. 6, p. 1692, ll. 7-8.

44. Since the Cattle Growers did not offer language they were not part of the October 1 negotiations.

45. The negotiated modified language on the Antidegradation Policy and its implementing documents was formalized as three exhibits. See Petitioners' Exhibits 111-A and –B; 112-A and B and 113-A and –B.

46. The negotiated modified language combined the varying proposals into one set of language and was the direct result of the proposals and criticisms of the above-mentioned parties. Tr. vol. 6, p. 1694, ll. 2-4.

47. NMED and the River Groups provided witnesses who testified, including extensive cross-examination from the Cattle Growers, regarding the negotiated modified language and explained how it overlapped between the varying proposals and combined these proposals into one set of language and why it represented a logical outgrowth of the

Petitioners' proposal. Tr. vol. 5, p. 1201, l.2 to p. 1205, l. 11; vol. 5, p. 1217, l.16 to p. 1223, l. 25; vol. 5, p. 1337, l. 4 to 1367, l. 23; vol. 6, p. 1698, l.4 to p. 1729, l. 2.

48. The Commission hereby CONCLUDES:

(a) The Commission has jurisdiction to hold rule-making hearings on ONRW nominations and proposed changes to the Antidegradation Policy and implementing documents.

(b) The Petitioners' request for a nomination of specifically identified perennial waters, lakes, and wetlands within twelve Wildernesses in one hearing is allowed within the parameters of 20.6.4.9 NMAC.

(c) The Cattle Growers' objection in its closing argument is not well founded because there is no regulatory requirement that a petition hearing must be limited to one single Wilderness at a time.

(d) The Cattle Growers' objection in its closing argument is not well founded because there is no regulatory requirement that a petition hearing must be limited to a stream segment-by-stream segment basis.

(e) There is substantial evidence that the amended petition satisfies all notice requirements pursuant to 20.6.4.9.A NMAC.

(f) There is substantial evidence that the amended petition satisfies all requirements pursuant to 20.6.4.9.A NMAC.

(g) The Cattle Growers' objection in its closing argument regarding the maps is not well founded because: (a) the maps in the amended petition were presented to the parties several months in advance of the September hearing; (b) the August changes were made at the request of the United States Forest Service to features

in the interior of the maps and (c) the August changes did not harm the Cattle Growers or the public's preparation and comment on the amended petition because the changes did not alter the exterior boundaries.

(h) The Cattle Growers' objection in its closing argument that the amended petition did not contain minimum data requirements is not well founded because: (a) there is no regulatory minimum data requirement and (b) Petitioners provided all available water quality data.

(i) There is substantial evidence that the amended petition satisfies the requirement that the designation is "beneficial" to the State pursuant to the first sentence of 20.6.4.9.B NMAC.

(j) A petition has to satisfy just one of three listed criteria pursuant to the second sentence of 20.6.4.9.B(1)-(3) NMAC.

(k) There is substantial evidence that the amended petition satisfies the requirements of both 20.6.4.9.B(1) **and** 20.6.4.9.B(2) NMAC.

(l) All of the waters in the amended petition are a significant attribute of designated Wilderness areas pursuant to 20.6.4.9.B(1) NMAC.

(m) The plain meaning of the term "significant attribute" is "major characteristic" or "major hallmark."

(n) The term "designated Wilderness areas" is an official term.

(o) Only Congress can "designate" a wilderness area. It is a method of labeling a land area by the highest legislative body in this country.

(p) Congress has only voted on three major designations in Forest Service land in New Mexico the last fifty years. Congress made its last major designation over thirty years ago.

(q) Congress wanted the natural conditions of these designated Wilderness areas to be maintained.

(r) The natural condition of the designated Wilderness areas listed in the amended petition is its rivers, streams, lakes and wetlands.

(s) An ONRW nomination provides that the current status of waters will be maintained and further degradation will be prevented.

(t) Maintaining the natural condition of these waters is important as water is an extremely precious resource and thus is a major hallmark of designated Wilderness areas, especially in the arid southwest.

(u) Maintaining the natural condition of these waters is important because they are the headwaters for many of the State's other waters.

(v) The public views maintaining the water quality as the highest priority in the wilderness and thus is a major hallmark of designated Wilderness areas.

(w) If rivers, streams and lakes listed in the amended petition were not maintained, then a major hallmark of the designated Wilderness area would be lost.

(x) The Commission's decision is not arbitrary and capricious because it is based on evidence in the record and provides a well-considered approach because the amended petition maintains a specific type of waters within specific, congressionally designated boundaries. The amended petition does not ask for

nomination of all forms and types of waters within an unknown or undesignated boundary.

(y) There was substantial evidence that some of waters in the amended petition are a significant attribute of designated Wild Rivers and Special Trout Waters pursuant to 20.6.4.9.B(1) NMAC.

(z) There was substantial evidence that all of the waters in the amended petition have "exceptional recreational significance" or "exceptional ecological significance" pursuant to 20.6.4.9.B(2) NMAC.

(aa) There was substantial evidence provided by technical experts and public members regarding how Wilderness waters embody exceptional ecological and recreational significance of designated Wilderness areas and it is important to maintain the quality of these waters.

(bb) The Commission has authority to modify a petition because "even substantive changes in the original plan may be made so long as they are in character with the original scheme and a logical outgrowth of the notice and comment already given." BASF Wyandotte Corp., et al. v. Costle, 598 F. 2d 637, 642 (1st Cir. 1979), cert. denied, 444 U.S. 1086 (1980).

(cc) The test is if "interested parties should have anticipated that the change was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period, then the rule is deemed to constitute a logical outgrowth of the proposed rule." American Coke and Coal Chemicals Inst. v. EPA, 452 F. 3d 930, 938-39 (D.C. Cir. 2006).

(dd) The negotiated modified language in the Antidegradation Policy and its implementing documents satisfies the "logical outgrowth" standard.

(ee) There was substantial evidence that the negotiated modified language combined varying proposals into one set of language.

(ff) The Cattle Growers' objection in its closing argument is not well founded because: (a) Petitioners' notice of hearing did provide that the Antidegradation Policy would be subject to review during the hearing and (b) the Cattle Growers should have anticipated that the changes were possible since language changes were presented in WildEarth Guardians, River Groups and San Juan Water Commission's Notice of Intent to Present Technical Testimony. The Cattle Growers had sufficient time prior to hearing to review and prepare for the material.

(gg) WildEarth Guardians' proposal to expand the boundary for Roadless Areas contiguous to the Wilderness Areas does not satisfy the "logical outgrowth" standard.

(hh) The Cattle Growers' and San Juan Water Commission's objection in their closing argument is valid because: (a) Petitioners' notice of hearing expressly limited the scope of the hearing regarding the boundary; (b) these organizations and other New Mexico citizens could not have anticipated that the change in the boundary was possible and (c) the United States Forest Service objected to the expanded boundary.

(ii) The River Groups' and WildEarth Guardians' proposal to expand to the nomination to other types of waters, such as non-perennial waters, does not satisfy the "logical outgrowth" standard.

(jj) The Cattle Growers' and San Juan Water Commission's objection in their closing argument is valid because: (a) Petitioners' notice of hearing expressly limited the scope of the hearing regarding the types of waters; (b) these organizations and other New Mexico citizens could not have anticipated that the change in types of waters was possible and (c) the United States Forest Service objected to the expanded types of hearing.

(kk) The filing of an ONRW petition requires technical and public review. A party, which did not file a petition with the Commission's hearing clerk, such as WildEarth Guardians, cannot file a Notice of Intent to Present Technical Testimony and achieve the same level of technical and public review.

(ll) WildEarth Guardians and Rivers Groups needed to file their own ONRW nomination in order to achieve the necessary level of technical and public review.

(mm) The Commission made several non-substantive amendments to the Antidegradation Policy and implementing documents, based primarily on comments received from the public during the hearing, in order to: (a) reconcile inconsistent language; (b) re-affirm pre-existing use exemptions and (c) provide greater clarity to actions conducted during emergency circumstances.

(nn) This non-substantive language in the Antidegradation Policy and its implementing documents satisfies the "logical outgrowth" standard.

(oo) The proposal is adopted for any or all of the reasons stated above.

III. ORDER

By a vote 7-3, the amended petition was approved on November 30, 2010. The proposed Antidegradation Policy and implementing documents were approved on November 30, 2010. The proposed amended petition and Antidegradation Policy and implementing documents, with amendments, and any appropriate corrections of typographical errors, reconciliation of inconsistencies, formatting or other changes necessary to file this rule with the New Mexico State Records Center, are hereby adopted, to be effective in accordance with applicable State Records Center procedures.

On behalf of the Commission

Dated: 12/15/10

STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF:
Petition to Nominate Surface Waters
In Forest Service Wilderness Areas as Outstanding National Resource Waters — WQCC 10-01(R)

New Mexico Environment Department,
New Mexico Department of Game and Fish and
New Mexico Energy, Minerals and Natural Resources Department,
Petitioners.

AND

IN THE MATTER OF:
Petition to Amend Antidegradation Policy
and
Request to Amend Antidegradation Policy
Implementation Procedures
and
To Issue Guidance for Nonpoint Source
Discharges in Areas Designated as ONRWs

New Mexico Environment Department,
Petitioner.

Commissioner Hutchinson joined by Commissioner Dominguez and Vigil, dissenting from the Commission's order and statement of reasons.

1. On September 12, 2008 the New Mexico State University Range Improvement Task Force (RITF) provided a review and comment on the draft outstanding national resource waters petition that pointed out serious concerns over the science and the failure to provide a valid economic impact analysis that considered a cost benefit analysis for the designation. The comment also noted the concern that third party litigation was a potential threat and pointed out the statement from WildEarth Guardians signaling their

intent for the support of the designation. From that statement, "Once designated, these watersheds cannot be polluted and□are thus protected from logging, road building, cattle grazing□and off-road vehicles."[1] [NMED Exhibit 46] WildEarth Guardians are noted for litigious actions seeking removal of livestock and other activities off of the federal lands. This concern was voiced by the public in meetings around the state and by the RITF.

2. The 2009 New Mexico Legislature adopted House Joint Memorial 49 (HJM 49) expressing the intent of the New Mexico Legislature that, ".....Governor Richardson be requested to cancel or suspend the outstanding national resource waters designation process; and

"BE IT FURTHER RESOLVED that, instead, the governor's administration engage the residents of the state in evaluating, planning and implementing cooperative approaches to improve the state's watersheds, forests and grazing lands and thereby the utility of these areas for recreational and agricultural uses and for the protection of domestic and municipal water sources; and....."

3. Petitioners ignored the plain intent of HJM 49 and pressed forward under the pretext they made "an effort to address the concerns in the memorial."

