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February 19, 2014

Russell L. Nelson (6WQ)
Water Quality Protection Division
U.S. Environmental Protection Agency Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202

Re: Response to EPA's Preliminary Recommendations 2013 Triennial Review

Dear Mr. Nelson,

SWQB appreciates EPA's support and guidance in the development and refinement of New Mexico's water quality standards and standards implementation procedures. EPA has approved several interim revisions to the water quality standards and the Water Quality Management Plan/Continuing Planning Process (WQMP/CPP) since the last Triennial Review. Amendments to the water quality standards during the 2009 Triennial Revision and subsequent approvals of the amendments by EPA on April 18, 2011, allowed the use of the SWQB's Hydrology Protocol (HP) to support the revisions of standards for ephemeral waters. The HP was approved as an appendix to the SWQB's Water Quality Management Plan/Continuing Planning Process (WQMP/CPP) by EPA on December 23, 2011. Application of the HP was used to document the hydrologic conditions in UAAs for 18 ephemeral stream segments which were technically approved by EPA on January 30, 2013.

Changes to the narrative criteria for turbidity and new or revised hardness-based criteria for aluminum, cadmium and zinc were approved by EPA on June 18, 2012. Aquatic life use changes on the lower Dry Cimarron River and 19 new classified segments for 62 lakes in the Rio Grande, Pecos, Canadian, Gila, San Juan and Little Colorado basins were approved on November 20, 2012. Antidegradation provisions for Outstanding Natural Resource Waters (ONRWs), and a comprehensive rulemaking for ONRW designations were approved on April 11, 2013, and EPA noted, "...the new or revised water quality standards contained in New Mexico's amendments to §20.6.4.8 NMAC as consistent with the requirements of the CWA and EPA's implementing regulations at 40 CFR 131.12." Revisions to water quality standards for the

Santa Fe River and Galisteo watershed adopted by the Water Quality Control Commission (WQCC) on December 10, 2012, were approved on June 5, 2013.

The review and revision of the water quality standards is a continual process, and New Mexico has made considerable progress during past Triennial and interim revisions. By letter dated December 4, 2013, EPA provided SWQB with preliminary recommendations and suggestions for the current Triennial review. It was recognized by EPA that some complex issues will need to be addressed in incremental stages, as successive revisions to the standards and supporting procedures in the WQMP/CPP. SWQB will also continue to work with EPA on implementation of the water quality standards in permits, such as temperature criteria.

SWQB's responses to EPA's suggestions on selected sections or issues in the water quality standards are presented below. We look forward to working with EPA on the development of water quality standards and the technical procedures necessary for their appropriate and consistent implementation.

§20.6.4.8 - Antidegradation Policy and Implementation Plan, ONRWs

SWQB respectfully disagrees with EPA on whether conflict exists between §20.6.4.8.A NMAC and antidegradation procedures in the state's WQMP/CPP document. Antidegradation implementation procedures for regulated point sources are described in Appendix A of the state's WQMP/CPP, and are not applicable to nonpoint sources. The state's Nonpoint Source Management Plan, adopted as part of the WQMP/CPP, includes best management practices (BMPs) as guidance to reduce nonpoint source pollution from activities conducted in all waters of the state, including ONRWs. SWQB recognizes that procedures for implementation of the antidegradation policy in 20.6.4.8 NMAC, as it relates to nonpoint sources impacting ONRWs (e.g. as an appendix to or part of the Nonpoint Source Management Plan and WQMP/CPP), have not been fully developed, but the absence of these procedures does not mean the antidegradation rules and implementation procedures are wholly divergent or in conflict.

