**Response to Comments on the**
**November 22, 2019 Draft of**
**Water Quality Management Plan and Continuing Planning Process**
Prepared by the NMED Surface Water Quality Bureau
May 20, 2020

On November 22, 2019 the Surface Water Quality Bureau ("SWQB") released for public comment a draft Water Quality Management Plan and Continuing Planning Process ("WQMP/CPP"). The 75-day public comment period closed on February 5, 2020.

Comments were summarized by Jennifer Fullam, Water Quality Standards Coordinator for the New Mexico Environment Department ("NMED") SWQB on May 20, 2020. The SWQB received seven responses as listed below.

**Comments and SWQB Response**



**Full Comment Sets –**Attached

**Amigos Bravos et al. ("Amigos Bravos"), Taos, New Mexico**

**Amigos Bravos Comment 1:** WQMP/CPP. I. Introduction. A. Purpose. We suggest additional primary goals to be carried forward into future updates:

- Updating the WQMP/CPP to take necessary state-level action to mitigate and adapt to a changing climate.
- Effective water quality management can bolster New Mexico's carbon sink capacity and NMED will certainly have to account for and adapt to climate change impacts to surface water quality.
- Accordingly, the WQMP/CPP should proactively articulate how NMED will adjust water quality management procedures and practices in light of reasonably foreseeable climate change projections. We specifically suggest that NMED add a section to the WQMP/CPP that identifies climate mitigation and adaptation strategies, whether by leveraging existing or new water quality management tools. For example, the WQMP/CPP could reference and build upon the Governor's 2019 Climate Strategy which recommends increasing the number of action plans for wildfire control and watershed health and designating Outstanding National Resource Waters ("ONRW") as a mechanism for protecting New Mexico's waters in the face of a changing climate. (New Mexico Interagency Climate Change Task Force. 2019. New Mexico Climate Strategy: Initial Recommendations and Status Update at p.25 (https://www.climateaction.state.nm.us/documents/reports/NMClimateChange_2019.pdf).

**SWQB Response 1:** Comment noted. No change made. The concept of the WQMP/CPP and the development of the WQS is to build in resiliency in the light of climate change and natural variability of ecosystems. It is the intent that NMED will enhance its processes to ensure greater inclusion specific to climate change in upcoming revisions.

**Amigos Bravos Comment 2:** WQMP/CPP. I. Introduction. A. Purpose. We suggest additional primary goals to be carried forward into future updates: Updating the WQMP/CPP in light of changing federal regulatory structures. NMED's WQMP/CPP update is taking place at the precise moment the Trump administration is weakening if not eliminating federal water quality protections. Such action includes rules undercutting New Mexico's Clean Water Act 401 authority and rules drastically scaling back the jurisdictional reach of the federal Clean Water Act to New Mexico's surface waters. The WQMP/CPP should acknowledge and account for these attacks on bedrock water quality protections, articulating management actions that NMED will take to ensure that New Mexico's rivers, streams, wetlands, and other surface waters are protected and restored.

**SWQB Response 2:** Comment noted. No change made. New Mexico implements the processes in the WQMP/CPP to all waters of the State and will continue to do so under the State's Water Quality Act. As additional delegations are obtained through primacy of federal programs such as Section 402 and 404 of the Clean Water Act ("CWA"), the WQMP/CPP will be updated to incorporate these changes.

**Amigos Bravos Comment 3:** WQMP/CPP. I. Introduction. F. Other Entities participating in water quality management. We appreciate that the WQMP/CPP's outlines the role of federal, tribal, and state agencies in managing water quality in New Mexico. See WQMP/CPP at I-13 thru -22.

**SWQB Response 3:** Comment noted. No change made. In support of language as proposed.

**Amigos Bravos Comment 4:** WQMP/CPP. I. Introduction. F. Other Entities participating in water quality management. In the section discussing tribal roles, we recommend that NMED specifically identify tribes

with EPA approved water quality standard and the authority to manage a water quality standards program.
**SWQB Response 4:** Comment noted. Language was added to identify those Tribes that currently have Treatment in a Similar Manner as a State ("TAS") and established Water Quality Standards ("WQS"). Also added a link to EPA's website where the current list of Tribes can be found. The sovereignty of tribes to promulgate water quality programs is a direct relationship between the U.S. Environmental Protection Agency ('EPA") and that tribe. Primacy is a lengthy process and can change over time. It is not within the scope of this document to serve as a reference for tribal authorities. However, NMED recognizes that it is helpful to provide information on those tribes that currently have TAS and Water Quality Standards ("WQS") and has provided a link to EPA's list of tribes with promulgated WQS.

**Amigos Bravos Comment 5:** WQMP/CPP. I. Introduction. F. Other Entities participating in water quality management. We recommend that this section of the WQMP/CPP recognize tribal authority to complete CWA 401 certifications. Entities proposing to discharge either in water bodies managed by tribes with EPA approved water quality standards or upstream from those water bodies are subject to tribal CWA 401 certification and any conditions these downstream tribes may require in accord with the certification process.
**SWQB Response 5:** Comment noted. No change made. The status of any tribe's primacy to oversee the certification of Section 401, 402 or 404 of the Clean Water Act is a direct government-to-government relationship between a tribe and the federal agency and is not subject to state input or jurisdiction. The status of each tribe's authority is beyond the scope of the State's WQMP/CPP.

**Amigos Bravos Comment 6:** WQMP/CPP. I. Introduction. F. Other Entities participating in water quality management. We recommend that this section, in identifying the role of federal agencies, acknowledge that section 313(a) of Clean Water Act provides includes a clear and unambiguous waiver of federal sovereign immunity from water quality requirements. It provides that federal agencies: "shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity including the payment of reasonable service charges. This reference to section 313(a) of the Clean Water Act would provide helpful reminder to federal agencies and the public that federal agencies must adhere to New Mexico water quality protections for all surface waters of the state, including those that flow on or downstream of federal public lands and facilities.
**SWQB Response 6:** Comment noted. No change made. The elements of the WQMP/CPP are those that are found under 40 CFR 130.5 and 130.6. It is not within the scope of the WQMP/CPP to address the authority of the federal Clean Water Act on federal entities.

**Amigos Bravos Comment 7:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. NMED should acknowledge and explain the public's ability to seek revisions to water quality standards outside of the Triennial Review. Section II of the WQMP/CPP outlines various mechanisms for changing water quality standards but does not mention that any member of the public can petition the Water Quality Control Commission ("WQCC") at any time to strengthen water quality standards. While parties that want to strengthen New Mexico's water quality standards typically do so during the Triennial Review, parties may also petition the WQCC to do so at any time. Accordingly, the WQMP/CPP should acknowledge and provide the public with guidance on how that process works. This is particularly important to members of the general public and communities who may otherwise not realize they have this opportunity. Examples of public-driven petition topics could include, but are not limited to, proposing to change segments delineations,

proposing changes to criteria, proposing the designation of Outstanding National Resource Waters, or proposing changes to narrative criteria. We note that the WQMP/CPP already explains how regulated entities may seek a site-specific standard weaker than the standard that would otherwise apply. See WQMP/CPP at II-10. Acknowledging the broader public's ability to revise (and strengthen) water quality standards, in particular those standards that impact communities, would provide helpful and constructive symmetry relative to regulated entities and improve public accessibility to water quality management and governance.

**SWQB Response 7:** Comment noted. No change made. NMED concurs that the public does have the opportunity to petition the Water Quality Control Commission at any time on water quality standard amendments as identified under 20.6.4 New Mexico Administrative Code ("NMAC"). The WQMP/CPP outlines the process for amending the standards and under what circumstances an amendment may be considered. The examples provided in the comment all pertain to evaluating a change in a designated use, to which the appropriate processes are described under this WQMP/CPP. As was provided in the comment and included in the WQMP/CPP, State and Federal regulations provide for public engagement for any amendment to the State's *Standards for Interstate and Intrastate Surface Waters* (20.6.4 NMAC).

**Amigos Bravos Comment 8:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Relatedly, the WQMP/CPP should also clearly state that the proponent of a petition submitted to the WQCC for a change to water quality standards bears the costs of that petition, including any public notice and hearing requirements, if the requested changes fall outside of the Triennial Review process or other NMED initiated hearing. This ensures that members of the public who may otherwise be unfamiliar with WQCC operations can plan ahead to pay those costs.

**SWQB Response 8:** Comment noted. No change made. Although correct in regard to the costs associated with a rulemaking being the responsibility of the petitioner, it is beyond the scope of this document to outline the processes of fiscal responsibility for any rulemaking of the State.

**Amigos Bravos Comment 9:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. The WQMP/CPP should revise the Use Attainability Analysis guidance. The WQMP/CPP outlines the process to downgrade a CWA section 101(a) use through a Use Attainability Analysis ("UAA"). See WQMP/CPP at II-4 thru II-7. However, because a UAA is only needed to downgrade a use, and a UAA is not needed to upgrade a use, we suggest deleting the first sentence in this section and making several other changes in this first paragraph to make it clear that a UAA is only needed when removing or revising a 101(a) use. https://www.epa.gov/wqs-tech/use-attainability-analysis-uaa.

**SWQB Response 9:** Comment noted. No change made. Although a UAA, under 20.6.4.15 NMAC, is only required for those designated use changes that are proposed to be less stringent than the current designated use, or as clarified under 40 CFR 131.10, for those waterbodies that have not had a previous designated use as described under Section 101(a)(2) of the Clean Water Act and are not seeking one of those designated uses, the WQMP/CPP has described that any designated use change should have a Use Attainability Analysis. This has been implemented as a defensible and scientifically based process to provide consistency in information presented as a demonstration for such changes to the Commission.

**Amigos Bravos Comment 10:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Establishing or Revising a Designated Use through a Use Attainability Analysis. We note that the secondary contact use does not meet CWA 101(a)(2) goals and should not be included in the list of uses meeting these goals. Specifically, we suggest the following alternative language for the first paragraph of the UAA section: A Use Attainability Analysis (UAA) must be completed and approved pursuant to 20.6.4.15 NMAC and 40 C.F.R. § 131.10 before:

- A waterbody is assigned uses that do not include the designated uses specified in Section 101(a)(2) of the CWA;
- A 101(a)(2) use is removed; or
- A use is changed to include less stringent criteria than was previously applicable. The uses specified in Section 101(a)(2) reflect "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." The established designated uses meeting this goal in the State's WQS include wildlife habitat use, primary contact use, and all aquatic life use subcategories except the limited aquatic life use. A UAA is a scientific study that assesses the factors affecting the attainment of a designated use. A UAA is not needed to upgrade a designated use to a subcategory subject to more stringent criteria.

**SWQB Response 10:** Comment noted. No change made. NMED does not concur with the commenter's determination that secondary contact does not protect for recreation in and on the water as provided for under Section 101(a)(2) of the Clean Water Act. In accordance with 40 CFR 131.10. States may adopt sub-categories of a use and set the appropriate criteria to reflect the varying needs of such sub-categories. The recreational uses that are supported by secondary contact include activities such as fishing, wading, commercial and recreational boating and any other activities to which the probability of ingesting appreciable quantities of water is minimal. These are recreational activities in and on the water and dominate most of the recreational activity needs found around our State's waters.

**Amigos Bravos Comment 11:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Establishing or Revising a Designated Use through a Use Attainability Analysis. The first sentence of the second paragraph (WQMP/CPP at II-4) is also misleading. A UAA is not necessary to designate a use; a UAA is only necessary to designate a use less stringent than a CWA 101(a)(2) use or less stringent than a previously applicable use.5 We therefore suggest the following changes to the first sentence of the second paragraph: The UAA must demonstrate that attainment of a CWA 101(a)(2) use is not feasible based on one of the factors identified at 40 CFR 131.10(g):

**SWQB Response 11:** Comment noted. No change made. As stated in a previous comment, one of the requirements of the WQMP/CPP is to provide the processes the State undertakes to ensure the goals of the Clean Water Act are upheld. It is the State's prerogative to incorporate processes such as requiring a Use Attainability Analysis for demonstrating a change in designated uses, whether more stringent or less stringent. This has been incorporated because, although not specifically required, a change in any designated use is a rulemaking process to which demonstration on the proposed amendment must be brought before the Water Quality Control Commission and the Environmental Protection Agency for consideration. The Use Attainability Analysis provides a consistent and thorough method for presenting the scientific evidence supporting such change, whether more stringent or less stringent.

**Amigos Bravos Comment 12:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Establishing or Revising a Designated Use through a Use Attainability Analysis. the WQMP/CPP should specify that even if a UAA is conducted and a use is subsequently downgraded, the highest attainable use must nonetheless be assigned. (40 C.F.R. § 131.10(g)). We suggested the following changes to the last paragraph of this section (WQMP/CPP at II-5):Existing uses, defined in the WQS as "a use actually attained in a surface water of the state on or after November 28, 1975, whether or not it is a designated use", may not be removed regardless of the outcome of a UAA unless a use with more stringent criteria is added. (40 CFR 131.10(h) and Subsection A of 20.6.4.15 NMAC). In addition, even if a UAA is conducted and a use is downgraded, the highest attainable use must be assigned.

**SWQB Response 12:** Comment noted. No change made. The proposed language provided by the commenter does not differ from what is already in the WQMP/CPP.

**Amigos Bravos Comment 13:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Establishing or Revising a Designated Use through a Use Attainability Analysis. We appreciate NMED's inclusion of Figure II-2. Graphics help the public more easily understand the complicated UAA and Hydrology Protocol processes, in particular given that many people in fact understand and learn information graphically. Thank you.
**SWQB Response 13:** Comment noted. No change made. In support of language as proposed.

**Amigos Bravos Comment 14:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Figure II-2 should be revised to show that a UAA is not required to classify a waterbody as perennial unless the segment specific criteria are not supportive of CWA 101(a)(2) uses. See WQMPP/CPP at II-8.
**SWQB Response 14:** Comment noted. No change made. Figure II-2 is a schematic depicting the process for Use Attainability Analysis for those waters that have demonstrated ephemeral conditions, warranting an amendment of the designated use. Figure II-2 is not intended to address those waters to which a hydrology protocol identified a perennial hydrologic regime

**Amigos Bravos Comment 15:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Figure II-2 fails to show an outcome for waterbody that keyed ephemeral using the hydrology protocol other than placing that waterbody in 20.6.1.97 NMAC. This precludes an outcome premised on evidence that could be presented at a hearing demonstrated that there were in fact CWA 101(a)(2) existing uses of that waterbody or that CWA 101(a)(2) uses were attainable. This outcome should be provided for in Figure II-2 as a possibility, presumably to continue protections for that water body pursuant to 20.6.4.98 NMAC.
**SWQB Response 15:** Comment noted. Added language to the figure clarifying that the expedited Use Attainability Analysis is for those waters to which the Use Attainability Analysis has demonstrated the highest attainable uses are those associated with ephemeral waters and found in 20.6.4.97 NMAC. NMED concurs that the hydrology protocol does not determine the highest attainable use and some ephemeral waters could provide for a higher attainable aquatic life use than that which is afforded under 20.6.4.97 NMAC. The Use Attainability Analysis must evaluate what that highest attainable use is. In figure II-2, the expedited Use Attainability Analysis Process is only applicable if the findings support a highest attainable use of limited aquatic life and secondary contact. If there is any finding contrary to this, the regular amendment process must be followed which states that the segment would be amended to have designated uses associated with 20.6.4.97, 20.6.4.98 or a new classified segment.

**Amigos Bravos Comment 16:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Establishing or Revising a Designated Use using the Hydrology Protocol. We note here that we remain concerned with the expedited UAA process outlined in 20.6.4.15 NMAC. We intend to articulate and advance our concerns during the upcoming triennial review.
**SWQB Response 16:** Comment noted. No change made. Comment is beyond the scope of these revisions to the WQMP/CPP as they pertain specifically to language under 20.6.4 NMAC.

**Amigos Bravos Comment 17:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Establishing or Revising a Site-Specific Standard. The Section Pertaining to Site-Specific Standards Appears to Omit Words. The last sentence of the first

paragraph of this section (WQMP/CPP at II-10) appears to omit a word or words between "to" and "listed."
**SWQB Response 17:** Comment noted. Added missing language to make sentence complete. The sentence as written was incomplete, adding language provided clarification on the conditions required to consider a site-specific criteria.

**Amigos Bravos Comment 18:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Water Quality Standards for Wetlands. We thank NMED for including this section in the WQMP/CPP and fully support NMED's efforts to establish water quality standards for wetlands. See WQMP/CPP at II-10. We urge NMED to follow through on these efforts and to propose wetland standards during the next triennial review.
**SWQB Response 18:** Comment noted. No change made. In support of language as proposed.

**Amigos Bravos Comment 19:** WQMP/CPP. III. Surface Water Quality Monitoring and Assessment. A. Monitoring. We suggest not referring to a specific version of the 10-year Monitoring and Assessment Strategy in case the Monitoring Strategy is updated prior to the next WQMP/CPP update. See WQMP/CPP at III-1.
**SWQB Response 19:** Comment noted. Added language to include the 2016 State of New Mexico Surface Water Quality 10-Year Monitoring and Assessment Strategy, or the most current revision. Adding that a more current version is applicable adds clarity to meeting the purpose of this section.

**Amigos Bravos Comment 20:** WQMP/CPP. III. Surface Water Quality Monitoring and Assessment. A. Monitoring. The formatting on subsections in III is incorrect.
**SWQB Response 20:** Comment noted. Corrected formatting. Changing the formatting allows users of the WQMP/CPP to clearly identify and reference the appropriate sections.

**Amigos Bravos Comment 21:** WQMP/CPP. III. Surface Water Quality Monitoring and Assessment. A. Monitoring. While we realize that the once every 8-year intervals for monitoring surface water in the state is based on lack of staff and financial resources, it would be good to state at least an aspirational goal of increasing monitoring frequency in the WQMP/CPP. We suggest adding the following language to this section: The SWQB will strive to identify and secure additional resources to increase the frequency of water quality monitoring in New Mexico's surface waters.
**SWQB Response 21:** Comment noted. Language was added to modify the description of sampling frequency: Using this approach, a select number of watersheds are monitored for two years with an approximate return frequency of eight to ten years depending on available staff, watershed conditions, and financial resources. SWQB will continue to pursue additional funding to increase the frequency of monitoring in New Mexico's surface waters. While it has been the goal of the SWQB to revisit watersheds on an eight-year rotational cycle, further reductions in staffing have led to consideration of a ten-year cycle. SWQB has, on multiple occasions, requested additional recurring funding to fill long vacant positions as well as new positions that would enable a higher frequency of sampling. SWQB will continue to pursue additional recurring funding.

**Amigos Bravos Comment 22:** WQMP/CPP. IV. Total Maximum Daily Loads ("TMDLs"). D. TMDL Implementation. Nonpoint Sources. The section involving nonpoint sources (see WQMP/CPP at IV-3) first introduces the categories 4A, 4B, and 4C. We are not sure this is the correct location to introduce these terms and recommend that NMED consider introducing these categories in the separate section that describes the CWA 303d/305b Report (see WQMP/CPP at III-2). Regardless, it would be helpful to briefly define the differences to these categories wherever they are first introduced.

**SWQB Response 22:** Comment noted. Language was revised accordingly. The WQMP is not the place to define IR categories as they may change or be updated during each listing cycle which occurs more frequently than an update to the WQMP. If a reference for the IR categories is needed, the WQMP needs to reference the CALM.

**Amigos Bravos Comment 23:** WQMP/CPP. III. Surface Water Quality Monitoring and Assessment. B. Assessment. The section involving nonpoint sources (see WQMP/CPP at IV-3) first introduces the categories 4A, 4B, and 4C. We are not sure this is the correct location to introduce these terms and recommend that NMED consider introducing these categories in the separate section that describes the CWA 303d/305b Report (see WQMP/CPP at III-2). Regardless, it would be helpful to briefly define the differences to these categories wherever they are first introduced.

**SWQB Response 23:** Comment noted. Language was revised accordingly. The WQMP is not the place to define IR categories as they may change or be updated during each listing cycle which occurs more frequently than an update to the WQMP. If a reference for the IR categories is needed, the WQMP needs to reference the CALM.