4. On August 31, 2009 the New Mexico State University Range Improvement Task Force provided a second review and comment on a subsequent draft outstanding national resource waters petition. Page one of the second comments states, "**We have found no attempt by the Department to rectify previous shortcomings related to the economic analyses.** [Emphasis added] Given the reduction of area considered for nomination as

[1] http://www.risingtidenorthamerica.org/wordpress/2008/06/04/got-clean-water-protect-wilderness-headwaters-in-the-west/

ONRW from the previous draft, and the reduction in stream miles, it is reasonable to assume the potential economic impact, as well as the potential benefits, have changed as well. However, there is little or no treatment in the Draft Proposal regarding the expected benefits, financial or otherwise, nor the costs associated with those benefits, both direct (i.e., new personnel, equipment, etc. to implement the program) and indirect (i.e., potential loss of industry, loss to communities). Does the Department intend to pursue the program without this information and understanding?

Those comments ended by stating, "In closing, we believe it would be a tragedy if the actions resulting from regulations in the Draft Proposal were to ultimately limit pro-active management and restoration of forested landscapes in New Mexico. In many areas of New Mexico, and wilderness areas in particular, pro-active management is necessary and more likely to produce long-term improvements in water quality and quantity than increased regulations. We believe the Department would be better served by assisting the USFS in making management happen by investing in strategies to reduce fuel loads through thinning and burning. The regulatory and bureaucratic structure already in place is often the reason that appropriate forest management doesn't happen. Increasing the layers of bureaucracy is not the solution. Increasing the bureaucracy is more likely to introduce third party litigation, increase the costs of restoration, and further threaten many areas badly in need of restoration to improve water quantity and quality, improve wildlife and domestic animal habitat, and reduce catastrophic fire danger. These are just some of the unintended consequences likely to result. We believe the regulatory and incentive-based tools already exist to address water quality issues in New Mexico.

"The increased regulatory burden placed by the Draft Proposal has great potential to be implemented arbitrarily and capriciously, and is likely to result in the loss of struggling rural activities such as logging and livestock grazing. These pursuits are, in fact, the means through which positive changes can be implemented - the people engaged in these activities can be the partners on the land to make management happen. There is little or no language in the Draft Proposal that puts to rest these concerns or, in fact, makes a direct connection between the process of regulation and the intended results. That is, how will the proposal improve water quality, not to mention water quantity, in New Mexico? If improvements are likely to result, how much improvement is expected over what time period, and at what cost?

"In our opinion, the Draft Proposal is myopic. There is a high probability of generating unintended consequences that will hinder, rather than contribute to, solving water quality problems in New Mexico. Further analyses are required to determine what benefits are likely to accrue, if any, and if the costs justify the benefits."

5. On May 17, 2010 the petitioners submitted a petition to the Commission to nominate waters within twelve United States Forest Service Wilderness Areas as ONRWs pursuant to 20.6.4.9.A NMAC.

6. It is the burden of the petitioners to present "credible scientific data" to support the adoption of a standard. (74-6-4 B NMSA 1978) There is no burden for opposing parties to enumerate in detail petition deficiencies. The commission on the other hand has statutory mandate to determine if credible scientific data has been presented.

7. The petition presented on May 17, 2010 failed items 1, 2, 3, and 5 of 20.6.4.9.A that states, **"A petition to classify a surface water of the state as an ONRW shall include:** [Emphasis Added]

(1) a map of the surface water of the state, including the location and proposed upstream and downstream boundaries;

(2) a written statement and evidence based on scientific principles in support of the nomination, including specific reference to one or more the applicable ONRW criteria listed in Subsection B of this section; 20.6.4 NMAC 7

(3)water quality data including chemical, physical or biological parameters, if available, to establish a baseline condition for the proposed ONRW;

(5) any additional evidence to substantiate such a designation, including a discussion of the economic impact of the designation on the local and regional economy within the state of New Mexico and the benefit to the state; and

8. As pointed out in testimony the maps displaying the nominated waters changed on several occasions during the process. There weren't accurate "proposed upstream and downstream boundaries" in the petition so that the commission and the public lacked accurate locations upon which knowledgeable comments could be made. Petitioners admitted this error by amending the petition in their notice of intent. This was too late to satisfy the regulation's plain reading.

9. The petition failed to provide the information based on scientific principles required in item (2). The petitioners instead made broad generalized statements about the Congressional requirements for designating wilderness, public surveys on the values of wilderness and economic impact analysis that are negated by the economic conditions of

communities adjacent to New Mexico wilderness areas. While there were specific citations on trout waters petitioners nevertheless failed to demonstrate outstanding qualities.

10. It was pointed out in testimony on the petition that the vast majority of waters do not have baseline water quality data. This failure will inevitably lead to an increased burden on the U. S. Forest Service and the Environment Department to gather the necessary data when presented by challenges to management practices.

11. As stated in the comments from the RITF, the economic analysis provided by the petitioners fails to provide the necessary information for the commission to determine if there is a economic benefit or detriment to the local or regional economy or New Mexico as a whole.

12. The regulations do not allow for the commission to approve ONRW petitions on a precedent basis. Each nomination must stand on it's own. To say that because the commission approved the multiple segments designations in the Valle Vidal we should do so now with multiple streams in multiple wilderness areas is a stretch beyond credibility.

13. There is no allowance in the regulations for the use of precedent in other western states having ONRWs for waters within multiple Wilderness areas. Other states have differing circumstances and different procedures and rules governing ONRW designation

14. Even though petitioners amended their petition to exclude tributaries to the nominated waters all parties understand that actions in a tributary that cause degradation to the designated segment are subject to regulation under the antidegradation clause.

15. The regulations contemplate through the use of the singular term as in "A surface water of the state, or a portion of a surface water of the state, may be designated as an ONRW.[20.6.4.9.B NMAC] Each and ever segment nominated should have to stand on it's own for examination lest the commission diminish the meaning of the term ONRW. Granting this shotgun designation proposed by the petitioners would mean that all waters of the state could be nominated and approved as ONRWs

16. Petitioners' Exhibit # 38 speaks in broad general terms about the significance of wilderness. To say that every one of the petitioners nominated streams are a significant attribute of the particular wilderness where they are found [See 20.6.4.9.B (1) NMAC] requires incredulous linguistic juggling and definitions only George Orwell could appreciate for the words significant and attribute. This also diminishes the whole concept of ONRW designations. These should be truly outstanding waters that are significant attributes in the true meaning of the words.

17. The commission must massage the meaning of exceptional beyond commonly accepted definition in order to conclude that all of the nominated waters have exceptional recreational value.

18. While there was an attempt to wordsmith the antidegradation clause to insure existing uses in the wilderness areas could continue, authorized users will be left to the mercy of the courts in defining the critical term best management practices and how the U. S. Forest Service is going determine degradation of designated streams. This was the fear expressed on numerous occasions in the public meetings around the state and in testimony before the commission. The commission may be satisfied that best

management practices are well defined but the closing statement by the U.S. Forest Service indicated otherwise.

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 4 STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS

20.6.4.7 DEFINITIONS: Terms defined in the New Mexico Water Quality Act, but not defined in this part will have the meaning given in the Water Quality Act.

B. Terms beginning with the letter "B".

(1) "Best management practices" or "BMPs":

(a) for national pollutant discharge elimination system (NPDES) permitting purposes means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollution of "waters of the United States;" BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage; or

(b) for nonpoint source pollution control purposes means methods, measures or practices selected by an agency to meet its nonpoint source control needs; BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures; BMPS can be applied before, during and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters; BMPs for nonpoint source pollution control purposes shall not be mandatory except as required by state or federal law.

(2) "Bioaccumulation" refers to the uptake and retention of a substance by an organism from its surrounding medium and food.

(3) "Bioaccumulation factor" is the ratio of a substance's concentration in tissue versus its concentration in ambient water, in situations where the organism and the food chain are exposed.

(4) "Biomonitoring" means the use of living organisms to test the suitability of effluents for discharge into receiving waters or to test the quality of surface waters of the state.

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 4 STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS

20.6.4.8 ANTIDEGRADATION POLICY AND IMPLEMENTATION PLAN:

A. Antidegradation Policy: This antidegradation policy applies to all surface waters of the state.

(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected in all surface waters of the state.

(2) Where the quality of a surface water of the state exceeds levels necessary to support the propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality shall be maintained and protected unless the commission finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic and social development in the area in which the water is located. In allowing such degradation or lower water quality, the state shall assure water quality adequate to protect existing uses fully. Further, the state shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable BMPs for nonpoint source control. Additionally, the state shall encourage the use of watershed planning as a further means to protect surface waters of the state.

(3) No degradation shall be allowed in waters designated by the commission as outstanding national resource waters (ONRWs), except as provided in Subparagraphs (a) through (e) of this paragraph and in Paragraph (4) of this Subsection A.

(a) After providing a minimum 30-day public review and comment period, the commission determines that allowing temporary and short-term degradation of water quality is necessary to accommodate public health or safety activities in the area in which the ONRW is located. Examples of public health or safety activities include but are not limited to replacement or repair of a water or sewer pipeline or a roadway bridge. In making its decision, the commission shall consider whether the activity will interfere with activities implemented to restore or maintain the chemical, physical or biological integrity of the water. In approving the activity, the commission shall require that:

(i) the degradation shall be limited to the shortest possible time and shall not exceed six months;

(ii) the degradation shall be minimized and controlled by best management practices or in accordance with permit requirements as appropriate; all practical means of minimizing the duration, magnitude, frequency and cumulative effects of such degradation shall be utilized;

(iii) the degradation shall not result in water quality lower than necessary to protect any existing use in the ONRW; and

(iv) the degradation shall not alter the essential character or special use that makes the water an ORNW.

(b) Prior to the commission making a determination, the department or appropriate oversight agency shall provide a written recommendation to the commission. If the commission approves the activity, the department or appropriate oversight agency shall oversee implementation of the activity.

(c) Where an emergency response action that may result in temporary and short-term degradation to an ONRW is necessary to mitigate an immediate threat to public health or safety, the emergency response action may proceed prior to providing notification required by Subparagraph (a) of this paragraph in accordance with the following:

(i) only actions that mitigate an immediate threat to public health or safety may be undertaken pursuant to this provision; non-emergency portions of the action shall comply with the requirements of Subparagraph (a) of this paragraph;

(ii) the discharger shall make best efforts to comply with requirements (i) through (iv) of Subparagraph (a) of this paragraph;

(iii) the discharger shall notify the department of the emergency response action in writing within seven days of initiation of the action;

(iv) within 30 days of initiation of the emergency response action, the discharger shall provide a summary of the action taken, including all actions taken to comply with requirements (i) through (iv) of Subparagraph (a) of this paragraph.

(d) Preexisting land-use activities, including grazing, allowed by federal or state law prior to designation as an ONRW, and controlled by best management practices (BMPs), shall be allowed to continue so long as there are no new or increased discharges resulting from the activity after designation of the ONRW.

(e) Acequia operation, maintenance, and repairs are not subject to new requirements because of ONRW designation. However, the use of BMPs to minimize or eliminate the introduction of pollutants into receiving waters is strongly encouraged.

(4) This antidegradation policy does not prohibit activities that may result in degradation in surface waters of the state when such activities will result in restoration or maintenance of the chemical, physical or biological integrity of the water.