We recognize that defensible nonpoint source monitoring data are necessary to demonstrate BMP effectiveness against benchmark or baseline data. We also recognize, however, that the relevant data are often limited and this provides one challenge to proposing detailed nonpoint source antidegradation analyses for the WQMP/CPP. Projects aimed at gaging BMPs and their effectiveness are outlined in the SWQB's Watershed Protection Section (WPS) Nonpoint Source (NPS) Management Plan, the New Mexico Wetlands Program Plan, or Watershed Implementation Plans. These projects are currently planned and prioritized on a watershed level for both water quality improvements and protection. The NPS Management Program is also focused on collaboration with federal, State, and local programs that can influence beneficial land management practices and support water quality BMPs used by public agencies and private individuals.

One excellent example of our collaborative approach is SWQB's work with the U.S. Forest Service (USFS), which is particularly critical as all of New Mexico's ONRWs are on lands managed by the USFS. Control, abatement, and prevention of nonpoint source pollution resulting from all activities conducted in National Forests are in accordance with Forest Land Management Plans (Forest Plans) developed for each National Forest. Use of water quality and other resource protection BMPs in National Forests is required by the National Forest Management Act (NFMA)

and prescribed in these Forest Plans. Consequently, all land management activities, such as grazing, silviculture and road construction must be implemented using BMPs for control of nonpoint source water pollution. While it is not a legally binding document, the Memorandum of Understanding (MOU) between SWQB and the USFS documents cooperation towards improving and protecting the quality of New Mexico's waters. By maintaining this agreement, it does not mean the WQCC has relinquished its authority over implementing water quality standards protections during federal activities. For example the SWQB's WPS has worked with the USFS on reporting of post-fire restoration activities to the WQCC after emergency response actions; both agencies have collaboratively developed procedures to be consistent with the antidegradation plan for ONRWs in §20.6.4.8.A(3) NMAC. However, it is understood that while the burden of demonstration primarily falls on those conducting the activities, the state is the ultimate authority over compliance with the water quality standards.

Temporary Criteria

EPA recommended the development of an expanded provision outside of the antidegradation language in §20.6.4.8.A (4) (b) NMAC to address long-term restoration in all waters, not just ONRWs. SWQB is developing a separate provision in the water quality standards for adopting temporary water quality standards aimed toward long-term water quality improvement activities (i.e., more than six-month duration). Procedures in the temporary standards provision will outline requirements for the 40 CFR, Part 131, Subsection 131.10 (g) justifications in addition to milestones and timelines and other conditions consistent with EPA guidance, and with the state's antidegradation policy. SWQB is developing supportive implementation processes to incorporate into the CPP/WQMP following public review requirements, and WQCC and EPA approvals.

Wetland Water Quality Standards

EPA's guidance on Water Quality Standards for Wetlands (1990) outlines five key steps for developing water quality standards for wetlands: 1) define wetlands as "state waters"; (2) designate uses that protect the structure and function of wetlands; (3) adopt narrative criteria and appropriate numeric criteria in the standards to protect the designated uses; (4) adopt narrative biological criteria in the standards; and (5) extend the antidegradation policy and implementation methods. Consistent with EPA guidance and federal regulations, New Mexico has taken the first of these five steps by including wetlands in its definition of "surface waters of the state" and also separately defines wetlands. In doing so, the state recognizes that the CWA and its implementing regulations apply to all surface waters including wetlands. The SWQB has secured CWA §104(b) funds for six project specific workplans as well as efforts in the current New Mexico Wetlands Program Plan. These projects and efforts specifically address the five key steps recommended by EPA as necessary to develop wetland water quality standards. The deliverables and projections extend beyond FY 2016.

EPA's recommendation that New Mexico develops and adopts functional uses appropriate for wetlands supported by numeric or narrative criteria is consistent with the approach the state is currently considering towards establishing wetlands standards. However, the wetlands forms and functions have not been identified to the level where they can be assigned in the water quality standards for the current Triennial. A large number of data sets are being compiled to provide a solid basis to support the identification and application of designated uses to wetlands.