**Amigos Bravos Comment 24:** WQMP/CPP. V. Effluent Limitations. A. Introduction. The WQMP/CPP Should Acknowledge and Account for the Implications of the Trump Administration's Dirty Water Rule and Consider a State-Run Discharge Permitting Program to Protect All Surface Waters of the State. The WQMP/CPP outlines the current National Pollutant Discharge Elimination System ("NPDES") permitting structure in New Mexico. See WQMP/CPP at V-1 thru V-5. However, changes in federal policy and regulations have weakened the effectiveness of the federal NPDES program to protect against point source pollution to New Mexico surface waters. In particular, the Trump administration's recent "Dirty Water" Rule, also known as the 2020 Navigable Waters Protection Rule,(84 Fed. Reg. 4154 (Feb. 14, 2019)) drastically reduces the scope of surface waters afforded federal CWA protection and will have disproportionately negative—and perhaps even disastrous—impacts to New Mexico surface waters. Despite the fact that pollution discharges will not stop, the dirty water rule may eliminate NPDES permitting requirements for various discharges across New Mexico. Given these new circumstances, the WQMP/CPP should identify what the state intends to do to protect water quality in the wake of the federal government's abdication of responsibility to protect water quality. We recommend that the WQMP/CPP identify the prospect of a state-run program to protect surface waters of the state that are not also waters of the U.S., extending coverage to discharges that would not otherwise be covered by CWA 402 or 404 permitting. Indeed, there is considerable value in the adoption of such a program even absent the 2020 "Dirty Water" rule given that 20% of the land area of New Mexico falls in closed basins which have not been protected by the CWA since 2006. Accordingly, there is a longstanding and now urgent and pressing need for the state to establish a safety net permitting program to protect surface waters of the state. This could be carried out in conjunction with New Mexico obtaining primacy over the National Pollutant Discharge Elimination System ("NPDES") program, but we emphasize the primary need for a safety net program to ensure protection of all surface waters of the state, as defined in the regulations, 20.6.2.7.T(2) NMAC, even if EPA retains NPDES permitting authority for waters of the U.S. Regardless, the WQMP/CPP should identify this need and opportunity. We suggest the following language to this section: Given the loss of federal CWA protections of many of New Mexico's waters (closed basins, isolated waters, and ephemeral streams), the state is considering a program to control discharges into waters of the state. Surface waters of the state that are not protected under the federal CWA are still protected under the New Mexico Water Quality Act and discharges to state waters that violate water quality standards are subject to civil and/or criminal actions pursuant to the Water Quality Act ("WQA") at NMSA 1978, Section 74-6-10.

**SWQB Response 24:** Comment noted. No change made. This WQMP/CPP is written with processes that apply under the current rule and the State's current processes. Revisions reflecting implementation of new state processes which in part may be to accommodate the new federal definition of the new navigable waters protection rule will be incorporated as developed.

**Amigos Bravos Comment 25:** WQMP/CPP. V. Effluent Limitations. A. Introduction. The WQMP/CPP should clarify language regarding technology based effluent limits and water quality-based effluent limitations. Water Quality Based Effluent Limits ("WQBELs"), not just Technology Based Effluent limits ("TBELs"), are defined in federal regulations and widely applicable. We suggest the inclusion of the following language before the last sentence of the second paragraph of Section V.A. (see WQMP/CPP at V-1) such that the end of that paragraph would read: TBELs and WQBELs are defined in federal regulations and applicable across many categories of effluent discharge. TBELs are developed independently of the specific impact that the discharge may have on water quality in the receiving waterbody. WQBELs must be included in permits when TBELs themselves will not achieve the desired water quality. The applicability of effluent limitations is summarized in Table V-1.
**SWQB Response 25:** Comment noted. No change made. WQBELs are actually not defined in the federal regulations, as they are dependent upon state water quality standard implementation, and specific conditions that pertain to the discharge being evaluated (dilution capacity of the waterbody being discharged into, type of chemicals at issue, etc. TBELs are based on technology available to treat constituents discharged from certain industries and are based on technical studies widely applicable to those treatment processes. The federal regulations could not account for the variation in water quality requirements across the nation, and so it is up to permitting authorities to specify the needs of the waterbody at hand during the permitting process. No changes needed in the final document.

**Amigos Bravos Comment 26:** WQMP/CPP. V. Effluent Limitations. A. Introduction. The WQMP/CPP Should Reference Anti-Backsliding Requirements. Anti-backing sliding is an important component of regulating discharges to surface waters. NMED should include a new section on anti-backsliding in the WQMP/CPP within section V (see WQMP/CPP at V-1 thru V-5). We suggest the inclusion of the following language: Anti-backsliding requirements apply to NPDES permit effluent limitations. Anti-backsliding refers to statutory and regulatory provisions under the CWA that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limitations, permit conditions, or standards less stringent than those established in the previous permit.
**SWQB Response 26:** Comment noted. No change made. Anti-backsliding is not appropriate for discussion in this WQMP/CPP because this is a duty for the permitting authority, which is currently EPA Region 6 in New Mexico. If the state were to assume primacy of the NPDES permitting program, we would place antibacksliding discussions and procedures into our permitting program implementation document. No changes needed to the final document.

**Amigos Bravos Comment 27:** WQMP/CPP. V. Effluent Limitations. A. Introduction. The WQMP/CPP Should Strengthen Language Regarding the Stringency of CWA 401 Certification Conditions for NPDES Permits. The WQMP/CPP should more clearly constrain the inclusion of final CWA 401 certification conditions that are less stringent than draft permit conditions. A detailed demonstration showing that the less stringent requirements would conform to water quality standards should be explicitly required. This is similar to what is included when a 401 certification sets more stringent conditions. We suggest the WQMP/CPP replace the last sentence of the first paragraph of the WQMP/CPP at V-3 with the following language: The Department may set a 401 condition that makes provisions of the draft permit less stringent so long as the Department demonstrates in detail that such action would not violate the

requirements of State law, including WQS. Absent that demonstration, the Department waives the right to certify with respect to that less stringent condition and the more stringent condition included in the draft permit must be complied with as a condition of the final permit.
**SWQB Response 27:** Comment noted. No change made. According to the federal regulations, NMED cannot condition a draft permit to make it less stringent. We can make a comment to that effect so that EPA is aware of the situation, but we cannot condition a permit to make it less stringent. As such EPA can either use the comment or they can ignore it, but if they decide to utilize a less stringent permitting scenario in the final permit, they must justify such a change via the antibacksliding requirements. No change needed.

**Amigos Bravos Comment 28:** WQMP/CPP. V. Effluent Limitations. C. Process for Determining the Priority of Permit Issuance. The WQMP/CPP's Process for Prioritizing Permit Issuance Should Account for the Trump Administration's Dirty Water Rule. the Trump administration's "Dirty Water" Rule scales back the reach of federal CWA protections to New Mexico surface waters. Accordingly, there is an urgent need for the state to adopt a safety-net permitting program. However, in addition, NMED should consider (see WQMP/CPP at V-4) options to engage with EPA Region 6 to prioritize permit issuance. This need is particularly acute given that the WQMP/CPP is updated so infrequently.
**SWQB Response 28:** Comment noted. No change made. This comment is outside the scope of this document.

**Amigos Bravos Comment 29:** WQMP/CPP. V. Effluent Limitations. D. Process for Deriving WQBELs based on Narrative Standards in NPDES Permits. We Support the Development of Narrative Standard-Based WQBELs. We appreciate that NMED has acknowledged the prospect of developing WQBELs on the basis of narrative standards. See WQMP/CPP at V-4. We encourage NMED to advance this concept through inclusion of the following language at the end of this section's paragraph: NMED will establish guidance for how to derive WQBELs based on narrative standards.
**SWQB Response 29:** Comment noted. No change made. NMED does not have the resources at this time to develop translator values for all of the narrative water quality standards. For instance, the translators that are used for nutrient values took years and a significant amount of funding and contractor time and effort from EPA HQ to develop. NMED does not have the capacity to do this in the short term at this time. NMED considers narrative standards during the development of permits and puts requirements into permits via 401 Certification when necessary.

**Amigos Bravos Comment 30:** WQMP/CPP. VI. Municipal and Industrial Waste Treatment. A. Clean Watersheds Needs Survey. The WQMP/CPP states that "every four years EPA conducts the Clean Watersheds Needs Survey and submits a report to Congress in compliance with Section 516 of the CWA" (see WQMP/CPP at V-6), yet the last Clean Watershed Needs Survey was conducted in 2012. We encourage the NMED to urge EPA to maintain the 4-year schedule and if necessary, follow up with legal action to ensure that this needs survey is done. The information included in the Needs Survey is critical to ensuring that adequate funding needs to protect New Mexico's waters are identified.
**SWQB Response 30:** Comment noted. No change made.

**Amigos Bravos Comment 31:** WQMP/CPP. VII. Nonpoint Source Management and Control. New Section. there is a need to better define Nonpoint Source (NPS) control measures, especially in the context of antidegradation protections. A section should be added to the NPS section of the WQMP/CPP that specifies that Nonpoint Source ("NPS") management in the context of antidegradation must adhere to certain standards.

**SWQB Response 31:** Comment noted. No change made. The Nonpoint Source Management Plan ("NPSMP") is incorporated by reference into the WQMP/CPP. Section 5.5 and Appendix B of NPSMP identify BMPs, by category or outcome, that are/may be used to protect water quality. 20.6.4.8.B(13) NMAC 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 Best Management Practices ("BMPs") selected to prevent, reduce or abate sources of water pollutants

**Amigos Bravos Comment 32:** Appendix A-Antidegradation Procedure. General Comment. The APIP Should Provide Guidance to Control All Sources of Water Quality Pollution and Degradation, Including Nonpoint Source Pollution. As a primary matter, we are concerned that the Antidegradation Policy Implementation Plan ("APIP") is fixated on permitted discharges to the exclusion of unpermitted discharges. We therefore ask that NMED strengthen the APIP to apply antidegradation protections to all sources of water quality pollution and degradation, whether point or nonpoint, and regardless of whether that source must obtain a federal permit or license. The plain language of New Mexico's antidegradation standards in 20.6.4.8 NMAC extend antidegradation standards to all surface waters of the state and constrain all sources of pollution and degradation, regardless of the source of pollution or the procedural mechanism (e.g., permits or best management practices) used to protect against water quality pollution or degradation from those sources. For example, the Tier 1 antidegradation standard states that: Existing instream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected in all surface waters of the state. 20.6.4.8(A)(1) NMAC. Similarly, the Tier 2 antidegradation standard provides that: 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."20.6.4.8(A)(2) NMAC. And, finally, the Tier 3 antidegradation standard explains that: 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 an in Paragraph (4) of this Subsection. 20.6.4.8(A)(3) NMAC. As is evident, the plain language of these standards provides no harbor for the conclusion that antidegradation standards only apply to particular, rather than all, sources of water quality pollution or degradation or only where an activity is subject to federal permitting or licensing requirements. To be clear, we assume that NMED agrees with our position and the plain language of the standards. But, problematically, the APIP contends that it only applies to "regulated discharges" defined as discharges "that require a permit and/or a water quality certification under Section 401 of the Clean Water Act (CWA) pursuant to state or federal law." APIP at 1. The APIP proceeds to explain that "[t]hese procedures do not apply to non-point sources" and that, "when significant degradation is determined to be a concern and NPS sources are impacting water quality, NMED will work with stakeholders to identify and implement best management practices." APIP, Section 1.2 at 2. While it is true that nonpoint sources are principally controlled through best management practices (as well as other nonpoint source pollution controls), this is besides the point. Best management practices (and other nonpoint source pollution controls) must be developed to conform to the antidegradation standards. Providing guidance within the APIP to conform to antidegradation protections also presents an opportunity for NMED to better protect water quality. Nonpoint source pollution is a serious problem that can, at least in part, be remedied by straightforward action: best management practices that are explicitly calibrated, implemented, and monitored to satisfy antidegradation standards. Otherwise, the status quo—generic

best management practices of dubious efficacy and uncertain implementation—will persist. Our concern over the APIP's narrow scope is amplified by the Trump administration's promulgation, through the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, of the dirty water rule, which drastically scaled back the reach of federal water quality protections afforded to New Mexico's surface waters. As a result, existing, permitted discharge sources may soon be left unpermitted, creating a deeply uncertain future for New Mexico's surface waters of the state. Indeed, the prospect of serious, unpermitted discharges across New Mexico without any federal oversight and, in the absence of a state-level safety net permitting program, is extremely high. Given that New Mexico's definition of surface waters of the state covers, as it should and unlike the dirty water rule, all of New Mexico's surface waters, the APIP's current focus on permitted discharges operates to undercut antidegradation protections for the vast majority of New Mexico's surface waters, limiting those protections to a far-too-narrow subset of permitted discharges dictated by the Trump administration's "Dirty Water" Rule. We also note that New Mexico retains considerable CWA section 401 certification authority to oversee activities that risk water quality pollution or degradation even though those activities may no longer be subject to Clean Water Act section 402 or 404 permitting requirements. The universe of activities that must obtain federal permits and licenses subject to Clean Water Act section 401 certification is more expansive than the universe of activities that must obtain Clean Water Act section 402 or 404 permits. This is because discharges into surface waters of the state not subject to the Clean Water Act's section 402 or 404 permitting programs nonetheless, pursuant to CWA section 401, "may result in a[] discharge into the navigable waters" and thus be subject to CWA section 401 certification.(In contrast, Clean Water Act 402 permits are required for "any addition of any pollutant to navigable waters from any point source.") We thus recommend that NMED revisit the APIP to provide guidance ensuring the application of antidegradation protections to all surface waters of the state and to all sources of pollution or degradation. This entails providing clear antidegradation guidance to three areas:

- Facilities that, even if unregulated pursuant to the CWA section 402 or 404 permitting programs, still discharge pollution or cause degradation of surface waters of the state.
- Activities subject to federal permits and licenses, other than Clean Water Act section 402 or 404 permits, subject to Clean Water Act section 401 certification.
- Development, implementation, and monitoring of best management practices and other nonpoint source pollution controls, such as Watershed Based Plans and Wetland Action Plans, that cover nonpoint sources of pollution or degradation. This would include procedures to review and monitor the efficacy of BMPs and other nonpoint source pollution management actions relative to each of the three antidegradation tiers.

**SWQB Response 32:** Comment noted. No change made. The NPSMP is incorporated by reference into the WQMP/CPP. Section 5.5 and Appendix B of NPSMP identify BMPs, by category or outcome, that are/may used to protect water quality. In accordance with 20.6.4.8.B(13)NMAC 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; while 20.6.4.8.B (14) NMAC evaluates the effectiveness of BMPs selected to prevent, reduce or abate sources of water pollutants

**Amigos Bravos Comment 33:** Appendix A-Antidegradation Procedure. Section 1. Overview of New Mexico's Antidegradation Approach. The second paragraph purports to communicate the general thrust of antidegradation protections but is confusing by virtue of not delineating the particular antidegradation tiers explicitly and by failing to reference Tier 3, even implicitly, at all. We suggest replacing the second paragraph in its entirety with the following; Antidegradation protections consist of

three levels, or tiers, of protection defined by New Mexico's water quality standards in 20.6.4.8 NMAC. Tier 1 protections provide a floor of protection, ensuring that existing instream water uses and the level of water quality necessary to protect those existing uses are maintained and protected. Tier 2 protections maintain and protects water quality that exceeds water quality numeric and narrative criteria, prohibiting any lowering of water quality unless necessary to accommodate social or economic need. Tier 3 protections are afforded to waters designated by the WQCC as ONRWs. In ONRWs, no degradation is permitted except in limited, specifically defined instances, such as to accommodate public health or safety activities or to enable activities to restore or maintain water quality.

**SWQB Response 33:** Comment noted. Language was added to include non-point sources. Tiering is discussed further into the document. The second paragraph is still correct in that these **procedures** do not apply to non-point sources, which will be addressed in the next reiteration of the Non-Point Source Management Plan (NPSMP). No changes needed in the final document.

**Amigos Bravos Comment 34:** Appendix A-Antidegradation Procedure. Section 1. Overview of New Mexico's Antidegradation Approach. 1.2 Coverage and General Applicability. We appreciate the APIP's clear application, on page 2, to all "surface water[s] of the state." We, however, recommend that NMED take action to in fact protect all surface waters of the state by accounting for climate change and federal actions to weaken or eliminate federal water quality protections. At present, the APIP does not acknowledge the massive threat presented by climate change to New Mexico's surface waters. Moreover, by fixating on "permitted discharge[s]" to the exclusion of nonpoint source pollution, NMED is effectively delimiting the reach of antidegradation protections to the Trump administration's 2020 "Dirty Water" Rule.

**SWQB Response 34:** Comment noted. No change made. NMED does not have a regulatory mechanism in place to force nonpoint source discharges to conform to antidegradation evaluations, even if they are shown to be an issue. The permitting mechanism is the only way by which NMED can force or encourage change. The nonpoint source component of antidegradation reviews will be addressed in the Non-Point Source Management Plan (NPSMP) upon its revision in 2021. These procedures are solely meant for permitted discharges. No changes needed to final document.

**Amigos Bravos Comment 35:** Appendix A-Antidegradation Procedure. Section 1. Overview of New Mexico's Antidegradation Approach. 1.3 Coordination with Assessment and Impairment Listing. For Tier 3, the APIP on page 3 says "[n]o long-term degradation is allowed in an ONRW." This statement is imprecise, does not reflect Tier 3 standards provided by 20.6.4.8(A)(3) NMAC, and should be corrected. Tier 3 standards provide that no degradation is permitted except in narrow, specifically-defined circumstances, including where degradation is confined to the "shortest possible time and shall not exceed six months" and subject to further caveats, e.g., that it is necessary for public health or safety activities or water quality restoration or maintenance activities and, even then, must "not alter the essential character or special use that makes the water an ORNW." Thus, there are circumstances where, e.g., "short-term" degradation of 5 months is precluded if that degradation does not fall into specific, allowable categories of temporary degradation (e.g., activities that accommodate public health and safety or restoration) or if that degradation can be further limited, e.g., through modification to project design, to 1-month period or where, e.g., even if limited to the shortest possible time, the degradation would "alter the essential character or special use" underpinning the ONRW designation. the last sentence is confusing and seems to indicate that projects that cause short term degradation are to be prioritized for funding, which shouldn't be the case. We recommend replacing the language in the Tier 3 bullet on page 3 with the following language: Tier 3 Protection (applicable to all waters designated as an ONRW): No degradation is allowed in waters designated as ONRWs except in specifically defined circumstances and for the shortest possible amount of time. Even short-term degradation is prohibited

if it would alter the essential character or special use of the ONRW. NMED may award priority points for grants or other funding programs that restore or maintain water quality in ONRWs.
**SWQB Response 35:** Comment noted. Changes incorporated in final document. Language revised to reflect conditions in 20.6.4.8.A(3) NMAC.

**Amigos Bravos Comment 36:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. the reference to "state antidegradation rule" on page 4 should be changed to "state antidegradation standard." This is a distinction with a legally significant difference; antidegradation protections are "standards" promulgated pursuant to § 74-6-4(D) NMSA, not "rules" promulgated pursuant to separate authority in § 74-6-4(E) NMSA.
**SWQB Response 36:** Comment noted. No change made. Although the antidegradation policy is part of the State's Standards for Intrastate and Interstate Surface Waters under 20.6.4 NMAC, it is technically a regulation, not a standard as codified under 20.6.4 NMAC. The distinction between a regulation and a standard as it pertains to the New Mexico Water Quality Act (74-6-6 NMSA 1978) was demonstrated under *Univ. of Cal. v. N.M. Water Quality Control Comm'n, 2004-NMCA-073, 136 N.M. 45, 94 P.3d 788.*

**Amigos Bravos Comment 37:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. We have substantial concerns with the APIP's allowance for what it characterizes as "de minimis" degradation, defined as consumption of less than 20% of the assimilative capacity of the receiving water or any consumption of assimilative capacity that exceeds a cumulative cap of 50% for a pollutant of concern. See APIP at 4. While de minimis thresholds are used in some states, they are not sanctioned by the Clean Water Act, associated regulations, or the water quality standards handbook as an option for avoiding antidegradation review.
**SWQB Response 37:** Comment noted. Changes incorporated in final document. NMED has revised the proposed 20% de minimis threshold to the previously used 10% threshold. However, NMED is keeping the 50% as another protective measure to safeguard assimilative capacity in the event that there are multiple dischargers to the same stream segment. Additionally, NMED has clarified that de minimus provision do not apply to bioaccumulative pollutants as defined by the HH-OO designation in the WQS. Changes have already been made to the final document showing these updates.

**Amigos Bravos Comment 38:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. We also question the lack of basis for NMED's determination that degradation is only significant if it consumes more than 20% of the assimilative capacity (or 50% cumulatively). The APIP provides no scientific or credible basis for the 20% and 50% levels. Indeed, these levels seem extreme, in particular because an exceedance of these thresholds only triggers a Tier 2 review, not an outright denial of a new or increased discharge. Moreover, the de minimis threshold fails to provide for critical case-by-case evaluation to determine whether actions that consume less than 20% of the assimilative capacity of the receiving water (or less than 50%, cumulatively) nonetheless constitutes, in context, significant degradation compelling comprehensive Tier 2 antidegradation review. As EPA rightly cautioned in 2015:

- EPA has not found a scientific basis to identify a specific percentage of loss of assimilative capacity or lowering of water quality that could reasonably be considered insignificant for all parameters, in all waters, at all times, for all activities.
- Depending on the water body's chemical, physical, and biological characteristics and the circumstances of the lowering of water quality, even very small changes in water quality could cause significant effects to the water body.

Courts have explained that the implied de minimis provision authority is ‘‘narrow in reach and tightly bounded by the need to show that the situation is genuinely de minimis or one of administrative necessity.’’ Accordingly, this authority only applies ‘‘when the burdens of regulation yield again of trivial or no value.’’