(a) For ONRWs, the department or appropriate oversight agency shall review on a case-by-case basis discharges that may result in degradation from restoration or maintenance activities, and may approve such activities in accordance with the following:

(i) the degradation shall be limited to the shortest possible time;

(ii) the degradation shall be minimized and controlled by best management practices or in accordance with permit requirements as appropriate, and all practical means of minimizing the duration, magnitude, frequency and cumulative effects of such degradation shall be utilized;

(iii) the degradation shall not result in water quality lower than necessary to protect any existing use of the surface water; and

(iv) the degradation shall not alter the essential character or special use that makes the water an ORNW.

(b) For surface waters of the state other than ONRWs, the department shall review on a case-by-case basis discharges that may result in degradation from restoration or maintenance activities, and may approve such activities in accordance with the following:

(i) the degradation shall be limited to the shortest possible time;

(ii) the degradation shall be minimized and controlled by best management practices or in accordance with permit requirements as appropriate, and all practical means of minimizing the duration, magnitude, frequency and cumulative effects of such degradation shall be utilized; and

(iii) the degradation shall not result in water quality lower than necessary to protect any existing use of the surface water.

(5) In those cases where potential water quality impairment associated with a thermal discharge is involved, this antidegradation policy and implementing method shall be consistent with Section 316 of the federal Clean Water Act.

(6) In implementing this section, the commission through the appropriate regional offices of the United States environmental protection agency will keep the administrator advised and provided with such information concerning the surface waters of the state as he or she will need to discharge his or her responsibilities under the federal Clean Water Act.

B. Implementation Plan: The department, acting under authority delegated by the commission, implements the water quality standards, including the antidegradation policy, by describing specific methods and procedures in the continuing planning process and by establishing and maintaining controls on the discharge of pollutants to surface waters of the state. The steps summarized in the following paragraphs, which may not all be applicable in every water pollution control action, list the implementation activities of the department. These implementation activities are supplemented by detailed antidegradation review procedures developed under the state's continuing planning process. The department:

(1) obtains information pertinent to the impact of the effluent on the receiving water and advises the prospective discharger of requirements for obtaining a permit to discharge;

(2) reviews the adequacy of existing data and conducts a water quality survey of the receiving water in accordance with an annually reviewed, ranked priority list of surface waters of the state requiring total maximum daily loads pursuant to Section 303(d) of the federal Clean Water Act;

(3) assesses the probable impact of the effluent on the receiving water relative to its attainable or designated uses and numeric and narrative criteria;

(4) requires the highest and best degree of wastewater treatment practicable and commensurate with protecting and maintaining the designated uses and existing water quality of surface waters of the state;

(5) develops water quality based effluent limitations and comments on technology based effluent limitations, as appropriate, for inclusion in any federal permit issued to a discharger pursuant to Section 402 of the federal Clean Water Act;

(6) requires that these effluent limitations be included in any such permit as a condition for state certification pursuant to Section 401 of the federal Clean Water Act;

(7) coordinates its water pollution control activities with other constituent agencies of the commission, and with local, state and federal agencies, as appropriate;

(8) develops and pursues inspection and enforcement programs to ensure that dischargers comply with state regulations and standards, and complements EPA's enforcement of federal permits;

(9) ensures that the provisions for public participation required by the New Mexico Water Quality Act and the federal Clean Water Act are followed;

(10) provides continuing technical training for wastewater treatment facility operators through the utility operators training and certification programs;

(11) provides funds to assist the construction of publicly owned wastewater treatment facilities through the wastewater construction program authorized by Section 601 of the federal Clean Water Act, and through funds appropriated by the New Mexico legislature;

(12) conducts water quality surveillance of the surface waters of the state to assess the effectiveness of water pollution controls, determines whether water quality standards are being attained, and proposes amendments to improve water quality standards;

(13) encourages, in conjunction with other state agencies, implementation of the best management practices set forth in the New Mexico statewide water quality management plan and the nonpoint source management program, such implementation shall not be mandatory except as provided by federal or state law;

(14) evaluates the effectiveness of BMPs selected to prevent, reduce or abate sources of water pollutants;

(15) develops procedures for assessing use attainment as required by 20.6.4.15 NMAC and establishing site-specific standards; and

(16) develops list of surface waters of the state not attaining designated uses, pursuant to Sections 305(b) and 303(d) of the federal Clean Water Act.

[20.6.4.8 NMAC - Rp 20 NMAC 6.1.1101, 10/12/2000; A, 5/23/2005; A, 8/1/2007; A, 1/14/2011]

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 4 STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS

20.6.4.9 OUTSTANDING NATIONAL RESOURCE WATERS:

A. Procedures for nominating an ONRW: Any person may nominate a surface water of the state for designation as an ONRW by filing a petition with the commission pursuant to the guidelines for water quality control commission regulation hearings. A petition to designate a surface water of the state as an ONRW shall include:

(1) a map of the surface water of the state, including the location and proposed upstream and downstream boundaries;

(2) a written statement and evidence based on scientific principles in support of the nomination, including specific reference to one or more of the applicable ONRW criteria listed in Subsection B of this section;

(3) water quality data including chemical, physical or biological parameters, if available, to establish a baseline condition for the proposed ONRW;

(4) a discussion of activities that might contribute to the reduction of water quality in the proposed ONRW;

(5) any additional evidence to substantiate such a designation, including a discussion of the economic impact of the designation on the local and regional economy within the state of New Mexico and the benefit to the state; and

(6) affidavit of publication of notice of the petition in a newspaper of general circulation in the affected counties and in a newspaper of general statewide circulation.

B. Criteria for ONRWs: A surface water of the state, or a portion of a surface water of the state, may be designated as an ONRW where the commission determines that the designation is beneficial to the state of New Mexico, and:

(1) the water is a significant attribute of a state special trout water, national or state park, national or state monument, national or state wildlife refuge or designated wilderness area, or is part of a designated wild river under the federal Wild and Scenic Rivers Act; or

(2) the water has exceptional recreational or ecological significance; or

(3) the existing water quality is equal to or better than the numeric criteria for protection of aquatic life and contact uses and the human health-organism only criteria, and the water has not been significantly modified by human activities in a manner that substantially detracts from its value as a natural resource.

C. Pursuant to a petition filed under Subsection A of this section, the commission may classify a surface water of the state or a portion of a surface water of the state as an ONRW if the criteria set out in Subsection B of this section are met.

D. Waters classified as ONRWs: The following waters are classified as ONRWs:

(1) Rio Santa Barbara, including the west, middle and east forks from their headwaters downstream to the boundary of the Pecos Wilderness; and

(2) the waters within the United States forest service Valle Vidal special management unit including:

(a) Rio Costilla, including Comanche, La Cueva, Fernandez, Chuckwagon, LittleCostilla, Powderhouse, Holman, Gold, Grassy, LaBelle and Vidal creeks, from their headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit;

(b) Middle Ponil creek, including the waters of Greenwood Canyon, from their headwaters downstream to the boundary of the Elliott S. Barker wildlife management area;

(c) Shuree lakes;

(d) North Ponil creek, including McCrystal and Seally Canyon creeks, from their headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit; and

(e) Leandro creek from its headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit.

(3) the named perennial surface waters of the state, identified in Subparagraph (a) below, located within United States department of agriculture forest service wilderness. Wilderness are those lands designated by the United States congress as wilderness pursuant to the Wilderness Act. Wilderness areas included in

this designation are the Aldo Leopold wilderness, Apache Kid wilderness, Blue Range wilderness, Chama River Canyon wilderness, Cruces Basin wilderness, Dome wilderness, Gila wilderness, Latir Peak wilderness, Pecos wilderness, San Pedro Parks wilderness, Wheeler Peak wilderness, and White Mountain wilderness.

(a) The following waters are designated in the Rio Grande basin:

(i) in the Aldo Leopold wilderness: Byers Run, Circle Seven creek, Flower canyon, Holden Prong, Indian cany n, Las Animas creek, Mud Spring canyon, North Fork Palomas creek, North Seco creek, Pretty canyon, Sids Prong, South Animas canyon, Victorio Park canyon, Water canyon;

(ii) in the Apache Kid wilderness Indian creek and Smith canyon;

(iii) in the Chama River Canyon wilderness: Chavez canyon, Ojitos canyon, Rio Chama;

(iv) in the Cruces Basin wilderness: Beaver creek, Cruces creek, Diablo creek, Escondido creek, Lobo creek, Osha creek;

(v) in the Dome wilderness: Capulin creek, Medio creek, Sanchez canyon/creek;

(vi) in the Latir Peak wilderness: Bull creek, Bull Creek lake, Heart lake, Lagunitas Fork, Lake Fork creek, Rito del Medio, Rito Primero, West Latir creek;

(vii) in the Pecos wilderness: Agua Sarca, Hidden lake, Horseshoe lake (Alamitos), Jose Vigil lake, Nambe lake, Nat lake IV, No Fish lake, North Fork Rio Quemado, Rinconada, Rio Capulin, Rio de las Trampas (Trampas creek), Rio de Truchas, Rio Frijoles, Rio Medio, Rio Molino, Rio Nambe, Rio San Leonardo, Rito con Agua, Rito Gallina, Rito Jaroso, Rito Quemado, San Leonardo lake, Santa Fe lake, Santa Fe river, Serpent lake, South Fork Rio Quemado, Trampas lake (East), Trampas lake (West);

(viii) in the San Pedro Parks wilderness: Agua Sarca, Cañon Madera, Cave creek, Cecilia Canyon creek, Clear creek (North SPP), Clear creek (South SPP), Corralitos creek, Dove creek, Jose Miguel creek, La Jara creek, Oso creek, Rio Capulin, Rio de las Vacas, Rio Gallina, Rio Puerco de Chama, Rito Anastacio East, Rito Anastacio West, Rito de las Palomas, Rito de las Perchas, Rito de los Pinos, Rito de los Utes, Rito Leche, Rito Redondo, Rito Resumidero, San Gregorio lake;

(ix) in the Wheeler Peak wilderness: Black Copper canyon, East Fork Red river, Elk lake, Horseshoe lake, Lost lake, Sawmill creek, South Fork lake, South Fork Rio Hondo, Williams lake.

(b) The following waters are designated in the Pecos River basin:

(i) in the Pecos wilderness: Albright creek, Bear creek, Beatty creek, Beaver creek, Carpenter creek, Cascade canyon, Cave creek, El Porvenir creek, Hollinger creek, Holy Ghost creek, Horsethief creek, Jack's creek, Jarosa canyon/creek, Johnson lake, Lake Katherine, Lost Bear lake, Noisy brook, Panchuela creek, Pecos Baldy lake, Pecos river, Rio Mora, Rio Valdez, Rito Azul, Rito de los Chimayosos, Rito de los Esteros, Rito del Oso, Rito del Padre, Rito las Trampas, Rito Maestas, Rito Oscuro, Rito Perro, Rito Sebadilloses, South Fork Bear creek, South Fork Rito Azul, Spirit lake, Stewart lake, Truchas lake (North), Truchas lake (South), Winsor creek;

(ii) in the White Mountain wilderness: Argentina creek, Aspen creek, Bonito creek, Little Bonito creek, Mills canyon/creek, Rodamaker creek, South Fork Rio Bonito, Turkey canyon/creek.