It was also recommended that the state's wetland provisions should protect the hydrology and other critical functions of wetlands, including narrative criteria as an interim option. New Mexico's wetland criteria will principally be narrative. The tasks for development of draft narrative wetland standards are identified in multiple 104 (b) (3) grants. While paramount to the development of wetland standards, addressing hydrology support for wetlands must occur within the context of the regulatory framework for managing water resources in New Mexico. Regulatory language that ultimately addresses the importance of maintaining and restoring wetland hydrology must be carefully crafted and not be perceived as restricting flow or water quantity which the WQCC cannot authorize.

In summary, many of EPA's suggestions and comments for New Mexico's wetlands are being addressed as part of currently funded projects extending beyond the next five years. Projects that align with EPA's guidance for wetlands standards and their implementation include: 1) application of anti-degradation policies to ONRW wetlands, 2) development of rapid assessment and intensive monitoring tools for Montane Riverine Wetlands in New Mexico, 3) training for wetlands condition assessments, 4) evaluation of U.S. Forest Service BMPs in ONRW wetlands, 5) draft narrative standards and designated uses for a subclass of wetlands based on rapid assessment data and site scores and 6) identification of reference wetlands. These projects will address both point and nonpoint source activities as comprehensive approaches for wetlands protections are developed.

§20.6.4.13 J. Turbidity

SWQB will continue development of implementation processes for existing narrative turbidity criteria, including for bedded sediment. The complexities of conditions impacting the transport of sediment including lack of canopy or riparian habitat, geological instability, flooding, and erosion are also recognized.

Stream Segment Definition, Assessment and Classification of Perennial, Intermittent and Ephemeral Waters

As EPA has pointed out, use of the term "unclassified" in the water quality standards is confusing, and in the context of CWA purposes both "unclassified" and "classified" waters in New Mexico are assigned appropriate CWA 101(a) designated uses and criteria protections. SWQB is considering removing the term "unclassified" from hydrological descriptions in the standards, in particular for ephemeral and intermittent streams, and for waters not specifically described or characterized within the segment descriptions.

Currently, in accordance with §20.6.4.15.C NMAC the state may determine streams are ephemeral by application of the Hydrology Protocol (HP) and list them under §20.6.4.97.C NMAC or incorporate them into §§20.6.4.101- 899 NMAC (under their original or associated segments). Several ephemeral waters are to be included in the draft revisions for the current Triennial review, to be listed by basin under §20.6.4.97. SWQB considered EPA's suggestion to incorporate them under associated segments, but this may conflict somewhat with the current definition for 'segment' in §20.6.4.7.S (2) NMAC. If the hydrology and other characteristics are determined to be ephemeral, and are therefore not homogeneous with the 'parent' segment description, incorporating them as part of the original segment may cause confusion over applicable uses and criteria. For the current Triennial, SWQB is including the ephemeral streams

by basin under §20.6.4.97.C NMAC, but will evaluate other ways to best identify ephemeral streams in the water quality standards.

§20.6.4.16 – Planned Use of a Piscicide

In January 2009, a federal court ruling determined certain pesticide applications, including those for piscicides, were subject to EPA National Pollutant Discharge Elimination System (NPDES) permit regulations; the federal rule was finalized on October 31, 2011. Consequently, in addition to requirements under the State's rules in §20.6.4.16 NMAC, certain applicators are required to also have a NPDES permit and may apply for coverage under EPA's NPDES Pesticide General Permit (PGP). In cooperation with New Mexico Department of Game and Fish the SWQB is updating the piscicide provision in order to avoid duplication in fulfilling both state and federal requirements by including an exemption for those covered under the EPA's NPDES permit program. In its letter to SWQB, EPA stated its support for such a proposal. A section will be added to ensure notification and post monitoring processes required under the state provisions, but not required in the federal NPDES PGP permit, are adhered to.