Finally, a ‘‘determination of when matters are truly de minimis naturally will turn on the assessment of particular circumstances, and the agency will bear the burden of making the required showing.’’ Unless a state or authorized tribe can provide appropriate technical justification, it should not create categorical exemptions from Tier 2 review for specific types of activities based on a general finding that such activities do not result in significant degradation. States and authorized tribes should also consider the appropriateness of exemptions depending on the types of chemical, physical, and biological parameters that would be affected. U.S. EPA, Water Quality Standards Regulatory Provisions, 80 Fed. Reg. 51020, 51034-35 (Aug. 21, 2015) (footnotes and citations omitted). Applied here, EPA's words should compel NMED to revisit its attempted use of a de minimis threshold because the threshold:

(1) lacks any basis, let alone a requisite reasoned scientific and technical basis;
(2) fails to account for the possibility that even small changes to water quality can cause significant degradation by providing for a case-by-case evaluation to determine significance;
(3) is neither narrowly tailored nor tightly bounded; and
(4) provides no showing that Tier 2 antidegradation review for actions that consume less than 20% of a receiving water body's assimilative capacity (or 50% cumulatively) would yield only trivial or no value. NMED has thus not satisfied its high burden to justify the APIP's de minimis threshold and the de minimis threshold should be eliminated from the APIP in its entirety.

EPA has notably rejected other state's use of de minimis levels that are far less than the 20% included in New Mexico's APIP. In 2013, EPA disapproved Idaho's Antidegradation Implementation Procedures because of their use of a 10% cumulative de minimis before antidegradation is triggered. EPA found that "in at least some cases, the [10%] provision could require Idaho to deem insignificant and, therefore, exempt from Tier 2 review, certain proposed activities or discharges involving bioaccumulative pollutants even though such activities or discharges may cause significant degradation."9 These factors combined with the fact that to our knowledge few, if any, Tier 2 antidegradation reviews have occurred in New Mexico, demonstrates that this threshold is unreasonably high and indeed entirely unwarranted and unjustified. Water quality in New Mexico is too precious for the use of any de minimis thresholds--in particular in light of federal actions weakening federal CWA protections--and we strongly suggest that NMED eliminate the de minimis threshold entirely. Third, the statement on page 4 that "Tier 2 may also apply to intermittent waters if data are available and indicate a high-quality water" should be removed. The next sentence in this section correctly states that "Tier 2 is the default protection level for all high-quality perennial and intermittent waters (i.e., water quality is better than the applicable WQS)." Tier 2 protections should not be premised on the availability of water quality data. If baseline water quality (BWQ) data does not exist, a potential discharger should collect water quality data prior to applying for a permit. In addition, the language in section 2.1, read in isolation, does not explain what level of protection is provided in the absence of data. We suggest adding the following language to clarify this situation: If BWQ data is not available for the proposed receiving stream, whether it is perennial or intermittent, BWQ must be collected prior to subsequent antidegradation review and associated permitting decisions. Elsewhere, the APIP in section 3.1 on page 7 explains that "non-perennial waters will receive Tier 1 protection for all pollutants of concern unless there is sufficient BWQ data to demonstrate a high-quality water for intermittent waters to which a Tier 2 evaluation would be appropriate." As per our comments above, we suggest removing this language and replacing it with the following: Non-perennial waters will receive Tier 2 protections for all pollutants of concern unless there

is significant BWQ data to demonstrate that Tier 1 protections are more appropriate, or the water is an ONRW in which case Tier 3 protections apply.
**SWQB Response 38:** Comment noted. Changes incorporated in final document. NMED has revised the proposed 20% de minimis threshold to the previously used 10% threshold. However, NMED is keeping the 50% as another protective measure to safeguard assimilative capacity in the event that there are multiple dischargers to the same stream segment. Additionally, NMED has clarified that de minimis provision do not apply to bioaccumulative pollutants as defined by the HH-OO designation in the WQS. Changes have already been made to the final document showing these updates.

**Amigos Bravos Comment 39:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. Section 2.1 should therefore clearly communicate that Tier 2 protections are appropriate for all waters unless there is data to show that the water is impaired, or the water is designated an ONRW. This recommendation should be carried forward through commensurate changes to section 4, which defines how baseline water quality is determined. See APIP, Section 4 at 21.
**SWQB Response 39:** Comment noted. No change made. Tier 2 protections are appropriate when there is water upstream of the discharge to provide data to calculate baseline water quality. In the case of ephemeral, some intermittent and effluent dependent waters, there is not data to calculate baseline, therefore making an antidegradation analysis impossible. NMED takes a conservative approach in these waters by requiring Tier 1 evaluations, which in turn require meeting WQS at the end of pipe. No changes needed to final document.

**Amigos Bravos Comment 40:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. The statement on page 4 regarding Tier 3 protections is imprecise by omission. The language in this section should be changed as follows: Tier 3 prohibits degradation except in circumstances provided by and subject to 20.6.4.8(A)(3) and 20.6.4.8(A)(4) NMAC.
**SWQB Response 40:** Comment noted. No change made. The language in this section already accounts for the process required by 20.6.4.8(A)(3) and (4). No changes needed to the final document.

**Amigos Bravos Comment 41:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. The paragraph on page 4 providing that "[a]ntidegradation is more about levels of protection than it is about levels of quality" is confusing and should be rephrased as follows: Conformance with antidegradation standards may involve consideration of numeric and narrative water quality as well as other considerations. For example, Tier 3 Outstanding National Resource Waters require consideration of "the essential character or special use that makes the water an ORNW," such as high ecological or recreational value.
**SWQB Response 41:** Comment noted. Changes incorporated in final document. Similar language has been added to the final document for clarification.

**Amigos Bravos Comment 42:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. The statement on page 4 contending that "[m]ost of the interest in antidegradation policy is regarding Tier 2 waters" is subjective, unsubstantiated, and unnecessary. Accordingly, it should be struck.
**SWQB Response 42:** Comment noted. Changes incorporated in final document. NMED rephrased to state that "most of the involvement" with antidegradation policy is with Tier 2 waters.

**Amigos Bravos Comment 43:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. The statement on page 4 contending that dischargers "may have to expend extra effort" is imprecise and subjective. We recommend that NMED change the APIP to match the

antidegradation standards as follows: Tier 2 waters maintain high-quality waters by requiring proponents of action that would degrade water quality to demonstrate that allowing lower water quality is necessary to accommodate important economic and social development in the area in which the water is located.
**SWQB Response 43:** Comment noted. Changes incorporated in final document. NMED can rephrase to something similar but it might not be this exact wording.

**Amigos Bravos Comment 44:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.2 Designation of Tier Category. The first paragraph of this section and Table 2-1 both identify effluent dependent waters as categorically receiving Tier 1 protections. The APIP fails to provide a basis for this categorization. In New Mexico even the Rio Grande could be considered an effluent dependent water during certain times of the year. This broad categorization does not take into account that many downstream users depend on effluent dependent waters for irrigation, recreation, and even drinking water. In addition, treatment technology in many cases and for many parameters can treat water to levels higher than water quality standards resulting in water quality that is higher than the applicable standards. Also, for some parameters, such as E. coli or temperature, pollution can be assimilated or diminished downstream resulting in higher water quality than at the point of discharge. We suggest removing all references to effluent dependent waters in both this section and in all other sections (such as in section 5.2 on page 28) and therefore, by default, granting effluent dependent waters the same protections as other waters of the state.
**SWQB Response 44:** Comment noted. No change made. NMED believes that applying a Tier 1 designation to effluent dependent waters is a conservative approach because the water quality standards must be met at the end of the pipe - there is no dilution and this is therefore protective of the intermittent or ephemeral waterbody (and its designated uses) that is receiving the effluent. NMED changed the definition of "effluent dependent waters" to specify that they would be ephemeral but for the discharge.

**Amigos Bravos Comment 45:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.2 Designation of Tier Category. The first sentence of paragraph 2 should be revised to assign Tier 2 protections to all waters—not just perennial and possibly some intermittent waters—if BWQ shows that water quality exceeds standards. Suggested language for the first sentence of paragraph 2 on page 5: Waters that are found to have existing water quality better than applicable water quality standards are protected at the Tier 2 level.
**SWQB Response 45:** Comment noted. No change made. Antidegradation tiers apply to all waters but apply differently depending on the constituent by constituent analysis. A waterbody may be impaired (Tier 1) for certain constituents, but then is Tier 2 for others that meet the WQS set for them. No change needed in final document. See comment above.

**Amigos Bravos Comment 46:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. As per our comments above we do not think it is appropriate to permit discharges into waters unless BWQ has been established. Potential dischargers should be required to collect BWQ prior to requesting permission to discharge. This should be applicable to all waters including intermittent and effluent dependent waters.
**SWQB Response 46:** Comment noted. No change made. Upon the finalization of this document, new dischargers will be required to establish BWQ prior to initiating their discharge. Existing dischargers will be evaluated when they renew their NPDES permit. Intermittent and effluent dependent waters may not have available data in order to calculate baseline and NMED will evaluate this on a case by case basis. No changes needed to final document.

**Amigos Bravos Comment 47:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. Page 8 uses the word “translators” in several instances. We recommend that NMED, in this section, clearly explain that term and its meaning for non-technical readers.
**SWQB Response 47:** Comment noted. Changes incorporated in final document. Added definition for "translators".

**Amigos Bravos Comment 48:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The APIP, on page 8, categorically states that “[i]f a narrative standard does not have associated translators, NMED will not evaluate the narrative standard for antidegradation purposes due to the impracticality of such an evaluation.” Absent further explanation, the APIP does not seem to provide an adequate basis for this statement. We recommend that NMED, rather than categorically decide not to evaluate narrative standards for antidegradation purposes, instead apply a case-by-case evaluation to gauge whether or not it is in fact impractical to evaluate such narrative standards and, if so, to provide a reasoned explanation for that conclusion.
**SWQB Response 48:** Comment noted. No change made. Because of the difficulty of evaluating a narrative standard (in general), NMED cannot easily ascertain whether an exceedance of a narrative standard is going to significantly impair the receiving water. We can conduct a general evaluation with respect to effects during a full Tier 2 review, taking into account how it would impact social or economic issues in the area, but we do not have thresholds to detail whether a narrative standard violation is a problem. No changes needed in final document.

**Amigos Bravos Comment 49:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The APIP, on page 9 states that “Any discharge that would degrade existing water quality in an ONRW is prohibited, unless the applicant demonstrates that the water quality impacts are temporary and receives approval according to the process in 20.6.4.8 NMAC.” We suggest a slight change in this language to: Any discharge that would degrade existing water quality in an ONRW is prohibited, unless the applicant demonstrates that the water quality impacts are necessary for public health and safety or restoration, are temporary, and receives approval according to the process in 20.6.4.8 NMAC.
**SWQB Response 49:** Comment noted. Changes incorporated in final document. The first paragraph under Tier 3 was revised to state, "Discharges that impact ONRWs are subject to Tier 3 antidegradation review. New or expanded discharges that may cause degradation directly to an ONRW listed under 20.6.4.9(D) NMAC are prohibited, except in limited, specifically defined and temporary events, such as to accommodate public health or safety activities or to enable activities to restore or maintain water quality, as outlined in 20.6.4.8.A(3) and (4) NMAC."

**Amigos Bravos Comment 50:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The APIP on page 9, provides that “NMED will impose controls necessary on indirect discharges that occur upstream or to tributaries of an ONRW to maintain and protect existing water quality in the downstream ONRW.” We recommend that NMED strike the word “necessary” as this imposes an inappropriate burden on the application of such controls not found in the antidegradation standards.
**SWQB Response 50:** Comment noted. No change made. NMED disagrees. During permitting evaluations, NMED will assess discharges above ONRWs to ensure protection of those downstream waters, if the situation arises. No changes needed to final document.

**Amigos Bravos Comment 51:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The APIP, on page 9, references the responsibility imposed by Tier 3 antidegradation standards to ensure that "degradation shall not alter the essential character or special use that makes the water an ONRW." We recommend that NMED provide guidance on how to identify that essential character or special use and how to complete the requisite evaluation of potential degradation relative to those factors. We suggest that the WQMP/CPP at least replace the fourth bullet on the bottom of page 9 to the following: The degradation shall not alter the essential character or special use that makes the water an ONRW by reference to the proceedings and final decision establishing that ONRW.
**SWQB Response 51:** Comment noted. Changes incorporated in final document. Clarified 4th bullet in the referenced paragraph.

**Amigos Bravos Comment 52:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. We suggest adding a new subsection to the Tier 3 Review section to provide guidance as to what steps should be taken if degradation is found in Tier 3 waters. This is not a hypothetical situation as some waters in the Valle Vidal, all of which are ONRWs, are showing new degradation. We recommend the following language be incorporated into the APIP: If degradation of water quality is detected in an ONRW the following actions will be taken:

- NMED will reach out to the appropriate land owner(s), land manager(s), and other interested parties, including the original ONRW petitioners, and will conduct a meeting or meetings with the purpose of drafting an action plan that details potential sources of the degradation and actions to take to address and/or remedy the degradation.
- NMED, in collaboration with the land managers and owners associated with the ONRW, will increase water quality sampling frequency to at least once annually in the ONRW until degradation is improved to the baseline water quality levels in existence at the time of ONRW designation.

**SWQB Response 52:** Comment noted. No change made. This language or similar measures will be addressed in the revision of the Non-Point Source Management Plan (NPSMP), due for revision in 2021.

**Amigos Bravos Comment 53:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.2 Antidegradation Review Requirement by Type of Permit. Relative to Tier 3 protections, we understand that the graphic is intended to provide a shorthand understanding of 20.6.4.8(A)(3) NMAC, but we are nonetheless concerned that the shorthand reduction of Tier 3 protections to "temporary" degradation and will cause confusion. We thus recommend that all references to "Degradation longer than temporary" be replaced with "conforms to Tier 3 requirements."
**SWQB Response 53:** Comment noted. Figure 3-2 was revised to include, "conforms to Tier 3 requirements."

**Amigos Bravos Comment 54:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.2 Antidegradation Review Requirement by Type of Permit. Figure 3-2. For individual NPDES stormwater permits, there is no outcome that results in the denial of a permit. We understand that an opportunity should be provided to strengthen a stormwater plan to address deficiencies, but permits should be denied where, even with action to strengthen a stormwater plan, BMPs are still ineffective, permit conditions remain unsatisfied, or the permit would otherwise still cause a violation of water quality standards. This should be made clear in figure 3-2.

**SWQB Response 54:** Comment noted. Figure 3-2 was revised to show that if certain requirements are not met then the stormwater plan needs to be revised to meet the requirements or the individual stormwater permit will be denied.

**Amigos Bravos Comment 55:** Due to an internal tracking error there is no comment number 55 for Amigos Bravos.

**Amigos Bravos Comment 56:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.3 Individual NPDES Permits. We appreciate the need for NMED to identify a metric to determine whether a non-degrading or less degrading pollution control alternative is cost-effective and reasonable. However, NMED should, in addition to using this metric, also apply other factors, including the water quality benefits obtained by alternatives that cost more than the base cost of the pollution control measures associated with the proposed discharge. We thus recommend the inclusion of "presumptively" in the second to last paragraph on page 16 before "cost effective and reasonable" as well as the inclusion of language providing for consideration of other factors such that the second to last paragraph would read as follows: As a rule of thumb, NMED will consider non-degrading or less degrading pollution control alternatives with costs that are less than 110 percent of the base costs of the pollution control measures associated with the proposed discharge to be presumptively cost-effective and reasonable (see Chapter 6.4 of this appendix). NMED may also determine that non-degrading or less degrading pollution control alternatives with costs exceeding 110 percent of the base costs of the pollution control measures associated with the proposed discharge are cost-effective and reasonable if NMED determines that the water quality benefits of those alternatives outweigh the costs.
**SWQB Response 56:** Comment noted. The sentence was revised to state, "It should be noted that the 110% cost-effectiveness criterion is a general rule-of-thumb – if pollution control costs for alternatives that would result in water quality benefits exceed the 110% cost threshold, those alternatives may be required if the water quality and environmental benefits outweigh the economic costs." There is a participation process throughout Tier 2 reviews, including a hearing through the WQCC.

**Amigos Bravos Comment 57:** Appendix A-Antidegradation Procedure. Section 6. Identifying and Evaluating Pollution Control Alternative for Tier 2 Protection. 6.4 Cost and Reasonableness Criteria for Alternatives Evaluation. This change should also be carried forward into section 6.4 by revising the last sentence of the first paragraph straddling pages 34 and 35 by striking "slightly" and otherwise adjusting the language as follows: It should be noted that the 110% cost-effectiveness criterion is a general rule-of-thumb—if pollution control costs for alternatives that would result in substantial water quality benefits exceed the 110% threshold, those alternatives may be required if NMED determines that the benefits of those alternatives outweigh the costs.
**SWQB Response 57:** Comment noted. Removed "substantial" (WQ benefits) and "slightly" (exceed 110% cost threshold)

**Amigos Bravos Comment 58:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.3 Individual NPDES Permits. Permit Limits and Antidegradation Requirements for Individual Permits. We further recommend that NMED strengthen the language on page 17 regarding BMPs. BMPs should not just be identified, they should be calibrated to achieve WQS, in fact implemented, and monitored, once implemented, for effectiveness to determine whether such BMPs need to be strengthened to achieve WQS. Accordingly, we recommend that the last sentence in the first full paragraph on page 17 be revised as follows: If significant degradation is proposed, the applicant must show that the highest requirements for new and existing point source discharges are achieved,

that all cost effective and reasonable best management practices for non-point source pollution control are identified, calibrated to achieve WQS, implemented in fact, and monitored to ensure effectiveness, and strengthened if necessary to achieve WQS and that Tier 1 protection is provided.
**SWQB Response 58:** Comment noted. NMED added language to this section. While there have been effectiveness studies conducted for BMPs, there isn't a study available for every BMP/pollutant combination. This would be a very difficult analysis without the appropriate tools. NMED agrees that BMPs should be monitored and calibrated/replaced as we learn more about their effectiveness.

**Amigos Bravos Comment 59:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.3 Individual NPDES Permits. In section 3.6, the WQMP/CPP references NMED's CWA section 401 certification authority regarding CWA section 404 permits. We appreciate this language but wonder why similar language is not provided in sections 3.3, 3.4, and 3.5 relative to NPDES individual, stormwater, and general permits. We suggest that NMED consider a consolidated section in the WQMP/CPP regarding its CWA section 401 certification authority relative to antidegradation as applied to all federal permits and licenses, inclusive of sections 402 and 404 permits and other federal permits or licenses subject to CWA section 401 certification.
**SWQB Response 59:** Comment noted. Changes incorporated in final document.

**Amigos Bravos Comment 60:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.4 Individual NPDES Storm Water Permits. In section 3.6, the WQMP/CPP references NMED's CWA section 401 certification authority regarding CWA section 404 permits. We appreciate this language but wonder why similar language is not provided in sections 3.3, 3.4, and 3.5 relative to NPDES individual, stormwater, and general permits. We suggest that NMED consider a consolidated section in the WQMP/CPP regarding its CWA section 401 certification authority relative to antidegradation as applied to all federal permits and licenses, inclusive of sections 402 and 404 permits and other federal permits or licenses subject to CWA section 401 certification.
**SWQB Response 60:** Comment noted. No change made. Changes incorporated in final document.

**Amigos Bravos Comment 61:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.5 General NPDES Permits. In section 3.6, the WQMP/CPP references NMED's CWA section 401 certification authority regarding CWA section 404 permits. We appreciate this language but wonder why similar language is not provided in sections 3.3, 3.4, and 3.5 relative to NPDES individual, stormwater, and general permits. We suggest that NMED consider a consolidated section in the WQMP/CPP regarding its CWA section 401 certification authority relative to antidegradation as applied to all federal permits and licenses, inclusive of sections 402 and 404 permits and other federal permits or licenses subject to CWA section 401 certification.
**SWQB Response 61:** Comment noted. Changes incorporated in final document.

**Amigos Bravos Comment 62:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.6 Section 404 Permits. We appreciate that the APIP, on page 19 provides for individual certification of CWA 404 permits in ONRWs. This is reasonable and appropriate.
**SWQB Response 62:** Comment noted. No change made. In support of language as proposed.

**Amigos Bravos Comment 63:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.6 Section 404 Permits. The APIP unfortunately reduces Tier 3 antidegradation requirements to a limited shorthand description contained within a parenthetical that states "i.e., only temporary impacts are allowed." APIP at 19. This shorthand is problematic as it is imprecise by omission and the use of "i.e." rather than "e.g." suggests that Tier 3 antidegradation protections only prohibits

impacts longer than temporary. This is not the case. Furthermore, while temporary impacts may be allowed, they may also be prohibited if, for example, the impacts would degrade the essential character or special use that makes the water an ORNW. 20.6.4.8(A)(3)(a)(iv) NMAC. Whether impacts are "temporary" is thus a single, but not exclusive, criterion in preventing degradation. This section should refer to Tier 3 antidegradation protections as a whole by replacing reference to "temporary impacts" with reference to 20.6.4.8(A)(3) NMAC as a whole.
**SWQB Response 63:** Comment noted. Changes incorporated in final document.

**Amigos Bravos Comment 64:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.6 Section 404 Permits. We also note that the overview of antidegradation review for individual section 404 permits on page 20 provides explanations for Tier 1 and Tier 2, but not Tier 3. This should be remedied by including a reference to Tier 3.
**SWQB Response 64:** Comment noted. Changes incorporated in final document.