(c) The following waters are designated in the Gila River basin:

(i) in the Aldo Leopold wilderness: Aspen canyon, Black Canyon creek, Bonner canyon, Burnt canyon, Diamond creek, Falls canyon, Fisherman canyon, Running Water canyon, South Diamond creek;

(ii) in the Gila wilderness: Apache creek, Black Canyon creek, Brush canyon, Canyon creek, Chicken Coop canyon, Clear creek, Cooper canyon, Cow creek, Cub creek, Diamond creek, East Fork Gila river, Gila river, Gilita creek, Indian creek, Iron creek, Langstroth canyon, Lilley canyon, Little creek, Little Turkey creek, Lookout canyon, McKenna creek, Middle Fork Gila river, Miller Spring canyon, Mogollon creek, Panther canyon, Prior creek, Rain creek, Raw Meat creek, Rocky canyon, Sacaton creek, Sapillo creek, Sheep Corral canyon, Skeleton canyon, Squaw creek, Sycamore canyon, Trail canyon, Trail creek, Trout creek, Turkey creek, Turkey Feather creek, Turnbo canyon, West Fork Gila river, West Fork Mogollon creek, White creek, Willow creek, Woodrow canyon.

(d) The following waters are designated in the Canadian River basin: in the Pecos wilderness Daily creek, Johns canyon, Middle Fork Lake of Rio de la Casa, Middle Fork Rio de la Casa, North Fork Lake of Rio de la Casa, Rito de Gascon, Rito San Jose, Sapello river, South Fork Rio de la Casa, Sparks creek (Manuelitas creek).

(e) The following waters are designated in the San Francisco River basin:

(i) in the Blue Range wilderness: Pueblo creek;

(ii) in the Gila wilderness: Big Dry creek, Lipsey canyon, Little Dry creek, Little Whitewater creek, South Fork Whitewater creek, Spider creek, Spruce creek, Whitewater creek.

(f) The following waters are designated in the Mimbres Closed basin: in the Aldo Leopold wilderness Corral canyon, Mimbres river, North Fork Mimbres river, South Fork Mimbres river.

(g) The following waters are designated in the Tularosa Closed basin: in the White Mountain wilderness Indian creek, Nogal Arroyo, Three Rivers.

(h) The wetlands designated are identified on the *Maps and List of Wetlands Within United States Forest Service Wilderness Areas Designated as Outstanding National Resource Waters* published at the New Mexico state library and available on the department's website.

[20.6.4.9 NMAC - Rn, Subsections B, C and D of 20.6.4.8 NMAC, 5/23/2005; A, 5/23/2005; A, 7/17/2005; A, 2/16/2006; A, 12/1/2010; A, 1/14/2011]

FEDERAL WATER POLLUTION CONTROL ACT

(33 U.S.C. 1251 *et seq*.)

AN ACT To provide for water pollution control activities in the Public Health Service of the Federal Security Agency and in the Federal Works Agency, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—RESEARCH AND RELATED PROGRAMS

DECLARATION OF GOALS AND POLICY

SEC. 101. (a) The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this Act—

(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;

(5) it is the national policy that areawide treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;

(6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone and the oceans; and

(7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this Act to be met through the control of both point and nonpoint sources of pollution.

40 C.F.R. § 131.12 - Antidegradation policy and implementation methods.

§ 131.12 Antidegradation policy and implementation methods.

(a) The State shall develop and adopt a statewide antidegradation policy. The antidegradation policy shall, at a minimum, be consistent with the following:

(1) Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

(2) Where the quality of the waters exceeds levels necessary to support the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the State shall assure water quality adequate to protect existing uses fully. Further, the State shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.

(i) The State may identify waters for the protections described in paragraph (a)(2) of this section on a parameter-by-parameter basis or on a water body-by-water body basis. Where the State identifies waters for antidegradation protection on a water body-by-water body basis, the State shall provide an opportunity for public involvement in any decisions about whether the protections described in paragraph (a)(2) of this section will be afforded to a water body, and the factors considered when making those decisions. Further, the State shall not exclude a water body from the protections described in paragraph (a)(2) of this section solely because water quality does not exceed levels necessary to support all of the uses specified in section 101(a)(2) of the Act.

(ii) Before allowing any lowering of high water quality, pursuant to paragraph (a)(2) of this section, the State shall find, after an analysis of alternatives, that such a lowering is necessary to accommodate important economic or social development in the area in which the waters are located. The analysis of alternatives shall evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the State shall only find that a lowering is necessary if one such alternative is selected for implementation.

(3) Where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

(4) In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with section 316 of the Act.

(b) The State shall develop methods for implementing the antidegradation policy that are, at a minimum, consistent with the State's policy and with paragraph (a) of this section. The State shall provide an opportunity for public involvement during the development and any subsequent revisions of the implementation methods, and shall make the methods available to the public.

[48 FR 51405, Nov. 8, 1983, as amended at 80 FR 51047, Aug. 21, 2015]

Surface Water Quality Bureau Data Dictionary

Data Dictionary Data Report Field Definitions: WQ Report Fields

FIELD NAME	DESCRIPTION
ASSESSMENT_UNIT_ID	Unique identifier for the waterbody assessment unit
ASSESSMENT_UNIT_NAME	Waterbody addessment unit name
PROJECT_NAME	Survey monitoring project name
STATION_ID	Unique identifier for monitoring location
STATION_NAME	Monitoring location name
SAMPLING_EVENT_TYPE	Type of monitoring activity
COMMENTS	
ACT_ID	Sample bottle or action identifier
ACT_START_DATE	Date of sample collection
ACTIVITY_TYPE	Description of data collection type
MEDIA_SUBDIVISION	Type of sample media
ANALYTE_SUITE	Analysis group for sample
ACTIVITY_COMMENTS	
CAS_NO	Unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described i the open scientific literature.
SAMPLE_FRACTION	Identification of whether the results were obtained from a physically-partitioned sample. Examples: Dissolved, Total
CHARACTERISTIC_NAME	Name of analytical parameter
REPORTED VALUE	Result of measurement of analysis. MDP = Missing data point.
UNITS	Unit of measurement
SDL	The SDL is equal to the MRL raised by a factor corresponding to the DILUTION_FACTOR when a sample has to be dilut before analysis. If DILUTION_FACTOR = 1, SDL = MRL. Measured values less than the SDL are reported (in REPORTED VALUE) at the SDL.
PQL	The level at which an instrument response can be quantified. Used for Total Coliform and E. coli IDEXX Quantitray methods only.
MDL	The minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results (EPA 821-R-16-006, 2016).
MRL	The lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with reasonable degree of accuracy and precision.
SIGMA	Statistical confidence in reported value. Used only for radionuclides
LESS_THAN_YN	Logic statement indicating whether the REPORTED VALUE is less than the SDL
GREATER_THAN_YN	Logic statement indicating whether the REPORTED VALUE is greater than the instrument maximum reporting level
ANLMTH_ID	Analysis method indentifier
DILUTION_FACTOR	A factor indicating the amount of which the sample was diluted to address matrix problems or achieve instrument response within its calibrated dynamic range. DILUTION_FACTOR is informational only and not used to modify the REPORTED VALUE. It can influence the SDL. A value of one means undiluted. Values greater than one indicate dilution Values less than one indicate concentration.
LAB_ID	Name of laboratory performing analysis.
ANALYSIS_DATE	Date of analysis
WQX_QUALIFIER_CODE	WQX (formerly EPA_STORET) qualifier. See WQX_QUALIFIER worksheet for definitions.
LAB_QUALIFIER_CODE	Result qualifier attributed by the laboratory. See LAB_QUALIFIER worksheet for definitions.
SWQB_QUALIFIER_CODE	Result qualifier attributed by the SWQB. See SWQB_QUALIFIER worksheet for definitions.
RES_COMMENTS	Result comments
CHR_UID	Database field UID: Characteristic
SE_TYPE_UID	Database field UID: Sample Event Type
RES_UID	Database field UID: Result
ACT_UID	Database field UID: Activity
ACTYP_UID	Database field UID: Activity Type
SE_UID	Database field UID: Sample Event
MLOC_UID	Database field UID: Monitoring Location
PRJ_UID	Database field UID: Project
AU_UID	Database field UID: Assessment Unit

Data Dictionary Data Report Field Definitions: WQX Qualifier

Code	Description
"	LCS or LCSD is outside acceptance limits.
$	Incorrect sample container
*	Sample was warm when received
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; ther
A	Compound not analyzed
AL	Aldol condensation present. Analyte may not be present.
ALK	Estimate, Alkylated PAH Sum
ALT	Alternate Method
B	Detection in blank
BAC	Correction Factor, background
BH	Detection in blank. Holding time exceeded.
BJHQC	Estimated value, compound also detected in LRB, holding time exceeded, QC problems
BJHT	Estimated value, compound also detected in LRB, holding time exceeded
BJQC	Estimated value, compound also detected in LRB, QC problems
BMDL	Concentration is less than method detection limit (MDL)
BQB	Below Quantitation Limit. Detection in blank.
BQBJ	Below Quantitation Limit. Detection in blank. Estimated.
BQJ	Below Quantitation Limit. Estimated.
BQL	Below Quantitation Limit
BRL	Below Reporting Limit
BU	Detection in blank. Not Detected: The analyte was analyzed for, but was not detected at a level greater than or e the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
BVER	Continuing calibration blank criteria was not met
C	Presence of compound may be due to contamination of sample during laboratory processing
C25	Dual Column result difference >25%
CAJ	Correction Factor, lab
CAN	No Result Reported, analysis canceled
CBC	No Result Reported, cannot be calculated
CBL	Correction Factor, blank
CBQBJ	Co-eluting congener. Below Quantitation Limit. Detection in blank. Estimated.
CC	co-eluting congener
CCB	Co-eluting congener. Detection in blank.
CCBJ	Co-eluting congener. Detection in blank. Estimated.
CCBQ	Co-eluting congener. Below Quantitation Limit.
CCBQJ	Co-eluting congener. Below Quantitation Limit. Estimated.
CCJ	Co-eluting congener. Estimated.
CCU	Co-eluting congener. Not Detected.
CDI	Correction Factor, dilution
CJQC	Estimated value, possible contamination of sample during laboratory processing, QC problems
CLC	Correction Factor, other
CNT	Non-acceptable colony counts.
CON	Value Confirmed
D	Contract Required Quantitation Limit (CRQL) not met due to sample matrix interference, dilution required.
DB	Contract Required Quantitation Limit (CRQL) not met due to sample matrix interference, dilution required. Dete
DBH	Contract Required Quantitation Limit (CRQL) not met due to sample matrix interference, dilution required. Detec
DE	Serial dilution acceptance criteria not met.
DEC	Value Decensored
DH	Contract Required Quantitation Limit (CRQL) not met due to sample matrix interference, dilution required. Holdi