§20.6.4.900 Numeric Criteria

Aluminum

EPA approved the revised hardness-based formulae and criteria for chromium III, copper, lead, manganese, nickel and silver, aluminum, cadmium and zinc adopted during the 2009 Triennial Revision. However, for aluminum EPA did not agree that the acute and chronic hardness-based criteria are applicable at pH below 6.5 su in receiving waters and recommended the state adopt the exception into its water quality standards. For implementation purposes, EPA's recommendation for acute and chronic aluminum criteria will be incorporated into the standards during this Triennial revision.

Ammonia

EPA's final re-evaluation of aquatic life criteria for ammonia has been published (Federal Register 78:163 (August 22, 2012) p. 52192.). SWQB will consider the new recommended ammonia criteria and application of implementation guidance for the next Triennial review.

Wildlife Habitat

SWQB is evaluating EPA's Great Lakes Initiative (GLI) Methodology for its potential in updating the current wildlife habitat uses and criteria. EPA's Region 6 and Headquarters Health and Ecological Criteria Division provided clarification on calculation procedures and examples of the GLI approach used in other states. While New Mexico's current wildlife habitat criteria mirror EPA's chronic values for aquatic life protections, they were adopted considering that protecting lower trophic levels would protect higher trophic levels of aquatic life. The GLRI methodology also focuses on chronic levels as most likely to impact the viability of a species. Significant data gaps were found during SWQB's review of the GLRI procedures. For example, the GLRI extrapolates many data sets from laboratory tests and applies particular values from such tests to wildlife species. Laboratory tests haven't been conducted for many species, in particular those that can be extrapolated for species in New Mexico. SWQB will continue to work with EPA on the best approach for developing wildlife habitat criteria in New Mexico.

EPA Human Health Benchmarks for Pesticides

SWQB appreciates the update on the latest human health benchmarks for pesticides (HHBPs).

Recreation Criteria and Enumeration of Bacteria

EPA released final recommendations for Recreational Water Quality Criteria (RWQC) in December 2012. This latest guidance recommends the use of a geometric mean or GM (over a period of 30 days), and a statistical threshold value (STV) which is not to be exceeded by more than 10% of the samples used to calculate the GM. The current water quality standards for primary contact criteria in §20.6.4.900.D NMAC apply a monthly GM and a single sample maximum (SSM). The monthly GM of 126 cfu/100 mL and SSM of 410 cfu/100 mL levels for *E. coli* criteria assigned to the primary contact recreation use in the standards are the same as for EPA's Recommendation 1 in the new guidance for the GM and STV. Therefore, SWQB is not changing the primary contact designated use and associated criteria in §20.6.4.900.D for this Triennial review.

The new EPA recommendations don't address secondary contact recreation and don't include the flexibility to assign criteria based on different levels of recreational contact, as in previous guidance. The new guidance assigns upper values (STVs) and GMs to primary contact uses. The standards currently contain water bodies classified as having secondary contact uses with secondary criteria levels. To align with the latest EPA recommendations for recreational contact and CWA 101(a) goals (77 FR 71191, November 29, 2012), the designated uses for secondary contact in these water body segments are under consideration for primary contact uses and corresponding criteria.

The current water quality standards and EPA's 2012 recreational criteria recommendations for bacteria are based on and expressed as colony forming units (cfu) per 100 mL. However, EPA has approved test methods for use of both membrane filtration and most probable number (MPN) methods for enumeration of bacteria in ambient water and effluent. Results may be reported in either cfu or MPN, depending on the analytical method. The SWQB is currently using an approved EPA method for sampling and analyzing bacteria levels in its ambient water quality monitoring program and reporting results in MPN. Therefore, to reflect the use of updated methods for monitoring, assessment and reporting, SWQB is considering language in the water quality standards acknowledging both MPN and cfu as means of enumeration.