**Amigos Bravos Comment 65:** Appendix A-Antidegradation Procedure. Section 6. Identifying and Evaluating Pollution Control Alternative for Tier 2 Protection. 6.2 Identifying Cost Components and Assessing Costs. Section 6.2 provides a framework to assess the costs related to different alternatives considered as part of Tier 2 antidegradation reviews. Here, we recommend that NMED account for not only the direct capital, operating, and other costs incurred by the proponent of an action, but the true, full costs incurred by the public by virtue of degraded water quality and related ecosystem services.(Our comments regarding Total Economic Valuation are liberally appropriated—in certain instances, virtually word-for-word—from the excellent June 2015 comments submitted by the Conservation Economics Institute to the U.S. Bureau of Land Management regarding proposed oil and gas rules.
(See http://www.conservationecon.org/#!og/kl7ht.)

Using such an approach acknowledges that protecting water quality and the ecological integrity of surface waters of the state provide non-market value that contributes to social and economic conditions. Such non-market costs can be accounted for through adoption of a "Total Economic Valuation" framework. (Peterson, G.L. and C.F. Sorg. 1987. Toward the measurement of total economic value. USDA Forest Service. GTR RM-148. Fort Collins, CO) Use of such a framework is well established in economics literature and far from novel in application to government decision-making. For example, the White House Office of Management and Budget, Council on Environmental Quality, and Office of Science and Technology Policy released a memorandum, M-16-01, on October 7, 2015 directing federal agencies to incorporate ecosystem services into their decision-making, including through "monetization" and "ecosystem-services assessment methods" where "an agency's analysis require consideration of costs."
(Available at https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2016/m-16-01.pdf. M-16-01 at 2)

Total Economic Valuation provides an excellent means of assessing the non-market economic costs of water quality degradation (and the non-market economic benefits of water quality protection) to sharply defining the issues and providing a clear basis for choice among alternatives by the decisionmaker and the public. Total Economic Valuation has been effectively harnessed to evaluate the non-market benefits of clean groundwater (See, e.g., National Academy of Sciences, Valuing Groundwater: Economic Concepts and Approaches, Committee on Valuing Groundwater, National Research Council (1997); Young, R. A., & Loomis, J. B., Determining the Economic Value of Water: Concepts and Methods, Routledge (2014); U.S. Environmental Protection Agency, Economic Analysis for Revised Uranium Mill Tailings Standards (EPA 402-R-14-003) (2015).) and Wilderness (Morton, P., The

Economic Benefits of Wilderness: Theory and Practice, University of Denver Law Review, Volume 76, No. 2 pp. 465-518 (1999)).

Total Economic Valuation recognizes that the public goods and services produced by protected surface waters of the state have characteristics that are not necessarily profitable if exploited by private enterprise. The ecological value of a watershed, for example, is difficult to divide up and sell to individual consumers. It is also difficult to exclude "free riders" that consume the assimilative capacity of a surface water of the state but are unwilling to pay for it. In these situations, private firms have little economic incentive to protect watersheds and market forces fail to produce an adequate supply, despite the fact that additional, protected watersheds may be economically rational and socially desirable. Without adequate protection of these public goods and services from new or increased discharges, society as a whole is less wealthy, and people and communities may be left worse off.

While the economic value of rival and excludable commodities, such as commercial activities which discharge pollution into surface waters of the state, can be measured with market data, there are externalities (negative public goods, or public "bads") that often result from these activities (such as water quality degradation) that are not traded in markets and whose values are not reflected in market prices. Exclusive reliance on measures of value based on the market prices of commodities is thus incomplete. Put simply, the value of non-market public goods and services produced by surface waters of the state are not reflected in market transactions and therefore lack prices. The fact that non-market goods are not priced does not mean they have no value, only that market indicators of the value do not exist. Fortunately, economists have developed methods for estimating non-market values when consumers are unable to express their preferences and willingness-to-pay via the marketplace.

Non-market values are estimated by economists using two main methods: (1) stated preference; and (2) and revealed preference. Stated preference relies on surveys that ask respondents to state their maximum willingness to pay for a non-market good or to choose from among a set of nonmarket goods with varying attributes and price levels. Revealed preference methods derive the value of non-market goods through actual behavior including expenditures on travel and medical care, property values, and wage rates. Stated preference methods are the only way to estimate passive-use benefits (e.g., option, bequest and existence values). Several choice experiment applications have examined passive use values from the management of public land. Garber-Yonts, et al. studied the preferences of Oregonians regarding the management of Oregon's Coast Range, including large acreage of BLM land. (Garber-Yonts, et al. 2004. Public Values for Biodiversity Conservation Policies in the Oregon Coast Range. Forest Science 50(5).) And Adomowicz, et al. studied stakeholders' preferences regarding industrial forest management and other use and passive use values. (Adomowicz, W.L.; P.C. Boxall. Pages E950E99 in Proceedings of the technology and paper 79th annual meeting. Canadian Woodland Forum, March 22-25, 1998, Montreal, Quebec;) Both studies find evidence of high valuations for passive-use values.

To complete a reasoned and informed benefits-cost analysis, we therefore recommend that NMED employ a Total Economic Valuation framework to fully assess the non-market benefits and costs associated with actions that would degrade Tier 2 surface waters of the state. As Field and Field point out, "[b]enefit-cost analysis is for the public sector what a profit-and-loss analysis is for a business firm" (p. 118).(Field, B.C. and M. K. Field. 2009. Environmental Economics: An Introduction (5th edition). McGraw Hill: Boston, MA 448 pp. ) Economic efficiency takes the perspective of all of society, and examines all the costs and benefits associated with activities that degrade surface waters of the state, including non-market values, to make a reasoned and informed determination whether a proposed

activity that would degrade a Tier 2 water is justified on the basis that it in fact provides a sufficiently compelling economic or social benefit.
**SWQB Response 65:** Comment noted. Language added to Section 7.2 - role of applicant. Environmental costs/benefits are addressed in the document - see section 6.3 and appendix A.4 See also section 7.2 - added: "The applicant may choose or may be required to describe additional factors as needed to strengthen its Social and Economic Importance Analysis. Appendix A.4 provides examples of other issues that might be helpful to address in developing an analysis."

**Amigos Bravos Comment 66:** Appendix A-Antidegradation Procedure. Section 7. Social and Economic Importance for Tier 2 Reviews. 7.1 Regulatory Requirements for Social and Economic Analysis. Section 7 of the APIP provides for consideration of the social and economic importance of a proposed discharge to determine whether that discharge is permissible in accord with Tier 2 antidegradation protections. See APIP, Section 7 at 38-40. Yet the social and economic benefits advanced by the proponent of a particular activity that results in a discharge into a Tier 2 water should be considered in the context of total market and non-market social and economic benefits (and costs) of either allowing or prohibiting that discharge. Moreover, social and economic benefits should clearly account for public health and environmental justice issues, which are fundamental to accurate and effective analysis of social and economic benefits and costs and conformance to New Mexico Executive Order 2005-056 (Nov. 18, 2005). We thus recommend the following changes to section 7: First, whenever the APIP references benefits, it should also reference costs. Thus, for example, we recommend that the second sentence of the second paragraph in section 7.1 on page 38 read as follows: First, the applicant conducts an analysis of the market and non-market social and economic benefits and costs associated with the discharge. This change would align that sentence of section 7.1 with the sentence that immediately follows, which does reference both “social and economic benefits/costs.” And this basic change—e.g., referencing the prospect of both market and non-market benefits and costs—should be made throughout section 7 of the APIP and, ideally, throughout the APIP as a whole, including through changes to the Appendix A.2 worksheet.
**SWQB Response 66:** Comment noted. Changes incorporated in final document.

**Amigos Bravos Comment 67:** Appendix A-Antidegradation Procedure. Section 7. Social and Economic Importance for Tier 2 Reviews. 7.2 Role of the Applicant. In section 7.2, NMED should acknowledge that each of the identified benefits could also be considered a potential cost of a proposed discharge. For example, a proposed discharge may create, expand, or maintain employment at a facility, or it may cause the loss of employment at a farm or ranch downstream of the proposed discharge that is no longer able to operate. This section should be revised accordingly throughout.
**SWQB Response 67:** Comment noted. Added language to clarify. The section was modified to state, "The applicant may choose or may be required to describe additional factors as needed to strengthen its Social and Economic Importance Analysis. Appendix A.4 provides examples of other issues that might be helpful to address in developing an analysis."

**Amigos Bravos Comment 68:** Appendix A-Antidegradation Procedure. Section 7. Social and Economic Importance for Tier 2 Reviews. 7.2 Role of the Applicant. In section 7.2, NMED should include, as a potential benefit or cost, environmental justice impacts to people of color and low-income communities in accordance with New Mexico Executive Order 2005-056. Such impacts could, for example, have beneficial or adverse impacts to community water supplies or access to clean water for agriculture or recreation. Here, NMED should acknowledge that people of color and low-income communities are “overburdened” and suffer disproportionate harm or exposure from not only specific actions—e.g., a proposed new or expanded discharge—but from the cumulative impact of multiple actions—e.g.,

multiple past, existing, and future discharges that, in total, may operate to "overburden" communities. Moreover, adverse environmental justice impacts can be amplified by underlying social, economic, health, or other structural factors, such as lack of access to education or health facilities. Of note, the inclusion of environmental justice as a potential benefit or cost of a proposed action should be carried forward with a commensurate addition in the Appendix A.2 worksheet.
**SWQB Response 68:** Comment noted. In Section 7.1, language was added requiring that the applicant identifies and document general environmental justice issues in the area where the discharge will be located that may impact the benefits/costs analysis. NMED agrees that Environmental Justice is an issue, especially in New Mexico and certain regions/sectors of New Mexico.

**Amigos Bravos Comment 69:** Appendix A-Antidegradation Procedure. Section 7. Social and Economic Importance for Tier 2 Reviews. 7.3 Role of NMED. We recommend the addition of the following language before the last sentence of the first paragraph of section 7.3 on page 39 to make it clear that NMED retains the authority to fully assess the social and economic benefits and costs of the proposed discharge: However, NMED may also collect and analyze additional information to assess the market and non-market social and economic benefits and costs of the proposed discharge, including by soliciting public information and comment where appropriate or by accessing information available from the New Mexico Community Data Collaborative (http://www.nmcdcmaps.org/), the Distressed Communities Index (https://eig.org/dci), or EPA, including EJscreen (https://www.epa.gov/healthresearch/tools-support-environmental-justice).
**SWQB Response 69:** Comment noted. Changes incorporated in final document.

**Amigos Bravos Comment 70:** Appendix A-Antidegradation Procedure. Section 7. Social and Economic Importance for Tier 2 Reviews. 7.3 Role of NMED. We recommend the inclusion of the following language after the last sentence of the third paragraph of section 7.3: In providing the preliminary determination to the public, NMED shall ensure the fair treatment and meaningful involvement of the public, in particular from people of color and low-income communities that may be impacted by the proposed discharge or otherwise value or have a stake in the water body that would receive the proposed discharge. In doing so, NMED shall endeavor to empower these communities to participate by providing clear, accessible information and by affirmatively responding to community concerns in a timely manner.
**SWQB Response 70:** Comment noted. No change made. This is something that would be addressed in the public comment period already required to address antidegradation analysis in a comprehensive Tier 2 review. And it is also reflected in the comment period on the draft permit when there is no comprehensive Tier 2 review required. NMED's Public Participation Policy 07-13 provides guidance to the Department for ensuring that public participation opportunities are adequate based upon the specific circumstances and are in accordance with Title VI of the Civil Rights Act of 1964 and EPA regulations at 40 C.F.R Parts 5 and 7. The policy provides opportunities for public participation of all people in NMED's activities and proceedings by further incorporating federal civil rights and environmental justice concerns into NMED's permitting and other associated processes.

**Amigos Bravos Comment 71:** Appendix A-Antidegradation Procedure. Section 7. Social and Economic Importance for Tier 2 Reviews. New Section. We recommend the inclusion of a new section 7.4 as follows to acknowledge the critical role of the public in Tier 2 antidegradation reviews: The role of the public is to provide information and comment regarding the market and non-market social and economic benefits and costs of the proposed new or expanded discharge associated with allowing or disallowing significant degradation of high quality water. The public, in providing such information and

comment, should reference the social, economic, and environmental considerations identified in section 7.2 and in Appendix A.3, Other Economic and Environmental Considerations.
**SWQB Response 71:** Comment noted. No change made. There is already a public comment period wrapped into the process for a comprehensive Tier 2 antidegradation review. No changes needed to the final document.

**Amigos Bravos Comment 72:** Appendix C-Hydrology Protocol. General Comment. We Support Improvements to the Organization and Clarity of the HP as well as the De-emphasis of Linking the HP to Expedited UAAs. In general, we support the proposed changes to the HP related to organization and clarity and appreciate the effort that was made to make the HP easier to follow and use. We also support the de-emphasis of linking the HP to expedited UAAs. In terms of organization, we do suggest numbering subheadings to provide more ease in referencing sections.
**SWQB Response 72:** Comment noted. Numerical heading references were added for major sections within the document. Numerical headings for each of the major sections within the document will allow for more consistent referencing when conducting or referring to the hydrology protocol

**Amigos Bravos Comment 73:** Appendix C-Hydrology Protocol. General Comment. Determining the Hydrology of a Stream is Different than Determining 101(A)(2) Uses. While the HP does a good job with directing the gathering of data to help determine whether a stream is ephemeral, intermittent or perennial, the HP makes broad determinations about 101(a)(2) uses and even whether these uses can be supported, without any data. The HP does not direct data gathering would allow comprehensive determinations regarding 101(a)(2) uses. For example, the only way you can determine if the stream supports amphibian reproduction is to do appropriate surveys during the monsoon season. The HP, as written, outlines a process for determining only the physical characteristics of a stream, not to determine whether the stream's existing uses. While it may be useful as one piece of information in a UAA, the HP in its current form cannot possibly reach a comprehensive conclusion about 101(a)(2) uses. This is especially of a concern since there is not a corresponding detailed protocol or guidance that outlines how a UAA should be conducted.
**SWQB Response 73:** Comment noted. Language was added to several areas of Appendix C- Hydrology Protocol to iterate that a hydrology protocol survey was developed to demonstrate hydrologic regime, but a designated use can only be changed through the development of a UAA. NMED concurs that determining the hydrology is not synonymous with determination of the attainable designated uses. The HP is a survey methodology that can demonstrate low flow conditions; it is these conditions which may make a designated use unattainable. Designated uses are assessed based on ambient water conditions. NMED does not have a designated use directly associated with non-baseline stream conditions, the limited aquatic life use associated with ephemeral tributaries provides acknowledgement that some species are dependent on the natural conditions associated with these systems for some or all of their life stages, however, it is the presence or absence of water and acute exposure to toxic pollutants that is the limiting factor, not thermal conditions. Those aquatic life that are dependent on ephemeral or water derived directly from storm events generally do not have thermal ranges for those life stages that are limiting. A designated use requires a UAA which can't be supplemented solely by a HP survey.

**Amigos Bravos Comment 74:** Appendix C-Hydrology Protocol. General Comment. If a Primary Purpose of the HP is to Provide Data for Use Determination, then the Timing of The HP Survey Should be Changed to Occur During Wetter Times of the Year. As is indicated in the title of the HP ("Hydrology Protocol for the Determination of Uses Supported by Perennial, Intermittent, and Ephemeral Streams") a main purpose of the HP is to provide documentation of uses. In addition, the HP is used as the primary

source of data for the development of a UAA. Ideally, use determination should be part of a separate UAA field study. While something labeled as a Hydrology Protocol should not have a primary function of 101(a)(2) use determination, in reality, this is very much how it is used. It has been our experience that that almost all parties that choose to use the HP to determine the hydrology of a stream segment in New Mexico have done so to identify appropriate designated uses not just to know if the stream should be called “ephemeral” rather than “intermittent” or “perennial”. Those definitions by themselves do not mean much, as dictated by the CWA it is only the existing uses that are found in the stream that tell us what specific protections are appropriate. Most, if not all parties, who will be using the HP will be doing so as a step in the UAA process because the HP has been identified as the primary documentation for the UAA process. In the absence of more detailed UAA guidance that requires fieldwork and research, it makes sense for the HP to focus on documenting uses as a primary function. Therefore, the recommended timing of the UAA should be conducted during wet periods when, if 101(a)(2) uses are occurring, they can be properly observed and documented. In many ephemeral streams such as arroyos and other drainages the geomorphology and lack of aquatic habitat precludes 101(a)(2) uses, even if moisture is present, so there is no risk of mis categorizing these streams. For example, to rely on trying to find dried casings of macro invertebrate during the dry months of the year to determine the absence or presence of aquatic life does not make sense when the survey could be conducted at a wetter time of year when documentation would be easier. There are species (anurans) that go through their whole life cycle during the couple of months of wetter periods of the year and therefore deserve warmwater aquatic life protections afforded under 20.6.4.98 NMAC even if the drainage is otherwise dry, and there is not evidence of the species, for a majority of the year.

**SWQB Response 74:** Comment noted. No change made. The primary purpose of the Hydrology Protocol is to identify what the baseline hydrology for a waterbody is as this factor under 40 CFR 131.10(g)(2) may be preventing the attainment of a designated use. Although there are some indicators within the Hydrology Protocol that could be used to support the presence of an existing use, this information in and of itself would not provide the water quality criteria required to establish the existing use. The Hydrology Protocol is a multi-indicative evaluation designed to evaluate both short- and long-term indicators of sustained flows. It is not to assess for any given year but the attainable use for that tributary in a "typical" year based on hydrology under 40 CFR 131.10(g)(2). If the survey were to evaluate only "wet" climatic conditions, the evaluation would be skewed, and data would not be relevant for determining attainable uses based on typical water years.

**Amigos Bravos Comment 75:** Appendix C-Hydrology Protocol. General Comment. The HP makes an assumption that if a stream is identified as being ephemeral then it therefore does not support 101(a)(2) uses. The HP and the Expedited UAA Sheet both refer to 40 CFR 131.10(g)(2) as a justification for this assumption. Yet 40 CFR 131.10(g)(2) simply states that uses can be removed if the State can demonstrate that “attaining the designated use is not feasible because natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use.” Clearly the regulations are not stating that 101(a)(2) uses cannot be met in ephemeral, intermittent, or low flow conditions, rather the regulations are stating that various low flow conditions could be a cause of non-attainment of 101(a)(2) uses. If EPA, or the indeed the WQCC, interpreted this language to mean that ephemeral streams by their very nature do not meet 101(a)(2) uses then why are all intermittent streams (also named in 40 CFR 131.10(g)(2)) given 101(a)(2) protections? In fact, EPA has required that New Mexico protect all ephemeral streams with 101(a)(2) uses until such a time that a UAA is conducted that proves that these uses cannot be met. Therefore, merely because a stream is ephemeral does not automatically mean that the stream does not support 101(a)(2) uses. Some ephemeral streams will not support 101(a)(2) uses and it may be quite obvious in the field, if the appropriate assessment is done. However, to be able to

state that a stream does not and cannot attain any of those uses, the assessment would have to include the following:

- The entire stream segment has been examined, including upstream perennial or intermittent connections
- There is nowhere on the stream that water could puddle or pond (including stock tanks) long enough to support amphibian reproduction, peaclams, or aquatic snails.
- There is no upstream connection to perennial or intermittent waters, or ephemeral waters that could support uses identified in #3 above.
- There is no downstream connection that would allow fish to use the stream during high flows.
- The stream is not, has not, and cannot be used for recreation, even by kids during high runoff. This probably requires surveys of local residents and people with long-term knowledge of the stream.

**SWQB Response 75:** Comment noted. No change made. The determination of attainable uses is not derived from a Hydrology Protocol survey. A designated use can only be changed to a less stringent use with a Use Attainability Analysis, which would evaluate whether the low-flow conditions are preventing the attainment of a designated use and if so, what the highest attainable use would be. The Use Attainability Analysis may not extend the designations beyond that to which supporting evidence is provided.

**Amigos Bravos Comment 76:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Establishing or Revising a Designated Use using the Hydrology Protocol. The Hydrology Protocol and/or the Expedited UAA Needs to Solicit more Social and Historical Information about Existing Uses. The intention of both the national Clean Water Act and the NM Water Quality Act is to protect water quality for all existing uses of a stream, regardless of the stream's hydrologic characteristics. The HP even in combination with the Expedited Use Attainability Analysis process outlined in Appendix 2, does not satisfy the rigors of a scientifically based Use Attainability Study (UAA) as required in Clean Water Act regulations at 40 CFR 131.10(g), (j) and (k) , in EPA's Water Quality Standard Handbook at chapter 2.9, and EPA's 1983 Technical Support Manual: Waterbody Surveys and Assessments for Conducting Use Attainability Analyses (EPA Number: 440486037). As outlined in all three of these references a use cannot be removed if it is an existing use. An existing use is defined as "those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards" 40 CFR 131.3(e). Neither the HP nor the associated Expedited UAA provides adequate analysis of existing uses. This, at a minimum, would involve speaking to local landowners and local, state, or federal land management representatives about historical (1975-Present) conditions of the stream. Land use practices (both current and historic) should be documented and their impact on the conditions of the stream should be examined. In addition, historic flow data could be collected if available, or the waterbody in question could be examined for signs that uses, that while they may not currently be occurring, occurred since 1975. By only examining the current conditions in the stream the HP/ Expedited UAA cannot make a determination whether the 101(a)(2) uses are existing uses.