DHJ	Contract Required Quantitation Limit (CRQL) not met due to sample matrix interference, dilution required. Holdi exceeded. Estimated: The analyte was positively identified and the associated numerical value is the approximat
DJ	Contract Required Quantitation Limit (CRQL) not met due to sample matrix interference, dilution required. Estimated:The analyte was positively identified and the associated numerical value is the approximate concentra
DL	Not Detected: The analyte was not detected at a level >= to the Method Detection Limit for the analysis.
DR	Contract Required Quantitation Limit (CRQL) not met due to sample matrix interference, dilution required. Rejec The sample results are unusable due to the quality of the data generated because certain criteria were not met.
DU	Contract Required Quantitation Limit (CRQL) ... Not Detected: The analyte was analyzed for, but was not detecte level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample a
E	Concentration of analyte being analyzed exceeded calibration range of instrument.
ECI	Estimated Value, Coelution
EE	Identifies compounds whose concentration exceed the calibration range addition of the instrument for that spec
EFAI	Equipment failure
EMPC	Estimated Maximum Possible Concentration
ESD	Estimated Value, serial dilution difference
EST	Estimated Value, outside limit of precision
EVA	Estimated Value, multiple Aroclors
EVAD	Estimated Value, degradation
EVID	Estimated Value, tentatively identified compound
F	Estimated value: compound failed initial calibration check (CCC) or QC criteria
F1F2	MS and/or MSD Recovery is outside acceptance limits and MS/MSD RPD exceeds control limits.
F1F2B	MS and/or MSD Recovery is outside acceptance limits, MS/MSD RPD exceeds control limits, and compound was
FBK	Analyte found in blank. Sample contamination indicated.
FDB	Dry Blank, failed
FDC	Drift Check, failed
FDL	Lab Duplicate, failed
FEQ	Field Equipment Questionable
FFB	Failed. Field blank not acceptable.
FFD	Field Duplicate, failed
FFS	Failed. Field spike not acceptable.
FFT	Failed. Trip blank not acceptable.
FIS	Internal Standard, failed
FLA	Field Lab Anomaly
FLD	Failed. Lab duplicate not acceptable.
FLS	Failed. Lab spike recovery not acceptable.
FMS	Failed. Matrix spike recovery not acceptable.
FPC	Performance Check, failed
FPR	Ongoing Precision and Recovery, failed
FQC	Quality Control, failed
FRS	Lab Reference, failed
FSD	Lab Spike Duplicate, failed
FSL	Failed. Spiked lab blank recovery not acceptable.
FSP	Failed. Surrogate spike recovery not acceptable.
FUB	Field Tubing Blank, failed
G	lock mass interference present
GG	Reported Value Is Between MDL and the Practical Quantitation Level (Or Reporting Limit)
GT	The listed result is greater than the upper quantitation limit for either the analytical method or the meter used f measurement. Equivalent to the Legacy STORET Remark Code of L: Actual Value is known to be greater than the
GXB	Estimated Value, greater than 10x blank
H	Holding time exceeded:

HBJ	Holding time exceeded. Detection in blank. Estimated: The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
HIB	Likely Biased High
HICC	Initial calibration criteria not met â€“ high
HIM	High Moisture
HL	Holding time exceeded. Lowest available reporting limit for the analytical method used.
HLBL	high labeled compound recovery in sample, estimated value, estimated value
HMSD	Matrix spike duplicate acceptance criteria not met â€“ high
HMSR	high matrix spike recovery, potential high bias
HNRO	high native analyte recovery in OPR (or LCS), potential high bias
HTH	Hard to Homogenize
HVER	high calibration verification standard recovery, estimated value
I	Estimated value; compound failed initial calibration value
ICA	Incorrect Initial Calibration Associated with Sample
INT	Interference suspected. Analyte may not be present.
IQCOL	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits
ISAC	Internal standard acceptance criteria not met
ISP	Improper Sample Preservation
ITNA	Incubation time not attained
ITNM	Incubation temperature not maintained
J	Estimated: The analyte was positively identified and the associated numerical value is the approximate concentr
J+	Estimated: The analyte was positively identified and the associated numerical value... +++.
J-	the sample, and may have a potential negative bias.
J-HT	Approximate value analysis exceeded the holding time
J-MI	Approximate value due to matrix interference
J-QC	Approximate value due to quality control problems
J-R	Approximate value result is below the reporting level but greater than the method detection limit
J-RB	Approximate value result is below the reporting level but greater than the method detection limit. Detection in b
J-RH	Approximate value result is below the reporting level but greater than the method detection limit. Holding time
JB	Estimated: The analyte was positively identified and the associated numerical value is the approximate concentr the analyte in the sample. Detection in blank.
JCN	Sample Container Damaged, no sample lost
JCW	Sample Container Damaged, sample lost
JDE	Estimated: The analyte was positively identified and the associated numerical value is the approximate concentr the analyte in the sample. And serial dilution acceptance criteria not met.
JH	Estimated: The analyte was positively identified and the associated numerical value is the approximate concentr the analyte in the sample. Holding time exceeded.
JHTF	Estimated value. Holding time exceeded in the field
JHTQC	Estimated value, exceeded holding time and QC problems
JL	Estimated: The analyte was positively identified and the associated numerical value is the approximate concentr the analyte in the sample. Lowest available reporting limit for the analytical method used.
JMQC	Estimated value, matrix interference, QC problems
JRHQC	Estimated value, between detection limit and reporting limit, holding time exceeded, QC problems
JRHT	Estimated value, between detection limit and reporting limit and exceeded holding time
JRQC	Estimated value, between detection limit and reporting limit and QC problems
K	Value below the detection Limit. For BOD: depletion is less than 1.0
KB	Not detected, compound also detected in LRB
KBJHQ	Estimated value, not detected, compound also detected in LRB, holding time exceeded, QC problems
KBJQC	Estimated value, not detected, compound also detected in LRB, QC problems

KCF	Known Contamination, field
KJ	Estimated value, not detected
KJHQC	Estimated value, not detected, holding time exceeded and QC problems
KJHT	Estimated value, not detected and exceeded holding time
KJQC	Estimated value, not detected and QC problems
KK	True bacterial concentration is assumed to be less than the reported value.
KN	Not detected, presumptive evidence of nontarget compound
KNBJQ	Estimated value, not detected, compound also detected in LRB, presumptive evidence of nontarget compound, C
KNJHT	Estimated value, not detected, presumptive evidence of nontarget compound, holding time exceeded
KNJQC	Not detected, presumptive evidence of non-target compound, estimated value, QC problems
KRMDL	Reported value was at or below the method detection limit (MDL) and entered at the MDL
KRPQL	Reported value was at or below the reporting limit (PQL or LQL) and entered at the PQL
L	Lowest available reporting limit for the analytical method used.
L5B	Estimated Value, less than 5x blank
LAC	No Result Reported, lab accident
LBF	Lab Failed, sample not analyzed
LBJQC	Estimated value, greater than quantitation limit, compound also detected in LRB, QC problems
LICC	Initial calibration criteria not met â€“ low
LIS	Lab internal standard(s) added to sample.
LJHQC	Estimated value, greater than quantitation limit, holding time exceeded, QC problems
LJQC	Estimated value, greater than quantitation limit and QC problems
LL	True bacterial concentration is assumed to be greater than the reported value.
LLBL	low labeled compound recovery in sample, estimated value
LLRO	low labeled compound recovery in the OPR (or LCS), estimated value
LLS	Value less than lower quality control standard.
LMSD	Matrix spike duplicate acceptance criteria not met â€“ low
LMSR	low matrix spike recovery, potential low bias
LNJQC	Estimated value, greater than quantitation limit, presumptive evidence of nontarget compound, QC problems
LNRO	low native analyte recovery in OPR (or LCS), potential low bias
LOB	Likely Biased Low
LOPR	low OPR (or LCS) recovery, potential low bias
LSSR	Surrogate standard acceptance criteria not met â€“ low
LVER	low calibration verification standard recovery, potential low bias
LXB	Estimated Value, between 5-10x blank
M6F	More Than 6 Flags Applied
MSR	Matrix spike acceptance criteria not met
MTRX	possible matrix interference, estimated value
N	Presumptive evidence of a nontarget compound
NA	Not Applicable
NAI	No Result Reported, interference
NB	Presumptive evidence of non-target compound; detected in blank
NBJQC	Estimated value, presumptive evidence of nontarget compound, compound also detected in LRB, QC problems
NFNSI	While comparison of nutrient fractions (e.g. filtered > unfiltered) or nutrient species (e.g. PO4 > TP) results are nc consistent, the results are within precision limits and are analytically equal.
NFNSU	Comparison of nutrient fractions (e.g. filtered > unfiltered) or nutrient species (e.g. PO4 > TP) are not consistent. fall outside the normal limits of variability and do not meet Data Quality Objectives. Reanalyses were performed
NHS	Non-homogenous sample
NJ	Estimated value, presumptive evidence of nontarget compound
NJHT	Estimated value, presumptive evidence of nontarget compound, holding time exceeded
NJQC	Estimated value, presumptive evidence of nontarget compound, QC problems
NL	Estimated value, presumptive evidence of nontarget compound, greater than quantitation limit

NLBL	no labeled compound recovery in sample, rejected
NLRO	no labeled compound recovery in OPR (or LCS), rejected
NMSR	no matrix spike recovery, rejected
NN	authentic recovery is not within method/contract control limits
NRO	Control sample acceptance criteria not met
NRP	No Result Possible
NRR	No Result Reported, other
NSQ	No Result Reported, insufficient quantity of sample
OA3	Outlier, across stations
OS3	Outlier, single station
OTHER	Other
OUT	Result value is defined as an outlier by data owner
PNQ	No Quantifiable Result Reported
PPD	Spiked Blank Duplicate, failed
PRE	Presumptive evidence that analyte is present.
Q	The result did not pass the lab quality checks and there was an insufficient amount of the sample for re-analysis.
QCI	Quality Control incomplete
R	Rejected: The sample results are unusable due to the quality of the data generated because certain criteria were met. The analyte may or may not be present in the sample.
REX	Re-Prepared
RIN	Re-Analyzed
RLRS	Reporting limit raised, low total solids
RMAX	result is a maximum value
RNAF	result not affected by noted QC issue
RNON	result reported as non-detect due to blank contamination
RPDX	RPD is MS/MSD pair exceeds criterion, estimated value
RPO	% RPD outside of acceptable limits
RPON	% RPD outside of acceptable limits. Presumptive evidence of a nontarget compound.
RRUDL	Lab reported a result value, however the lab's detection limit is not known/available for validation or compariso
RSM	Value verified by rerun, same method (USGS)
SBB	Estimated Value, less than blank
SCA	Suspected Contamination, lab analysis
SCF	Suspected Contamination, field
SCP	Suspected Contamination, lab preparation
SCX	Suspected Contamination, unknown
SD%EL	MS/MSD RPD exceeds control limits
SD%SS	MS/MSD RPD exceeds control limits due to sample size difference. (TestAmerica Laboratory with a qualifier code
SDROL	MS and/or MSD Recovery is outside acceptance limits
SLB	Spike level low compared to background
SSR	Surrogate standard acceptance criteria not met
SUS	Result value is defined as suspect by data owner
T	Hardness by Calculation Method - Standard Methods 2340B - 19th Ed
TOC	Temperature outside of criteria
TT	analyte recalculated against alternate labeled compound(s)
U	Not Detected: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
UB	The analyte was detected in the sample and in either the associated laboratory blank or field blank. If detected b the reporting limit (RL) the analyte result was reported as non-detected. If detected above the RL, the analyte re
UH	Not Detected: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of adjusted Contract Required Quantitation Limit (CRQL) for sample and method. Holding time exceeded.