Temperature

§20.6.4.13.I. - Delta Temperature (Delta T)

EPA has NPDES primacy for New Mexico and responsibility for maintaining the document, "*Procedures for Writing & Certifying NPDES Permits in New Mexico – NM IP*" (NMIP) which establishes implementation procedures to effectively incorporate the state's water quality standards into NPDES permits. EPA suggested the state incorporate a specific time frame (30-day calendar period duration) for implementation of the Delta T described in §20.6.4.13.I NMAC. The Delta T is concerned with 'excess heat' or the temperature of the effluent that is higher than background stream temperature, and analysis (e.g., for permits or in TMDLs) would focus on the amount of excess heat to be eliminated from a point source discharge so that the

temperature standard is met. EPA suggested language to be placed in the NMIP to allow a reasonable potential screening comparison against a percentile derived from upstream and “unaffected” background temperature data (e.g. upper 15% historical monthly data set). While these recommendations may help EPA to establish monthly permit limits for thermal dischargers, SWQB would not necessarily have the monitoring data necessary to derive them. Other states have been provided EPA funding support necessary to regularly conduct such monitoring for NPDES permit implementation, but this is currently not the case in New Mexico. In-stream monitoring requirements in NPDES permits could also be considered. SWQB will continue to work with EPA on procedures for the NMIP that demonstrate protection of the water quality standards.

§20.6.4.7.A (1) and (2) - 6T3 and 4T3

EPA suggests a more simplistic approach be taken to provide temperature criteria protective of aquatic life, as determining compliance with the standards is confusing, requires continuous recordings for thermal discharges and the criteria are difficult to implement in NPDES permits. The Region suggests using a maximum temperature and one value, or a seasonal approach compatible with the aquatic resource to make the criteria easier to implement and enforce, while providing the same environmental benefit.

New Mexico adopted its current chronic criteria (e.g. 6T3, 4T3) once continually-recording thermographs became available; prior to that only acute or maximum criteria were assessed from grab sampling while performing other water quality measurements. Chronic fish sensitivities to temperature are lacking in the literature; the chronic criteria were developed relevant to maximum temperatures such as the Maximum Weekly Average Temperature (MWAT) supportive of extant sensitive species, usually 20°C for trout, with an exposure period not to be exceeded in order to protect a particular aquatic life use (ALU). SWQB is further reviewing New Mexico’s temperature criteria and considering use of protective values more widely supported in the literature (e.g. MWAT), but the effort may not be completed for this Triennial review.

Safe Drinking Water Act, Ground and Source Water Protection

In New Mexico, the WQCC is the control agency for purposes of the Federal Clean Water Act (CWA) and portions of the Safe Drinking Water Acts (SDWA). Regulations related to ground water can include one or more bureaus, departments, divisions, and water quality related laws. For discharge to ground water, NMED monitors and issues Ground Water Discharge Permits to address a wide variety of discharges including industrial sources. NMED also has primacy for SDWA under which it implements and enforces the primary SDWA regulations for over 90 separate contaminants (in several chemical categories) and sets the Maximum Contaminant Levels (MCLs) for each.

Water quality impacts due to high chlorides, bromides, NORM, TDS, pH, biocides, scale inhibitors, or oil and grease may or may not have chemical specific or numeric criteria associated with them within the different agencies. Antidegradation provisions, the general narratives and criteria within the water quality standards are applicable to these discharges if constituents are not listed specifically. For those inland oil and gas discharges allowed and regulated by the state and EPA, oil and gas exploration and production waste regulation should follow EPA guidance and comply with state and federal laws. In considering numeric water quality criteria for these

constituents, a thorough examination of available scientific information, applicable protections and laws, and conversations with appropriate state agencies can also help to define and strengthen protections.

We appreciate the assistance provided by EPA and the Region 6 water quality standards program and look forward to working with you during the Triennial review and revisions process. If you have any questions about this letter or require additional information, please contact me at (505) 827-2822.

Sincerely,



Kristine L. Pintado
Water Quality Standards Coordinator

cc: James Hogan, Bureau Chief, SWQB
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