**SWQB Response 76:** Comment noted. Added clarifying language in several areas in Section II of the WQMP/CPP specifying that the UAA process includes those requirements under 40 CFR 131.10(g), which states that a designated use can be removed, if it is not an existing use. NMED also added a step under Figure II-2 clarifying that a UAA must be completed for an expedited review process. It is assumed the commenter was referring to the WQMP/CPP under Section II.D Establishing or revising a designated use using the hydrology protocol. In accordance with 40 CFR 131.10(g), the removal of a designated use, that is not an existing use, can only be done through a UAA. NMED believes that the language in the WQMP/CPP now adequately references this requirement.

**Amigos Bravos Comment 77:** Appendix C-Hydrology Protocol. General Comment. The HP and/or the UAA Process Need to Solicit Data about Possible Future Attainment of 101(A)(2) Uses. As outlined in a 2006 EPA Memorandum, "UAAs are meant to assess what is attainable, is it not simply about documenting the current water quality conditions and use." (U.S. EPA, Memorandum: Improving the Effectiveness of the UAA Process (March 13, 2006) (available at https://www.epa.govsites/production/files/2014-10/documents/king-memo.pdf.) Therefore, it is essential, as part of the UAA process to do a thorough analysis of what could be attainable in the water body in the future. This would involve examining the potential impact on the waterbody if land use practices were to change. For example, would stream flow, aquatic habitat, or recreational opportunities be restored if impacts from land uses practices such as grazing in the riparian area or motorized recreation on or near stream banks were mitigated or stopped? This is an essential component of a Use Attainability Analysis that is not included in the proposed HP and associated UAA process.

**SWQB Response 77:** Comment noted. No change made. NMED agrees that the establishment or amendment to a designated use must be based on what may be attainable. The Use Attainability Analysis, whether using the Hydrology Protocol survey or not, must address multiple factors including anthropogenic conditions, that if modified could alter what could be attainable. Although not prescriptive, NMED feels that the necessary demonstration required under a Use Attainability Analysis has been thoroughly vetted through references both within 20.6.4, the WQMP/CPP and 40 CFR.

**U.S. Environmental Protection Agency Region 6 ("EPA R6"), Dallas, Texas**

**EPA R6 Comment 1:** WQMP/CPP. General Comment. New Mexico Environment Department (NMED) has proposed revisions that will further strengthen what Region 6 considers a well-developed and useful WQMP/CPP.
**SWQB Response 1:** Comment noted. No change made. Language is supported as proposed.

**EPA R6 Comment 2:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. EPA recommends that this section be revised to more specifically outline the process for adopting new or revised surface WQS and for triennial reviews. This includes outlining the revisions process and specifying at which points in the process comment is invited from the public. Please note that EPA's public participation regulations at 40 CFR Part 25.5 require public notice of hearings, including for changes to water quality standards, to be provided at least 45 days in advance. On a case-by-case basis, EPA may determine that the hearing notice requirement may be reduced to 30 days when there are no controversial or complex matters and no substantial documents which must be reviewed for effective hearing participation.
**SWQB Response 2:** Comment noted. Language added to the Triennial Review section. This Section was revised to include a description on Establishing or Revising Water Quality Standards through the Triennial Review.

**EPA R6 Comment 3:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Please identify the process to review waters that the State has previously presumed not capable of supporting CWA §101(a)(2) uses as required by 40 CFR §131.20(a). ▪ The regulation (40 CFR §131.20(a)) specifically requires that states re-examine any waterbody segment with water quality standards that do not include the uses specified in section 101(a)(2) of the CWA every 3 years to determine if any new information has become available. If such new information indicates that the uses specified in section 101(a)(2) of the CWA are attainable, the state is obligated to revise its standards accordingly. The regulation indicates that state procedures for both identifying and reviewing water bodies should be incorporated into their CPP. In addition to outlining the process in its CPP, EPA suggests that NMED could report the results of its re-examination of these waters periodically as part of its triennial review scoping process.
**SWQB Response 3:** Comment noted. Language was incorporated into Section II. A sentence was added to the Triennial Review section to indicate the triennial review also includes review of waters that the State has previously presumed not capable of supporting CWA §101(a)(2) uses.

**EPA R6 Comment 4:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. EPA cannot revise a permit that is not consistent with state water quality standards. Although EPA can provide NMED a "technical approval" regarding UAAs whether based on the Departments the Hydrology Protocol as outlined in 20.6.4.15 C. NMAC, that technical approval is not an action pursuant to Section 303(c) of the CWA. As a result, EPA recommends that this section be revised to indicate that NPDES permits based on the prior designated use and applicable criteria will remain in effect until the Commission revises the applicable standard, submits and EPA has approved those revisions pursuant to Section 303(c) of the CWA.
**SWQB Response 4:** Comment noted. Language in Figure II-2 was revised. Figure II-2 was revised to indicate that after EPA technical approval "20.6.4.97 NMAC is applicable until formal hearing before WQCC."

**EPA R6 Comment 5:** WQMP/CPP. V. Effluent Limitations. EPA recommends that NMED provide specific guidance on how effluent limits shall be derived for waterbodies with temporary standards established pursuant to 20.6.4.10 F. NMAC. In discussions in 2019 between EPA and NMED on the temporary standard demonstration projects, both parties agreed that including such language would be helpful to permit writers and provide transparency to the public regarding how temporary standards are intended to be implemented in permits. EPA recommends that NMED specifically consider including the following details:

- Explain the highest attainable condition (HAC) under a temporary standard, the different ways it can be expressed and derived per 40 CFR 131.14(b)(1)(ii)(A) and (B), and how the permit writer would translate each into an effluent limit based on its expression and associated duration (e.g. effluent condition vs. in-stream condition, LTA vs. 30-day average).
- How compliance schedules and interim permit limits will be developed based on a temporary standard.
- Clarify that if a receiving water has both an applicable TMDL WLA and a temporary standard, the permit limit must be based on the temporary standard, per the preamble to the federal water quality standards rule at 80 FR 162 (p. 51040).
- For temporary standards with durations greater than 5 years, EPA recommends that NMED explain how results of re-evaluations will affect and be incorporated into the renewed permit.
- How loading limits should be calculated where the receiving water has an approved, concentration-based temporary standard.

**SWQB Response 5:** Comment noted. No change made. This is information that is better described in the New Mexico Implementation Procedures (NMIP), an agreement between EPA and NMED for how NPDES permits are issued in the state of New Mexico. The NMIP documents specific implementation procedures as are described in this comment. No changes needed in this final document.

**EPA R6 Comment 6:** WQMP/CPP. General Comment. EPA also recommends that NMED consider including more detailed guidance on development of temporary standards as an appendix to the CPP.

**SWQB Response 6:** Comment noted. Included language identifying the process for a temporary standard under Section II of the WQMP/CPP. The regulation, that is codified under 20.6.4.10(F) NMAC, outlines the applicability and the general requirements for a temporary standard. NMED concurs that language in the WQMP/CPP outlining that process would provide clarification for anyone seeking a temporary standard however, this added language to the WQMP/CPP does not replace the regulation.

**EPA R6 Comment 7:** WQMP/CPP. General Comment. Please provide EPA with clarification as to whether the CPP and its appendices are binding under New Mexico law.

**SWQB Response 7:** Comment noted. No change made. The Water Quality Management Plan and Continuing Planning Process are approved by the Water Quality Control Commission and the Environmental Protection Agency Region 6 as a requirement under 40 CFR 130.5 and 130.6. The WQMP and CPP are not standards or regulations and therefore not codified under the rule. As the Department has been delegated, by the Water Quality Control Commission, with the responsibility to undertake those actions under the WQMP/CPP the Commission, should it feel the WQMP/CPP is not being adhered to, could request an explanation from the Department and seek correction, if appropriate.

**EPA R6 Comment 8:** Appendix A-Antidegradation Procedure. Glossary. EPA recommends revising the definition of "antidegradation" to say "… policy and implementation procedure adopted by NMED and approved by EPA to protect existing uses…".
**SWQB Response 8:** Comment noted. Language was modified for the definition of antidegradation to include WQCC and EPA approval. This policy still applies to waters of the state, not just Waters of the United States (WOTUS), so this will need to apply to all waters.

**EPA R6 Comment 9:** Appendix A-Antidegradation Procedure. Glossary. EPA recommends defining a "non-degrading alternative" as one that does not cause any degradation, not just one that doesn't cause significant degradation. This would distinguish between alternatives that do not cause any degradation to the water quality versus those alternatives that minimize degradation of the water quality. This would provide greater clarity to the public when providing comments on an analysis of alternatives.
**SWQB Response 9:** Comment noted. The current definition in the glossary does define it this way. No changes needed to the final document.

**EPA R6 Comment 10:** Appendix A-Antidegradation Procedure. Glossary. EPA recommends revising the Tier 2 Protection definition to state: "Policies and procedures that prohibit significant degradation of a surface water unless a review of reasonable alternatives shows that the lowering of water quality is necessary for important social and economic considerations in the area in which the waters are located." The word "justify" could be read as being inconsistent with the federal regulations at 40 CFR 131.12(a)(2). It needs to be demonstrated that a lowering of water quality is "necessary", indicating the need for an analysis of alternatives that demonstrates there are no other practicable alternatives than lowering water quality. The use of the word "justifies" could indicate that an alternate reason was used to allow the lowering of water quality rather than demonstrating there were no practicable alternatives available to prevent the degradation of water quality.
**SWQB Response 10:** Comment noted. Changes incorporated in final document. The definition of Tier 2 protection was revised.

**EPA R6 Comment 11:** Appendix A-Antidegradation Procedure. Glossary. EPA recommends revising the definition of Tier 2 Protection to reflect that to the extent that certain waters, including effluent dependent waters, are waters of the United States and data confirms that these waters are high quality, Tier 2 protections are applicable to these waters. Like all water quality standards, Tier 2 antidegradation protections apply to all waters of the U.S. The assumption that these waters could never qualify for Tier 2 protection is too general without data and information to indicate that the water quality of these water bodies is not high quality. EPA recommends New Mexico recognize the ability to provide Tier 2 protection to effluent dependent waters on a case-by-case basis when data and information indicate that it is appropriate. This comment is applicable throughout this document when referencing the applicability of Tier 2 protection to waters of the United States.
**SWQB Response 11:** Comment noted. No change made. NMED does not agree that Tier 2 provisions should automatically apply to effluent dependent waters. When the water present in an effluent dependent waterbody is mostly reliant on wastewater effluent, there are treatment limitations for certain constituents, and this can create a hardship. By applying Tier 1 protections to an intermittent, ephemeral, or effluent-dependent waterbody, it is a conservative approach to ensure that the effluent meets water quality criteria at the end of the pipe, because in these situations there is little to no mixing or dilution present in the receiving stream. NMED changed the definition of "effluent dependent waters" to say that they would be ephemeral but for the discharge.

**EPA R6 Comment 12:** Appendix A-Antidegradation Procedure. Section 1. Overview of New Mexico's Antidegradation Approach. 1.1 Designated Uses and Water Quality Criteria. What does it mean that "…existing uses are recognized…?" Please clarify how existing uses are recognized.
**SWQB Response 12:** Comment noted. Changes incorporated in final document. The sentence was revised to state that, "Under the Clean Water Act (CWA) and New Mexico's surface water quality standards, various uses are assigned to surface waters."

**EPA R6 Comment 13:** Appendix A-Antidegradation Procedure. Section 1. Overview of New Mexico's Antidegradation Approach. 1.1 Designated Uses and Water Quality Criteria. "…the use with the most stringent water quality standard must be maintained and protected." EPA recommends replacing "standard" in the above phrase with "criteria" for greater specificity.
**SWQB Response 13:** Comment noted. Changes incorporated in final document. "Standards" was replaced with "criteria."

**EPA R6 Comment 14:** Appendix A-Antidegradation Procedure. Section 1. Overview of New Mexico's Antidegradation Approach. 1.2 Coverage and General Applicability. EPA recommends revising the language to clarify that antidegradation protections apply to the water body (when the water is considered a water of the U.S.) and the protections are being implemented by these procedures, which are triggered by regulated discharges.
**SWQB Response 14:** Comment noted. No change made. Because surface waters of the state is defined more broadly than Waters of the US, NMED prefers to leave this language as is. Because of the changing WOTUS definition, NMED anticipates having to address protections of surface waters of the state where jurisdiction under the federal CWA no longer applies.

**EPA R6 Comment 15:** Appendix A-Antidegradation Procedure. Section 1. Overview of New Mexico's Antidegradation Approach. 1.3 Coordination with Assessment and Impairment Listing. EPA recommends that NMED add a definition for "priority points" or define the them when they are discussed on pg. 3.
**SWQB Response 15:** Comment noted. Changes incorporated in final document. Added clarification in the final document.

**EPA R6 Comment 16:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.1 Tier Definitions. This section specifies that all three tiers of protection for NM waters are "applied" on a pollutant-by-pollutant basis. EPA recommends adding clarification that although protections under all three tiers are applied on a pollutant-by-pollutant basis, ONRWs are identified on a waterbody-by-waterbody basis as described further below in this section and in NMAC 20.6.4.9(D).
**SWQB Response 16:** Comment noted. Changes incorporated in final document.

**EPA R6 Comment 17:** Appendix A-Antidegradation Procedure. Section 2-Tiered Protection Levels. 2.2 Designation of Tier Category. In Table 2-1, EPA recommends revising the description of protection requirements for Tier 2 per our comment above on the glossary to say, "…unless a comprehensive antidegradation review of reasonable alternatives shows that the lowering of water quality is necessary for and important social and economic considerations in the area in which the waters are located." The word "justify" could be read as being inconsistent with the federal regulations at 40 CFR 131.12(a)(2).
**SWQB Response 17:** Comment noted. Changes incorporated in final document.

**EPA R6 Comment 18:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. Under the heading "General

Applicability," EPA recommends that NMED specify how the state will assure protection for existing uses that are potentially not included in the WQS.
**SWQB Response 18:** Comment noted. Language was added to Section 1 - Overview of Antidegradation Introduction. As noted in this section, in general, the "level of water quality necessary to protect existing uses" is defined by state-adopted surface water quality standards. No changes needed.

**EPA R6 Comment 19:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. Under the heading "plant nutrients" it is stated that "There are no technologically based effluent limits (TBELs) available for nutrients at this time." EPA recommends clarifying that there are no TBELs currently available for nutrients for POTWs. TBELs exist for nutrients for other categories of dischargers.
**SWQB Response 19:** Comment noted. Changes incorporated in final document.

**EPA R6 Comment 20:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. EPA recommends revising the section "Other General Criteria," to reflect the application of antidegradation to all criteria, including narratives without translators. Since antidegradation protections, like all water quality standards, apply to all waters of the U.S., it is inappropriate to exempt narrative criteria from antidegradation evaluations, especially for Tier 1 protection, as they are the standard that is protecting the use. Narrative criteria must be evaluated for protection of existing uses in the same manner as they are applied to permits for protection of the water quality standards.
**SWQB Response 20:** Comment noted. No change made. If antidegradation evaluates consumption of assimilative capacity (expressed as concentration or load -- i.e., a quantity) it is impractical/impossible to conduct an antidegradation analysis for narrative criteria that do not have complimentary numeric translators.

**EPA R6 Comment 21:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. Consumption of less than 20% or a cumulative 50% of the assimilative capacity for a pollutant of concern under critical low flow (4Q3) conditions is identified as the de minimis level below which no tier 2 antidegradation review is required. EPA is concerned that this de minimis policy is inconsistent with 40 CFR 131.12(a)(2) and would allow a significant level of degradation in a Tier 2 water without the appropriate Tier 2 review. During the development of water quality guidance for the Great Lakes, Great Lake states and EPA technical experts came to consensus that a significance threshold of 10% available assimilative capacity or less, paired with a cumulative cap was an appropriate de minimis threshold. The recommendation was reiterated in a memorandum by Ephraim King in 2005. In addition, in the case Ohio Valley Environmental Coalition v. Horinko; the judge ruled that EPA's approval of a 20% cumulative cap in West Virginia's antidegradation procedures was arbitrary and capricious as no evidence was presented that supported the conclusion that this level of degradation was insignificant. In this same case, the judge found that a 10% cumulative cap was acceptable, as supported by the development of water quality guidance for the Great Lakes. In addition, in Kentucky Waterways Alliance v Johnson, the judge confirmed that a loss of greater than 10% of assimilative capacity cumulatively could not be considered de minimis. Given EPA's longstanding policy and past case law, EPA recommends that NMED revise the de minimis level to a cumulative cap of 10% or something less than 10% and provide evidence in the record showing that this reduction in available assimilative capacity can be considered insignificant. EPA recommends similar changes to sections 2.1, 3.3 and 5 for consistency.

**SWQB Response 21:** Comment noted. NMED revised the de minimis evaluation to the previously approved 10% threshold but will still implement the 50% cap. Changes made to the final document in this regard.

**EPA R6 Comment 22:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. EPA also recommends that NM exempt bioaccumulative pollutants from the de minimis threshold. As cautioned in the preamble to the final rule of EPA's Water Quality Standards Regulatory Revisions "States and authorized tribes should also consider the appropriateness of exemptions depending on the types of chemical, physical, and biological parameters that would be affected. For example, if a potential lowering of water quality contains bioaccumulative chemicals of concern, a state or authorized tribe should not apply a categorical de minimis exclusion, because even extremely small additions of such chemicals could have a significant effect. For such pollutants, it could be possible to apply a de minimis exclusion on a case-by-case basis, but the state or authorized tribe should carefully consider any such proposed lowering prior to determining that it would be insignificant" (FR Vol. 80 No. 162 August 21, 2015 51034-51035).
**SWQB Response 22:** Comment noted. Language was added to address bioaccumulative pollutants. In addition, the de minimis thresholds were changed back to the 10% and a definition was added. NMED does not agree that this is necessarily an issue. The standards themselves should be protective enough to mitigate any effects. However, NMED made some revisions to the final document and changed the de minimis threshold back to 10%, consistent with the previous Plan. NMED also added a definition for bio-accumulative pollutant and exempted these pollutants from BWQ re-evaluations.

**EPA R6 Comment 23:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.2 Antidegradation Review Requirement by Type of Permit. To improve clarity, for Figure 3-2, EPA recommends specifying that this flow chart represents the process for Tier 1 and Tier 3 procedures.
**SWQB Response 23:** Comment noted. No change made. Although the majority of permits listed in this Figure are represented by Tier 1 and Tier 3, individual stormwater permits are represented by all three tiers.

**EPA R6 Comment 24:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.3 Individual NPDES Permits. EPA recommends revising the second sentence of the General Applicability paragraph for clarity, as "at a minimum" is used twice to describe two different things.
**SWQB Response 24:** Comment noted. Changes incorporated in final document.

**EPA R6 Comment 25:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.1 Summary of Approach. EPA recommends revising the third paragraph of Section 4.1. This paragraph states that intermittent, ephemeral, and effluent dependent waters will only receive Tier 1 protection and that baseline water quality does not need to be determined for these waters. However, previously in the guidance, it was stated that intermittent waters will receive Tier 2 protection and that baseline water quality (BWQ) would be determined for these waters, if possible. EPA recommends revising this paragraph to reflect the need to evaluate intermittent waters, when possible.
**SWQB Response 25:** Comment noted. Changes incorporated in final document.

**EPA R6 Comment 26:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.1 Summary of Approach. EPA recommends clarifying what type of changes to water quality would prompt an adjustment of a BWQ once it has already been established.
**SWQB Response 26:** Comment noted. Changes incorporated in final document.

**EPA R6 Comment 27:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.3 BWQ Sampling Location. In Section 4.3, it is unclear why the BWQ concentrations will be assumed to be the concentrations present at normal annual low-flow periods if the data wasn't collected then. Is there a requirement that the data will be collected during low flow periods or that the data will be adjusted to reflect low flow conditions? Otherwise, making this assumption could result in overestimating the amount of assimilative capacity in this water body.
**SWQB Response 27:** Comment noted. No change made. Data will be considered as a geometric mean of the water quality information available for each pollutant/analyte. As the procedure is similarly used in the permitting process, NMED will evaluate each pollutant in a "worst case" scenario with the 4Q3 and geometric mean of the data. This would actually result in a lower loading being available and is a more conservative approach. Sometimes it is difficult to obtain flow data that matches the water quality data (i.e. the two parameters are not collected at the same time), so this conservative approach is the most feasible one for now.

**EPA R6 Comment 28:** Appendix A-Antidegradation Procedure. Section 5. Evaluating the Level of Degradation of Proposed Discharges. EPA recommends specifying in the first paragraph of Section 5 that these review procedures do not apply to Section 404 or general permits because antidegradation is assessed for these permits through alternate mechanisms. The current language implies that Tier 2 requirements do not apply to the permits at all, which is not accurate if the activity causes significant degradation.
**SWQB Response 28:** Comment noted. Changes incorporated in final document.