UJ	Not Detected/Estimated: The analyte was not detected at a level greater than or equal to the adjusted CRQL or t reported adjusted CRQL is approximate and may be inaccurate or imprecise.
UNC	Value Not Confirmed
UQ	Not Detected: The analyte was not detected at a level >= to the Reporting Level for the analysis. Also, the result (pass the lab quality checks and there was an insufficient amount of the sample for re-analysis.
Z	Value verified by rerun, 2nd method (USGS)
^	Yield outside of contractual acceptable range (USGS)

Data Dictionary Data Report Field Definitions: Lab Qualifier

Data Qualifier	Description	WQX Equivalent
A	See note/comments.	
B	Analyte was detected in the laboratory blank.	B
C	Spike recovery in laboratory fortified blank is within method acceptance limits.	
D	Spike recovery in laboratory fortified blank is not within method acceptance limits.	
E	Analyte value exceeded calibration range.	
F	Sample matrix interference suspected.	
H	Sample was analyzed in duplicate.	
I	Sample was analyzed in triplicate.	
J	Analyte was detected at a level below the method's sample detection limit.	
K	Holding time was exceeded at laboratory.	H
L	Regulated parameter value equals or exceeds the EPA SDWA Maximum Contamination Level.	
M	Regulated parameter value equals or exceeds the EPA SDWA Action Level.	
N	Insufficient sample to verify results.	
O	Method internal standard(s) not within method acceptance limits when analyzed undiluted.	
P	Sample rejected/voided at laboratory.	R
Q	Sample submitted to laboratory past holding time.	H

Data Dictionary Data Report Field Definitions: SWQB Qualifier

Validation Code	Definition	WQX Equivalent
A1	Sample not collected according to SOP	
A2	Method QC check not completed according to SOP	
B1	Chemical was detected in the field blank at a concentration less than 5% of the sample concentration.	
BN	Blanks NOT collected during sampling run	
BU	Detection in blank. Analyte was not detected in this sample above the method's sample detection limit.	BU
C1	Instrument verification between in-calibration range and maximum interpolation range.	EST
C2	Data corrected for instrument drift within acceptable interpolation range.	CLC
E	The listed result is greater than the upper quantitation limit for either the analytical method or the meter used for the measurement.	GT
RB1	Chemical was detected in the field blank at a concentration greater than or equal to 5% of the sample concentration. Results for this sample are rejected because they may be the result of contamination; the results may not be reported or used for regulatory compliance purposes.	B
R1	Rejected due to incorrect sample preservation	R
R2	Rejected due to equipment failure in the field	R
R3	Rejected based on best professional judgment	R
R4	Instrument failed quality control check	FQC
D1	Spike recovery not within method acceptance limits	
F1	Sample filter time exceeded	
J1	Estimated: the analyte was positively identified and the associated value is an approximate concentration of the analyte in the sample	J
K1	Holding time violation	H
Ea	Estimated-Incubation temperature between 35.5 and 38.0° Celsius	
Er	Rejected-Incubation temperature < 34.5 or >38.0° Celsius	R
PD1	Percent difference between duplicate samples excessive	
S1	Per SLD, uncertainties (sigmas) are expressed as one standard deviation, i.e. one standard error. Small negative or positive values that are less than two standard deviations should be interpreted as “less than the detection limit.”	
S2	Data are suspect but deemed usable based on best professional judgment; documentation of justification is required and should be included in the Data Verification and Validation Packet and reported with results	SUS
Z1	Macroinvertebrate data did not meet QC criteria specified in Section 2.5 of QAPP	
H1	Habitat data did not meet QC criteria specified in Section 2.5 of QAPP	

Data Dictionary Geomorphology Habitat Field Definitions

FIELD NAME	DESCRIPTION
Project	Survey monitoring project name
STATION	Monitoring location name
DATE	Date of sample collection
FIELD CREW	Sample collection staff
LEVEL IV EcoR	Level IV Ecoregion
Sediment Site Class (MTN, FTHILL, XERIC)	NMED SWQB Sediment Site Class
Reach length (m) from PC form	Length of pebble count survey reach (meters)
Reach length (m) from Thalweg form	Length of thalweg survey reach (meters)
D50_no bedrock =Median particle size_ no bedrock (mm) =	50th percentile of particle size diameter excluding bedrock samples
% sand and fines (≤2 mm) =	Percent sand and fines in pebble count survey
LEVEL 1 ASSESSMENT CONCLUSION	NS = Non Support, FS=Full Support
% fines (≤0.06 mm) =	Percent fines (particles ≤ 0.06 mm)
WINXSPRO D84_no bedrock (mm) =	84th percentile of particle size diameter excluding bedrock samples
WINXSPRO Slope (ft/ft) =	Channel slope of surveyed reach in rise/run
SSTEMP Total shade (%) =	Shade percentage of surveyed reach
SSTEMP Latitude (degrees) =	Latitude of survey reach midpoint
SSTEMP Wetted width (ft)=	Wetted width at stream discharge cross section
Cross section area (f^2)	Stream discharge wetted cross section area
SSTEMP Flow (cfs) =	Measured stream discharge
Manning's Coefficient (n)	not currently used
Residual Pool Vertical Profile Area (m^2/reach) = Area Sum	Thalweg wetted area
Log 10 geometric mean substrate size_bedrock excluded (mm) = LSUB_DMM_no bedrock	Log10 of pebble count geometric mean, excluding bedrock
Mean residual depth (m^2/100m) = RP100 (cm)	Residual Pool Vertical Area / Pebble Count Reach Length * 100
Mean bankfull width (m) = XBkf_W	Mean bankfull width of measured profiles
Estimated volume of large woody debris (m3) = VLW	Estimated volume of large woody debris in survey reach
VLW_MSQ (m)	VLW/(XBkf_W*Reach Length)
Mean particle size_bedrock excluded (mm) = D50_no bedrock	50th percentile of particle size diameter excluding bedrock samples
Mean bankfull height (m) = XBkf_H	Mean bankfull height of measured profiles
Mean thalweg depth (cm) = XDEPTH	Mean of thalweg depth measurements
Reach SLOPE (%) = XSLOPE	Channel slope of surveyed reach in percent
Geometric mean particle size (m) = Dgm	Geometric mean of particle size diameter from pebble count
Average bankfull thalweg depth (m) = Dbf_th = XDEPTH + XBkf_H	Mean thalweg depth + mean bankful height
Bankfull hydraulic radius - unadjusted (m) = Rbf	Average bankfull thalweg depth * 0.65
rho	constant value
rhosed	constant value
g	gravitational constant value (m/sec^2)
Ct_rpwd	Calculation steps for log relative bed stability
Cp3_mill_a	""
Cp3_mill	""
Cp3Ctrpwd_rat	""
Rrpw3	""
Reyp3	""
LReyp3	""
Shld_Px3_1	""
LShld_Px3	""
Shld_Px3	""
Dcbf_fin	""
LDcbf_fin	Denominator of log relative bed stability
Log relative bed stability_final_no bedrock = LRBS_fin_NOR	Calculated log relative bed stability
LEVEL 2 ASSESSMENT CONCLUSION	NS = Non Support, FS=Full Support, NA=not calculated
Comments	Physical habitat survey comments

Data Dictionary Benthic Taxon

FIELD NAME	DESCRIPTION
PRJ_NAME	Survey monitoring project name
MLOC_ID	Unique identifier for monitoring location
MLOC_NAME	Monitoring location name
MLOC_LATITUDE	Coordinates of sample location, latitude (WGS84)
MLOC_LONGITUDE	Coordinates of sample location, longitude (WGS84)
ACT_ID	Sample bottle or action identifier
ACT_START_DATE	Date of sample collection
RES_LAB_NAME	Name of enumerating laboratory
FAMILY	Taxonomic class of organism at Family level
TRIBE	Taxonomic class of organism at Tribe level
GENUS	Taxonomic class of organism at Genus level
TXRNK_NAME	Taxonomic rank of orgamism identified
TAX_NAME	Taxonomic class at Genus and species level
MEASUREMENT	Count of individuals
UNITS	Unit of measurement
LIFE_STAGE	Life cycle stage of organism
ANALYTE_SUITE	Analysis group for sample
CHR_CAS_NO	Unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature
CHR_NAME	Name of analytical parameter
ANLMTH_ID	Analysis method indentifier
RES_COMMENTS	Result comments
CHR_UID	Database field unique identifier: characteristic
RES_UID	Database field unique identifier: result
ACT_UID	Database field unique identifier: activity
SE_UID	Database field unique identifier: sample event
MLOC_UID	Database field unique identifier: monitoring location
PRJ_UID	Database field unique identifier: project

Data Dictionary Fish Ecology

FIELD NAME	DESCRIPTION
PROJECT_NAME	Survey monitoring project name
STATION_NAME	Monitoring location name
COLLECTION_DATE_TIME	Date of sample collection
COLLECTION_AGENCY	Sample collectoin organization
ANALYTICAL_LAB	Name of laboratory performing analysis
COLLECTION_METHOD	Method of fish collection
TISSUE_TYPE	Description of tissue sample, if collected
COLLECTOR(S)	Staff present at sample event
COMMENTS	Sample comments
SPECIES	Fish species collected
TOTAL_COUNT	Number of individuals collected
TOTAL_LENGTHS(mm)	Series of individual lengths
DEFORMITIES (COUNT)	Individuals with deformities counted
DEFORMITIES (%)	Percentage of individuals with deformities
EMACIATED (COUNT)	Count of emaciated individuals
EMACIATED (%)	Percentage of emaciated individuals
ERODEDFINS (COUNT)	Individuals with eroded fins counted
EROREDFINS (%)	Percentage of individuals with eroded fins
FUNGUS (COUNT)	Individuals with visible fungus counted
FUNGUS (%)	Percentage of individuals with visible fungus
LESIONS (COUNT)	Individuals with lesions counted
LESIONS (%)	Percentage of individuals with lesions
TUMORS (COUNT)	Individuals with tumors counted
TUMORS (%)	Percentage of individuals with tumors
OTHER (COUNT)	Individuals with other health conditions counted
OTHER (%)	Percentage of individuals with other health conditions
COMP_UID	Database field unique identifier: Result
PRJ_UID	Database field unique identifier: Project
MLOC_UID	Database field unique identifier: Monitoring Location
SE_UID	Database field unique identifier: Sample Event