**EPA R6 Comment 29:** Appendix A-Antidegradation Procedure. Section 5. Evaluating the Level of Degradation of Proposed Discharges. 5.2 Procedure for Tier 2 Degradation Evaluation. EPA recommends revising the second sentence in the Discharges to Non-Perennial Waters section as follows: Tier 2 degradation evaluation procedures will not be triggered by these discharges. Please note that antidegradation protections, like all EPA-approved water quality standards, apply to all waters of the U.S.
**SWQB Response 29:** Comment noted. No changes made. This approach is discussed in Section 5.2.

**EPA R6 Comment 30:** Appendix A-Antidegradation Procedure. Section 5. Evaluating the Level of Degradation of Proposed Discharges. 5.2 Procedure for Tier 2 Degradation Evaluation. The applicability of Tier 2 protections to intermittent waters is not discussed consistently throughout this document. In Section 5.2, it is stated that Tier 2 protections do not apply to intermittent waters, however a previous section states "Tier 2 may also apply to intermittent waters if data are available and indicate a high-quality water (i.e., water quality better than applicable WQS). Tier 2 is the default protection level for all high-quality perennial and intermittent waters (i.e., water quality is better than the applicable WQS). " EPA recommends consistently referring to application of Tier 2 protection to intermittent waters when data is available and indicates that these waters are high quality.
**SWQB Response 30:** Comment noted. No changes made. This approach is discussed in Section 5.2.

**EPA R6 Comment 31:** Appendix A-Antidegradation Procedure. Section 6. Identifying and Evaluating Pollution Control Alternative for Tier 2 Protection. Please specify where the BWQ point is located in a water body relative to the discharge location.
**SWQB Response 31:** Comment noted. No change made. BWQ locations are upstream of the discharge in question. This documented in Section 4.3.

**EPA R6 Comment 32:** Appendix C-Hydrology Protocol. General Comment. EPA considers NMED's Hydrology Protocol to be a very useful tool in ensuring appropriate designated uses are assigned to waters in New Mexico.
**SWQB Response 32:** Comment noted. No change made. In support of language as proposed.

**EPA R6 Comment 33:** Appendix C-Hydrology Protocol. Executive Summary. This section describes the development of the Hydrology Protocol referring to particular circumstances where the document can be used for the "expedited" UAA process (20.6.4.15 C. NMAC). This provision is intended to facilitate the application of the limited aquatic life and secondary contact uses to ephemeral waters, where appropriate, prior to the Water Quality Control Commission undertaking the full administrative rule-making process. EPA recommends that NMED remove any reference to the "expedited" UAA process throughout the draft WQMP/CPP and Appendix C - Hydrology Protocol and would like to discuss the implications of use determinations pursuant to 20.6.4.15 C. NMAC in the context of the state's upcoming triennial revisions.
**SWQB Response 33:** Comment noted. No change made. This hydrology protocol is a survey method used to support a Use Attainability Analysis. Not all Use Attainability Analysis using the Hydrology Protocol meet the strict regulatory criteria to be submitted to EPA for technical review and approval prior to undertaking the full rulemaking processes for a designated use amendment as afforded under 20.6.4.15(C) NMAC. It is only under very limited circumstances to which only the Department can meet these requirements.

**EPA R6 Comment 34:** Appendix C-Hydrology Protocol. Section 1-Hydrology Determination and Rating Form. Drought Conditions. EPA recommends that the Hydrology Protocol require that in addition to the Standardized Precipitation Index ("SPI") the Standardized Precipitation Evapotranspiration Index ("SPEI") be used to verify that no more than mild drought conditions exist prior to field assessment.
**SWQB Response 34:** Comment noted. No change made. The Hydrology Protocol as approved by the WQCC and EPA has required that the Standardized Precipitation Index be used to determine if persistent drought conditions prevent the ability to survey without bias due to extreme climate conditions. When initially developing the Hydrology Protocol, other drought indices including the Standardized Precipitation Evapotranspiration Index was evaluated however, SPEI is primarily used as a mechanism for determining drought impacts to agricultural crops (are conditions going to kill water sucking crops that have market impacts) and does not adequately reflect those potential disturbances that would influence an evaluation of hydrological regime on a natural surface water body. The 12-month Standardized Precipitation Index was determined to be most appropriate for evaluation of New Mexico waterbodies to eliminate the potential for bias. Prior comments regarding this concern have been taken under consideration and the revised protocol identifies the use of the SPEI as supporting evidence that extreme climate conditions do not exist but is not approved as the primary mechanism for determining extreme climate conditions.

**EPA R6 Comment 35:** Appendix C-Hydrology Protocol. Section 1-Hydrology Determination and Rating Form. Drought Conditions. EPA also recommends that specifics be provided on how differences in the

SPI and SPEI (or other indices if used) will be reconciled. This would reduce the potential for error where drought or abnormal precipitation may be influencing conditions.
**SWQB Response 35:** Comment noted. No change made. The use of SPI will be the mechanism for determination of extreme climate conditions that would present bias in determining the hydrologic regime of a water body.

**EPA R6 Comment 36:** Appendix C-Hydrology Protocol. Section 1-Hydrology Determination and Rating Form. Drought Conditions. Although the SPI is commonly used and is an indicator of the intensity of drought or precipitation deficit, it can be difficult to interpret the magnitude of the precipitation deficit given geographic and temporal variability. This has occurred in EPA's review of prior rulemakings based on the Hydrology Protocol that relied on the SPI; we found that both the Palmer Drought Severity Index (PDSI), which is a long-term measure of drought conditions, and the short- term Palmer Z Index provided very different results than the SPI. EPA considers the SPEI to be more accurate as a default over the SPI since it uses "climatic water balance" - the difference between precipitation and reference evapotranspiration, rather than precipitation as the input (Beguería, et al. 2014).
**SWQB Response 36:** Comment noted. No change made. The application of SPI was developed for evaluating the climate conditions during a growing season on potential impacts to agricultural crops, which in general, use and evapotranspire more water than those native plants found within the semi-arid southwest. It has been determined that for the Hydrology Protocol, the SPEI is not the best-fit for determining potential impacts to hydrologic regime in natural surface waters within New Mexico.

**EPA R6 Comment 37:** Appendix C-Hydrology Protocol. Section 1-Hydrology Determination and Rating Form. Level 1 Evaluation: Data Collection for the Hydrology Determination of NM Streams and Rivers. Level 1 Office Procedures. The inconsistency between the terminology used in 20.6.4 NMAC and the WQMP/CCP with regard to regulatory segments and assessment units should be addressed. The term "segment" is defined in 20.6.4.7(S)(2) NMAC refers to similarities in physical and hydrologic characteristics and is specific to classified waters of the state described in 20.6.4.101 through 20.6.4.899 NMAC. The term assessment unit is not defined in 20.6.4.7 NMAC but is described in the Hydrology Protocol. Although the Hydrology Protocol provides a similar physical description and reference to water quality standards for a regulatory segment and an assessment unit (AU). Neither 20.6.4. NMAC or the Hydrology Protocol describe the physical length of regulatory segments but describe AUs as averaging 10 miles but typically no more than 25 miles in length. Given the length described, it suggests, but does not confirm that the terms are interchangeable. Clarification of the meaning and how the two terms apply is needed since the Hydrology Protocol could potentially be applied classified water although it is primarily used for unclassified waters of the state. If an assessment were carried out in a current classified water of the state, the results of a UAA supported by the Hydrology Protocol would mean that the designated use and supporting criteria specified in 20.6.4.97 NMAC must be applied to the entire regulatory segment or a subsegment of that waterbody. If applied to an unclassified segment, some portions of the waterbody may remain unclassified with only the portion assessed subject to 20.6.4.97 NMAC.
**SWQB Response 37:** Comment noted. No change made. The term assessment unit is a term used by the Surface Water Quality Bureau as a means of describing a subsection of a waterbody that is assessed for purposes of the Clean Water Act. Although there may be one or more assessment units under a Classified water under 20.6.4 NMAC, it is not the appropriate reference when discussing amendments to water quality standards under 20.6.4 NMAC. Water Quality Standards for waters of the State are delineated with specific reference under 20.6.4 NMAC, while an assessment unit provides a description of a subset of those waters specifically for sampling purposes. As it pertains to amendments to water

quality standards, a Use Attainability Analysis is evaluating the waterbody as described under 20.6.4 NMAC.

**EPA R6 Comment 38:** Appendix C-Hydrology Protocol. Literature Cited. Beguería, S., Vicente-Serrano, S.M., Fergus Reig, Borja Latorre. (2014). Standardized Precipitation Evapotranspiration Index (SPEI) revisited: parameter fitting, evapotranspiration models, kernel weighting, tools, datasets and drought monitoring. International Journal of Climatology, 34, 3001-3023.
**SWQB Response 38:** Comment noted. No change made. This citation is already identified. Unsure of commenters request or comment.

**GEI Consultants on behalf of Chevron Mining Inc-Questa Mine ("GEI-CMI"), Questa, New Mexico.**

**GEI-CMI Comment 1:** Appendix A-Antidegradation Procedure. Section 2. Tiered Protection Levels. 2.1 Tier Definitions. Tier 1 waters in the draft document is not consistent with commonly used ways to describe water quality. The document states that "Tier 1 prohibits further degradation of existing water quality where a pollutant of concern does not meet or meets but does not exceed applicable water quality standards." Based on descriptions of Tier 1 waters elsewhere in this document, we believe the intent of this sentence is to prohibit degradation of waters where a pollutant "does not meet or meets but is not better than applicable water quality standards". Use of the phrase "exceeding" water quality standards would generally be interpreted as an impaired water, as in the ambient concentration is greater than the standard. If a pollutant is exceeding water quality standards this would be the same as "does not meet" water quality standards. The document should be revised to change all descriptions of Tier 1 waters by removing the "does not exceed" phrase and replace it with "water quality is not better than". This is how it has been described in some instances but not all.
**SWQB Response 1:** Comment noted. Changes incorporated in final document. NMED revised the document to indicate that Tier 1 is water quality that is not better than water quality standards.

**GEI-CMI Comment 2:** Appendix A-Antidegradation Procedure. Section 2. Tiered Protection Levels. 2.2 Designation of Tier Category. It is not appropriate to automatically classify all effluent dependent waters as Tier I status as there are cases where effluent dependent waters are still high-quality waters. The same footnote listed for intermittent waters in Table 2-1 should also be applied to effluent dependent waters.
**SWQB Response 2:** Comment noted. The definition for "effluent dependent waters" has been updated. NMED asserts that effluent dependent waters should be considered Tier 1 status because by definition, effluent dependent waters rely on a point source discharge to exist. The definition for effluent dependent waters was revised to indicate that an effluent-dependent water is a surface water that without the point source discharge of wastewater would be an ephemeral water. Under this policy, ephemeral waters do not require a BWQ evaluation and must meet standards at the end of pipe.

**GEI-CMI Comment 3:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The draft document states that "under Tier 1, no discharges will be permitted to cause further degradation for pollutants that do not meet applicable water quality standards." However, the existing antidegradation policy allows for certain permitted activities as long as water quality conditions are monitored and restored after the activity or project has been completed. The draft document is much more restrictive and does not seem to make any allowances for projects that may require temporary degradation. If the intent is that temporary degradation would be covered by temporary standards rather than a Tier 1 antidegradation review, it would be helpful to note that in this section so that dischargers are aware of their options in these situations.
**SWQB Response 3:** Comment noted. No change made. Temporary standards are not meant to cover temporary degradation. Temporary degradation in an ONRW is covered by approval from the WQCC. The language in this section is meant to convey that where there is an impairment, no <u>further</u> degradation will be allowed. Additional degradation is not allowed in a Tier 1 waterbody.

**GEI-CMI Comment 4:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. A discussion on effluent dependent waters should be included in this section, similar to the non-perennial waters discussion. See our comment on Section 2.2.

**SWQB Response 4:** Comment noted. This is addressed in the non-perennial waters paragraph. Discussion of effluent-dependent waters is included in the non-perennial waters section. Therefore, the title of the section was change to "Non-Perennial and Effluent Dependent Waters."

**GEI-CMI Comment 5:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The draft document does allow for non-significant degradation of Tier 2 waters, which is determined based on a de minimis degradation of 20% of the available assimilative capacity. We agree with this approach, as it allows for some flexibility in permitting new or increased discharges before a comprehensive Tier 2 antidegradation review is required.
**SWQB Response 5:** Comment noted. No change made. Based on the majority of comments received regarding this topic and further consideration by the Department, the de minimis threshold was revised to 10%, however the 50% cumulative cap remains.

**GEI-CMI Comment 6:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The draft document states that new or expanded discharges to Outstanding National Resource Waters (ONRWs), or Tier 3 waters, are prohibited. This is quite different from the current policy which prohibits degradation, not discharges, in Tier 3 waters. If a treatment facility discharges to an ONRW but needs to expand due to issues such as revised environmental requirements resulting in different treatment methods needing to be implemented, or due to population changes in the area, the current document prohibits any expansion as written. Expansion of facilities and discharge to ONRWs should still be allowed as long as degradation does not occur, because in some instances, expansion may be unavoidable.
**SWQB Response 6:** Comment noted. Changes incorporated in final document. Amended language in the final document to reflect degradation, and that approval from the WQCC is required to show that they either will not degrade the waterbody, or it is a short-term degradation.

**GEI-CMI Comment 7:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.1 Antidegradation Review Requirements by Tier. The draft document includes a discussion of upstream discharges and Tier 3 reviews, stating that upstream discharges are prohibited where the proposed discharge would degrade the water quality of the downstream ONRW. While there are factors listed that describe how the discharge will be evaluated, it would be useful for NMED to provide information on the distance upstream that will be considered so permittees have a point of reference.
**SWQB Response 7:** Comment noted. No change made. NMED cannot provide a discrete distance for upstream discharges, as there are multiple factors that will need to weigh in a case by case evaluation.

**GEI-CMI Comment 8:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.3 Individual NPDES Permits. While we agree that early discussions between the permittee, EPA, and NMED are beneficial and help with the permitting process, we believe that it would be helpful if clarification on how this would work in practice when considering the steps provided in the "Permit Limits and Antidegradation Requirements for Individual Permits" section. Specifically, Step 4 states that determination of minimal/significant degradation will be done after the BWQ and assimilative capacity are determined, however, if degradation is going to be determined at this time, it will also be necessary to calculate anticipated permit load limits to determine the amount of degradation that may occur. Generally, this effort would not be done until the permit application is submitted, and all data are available to allow for a determination whether new limits would result in minimal/significant degradation. Without the data from the application, it would be difficult to make

this determination at this point in the process. If the data are provided early (prior to application submittal as suggested in the draft document), a more recent dataset may ultimately be used for standard permit evaluations such as reasonable potential analysis which will occur later in the process. While initiating the antidegradation process early is generally a good idea, all the necessary information may not always be available early, and in some cases, it may result in duplication of effort, or outdated information being used in the permitting process.
**SWQB Response 8:** Comment noted. No change made. It may take a significant amount of time to collect the needed data, and discussions on antidegradation evaluations should begin as early as possible. If there is an updated dataset used during the actual permitting process, the associated antidegradation analysis can also be updated at that time. Determining what the baseline and available assimilative capacity is ahead of the permitting process is useful and saves time during the process.

**GEI-CMI Comment 9:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.3 Individual NPDES Permits. Step 4 should also be clarified to say that the letter will be provided to the discharger and to EPA after NMED conducts their antidegradation review to determine baseline water quality (BWQ) and assimilative capacity.
SWQB Response 9: Comment noted. Changes incorporated in final document. Added language to indicate that the letter is mailed to permittee and EPA. Also added language in the bulleted list to indicate that public notice requirements are met during the public notice and comment period under the NPDES permit.

**GEI-CMI Comment 10:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. 3.3 Individual NPDES Permits. Additionally, step 6 states that if significant degradation is deemed necessary based on the Tier 2 review, that public participation will be conducted at this time, before the applicant even applies for the permit. We believe the public participation and intergovernmental review is more appropriate after the entire permit is drafted and all data and analyses have been completed, during the standard public comment period for the permit. This procedure is consistent with other states' implementation of antidegradation policies.
SWQB Response 10: Comment noted. Added language to indicate that the letter is mailed to permittee and EPA. Also added language in the bulleted list to indicate that public notice requirements are met during the public notice and comment period under the NPDES permit.

**GEI-CMI Comment 11:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.2 Baseline Water Quality Evaluation Procedures. The section of the draft document on baseline water quality ("BWQ") is entirely new and was not included at all in the previous policy document. The requirements for BWQ data seem to be very specific and restrictive regarding sample collection requirements. There are likely instances where studies may have been conducted by other entities that do not have documented Standard Operating Procedures or Quality Assurance/Quality Control ("QA/QC") procedures that have been approved by NMED, but still follow acceptable QA/QC protocols. While data should definitely be evaluated for quality and representativeness, and appropriate SOPs and QA/QC should be required for data collection going forward, the draft document should allow for some flexibility on use of historical data from different sources.
**SWQB Response 11:** Comment noted. No change made. NMED will make allowances for historical data, but the data must be collected in accordance with quality protocols. If the historical data cannot be shown to be reliable, however, it will not be used. This data will be assessed on a case by case basis.

**GEI-CMI Comment 12:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.3 BWQ Sampling Location. Please consider the following addition (in bold) to the first

paragraph in Section 4.3: “Determinations regarding BWQ characterization and accommodation of variations caused by seasonal impacts, water level fluctuations, or other factors will be made by NMED with consideration of information and positions submitted by the discharger.” In many cases the discharger has more local knowledge of the receiving waters and may be able to provide additional information that NMED is not aware of.
**SWQB Response 12:** Comment noted. No change made. NMED will consider information submitted by the permittee in the overall analysis.

**GEI-CMI Comment 13:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.3 BWQ Sampling Location. The discussion of sampling location states that stream flow should be measured each time BWQ sampling is performed. While this may be desirable for generation of new BWQ data, there are likely historical data which do not have concurrent flow measurements.
**SWQB Response 13:** Comment noted. No change made.

**GEI-CMI Comment 14:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.5 Interpretation of Data and Establishment of BWQ. The draft document states that in general NMED will use the arithmetic average to determine BWQ for pollutants, with the exception of E. coli which used the geometric mean. We agree that this approach is reasonable.
**SWQB Response 14:** Comment noted. Changes incorporated in final document. The draft document was public noticed with this error. The geometric mean shows the trend of the dataset overall better than the arithmetic mean, and this is the approach that NMED will be using.

**GEI-CMI Comment 15:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. 4.5 Interpretation of Data and Establishment of BWQ. For clarity, the “detection limit” should be defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results.
**SWQB Response 15:** Comment noted. Changes incorporated in final document. This section actually addresses how NMED evaluates data where data is less than the detection limit for the entire dataset. Detection limit, however, is added to the glossary of terms with this definition.

**GEI-CMI Comment 16:** Appendix A-Antidegradation Procedure. Section 5. Evaluating the Level of Degradation of Proposed Discharges. 5.3 Calculations to Determine Significance of Degradation. The draft document proposes a 50% cumulative cap to address degradation associated with multiple discharges to the same receiving water. It is not clear what the cap is intended to address. The regulation requires that the water quality of Tier 2 waters “shall be maintained and protected unless the [WQCC] finds . . . that allowing lower water quality is necessary to accommodate important economic and social development in the area in which the water is located”. Conceptually, the idea of a cumulative cap does not relate to how an individual discharge is necessary or appropriate in protecting and maintaining the quality of the receiving stream. It is also unclear exactly how this will be implemented. For example, if the first three discharges to get permits for a specific receiving water reach 50% of the assimilative capacity, the next discharger to apply would be subject to a comprehensive Tier 2 antidegradation review and alternatives analysis. However, at permit renewal, would the first three original dischargers now be subject to comprehensive Tier 2 reviews as well since the 50% cap has been reached, or are they excluded since they were part of the original non-significant increases? We suggest excluding a cap from the implementation procedures.
**SWQB Response 16:** Comment noted. No change made. The cap is intended to address overall degradation in the receiving waterbody. If there are multiple discharges into the same segment, it is possible that the total number of discharges could each contribute a "de minimis" 10% load to the river

causing water quality to degrade significantly without ever conducting a comprehensive Tier 2 review. The 50% cumulative cap is intended to prevent this from occurring. If the 50% cap is reached and a new or expanded discharge is proposed, NMED will coordinate a comprehensive Tier 2 review with the applicant. Existing discharges (prior to the 50% cap) will not be required to undergo a Tier 2 review unless they propose to expand/increase their discharge/design flow. No changes needed to the final document.

**GEI-CMI Comment 17:** Appendix A-Antidegradation Procedure. Section 7. Social and Economic Importance for Tier 2 Reviews. 7.2 Role of the Applicant. The draft document requires the applicant to demonstrate the social and economic analysis of the proposed discharge using forms in Appendix A.2. These forms are much simpler and general than previous forms that were recommended for this use. We feel this is appropriate, as every evaluation is going to be extremely different and the flexibility offered by the new forms will be very useful for dischargers, while still providing sufficient information for NMED review.
**SWQB Response 17:** Comment noted. No change made. In support of language as proposed.

**GEI-CMI Comment 18:** Appendix A-Antidegradation Procedure. General Comment. We would also request revisions to allow for more flexibility in areas that have changed substantially from the previous document. If the requirements are too restrictive it will be very difficult for discharges to make necessary modifications to their treatment facilities.
**SWQB Response 18:** Comment noted. No change made. Without more information about changes the commenter is referring to, NMED can't respond in a meaningful way to this comment.

**GEI-CMI Comment 19:** Appendix A-Antidegradation Procedure. General Comment. Overall, we support NMED's revisions to Appendix A, the Antidegradation Policy Implementation Procedure. The revisions provide more clarification on NMED's antidegradation implementation policy and provides dischargers with guidance on how to work with NMED to establish appropriate permit limits.
**SWQB Response 19:** Comment noted. No changes made. In support of language as proposed.

**N3B-Los Alamos & Tech2Solutions ("N3B"), Los Alamos, New Mexico**

Not, these comments were submitted after the 75-day comment period and were not received by the Standards Coordinator until February 13, 2020.

**N3B Comment 1:** WQMP/CPP. II. Surface Water Quality Standards. D. Process for Establishing and Updating Water Quality Standards. Process for establishing or revising standards through the Triennial Review. It is recommended that the requirements "for all proposed changes" apply to substantive changes only and that 20.6.4 NMAC amendments be designated by the proposer as substantive or non-substantive, subject to review by NMED/EPA6.

**SWQB Response 1:** Comment noted. No change made. New Mexico's Water Quality Standards are codified under 20.6.4 NMAC. All changes must adhere to rulemaking procedures and are not subject to petitioner's determination of substantive. In addition, 40 CFR 131.20 states that any changes to a water quality standard must have a public hearing.

**N3B Comment 2:** WQMP/CPP. XIII. Determination of Compliance with Water Quality Standards for the Protection of Human Health Criteria. A. Background. It is unclear why 20.6.4.12(D) NMAC is a sampling requirement for compliance only and not assessment purposes. [R]equiring evidence of multiple, temporal exceedances of an HH-OO criteria in a sampling/storm event is stronger indication of non-compliance than a single grab sample exceedance. There are several issues, however, which may make this sampling and compliance assessment infeasible:

First, several permits have sampling requirements that are based on flow and hydrograph period (e.g., sampling at specific points in the rising limb, peak or falling limb). Which will take precedence; the need to obtain samples that meet current permit requirements and sampling protocols, or a requirement to collect samples at time=0, time≈15 minutes and again at time≈30 minutes? For instance, a current gauge network begins a sampling routine at peak +10 minutes; would this need to change to address the HH-OO requirement?

Second, currently, many automated collectors partition samples for different pollutants of concern and programming these samplers to optimize these and to meet these HH-OO grab sample requirements may not be possible.

Third, most stormflow durations would not allow for this minimum requirement to be met. While this requirement (currently) does not apply to assessments of designated uses, perhaps language that borrows from the CALM document (listing of impaired waters) wherein one exceedance places the water body in a 5B/5C-type category where more data (subsequent flow sampling or soils/sediment investigation) is necessary to designate non-compliance.

**SWQB Response 2:** Comment noted. No change made. The comment pertains to the regulations, specifically 20.6.4.12 NMAC, not the WQMP/CPP.

**N3B Comment 3:** Appendix C-Hydrology Protocol. Section 1-Hydrology Determination and Rating Form. Scoring. The acknowledgement of intermediary scores (Example, a 3.5 on a whole-number score of 1 to 4) "with justification" is a welcome element to the new HP guidance.

**SWQB Response 3:** Comment noted. No change made. In support of language as proposed.

**N3B Comment 4:** Appendix C-Hydrology Protocol. Section 1-Hydrology Determination and Rating Form. Drought Conditions. Use of additional indices of drought (SPEI in support of SPI) is also a welcome addition; however, has NMED checked these websites to make certain that forecasting a 12 month

index (for planned fieldwork) or back-casting (for prior work, climate, and gage records previously collected) is possible among the different drought indices mentioned? It is often the case that SPI data validations do not allow for an SPI calculation for the day an HP field exercise is planned, rather, the data up to the month prior to field sampling is often all the HP practitioner has to work with.
**SWQB Response 4:** Comment noted. No change made. The use of the 12-month Standardized Precipitation Index (SPI) is the drought indice required under this methodology. The 12-month SPI should be referenced prior to any field work to evaluate conditions over the past 12 months that under extreme climate conditions over the past 12 months, may skew survey indicators. This is a climate indice not a meteorological one therefore, the conditions on any particular field day should not have significant influence of the overall climate conditions over the past 12 months.

**N3B Comment 5:** Appendix C-Hydrology Protocol. General Comment. Updates to the links regarding climate, drought (SPI and others), and gage or sampling networks is supported; Because links often change during a document's lifespan, it is recommended that NMED create a "living document" or Addendum/Errata on the HP webpage such that web links (and other information) can be updated in a timely manner, and certainly more often than the 5-year document life of the WQMP/CPP.
**SWQB Response 5:** Comment noted. No change made. The WQMP/CPP is required to be updated regularly and as needed. The references are provided only for assisting the user, it is up to the user to ensure and demonstrate validity of the links as that is beyond the scope of this document.

**N3B Comment 6:** Appendix C-Hydrology Protocol. General Comment. Updates to the links regarding climate, drought (SPI and others), and gage or sampling networks is supported; Because links often change during a document's lifespan, it is recommended that NMED create a "living document" or Addendum/Errata on the HP webpage such that web links (and other information) can be updated in a timely manner, and certainly more often than the 5-year document life of the WQMP/CPP.
**SWQB Response 6:** Comment noted. No change made. The use of an Assessment Unit is a mechanism used for internal referencing of reaches of waterbodies by the Surface Water Quality Bureau, therefore, the process to amend an Assessment Unit is also an internal process. If using the Hydrology Protocol for the purposes of amending a designated use, the Assessment Unit may be helpful for internal referencing, but is not relevant to the water quality standards for a specific waterbody under 20.6.4 NMAC. The internal process for the Surface Water Quality Bureau to assign a Assessment Units is beyond the scope of this survey method.

**N3B Comment 7:** Appendix C-Hydrology Protocol. Hydrology Protocol Field Form. Location. A mechanism to address water bodies (dry channel, stream, or tributary) that along their length, principally an Assessment Unit ("AU"), or stream segment score differently among performed HPs (indication of improper AU assignments) is needed. While inter-annual variation could shrink or advance a perennial, intermittent or ephemeral reach, guidance on establishing AU length identified with the appropriate hydrologic regime, with a margin of safety would be welcome. Can Lat/Long at top and bottom of an AU, with this margin of safety be used to identify an AU extent with its associated hydrology when little-to-no physical, geologic or hydrologic change is evident?
**SWQB Response 7:** Comment noted. No change made. When conducting a Hydrology Protocol survey for the purposes of amending a designated use, the Assessment Unit may be helpful for internal referencing, but it does not define the extent of water quality standards for a waterbody. When a designated use is amended for a waterbody, the Surface Water Quality Bureau may amend the Assessment Units associated with that segment. The new field form identifies the upper and lower boundaries of the survey. When integrating this into a Use Attainability Analysis, other aspects are considered to determine the extent of a designated use on a waterbody.

**N3B Comment 8:** Appendix C-Hydrology Protocol. Hydrology Protocol Field Form. Calculations for Determining Floodplain and Channel Dimensions. The statement on Alternative methods for determining floodplain (pg 23), descriptions and recordings may need more explanation/justification than might be available (space-wise) through field sheets and may need stronger rationale within the text of the HP-UAA.

**SWQB Response 8:** Comment noted. A new field was added to the Hydrology Protocol Field Sheet to allow the observer to note any alternative methods and a description. The Hydrology Protocol does allow the observer to use an alternative method for determining the floodplain and channel dimensions and the field sheet should reflect this. However, it is not the intent of the Hydrology Protocol to describe and provide the defensibility of all possible methodologies for determining such. The Hydrology Protocol was designed as a survey method, it is up to the entity preparing the work plan and the UAA plan to defend the use of any alternative methods and their appropriateness for the study.

**New Mexico Municipal League ("NMML"), Santa Fe, New Mexico**

**NMML Comment 1:** WQMP/CPP. XIV. Public Participation. In Table XIV-1, the first entry summarizing the public participation steps for the WQMP/CPP, the list no longer includes "Public participation at open WQCC meeting." This is a concern as the WQMP/CPP (which includes the Antidegradation Implementation Policy and the Hydrology Protocol) has substantial impacts on the regulated community. Although NMED is soliciting comments on the proposed changes, the proposed process no longer includes the step where the public can offer official comment on the final draft of the WQMP/CPP. The WQCC should consider the feedback from the public (including regulated community) on NMED's final draft.

**SWQB Response 1:** Comment noted. Included additional language clarifying that public participation is afforded during the public WQCC meeting. Also made language consistent in the TMDL section. The WQCC holds their public meetings in accordance with the Open Meetings Act which affords public participation. However, for purposes of this document it adds clarity to explicitly note that public participation is provided to the public at the WQCC meeting for WQMP/CPP updates.

**NMML Comment 2:** Appendix A-Antidegradation Procedure. Assimilative Capacity. This term is defined in the glossary and used throughout the document. Other terms such as: "available assimilative capacity" and "total available assimilative capacity" are also used but not defined in the glossary. The difference between "available assimilative capacity" and "total available assimilative capacity" is not clear. NMED should use one or the other of the terms or define them. In addition, there isn't Assimilative Capacity is concentration based. Based on the discussion in the sections of the Implementation Policy in which the terms are used, the terms are based on load. The basis for the concept of "assimilative capacity" should be the same throughout; therefore, NMED should revised the discussion for consistency.

**SWQB Response 2:** Comment noted. Changes incorporated in final document. The term assimilative capacity is now used throughout the document for consistency. This section was revised to better clarify how assimilative capacity is calculated and evaluated.

**NMML Comment 3:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. Baseline Water Quality (BWQ). Requirement for the applicant/permittee to collect stream data for BWQ determination. NMED requires the applicant to generate BWQ information where few or no data exist (Sections 3.3 and 4). The data collection burden, along with additional costs, are being shifted to the permittee.

**SWQB Response 3:** Comment noted. No change made. NMAC at 20.6.4.8.A(2) states, "the state shall assure water quality adequate to protect existing uses fully." NMED collects water quality data throughout the state in mostly perennial systems. If data are available NMED will use data collected by the Department; however, if data are not available or NMED only has a partial dataset with respect to the discharge, NMED will work with the applicant to collect adequate and appropriate data. In order to ensure water quality and existing uses are protected NMED requests the applicant contact NMED at the beginning of the process to help prevent any delays with permitting process. In most intermittent or ephemeral waters, BWQ is not required and applicants will need to meet water quality standards at the end of pipe (unless available data indicate otherwise).

**NMML Comment 4:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. Tracking BWQ levels. NMED specifies that it will track BWQ levels in order to ensure when Tier 2 Review will be triggered. However, NMED did not provide specific details for tracking the levels and how

the information can be accessed. This is critical because NMED stated that once BWQ is established, it is the yardstick against degradation.
**SWQB Response 4:** Comment noted. No change made. BWQ and antidegradation analysis are tracked in the permit files related to the facility in question. NMED files are available and accessible to the public upon an IPRA request.

**NMML Comment 5:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. Calculating BWQ. NMED proposes to use ambient water quality data collected within the last five (5) years. This means that the BWQ will only be valid for the term of a permit. Thus, at the time of permit renewal a new BWQ calculation will need to be conducted. However, NMED specifies only that "BWQ re-evaluations may be appropriate if the data used in the original determination is shown to be inaccurate or invalid or if the water quality of the segment is believed to be significantly improved over that which existed at the time of the original BWQ determination. Affected stakeholders may submit a request to NMED for a BWQ re-evaluation under those circumstances." The Water Authority appreciates the options to re-evaluate the BWQ based on newer data. However, NMED should either strike the reference to "significantly improved water quality" or provide the criteria for determining "significant".
**SWQB Response 5:** Comment noted. No change made. The difference in baseline water quality that triggers a re-evaluation will be assessed while looking at relative percent difference (RPD). If the RPD exceeds or improves water quality by 20%, then a new baseline water quality evaluation may be warranted and will be evaluated by NMED.

**NMML Comment 6:** Appendix A-Antidegradation Procedure. Section 4. Determining Baseline Water Quality. Basis for BWQ. Although the implementation policy describes the BWQ as based on surface water quality, the policy also states: "The BWQ requirements will be based on the effluent characterization of the facility." In addition, the implementation policy uses Baseline characterization and Baseline evaluation. Additional clarification for these other terms would be useful. If any of these terms are based on effluent quality, NMED should explain why those data are appropriate for BWQ.
**SWQB Response 6:** Comment noted. Changes incorporated in final document. The language was an oversight and has been amended to indicate that BWQ requirements will be based on the surface water quality upstream of the facility. A BWQ evaluation is conducted to characterize BWQ. An initial evaluation is conducted to characterize BWQ and then subsequent re-evaluations may occur if original data were shown to be invalid or water quality improves.

**NMML Comment 7:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. Expanded Discharge. The proposed policy doesn't define "expanded" discharge. This definition is critical for municipalities as the volume of wastewater received for treatment fluctuates greatly. For the most part, publicly owned treatment works (wastewater treatment plant) (POTW) are not able to control the amount of influent (flow discharged to the sewer system that reaches the POTW for treatment). A municipal discharger should not be required to undergo an Antidegradation review in response to when normal fluctuations occur. EPA bases permit limitations (technology and water quality-based effluent limitations) on flow rates. Based on that procedure, the trigger for when a POTW discharge is an "expanded" discharge should be an increase in the design flow and not an increase in the actual discharge rate. The policy should clearly specify for Publicly Owned Treatment Works ("POTWs"), if there is no change in design flow, but the actual flows have increased, a Tier 2 review will not be triggered. [See Section IV.D of the U.S. Environmental Protection Agency Region 6 Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico- NMIP, March 15, 2012]

**SWQB Response 7:** Comment noted. Changes incorporated in final document. This section was revised to include a definition for expanded discharge to mean an increase in design flow of the facility

**NMML Comment 8:** Appendix A-Antidegradation Procedure. Section 3. Antidegradation Review Requirements. Tier 2 Review Applicability. Figure 3-1 depicts the flow of the Tier 2 review for either a renewal or a new/expanded discharge. The portion of the chart for new or expanded individual permits indicates that the outcome may be "Deny Permit". NMED should consider changing this to "Deny Permit/Expansion" to account for existing facilities that will continue to operate even if the expansion is denied.
**SWQB Response 8:** Comment noted. Figure 3-1 was revised to account for existing facilities that will continue to operate even if the expansion is denied.

**NMML Comment 9:** Appendix A-Antidegradation Procedure. Section 6. Identifying and Evaluating Pollution Control Alternative for Tier 2 Protection- 6.6 Summary of the Alternatives Analysis Process. Tier 2 Demonstrations. NMED is requiring applicants to demonstrate that the proposed new or expanded discharge "implements cost-effective, reasonable best management practices for non-point sources." Applicants do not have the authority to implement BMPs for nonpoint sources. The provision of 20.6.4.8(a)(2) NMAC imposes a requirement on the state and not the applicant. The phrase should be removed from the concluding paragraph on p. 37.
**SWQB Response 9:** Comment noted. Language was removed. The requirement for BMPs is only if the project results in significant degradation *even after* applying reasonable, cost-effective alternatives. In order to allow such degradation and lowering of water quality, the proposal must demonstrate that the new or expanded discharge is important to economic and social development, protects exiting uses (i.e., maintains Tier 1 protection), achieves the highest statutory and regulatory requirements for point sources, and implements cost-effective and reasonable BMPs for nonpoint source control. The water quality assurance is shown in the demonstration. NMED will work with the applicant to provide adequate and appropriate information for the demonstration, but it is the applicant who is proving to the State that even though degradation will occur it is necessary. The State's job is to protect water quality. The language is updated to reflect this in the final document.

**NMML Comment 10:** Appendix A-Antidegradation Procedure. Appendix A.2 Social and Economic Importance Worksheet. Evaluation Criteria for Social and Economic Analysis. NMED has changed the terminology from "substantial and widespread impact" analyses to "social and economic" analysis in Appendices A.2 and A.3. The proposed language no longer includes criteria or evaluation factors. Because of those changes, it is not clear how NMED will evaluate the information provided by the permittee. Additional steps and deadlines along with ranking criteria should be specified.
**SWQB Response 10:** Comment noted. The analysis was updated to reflect the intended outcome. In order to make a decision on whether or not water quality degradation is necessary, the social and economic *importance* of that discharge needs to be evaluated. The new process evaluates economic and social benefits and costs to help determine if the discharge, despite causing significant degradation, is still socially and economically important. On the other hand, the widespread and substantial analysis in the previous version of Appendix A is often used to evaluate *hardship*. That is, whether or not installation and operation of a treatment system (to achieve water quality standards) is affordable or would cause widespread and substantial impacts throughout the community. In addition, some of the indicators used in the analysis may not be known for many small, rural communities in NM. However, NMED recognizes that the widespread and substantial analysis may be a useful tool for more complex discharges or more populated areas. This section was updated, and the widespread and substantial analysis was included in Appendix A.3 in case additional information is needed for a determination.

NMED will evaluate the potential for a scoring matrix or rubric to help clarify the process, but ultimately it is the WQCC that makes the decision to allow or deny the discharge and resulting degradation after adequate public participation and intergovernmental coordination.

**NMML Comment 11:** Appendix A-Antidegradation Procedure. Appendix A.3 Summary of Other Economic and Environmental Impact Categories. Evaluation Criteria for Social and Economic Analysis. NMED has changed the terminology from "substantial and widespread impact" analyses to "social and economic" analysis in Appendices A.2 and A.3. The proposed language no longer includes criteria or evaluation factors. Because of those changes, it is not clear how NMED will evaluate the information provided by the permittee. Additional steps and deadlines along with ranking criteria should be specified.

**SWQB Response 11:** Comment noted. The analysis was updated to reflect the intended outcome. In order to make a decision on whether or not water quality degradation is necessary, the social and economic *importance* of that discharge needs to be evaluated. The new process evaluates economic and social benefits and costs to help determine if the discharge, despite causing significant degradation, is still socially and economically important. On the other hand, the widespread and substantial analysis in the previous version of Appendix A is often used to evaluate *hardship*. That is, whether or not installation and operation of a treatment system (to achieve water quality standards) is affordable or would cause widespread and substantial impacts throughout the community. In addition, some of the indicators used in the analysis may not be known for many small, rural communities in NM. However, NMED recognizes that the widespread and substantial analysis may be a useful tool for more complex discharges or more populated areas. This section was updated, and the widespread and substantial analysis was included in Appendix A.3 in case additional information is needed for a determination. NMED will evaluate the potential for a scoring matrix or rubric to help clarify the process, but ultimately it is the WQCC that makes the decision to allow or deny the discharge and resulting degradation after adequate public participation and intergovernmental coordination.

**NMML Comment 12:** Appendix C-Hydrology Protocol. Level 2 Evaluation: Borderline Determinations. Level 2 Field Procedures. Section 2.6 Ephemeroptera, Plecoptera and Trichoptera (“EPT”) Taxa. NMED proposes a slight language change to this section. The language regarding EPT taxa data collected in highly urbanized areas was changed from "cannot be used to evaluate" to "may not be appropriate to evaluate." NMED should explain the reason for the change.

**SWQB Response 12:** Comment noted. No change made. The application of using EPT is based on the premise that EPT in highly urbanized areas may not be present and therefore not applicable. If they were present, the data could provide supporting evidence for determining the hydrological regime.

**San Juan Water Commission ("SJWC"), Farmington, New Mexico**

**SJWC Comment 1:** WQMP/CPP. The SJWC is highly supportive of the State's efforts to protect and improve the quality of ground and surface water throughout the state.
**SWQB Response 1:** Comment noted. No Change Made. Support of proposed updates.

**SJWC Comment 2:** WQMP/CPP. The SJWC commends NMED for its excellent work on the WQMP/CPP. Overall the changes proposed by the NMED improve the structure and readability of the document.
**SWQB Response 2:** Comment noted. No Change Made. Support of proposed updates.

**SJWC Comment 3:** WQMP/CPP. The SJWC generally supports the changes proposed by NMED for each of the specific units of the WQMP/CPP and its appendices.
**SWQB Response 3:** Comment noted. No Change Made. Support of proposed updates.

**SJWC Comment 4:** WQMP/CPP. Section XI. Basin Plans. On several occasions since 2002, SJWC has provided written public comment encouraging both NMED and the Water Quality Control Commission ("WQCC") to manage water quality in the state on a watershed basis rather than on a statewide basis. SJWC believes that appropriate water quality management and planning cannot occur without consideration of both local water quality conditions and local economic and social issues. Although the state has chosen to do water planning on a statewide basis since the 1980s [WQMP/CPP at XI-1], the state should not continue along that path given the varied environmental, social and economic circumstances facing watersheds in New Mexico. Indeed, the state already recognizes the efficacy of managing various water quality issues on a watershed basis. For example, SWQB uses a rotating basin system to monitor the state's watershed on an approximate eight-year cycle [WQMP/CPP at III-1], the Nonpoint Source Management Program implements nonpoint source pollution abatement and restoration programs on a watershed basis [WQMP/CPP at VII-1], and the Total Maximum Daily Load process is performed on a watershed basis [WQMP/CPP at IV-1 to 3]. SJWC therefore urges the state to return to its earlier policy of managing water quality on a watershed basis. Section XI should be revised to include the development of basin plans
**SWQB Response 4:** Comment noted. No Change Made. The State of New Mexico does not have regulatory bodies on a Basin level to implement or develop a Basin Plan for each Basin within New Mexico. There are some basins within New Mexico to which the scarce population and resources would be prohibitive for the development and implementation of individual basin plans. In order to ensure adequate protections and maintain consistency in implementation of the goals of the CWA the state implements water quality management on a state-wide basis. Individual permits, WBP, TMDLs, and WQS have liberty and responsibility to assess conditions such as social and economic resources for individual communities or geographically defined areas, making for a more effective approach to protecting the State's waters.