Data Dictionary Field Definitions: Pre- 2010 Field Sampling

FIELD NAME	DESCRIPTION
STORET ID	Unique identifier for monitoring location
Sample site	Monitoring location name
Collection date/time	Date of sample collection
pH	pH result (su)
EC	Specific Conductance result (uS/cm)
Temp	Temperture result ©
DO (mg/L)	Dissolved oxygen concentration result (mg/L)
DO (%sat)	Dissolved oxygen saturation result (%)
Turb	Turbidity result (NTU)
Salinity	Salinity result (ppt)
ValCode	Quality control validation code
Field notes	Sample event comments

Data Dictionary Data Report Field Definitions Pre-2010: WQ Report Fields

FIELD NAME	DESCRIPTION
County	Monitoring station county
HUC	Monitoring station 12-digit Hydrologic Unit Code
SEGNAME	Monitoring station assessment unit name
STORET ID	Unique identifier for monitoring station
Latitude	Monitoring station coordinates, latitude (WGS84)
Longitude	Monitoring station coordinates, longitude (WGS84)
StudyName	Survey monitoring project name
Station comments	Staff comments on station
ColDateTime	Date of sample collection
SampleType	Description of data collection type
SampleID	Sample bottle or action identifier
Analyte name	Name of analytical parameter
Calculated concentration	Result of measurement of analysis. MDP = Missing data point.
Units	Unit of measurement
Dilution Factor	A factor indicating the amount of which the sample was diluted to address matrix problems or achieve instrument response within its calibrated dynamic range. DILUTION FACTOR is informational only and not used to modify the CALCULATED CONCENTRATION. It can influence the SDL. A value of one means undiluted. Values greater than one indicate dilution. Values less than one indicate concentration.
Procedure code	Analysis method indentifier
Less than	Logic statement indicating whether the REPORTED VALUE is less than the SDL
Qualifier codes	Result qualifier attributed by the laboratory. See LAB_QUALIFIER worksheet for definitions.
Sample detection limit	The Sample Detection Limit (SDL) is equal to the MRL raised by a factor corresponding to the DILUTION_FACTOR when a sample has to be diluted before analysis. If DILUTION_FACTOR = 1, SDL = MLQ. Measured values less than the SDL are reported (in REPORTED VALUE) at the SDL.
Sigma	Statistical confidence in reported value. Used only for radionuclides
MDL	The minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results (EPA 821-R-16-006, 2016).
MLQ	The lowest concentration at which an analyte can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision. If blank = SDL.
PQL	The level at which an instrument response can be quantified.
Notes	Result comments
Validation Code	Result qualifier attributed by the SWQB. See SWQB_QUALIFIER worksheet for definitions
Validation Code Comments	Staff validation comments
Lab ID	Name of laboratory performing analysis
pH	pH result (su)
EC	Specific Conductance result (uS/cm)
temperature	Temperture result (C)
DO	Dissolved oxygen concentration result (mg/L)
DOsat	Dissolved oxygen saturation result (%)
turbidity	Turbidity result (NTU)
Salinity	Salinity result (ppt)
Sample Medium	Type of sample media
Collection Method	Method of sample collection
Sample Type	Description of data collection type
CAS Number	Unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature.

Data Dictionary Data Report Field Definitions Pre-2010: Lab Qualifier

Data Qualifier	Description	WQX Equivalent
A	See note/comments.	
B	Analyte was detected in the laboratory blank.	B
C	Spike recovery in laboratory fortified blank is within method acceptance limits.	
D	Spike recovery in laboratory fortified blank is not within method acceptance limits.	
E	Analyte value exceeded calibration range.	
F	Sample matrix interference suspected.	
H	Sample was analyzed in duplicate.	
I	Sample was analyzed in triplicate.	
J	Analyte was detected at a level below the method's sample detection limit.	
K	Holding time was exceeded at laboratory.	H
L	Regulated parameter value equals or exceeds the EPA SDWA Maximum Contamination Level.	
M	Regulated parameter value equals or exceeds the EPA SDWA Action Level.	
N	Insufficient sample to verify results.	
O	Method internal standard(s) not within method acceptance limits when analyzed undiluted.	
P	Sample rejected/voided at laboratory.	R
Q	Sample submitted to laboratory past holding time.	H

Data Dictionary Data Report Field Definitions Pre-2010: SWQB Qualifier

Validation Code	Definition	WQX Equivalent
A1	Sample not collected according to SOP	
A2	Method QC check not completed according to SOP	
B1	Chemical was detected in the field blank at a concentration less than 5% of the sample concentration.	
BN	Blanks NOT collected during sampling run	
BU	Detection in blank. Analyte was not detected in this sample above the method's sample detection limit.	BU
C1	Instrument verification between in-calibration range and maximum interpolation range.	EST
C2	Data corrected for instrument drift within acceptable interpolation range.	CLC
E	The listed result is greater than the upper quantitation limit for either the analytical method or the meter used for the measurement.	GT
RB1	Chemical was detected in the field blank at a concentration greater than or equal to 5% of the sample concentration. Results for this sample are rejected because they may be the result of contamination; the results may not be reported or used for regulatory compliance purposes.	B
R1	Rejected due to incorrect sample preservation	R
R2	Rejected due to equipment failure in the field	R
R3	Rejected based on best professional judgment	R
R4	Instrument failed quality control check	FQC
D1	Spike recovery not within method acceptance limits	
F1	Sample filter time exceeded	
J1	Estimated: the analyte was positively identified and the associated value is an approximate concentration of the analyte in the sample	J
K1	Holding time violation	H
Ea	Estimated-Incubation temperature between 35.5 and 38.0° Celsius	
Er	Rejected-Incubation temperature < 34.5 or >38.0° Celsius	R
PD1	Percent difference between duplicate samples excessive	
S1	Per SLD, uncertainties (sigmas) are expressed as one standard deviation, i.e. one standard error. Small negative or positive values that are less than two standard deviations should be interpreted as “less than the detection limit.”	
S2	Data are suspect but deemed usable based on best professional judgment; documentation of justification is required and should be included in the Data Verification and Validation Packet and reported with results	SUS
Z1	Macroinvertebrate data did not meet QC criteria specified in Section 2.5 of QAPP	
H1	Habitat data did not meet QC criteria specified in Section 2.5 of QAPP	

Excerpts from the 2018-2020 State of New Mexico Clean Water Act Section 303(d)/Section 305(b) Integrated Report - Appendix A 303(d)/305(b) Integrated List, for waterbodies meeting the requirements of 20.6.4.9(B)(3).

The full Integrated List is available at:
https://www.env.nm.gov/wp-content/uploads/sites/25/2018/03/Appendix-A-Integrated-List.pdf

Doctor Creek (from the confluence with Holy Ghost Creek to the headwaters), pg. 267.

Doctor Creek (Holy Ghost Creek to headwaters)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_021	20.6.4.217	STREAM, PERENNIAL	3.43 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
WH	Fully Supporting				
AU Comment: None.					

Holy Ghost Creek (from the confluence with the Pecos River to the Wilderness boundary), pg. 273.

Holy Ghost Creek (Pecos River to headwaters)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_020	20.6.4.217	STREAM, PERENNIAL	6.91 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
WH	Fully Supporting				
AU Comment: None.					

Indian Creek (from the confluence with the Pecos River upstream to the headwaters), pg. 273.

Indian Creek (Pecos River to headwaters)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_072	20.6.4.217	STREAM, PERENNIAL	6.45 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
WH	Fully Supporting				
AU Comment: None.					

Jack's Creek (from the confluence with the Pecos River to the Wilderness boundary), pg. 274

Jack's Creek (Pecos River to headwaters)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_045	20.6.4.217	STREAM, PERENNIAL	6.59 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
WH	Fully Supporting				
AU Comment: Rio Grande Cutthroat Trout restoration in 1992-1996 by NMG&F.					

Panchuela Creek (from the confluence with the Pecos River to the Wilderness boundary), pg. 277.

Panchuela Creek (Pecos River to headwaters)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_060	20.6.4.217	STREAM, PERENNIAL	6.9 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
WH	Fully Supporting				
AU Comment: None.					

Pecos River (from the Dalton site upstream to the Wilderness boundary), pg. 279.

Pecos River (Alamitos Canyon to Jack's Creek)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_002	20.6.4.217	STREAM, PERENNIAL	21.21 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
PWS	Not Assessed				
WH	Fully Supporting				
AU Comment: A TMDL was prepared for turbidity.					

Rio Mora (from the confluence with the Pecos River to the Wilderness boundary), pg. 283

Rio Mora (Pecos River to headwaters)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_040	20.6.4.217	STREAM, PERENNIAL	17.93 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
WH	Fully Supporting				
AU Comment: None.					

Winsor Creek (from the confluence with the Pecos River to the Wilderness boundary), pg.291

Winsor Creek (Pecos River to headwaters)			AU IR CATEGORY	LOCATION DESCRIPTION	
			2	HUC: 13060001 Pecos Headwaters	
AU ID	**WQS REF**	**WATER TYPE**	**SIZE**	**ASSESSED**	**MONITORING SCHEDULE**
NM-2214.A_061	20.6.4.217	STREAM, PERENNIAL	5.95 MILES	2012	2019
USE	**ATTAINMENT**	**CAUSE(S)**	**FIRST LISTED**	**TMDL DATE**	**PARAMETER IR CATEGORY**
DWS	Fully Supporting				
FC	Not Assessed				
HQColdWAL	Fully Supporting				
IRR	Fully Supporting				
LW	Fully Supporting				
PC	Fully Supporting				
WH	Fully Supporting				
AU Comment: None.					

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 1 ENVIRONMENTAL PROTECTION GENERAL
PART 6 RULEMAKING PROCEDURES - WATER QUALITY CONTROL COMMISSION

20.1.6.201 NOTICE OF HEARINGS:

A. Unless otherwise allowed by governing law and specified by the commission, the commission shall provide to the public notice of the proposed rulemaking at least 60 days prior to the hearing.

B. Public notice for proposed regulatory changes of general application to the state shall include publication in at least one newspaper of general circulation in the state, publication in the New Mexico register, and such other means of providing notice as the commission may direct or are required by law. Notice for proposed regulatory changes that are confined in effect to a specific geographic area shall also be published in a newspaper of general circulation in the area affected.

C. The notice of proposed rulemaking shall state:

(1) the subject of the proposed rule, including a summary of the full text of the proposed rule and a short explanation of the purpose of the proposed rule;

(2) a citation to the specific legal authority authorizing the proposed rule and the adoption of the rule;

(3) a citation to technical information, if any, that served as a basis for the proposed rule, and information on how the full text of the technical information may be obtained;

(4) the statutes, regulations, and procedural rules governing the conduct of the hearing;

(5) the manner in which persons may present their views or evidence to the commission including information on participating in the public hearing;

(6) the location where persons may secure copies of the proposed regulatory change;

(7) an internet link providing free access to the full text of the proposed rule; and

(8) if applicable, that the commission may make a decision on the proposed regulatory change at the conclusion of the hearing.

[20.1.6.201 NMAC - Rp, 20.1.6.201 NMAC, 03/16/2018]

20.1.6.202 TECHNICAL TESTIMONY:

A. Any person, including the petitioner, who intends to present technical testimony at the hearing shall, no later than 20 days prior to the hearing, file a notice of intent to present technical testimony. The notice shall:

(1) identify the person for whom the witness(es) will testify;

(2) identify each technical witness the person intends to present, and state the qualifications of that witness, including a description of their educational and work background;

(3) if the hearing will be conducted at multiple locations, indicate the location or locations at which the witnesses will be present;

(4) include a copy of the direct testimony of each technical witness in narrative form, and state the estimated duration of the direct oral testimony of that witness;

(5) include the text of any recommended modifications to the proposed regulatory change; and

(6) list and attach all exhibits anticipated to be offered by that person at the hearing.

B. The hearing officer may enforce the provisions of this section through such action as the hearing officer deems appropriate, including, but not limited to, exclusion of the technical testimony of any witness for whom a notice of intent was not timely filed. If such testimony is admitted, the hearing officer may keep the record open after the hearing to allow responses to such testimony. The hearing officer may also require that written rebuttal testimony be submitted prior to hearing.

[20.1.6.202 NMAC - Rp, 20.1.6.202 NMAC, 03/16/2018]

PROPOSED AMENDMENTS TO 20.6.4 NMAC

Based on the findings of the Department's review of the proposed ONRW designation, the Department recommends the following alternative language for consideration:

20.6.4.9 OUTSTANDING NATIONAL RESOURCE WATERS:

D. Waters classified as ONRWs: The following waters are classified as ONRWs:

(1) Rio Santa Barbara, including the west, middle and east forks from their headwaters downstream to the boundary of the Pecos Wilderness; and

(2) the waters within the United States forest service Valle Vidal special management unit including:

(a) Rio Costilla, including Comanche, La Cueva, Fernandez, Chuckwagon, Little Costilla, Powderhouse, Holman, Gold, Grassy, LaBelle and Vidal creeks, from their headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit;

(b) Middle Ponil creek, including the waters of Greenwood Canyon, from their headwaters downstream to the boundary of the Elliott S. Barker wildlife management area;

(c) Shuree lakes;

(d) North Ponil creek, including McCrystal and Seally Canyon creeks, from their headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit; and

(e) Leandro creek from its headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit.

(3) the named perennial surface waters of the state, identified in Subparagraph (a) below, located within United States department of agriculture forest service wilderness. Wilderness are those lands designated by the United States congress as wilderness pursuant to the Wilderness Act. Wilderness areas included in this designation are the Aldo Leopold wilderness, Apache Kid wilderness, Blue Range wilderness, Chama River Canyon wilderness, Cruces Basin wilderness, Dome wilderness, Gila wilderness, Latir Peak wilderness, Pecos wilderness, San Pedro Parks wilderness, Wheeler Peak wilderness, and White Mountain wilderness.

(a) The following waters are designated in the Rio Grande basin:

(i) in the Aldo Leopold wilderness: Byers Run, Circle Seven creek, Flower canyon, Holden Prong, Indian canyon, Las Animas creek, Mud Spring canyon, North Fork Palomas creek, North Seco creek, Pretty canyon, Sids Prong, South Animas canyon, Victorio Park canyon, Water canyon;

(ii) in the Apache Kid wilderness Indian creek and Smith canyon;

(iii) in the Chama River Canyon wilderness: Chavez canyon, Ojitos canyon, Rio Chama;

(iv) in the Cruces Basin wilderness: Beaver creek, Cruces creek, Diablo creek, Escondido creek, Lobo creek, Osha creek;

(v) in the Dome wilderness: Capulin creek, Medio creek, Sanchez canyon/creek;

(vi) in the Latir Peak wilderness: Bull creek, Bull Creek lake, Heart lake, Lagunitas Fork, Lake Fork creek, Rito del Medio, Rito Primero, West Latir creek;

(vii) in the Pecos wilderness: Agua Sarca, Hidden lake, Horseshoe lake (Alamitos), Jose Vigil lake, Nambe lake, Nat lake IV, No Fish lake, North Fork Rio Quemado, Rinconada, Rio Capulin, Rio de las Trampas (Trampas creek), Rio de Truchas, Rio Frijoles, Rio Medio, Rio Molino, Rio Nambe, Rio San Leonardo, Rito con Agua, Rito Gallina, Rito Jaroso, Rito Quemado, San Leonardo lake, Santa Fe lake, Santa Fe river, Serpent lake, South Fork Rio Quemado, Trampas lake (East), Trampas lake (West);

(viii) in the San Pedro Parks wilderness: Agua Sarca, Cañon Madera, Cave creek, Cecilia Canyon creek, Clear creek (North SPP), Clear creek (South SPP), Corralitos creek, Dove creek, Jose Miguel creek, La Jara creek, Oso creek, Rio Capulin, Rio de las Vacas, Rio Gallina, Rio Puerco de Chama, Rito Anastacio East, Rito Anastacio West, Rito de las Palomas, Rito de las Perchas, Rito de los Pinos, Rito de los Utes, Rito Leche, Rito Redondo, Rito Resumidero, San Gregorio lake;

(ix) in the Wheeler Peak wilderness: Black Copper canyon, East Fork Red river, Elk lake, Horseshoe lake, Lost lake, Sawmill creek, South Fork lake, South Fork Rio Hondo, Williams lake.

(b) The following waters are designated in the Pecos River basin:

(i) in the Pecos wilderness: Albright creek, Bear creek, Beatty creek,

Beaver creek, Carpenter creek, Cascade canyon, Cave creek, El Porvenir creek, Hollinger creek, Holy Ghost creek, Horsethief creek, Jack's creek, Jarosa canyon/creek, Johnson lake, Lake Katherine, Lost Bear lake, Noisy brook, Panchuela creek, Pecos Baldy lake, Pecos river, Rio Mora, Rio Valdez, Rito Azul, Rito de los Chimayosos, Rito de los Esteros, Rito del Oso, Rito del Padre, Rito las Trampas, Rito Maestas, Rito Oscuro, Rito Perro, Rito Sebadilloses, South Fork Bear creek, South Fork Rito Azul, Spirit lake, Stewart lake, Truchas lake (North), Truchas lake (South), Winsor creek;

(ii) in the White Mountain wilderness: Argentina creek, Aspen creek, Bonito creek, Little Bonito creek, Mills canyon/creek, Rodamaker creek, South Fork Rio Bonito, Turkey canyon/creek.

(c) The following waters are designated in the Gila River basin:

(i) in the Aldo Leopold wilderness: Aspen canyon, Black Canyon creek, Bonner canyon, Burnt canyon, Diamond creek, Falls canyon, Fisherman canyon, Running Water canyon, South Diamond creek;

(ii) in the Gila wilderness: Apache creek, Black Canyon creek, Brush canyon, Canyon creek, Chicken Coop canyon, Clear creek, Cooper canyon, Cow creek, Cub creek, Diamond creek, East Fork Gila river, Gila river, Gilita creek, Indian creek, Iron creek, Langstroth canyon, Lilley canyon, Little creek, Little Turkey creek, Lookout canyon, McKenna creek, Middle Fork Gila river, Miller Spring canyon, Mogollon creek, Panther canyon, Prior creek, Rain creek, Raw Meat creek, Rocky canyon, Sacaton creek, Sapillo creek, Sheep Corral canyon, Skeleton canyon, Squaw creek, Sycamore canyon, Trail canyon, Trail creek, Trout creek, Turkey creek, Turkey Feather creek, Turnbo canyon, West Fork Gila river, West Fork Mogollon creek, White creek, Willow creek, Woodrow canyon.

(d) The following waters are designated in the Canadian River basin: in the Pecos wilderness Daily creek, Johns canyon, Middle Fork Lake of Rio de la Casa, Middle Fork Rio de la Casa, North Fork Lake of Rio de la Casa, Rito de Gascon, Rito San Jose, Sapello river, South Fork Rio de la Casa, Sparks creek (Manuelitas creek).

(e) The following waters are designated in the San Francisco River basin:

(i) in the Blue Range wilderness: Pueblo creek;

(ii) in the Gila wilderness: Big Dry creek, Lipsey canyon, Little Dry creek, Little Whitewater creek, South Fork Whitewater creek, Spider creek, Spruce creek, Whitewater creek.

(f) The following waters are designated in the Mimbres Closed basin: in the Aldo Leopold wilderness Corral canyon, Mimbres river, North Fork Mimbres river, South Fork Mimbres river.

(g) The following waters are designated in the Tularosa Closed basin: in the White Mountain wilderness Indian creek, Nogal Arroyo, Three Rivers.

(h) The wetlands designated are identified on the *Maps and List of Wetlands Within United States Forest Service Wilderness Areas Designated as Outstanding National Resource Waters* published at the New Mexico state library and available on the department's website.

(4) The following waters are designated in the Pecos Headwaters basin:

(a) The Pecos river from Dalton Canyon creek to the Pecos wilderness boundary;

(b) In the Dry Gulch-Pecos river subbasin, Dalton Canyon creek from the Pecos river upstream to the headwaters, Wild Horse creek from Dalton Canyon creek upstream to the headwaters, Macho Canyon creek from the Pecos river upstream to the headwaters and Sawyer creek from the Pecos river upstream to the headwaters;

(c) In the Indian creek-Pecos river subbasin, Indian creek from the Pecos river upstream to the headwaters, Holy Ghost creek from the Pecos river upstream to the Pecos wilderness boundary, Doctor creek from Holy Ghost creek upstream to the headwaters, Davis creek from the Pecos river upstream to the headwaters and Willow creek from the Pecos river upstream to the headwaters;

(d) In the Rio Mora subbasin, Rio Mora from the Pecos river upstream to the Pecos wilderness boundary and Bear creek from the Rio Mora upstream to the Pecos wilderness boundary.

(e) In the Rio Mora-Pecos river subbasin, Carpenter creek from the Pecos river upstream to the Pecos wilderness boundary, Winsor creek from the Pecos river upstream to the Pecos wilderness boundary and Jack's creek from the Pecos river upstream to the Pecos wilderness boundary; and,

(f) In the Panchuela creek subbasin, Panchuela creek from the Pecos river upstream to the Pecos wilderness boundary.

[20.6.4.9 NMAC - Rn, Subsections B, C and D of 20.6.4.8 NMAC, 5/23/2005; A, 5/23/2005; A, 7/17/2005; A, 2/16/2006; A, 12/1/2010; A, 1/14/2011, A XX/XX/XXXX]