**SJWC Comment 5:** WQMP/CPP. Section XIII. Determination of Compliance with Water Quality Standards for the Protection of Human Health Criteria. Since at least 2002, SJWC has asserted that this section of the WQMP/CPP is flawed because it describes a protocol for testing acute standards rather than the chronic standards at the heart of the human health criteria adopted by the WQCC: "A minimum of three individual grab samples, separated in time by no less than 15 minutes each, shall be taken from the same location. For the purpose of determining non-compliance, the analytical results of two or more of these samples must be greater than the applicable human health criteria...". [Section XIII(B) at XIII-1] While this provision alleviates concerns about the validity of a single grab sample, it fails to address the fact that, because human health standards are chronic standards, compliance would be based on

multiple samples over time. The use of three samples taken during the same sampling event to determine compliance essentially means that compliance will be based on a single sample. SJWC therefore proposes that language be added to make it clear that no human health standard will be violated because of an isolated storm event or other incident that, while perhaps causing a violation of an acute standard, will not affect human health over a lifetime of fish consumption.
**SWQB Response 5:** Comment noted. No change made. There is a difference in looking at acute criteria versus having a discrete sample. Evaluating for an acute criterion, we are evaluating the concentration in which, under short-term exposure, would cause harmful effects. If there were a grab sample that had a concentration above the acute criteria concentrations, it would cause harmful effects. Chronic toxicity, as defined under 20.6.4.7 NMAC means toxicity involving a stimulus that lingers or continues for a relatively long period relative to the life span of an organism. It is fair to argue that it cannot be assumed that a discrete sample represents the conditions over a longer period of time except when you are evaluating pollutants that are bioaccumulative as these concentrations are generally not as variable. In theory this assertion has merit. The Human Health-Organism Only standards are a regression of water quality that would, over time, cause bioaccumulation in fish tissue to a concentration that would impose negative responses in human health over long term exposure.

**SJWC Comment 6:** WQMP/CPP. XIV. Public Participation. As noted by NMED (at XIV-1), "stakeholder involvement is crucial to the successful implementation of CWA program." In Table XIV-1, NMED sets out the "Public Participation Requirements" for the CWA and Water Quality Act programs administered by the SWQB. The current version of the WQMP (2011) provides (at XIV-2) that all WQMP/CPP updates will be placed on the WQCC agenda and there will be "[p]ublic participation" at the open WQCC meeting where the updates will be discussed. NMED's current proposal removes the public participation provision, although "[p]ublic participation at WQCC meeting" is a stated requirement for TMDL documents and the CWA Section 303(d) List. SJWC urges NMED to retain the language of the 2011 WQMP with respect to WQMP/CPP updates. Interested stakeholders should have the clear right to address the WQCC whenever NMED proposes updates to the WQMP/CPP.
**SWQB Response 6:** Comment noted. Included additional language clarifying that public participation is afforded during the public WQCC meeting. Also made language consistent in the TMDL section. The WQCC holds their public meetings in accordance with the Open Meetings Act which affords public participation. However, for purposes of this document it adds clarity to explicitly note that public participation is provided to the public at the WQCC meeting for WQMP/CPP updates.

**SJWC Comment 7:** Appendix A-Antidegradation Procedure. Assimilative Capacity. This term is defined as "[t]he difference between the baseline water quality concentration for a pollutant and the most stringent applicable water quality criterion for that pollutant." However, other similar terms, such as "available assimilative capacity" and "total available assimilative capacity," are used (and loosely defined) in Section 5.3-Calculations to Determine Significance of Degradation. The discussion of water quality degradation and a surface water's assimilative capacity for any pollutant on page 29 bounces back and forth between concentration and load (mass loading). The original definition of "assimilative capacity" and the example in Figure 5-1 refer to concentration, but the term "total available assimilative capacity" refers to load. These inconsistencies should be reconciled. There is a significant difference between relying on the difference in concentration versus the difference in load. SJWC recommends that NMED eliminate the use of the term "total available assimilative capacity"
**SWQB Response 7:** Comment noted. A definition has been added for "loading capacity" to address total available assimilative capacity. Assimilative capacity is a loading calculation assessment, and although NMED's formula for determining available assimilative capacity focuses on concentration values, the loading assessment (based on critical low flow - 4Q3) and a conversion factor of 8.34 translates the

concentration value into loading. By definition 40 CFR 122.4(i), antidegradation is a loading calculation. Loading values in a permit limit the total pollution allowed to enter a waterbody, while concentration values in a permit serve to meter spikes in concentration values over time in order to help meet acute water quality standards. On Page 29, we acknowledge that the discussion does go back and forth between discussions of load and concentration, and the difficulty with these analyses is that antidegradation is a loading calculation, but associated water quality standards are expressed in concentrations. NMED will propose a crosswalk or a measure to translate between loading and concentration and add this to the final version for submission to the WQCC.

**SJWC Comment 8:** Appendix A-Antidegradation Procedure. Expanded Discharge. The proposed Antidegradation policy does not define "expanded" discharge. This definition is critical for municipalities as the discharge limits are based on design flow. The trigger for any determination that a POTW discharge is an "expanded" discharge should be an increase in the design flow and not an increase in the actual discharge rates. For POTWs, NMED should specify that if there is no change in design flow, a Tier 2 review will not be triggered even if actual flows have increased [Section 3.3 at 15 (2nd Paragraph)].
**SWQB Response 8:** Comment noted. Language added to "Overview of the Antidegradation Review Procedure" to clarify meaning of "expanded"

**SJWC Comment 9:** Appendix A-Antidegradation Procedure. Tier 2 Review Applicability. Clarification is needed for Figure 3-1 [Section 3.2 at 12]. The portion of the chart for new or expanded individual NPDES permits indicates that the outcome may be "Deny Permit." This language should be changed to "Deny Permit/Expansion" as an existing facility should still be able to operate even if the expansion is denied.
**SWQB Response 9:** Comment noted. Figure 3-1 was updated accordingly.

**SJWC Comment 10:** Appendix A-Antidegradation Procedure. Policy or Program. NMED refers to the Antidegradation Policy as "New Mexico's antidegradation program…" [Section 3.3 at 15 (2nd full paragraph)] SJWC recommends replacing the word "program" with "policy". Antidegradation is a policy not a program.
**SWQB Response 10:** Comment noted. Language was amended in two instances within Appendix A to clarify that the actions were describing how the Antidegradation Policy was implemented. The policy is codified under rule in 20.6.4 NMAC, the procedure to implement are those processes described under Appendix A. It is important to differentiate between the policy and the processes to implement that policy.

SJWC Comment 11: Appendix A-Antidegradation Procedure. NMED proposes a process for determining baseline water quality ("BWQ") and imposes responsibilities on the regulated entity ("applicant"). Although the authority for this requirement is not cited, NMED requires the applicant to generate BWQ information where few or no data exist [Section 3.3 at 14 (6th Paragraph), Section 4 at 21 (introductory Paragraph)]. The applicant will need to follow NMED instructions on what data are needed and how to collect and report the needed information [Section 4.1 at 21]. Data will be required for pollutants of concern that are reasonably expected to be discharged to help NMED determine BWQ, existing uses and the applicable tier. Although the proposed language includes many warnings to initiate discussions with NMED early on (at least one year in advance of permit application), there is more than one year involved with collecting the minimum amount of data for BWQ (four quarters), plus time for planning. This approach shifts the burden and cost of collecting surface water quality data to the permittee. In addition, based on the general procedure outlined on page 15, the process imposes requirements years prior to permit issuance or renewal. NMED should specify the authority for requiring the permittee to

conduct such monitoring. SJWC does not agree this data collection burden should be shifted from NMED to the applicant

**SWQB Response 11:** Comment noted. No change made. NMAC at 20.6.4.8.A(2) states, "the state shall assure water quality adequate to protect existing uses fully." NMED collects water quality data throughout the state in mostly perennial systems. If data are available NMED will use data collected by the Department; however, if data are not available or NMED only has a partial dataset with respect to the discharge, NMED will work with the applicant to collect adequate and appropriate data. In order to ensure water quality and existing uses are protected NMED requests the applicant contact NMED at the beginning of the process to help prevent any delays with permitting process. In most intermittent or ephemeral waters, BWQ is not required and applicants will need to meet water quality standards at the end of pipe (unless available data indicate otherwise).

**SJWC Comment 12:** Appendix A-Antidegradation Procedure. Tracking BWQ. NMED indicates that it will document BWQ and available assimilative capacity, determine minimal/significant degradation and perform Tier 2 antidegradation reviews (if required) [Section 3.3 at 15 4th bullet point)]. In addition, NMED specifies that once BWQ is established, it is the yardstick for degradation [Section 4 at 21 (last paragraph)]. The Antidegradation Policy should describe where BWQ information will be stored and how interested parties can access it. This information must be readily available to applicants

**SWQB Response 12:** Comment noted. No change made. NMED tracks antidegradation analyses in permit files related to the facility in question. NMED files are available and accessible to the public upon an IPRA request.

**SJWC Comment 13:** Appendix A-Antidegradation Procedure. BWQ Calculation. NMED specifies that ambient water quality data for perennial waters should not be more than five years old [Section 4.3 at 24]. If five years generally is the maximum age for data, the previous BWQ will not be valid for the next permit renewal, and the assimilative capacity should be evaluated yet again five years later. However, NMED specifies only that "BWQ re-evaluations may be appropriate if the data used in the original determination is shown to be inaccurate or invalid or if the water quality of the segment is believed to be significantly improved over that which existed at the time of the original BWQ determination. Affected stakeholders may submit a request to NMED for a BWQ re-evaluation under those circumstances." [Section 4.5 at 26] SJWC agrees that the policy should allow for the re-evaluation of BWQ; however, the language as currently drafted will be difficult to implement because it is vague. SJWC recommends the following revisions: BWQ re-evaluations may be appropriate if the data used in the original determination is shown to be inaccurate or invalid or if the water quality of the segment has improved over that which existed at the time of the original BWQ determination. Sampling and analysis will follow the approach in Section 4.3 of this policy, including collection of a minimum of four data points for the re-evaluation. Affected stakeholders may submit a request to NMED for a BWQ re-evaluation under those circumstances.

**SWQB Response 13:** Comment noted. Changes incorporated in final document.

**SJWC Comment 14:** Appendix A-Antidegradation Procedure. Basis for BWQ. Although most of the WQMP/CPP describes the BWQ as based on surface water quality, on page 22 NMED states: "The BWQ requirements will be based on the effluent characterization of the facility." To the contrary, the BWQ requirements should be based on surface water quality data. NMED has provided no justification for tying the BWQ to effluent data. Further, throughout Section 4, NMED appears to be using a variety of terms when referring to baseline water quality: BWQ, baseline characterization, baseline evaluation, etc. If these terms are interchangeable, then NMED should use just one of them. If, on the other hand, each is a unique term, then each term should be defined and used appropriately.

**SWQB Response 14:** Comment noted. Changes incorporated in final document. The language was an oversight and has been amended to indicate that BWQ requirements will be based on the surface water quality upstream of the facility. NMED also changed all references to baseline water quality to BWQ.

**SJWC Comment 15:** Appendix A-Antidegradation Procedure. As noted in the introduction to this Section (at 32), an applicant proposing a new or expanded discharge "that would significantly degrade water quality in a Tier 2 surface water" must provide an evaluation of alternatives. As part of the alternatives analysis, NMED is requiring applicants to demonstrate that the proposed new or expanded discharge "implements cost-effective, reasonable best management practices for non-point source control." [Section 6.6 at 37 (last paragraph)] However, applicants do not have the authority to implement BMPs for non-point sources. Section 20.6.4.8(a)(2) of the New Mexico Administrative Code imposes this requirement on the state and not on the applicant. The phrase should be removed from the concluding paragraph on p. 37.

**SWQB Response 15:** Comment noted. Changes incorporated in final document. The concluding paragraph has been clarified and expanded. However, NMED disagrees with SJWC. The requirement for BMPs is only if the project results in significant degradation *even after* applying reasonable, cost-effective alternatives. In order to allow such degradation and lowering of water quality, the proposal must demonstrate that the new or expanded discharge is important to economic and social development, protects exiting uses (i.e., maintains Tier 1 protection), achieves the highest statutory and regulatory requirements for point sources, and implements cost-effective and reasonable BMPs for nonpoint source control. The water quality assurance is shown in the demonstration. NMED will work with the applicant to provide adequate and appropriate information for the demonstration, but it is the applicant who is proving to the State that even though degradation will occur it is necessary. The State's job is to protect water quality. The language is updated to reflect this in the final document.

**SJWC Comment 16:** Appendix A-Antidegradation Procedure. If an alternatives analysis is conducted for a new or expanded discharge to a Tier 2 water, there must be an analysis of the social and economic importance of the discharge if "the least degrading, cost…effective alternative still results in significant degradation .... " [Section 7 .1 at 38] NMED proposes changing the terminology for this analysis from a "substantial and widespread impact" analysis to a "social and economic" analysis. However, the proposed Antidegradation Policy no longer includes criteria or evaluation factors. SJWC submits that without such evaluation. criteria, the required analysis process is too vague and subjective. Additional steps and deadlines, along with ranking criteria, should be specified for Appendices A.2 ("Social and Economic Importance Worksheet") and A.3 ("Summary of Other Economic and Environmental Impact Categories").

**SWQB Response 16:** Comment noted. Language was updated to reflect "substantial and widespread". The analysis was updated to reflect the intended outcome. In order to make a decision on whether or not water quality degradation is necessary, the social and economic *importance* of that discharge needs to be evaluated. The new process evaluates economic and social benefits and costs to help determine if the discharge, despite causing significant degradation, is still socially and economically important. On the other hand, the widespread and substantial analysis in the previous version of Appendix A is often used to evaluate hardship. That is, whether or not installation and operation of a treatment system (to achieve water quality standards) is affordable or would cause widespread and substantial impacts throughout the community. In addition, some of the indicators used in the analysis may not be known for many small, rural communities in NM. However, NMED recognizes that the widespread and substantial analysis may be a useful tool for more complex discharges or more populated areas. This section was updated, and the widespread and substantial analysis was included in Appendix A.3 in case additional information is needed for a determination.

**SJWC Comment 17:** Appendix C-Hydrology Protocol. Section 2.6- NMED proposes a slight language change to this section (at 35). The language regarding EPT taxa data collected in highly urbanized areas was changed from "cannot be used to evaluate" to "may not be appropriate to evaluate". This change implies that what was previously prohibited ("cannot be used") is now permissive. NMED should explain the reason for the change.
**SWQB Response 17:** Comment noted. No change made. The application of using EPT is based on the premise that EPT in highly urbanized areas may not be present and therefore not applicable. If they were present, the data could provide supporting evidence for determining the hydrological regime.

**SJWC Comment 18:** Appendix C-Hydrology Protocol. There appears to be an error with the scoring criteria for a Perennial Stream located at the bottom of the last page of the Field Sheet. The current draft specifies "<22", but the score should be ">22" to qualify as a perennial stream, as noted in Table 5 of the Hydrology Protocol [Section 2 at 37].
**SWQB Response 18:** Comment noted. Correction was made to reflect that perennial streams would be those that had a cumulative score greater than, not less than, 22. A score greater than, not less than 22 would be considered perennial.

**Triad National Security, LLC ("Triad"), Los Alamos, New Mexico**

**Triad Comment 1:** Appendix C-Hydrology Protocol-Executive Summary 1. Should state that the HP can be used for efficient application of the limited aquatic life and secondary contact uses to ephemeral water, and intermittent waters in certain conditions.
**SWQB Response 1:** Comment noted. No change was made. The executive summary does state that the hydrology protocol was developed to provide necessary information for determination of a waterbody's hydrologic regime, and this may be used to determine appropriate designated uses. NMED does not feel the proposed language would add to the substance of the executive summary, but rather imply limits to the applicability of the hydrology protocol's use to predominantly ephemeral determination. In addition, ephemeral determination alone does not provide the necessary support for determining that a limited aquatic life is the highest attainable use for a waterbody.

**Triad Comment 2:** Appendix C-Hydrology Protocol-Executive Summary 2. Steps are needed to be incorporated into the protocol to ensure the consistency and quality of the process is conducted by individuals and groups from different areas of expertise that are trained.
**SWQB Response 2:** Comment noted. No change was made. NMED does not support adding steps outlining project specific quality assurances in this document which is intended to serve as a standard operating procedure for a field survey method. In general, a project involving data collection activities being used for decision making must have a Quality Assurance Project Plan (QAPP), or equivalent. The elements of a QAPP include the project's goals, data quality indicators that will ensure accuracy, precision, consistency and repeatability while reducing bias of the data. In addition, the QAPP requires assurances of individuals qualifications to manage the various aspects of the project which would include training for conducting hydrology protocol surveys. Without a QAPP, or equivalent, the data collected under this method, or any other method may not be useable for a WQS amendment.

**Triad Comment 3:** Appendix C-Hydrology Protocol- Executive Summary 2. Clarification on whether HPs conducted by third parties require direct participation in the assessments by SWQB in development of WQS.
**SWQB Response 3:** Comment noted. No change was made. This comment, as posed, is not intended for clarification in the language in the Hydrology Protocol. Neither the language in the protocol or under 20.6.4.15(D) NMAC require that the Department be physically present on surveys. However, 20.6.4.15(D) NMAC does require that a work plan be submitted for NMED approval prior to proceeding with a UAA, which may include a hydrology protocol survey. The work plan would outline the scope of work, data that is intended for use in the UAA, factors affecting the attainment of the designated use and provisions for public notice and consultation with state and federal agencies. If NMED or the third-party petitioner determines that NMED's presence on the surveys serves to be of benefit for the integrity of the demonstration, it may be included in the work plan.

**Triad Comment 4:** Appendix C-Hydrology Protocol- Executive Summary 3. Clarify that Level 1 evaluation field sheets provide some of the necessary information needed for a UAA to demonstrate a streams hydrologic conditions and not just ephemeral conditions.
**SWQB Response 4:** Comment noted. Language was incorporated to reflect that data obtained through a Level 1 Hydrology Protocol does provide adequate evidence for determining intermittent and perennial hydrologic regimes. The Hydrology Protocol is a survey method used for UAAs that base their reasoning on 40 CFR 131.10(g)(2) for low flow, intermittent or ephemeral hydrologic conditions. The Level 1 survey does provide adequate data to determine a stream's hydrologic regime, beyond just whether it is ephemeral.

**Triad Comment 5:** Appendix C-Hydrology Protocol- Introduction 1. Environmental conditions can change during droughts and wet years, and in cases where contributions from point source discharges change. Therefore, the protocol should note that hydrologic conditions may change from ephemeral to non-ephemeral, or vise-versa.
**SWQB Response 5:** Comment noted. No change was made. The development of the Hydrology Protocol process took into account variability between years and seasons. The series of multiparameter evaluations provides both current and long-term hydrologic conditions. The extent of a waterbody's perenniality may ebb and flow, however, the survey accounts for this by requiring the observer to survey areas that are representative of a reach. To reduce bias and enhance data quality indicators, the observer is not intended to make assumptions of perenniality while conducting the survey.

**Triad Comment 6:** Appendix C-Hydrology Protocol-Introduction 2. Multiple assessments and data collection over multiple years should be encouraged.
**SWQB Response 6:** Comment noted. No change was made. The multi-media evaluation has indicators for immediate, intermediate and long-term hydrologic conditions to evaluate the system as a whole not just the current conditions. Although repeatability is a data quality indicator that would add to the robustness of the data set, it is not mandatory for this survey based on its design.

**Triad Comment 7:** Appendix C-Hydrology Protocol- Introduction. Other data like flow gage data can support and give information on conditions.
**SWQB Response 7:** Comment noted. No change was made. The use of other data is part of the development of a Use Attainability Analysis work plan. The Hydrology Protocol is a survey method for determining long-term hydrologic conditions and would be supporting evidence, among other factors, for a designated use change in a Use Attainability Analysis.

**Triad Comment 8:** Appendix C-Hydrology Protocol- Definitions. Ephemeral, intermittent and perennial streams are defined qualitatively in NMAC based on the relative periods of time in which the stream channel contains water. These definitions do not clearly distinguish between ephemeral and intermittent, or intermittent and perennial in terms of the duration over which water can be observed in a particular system. These definitions could be refined in the protocol to include quantifiable criteria for differentiating between each stream type: examples included

1. Matthews (1988) regarded intermittent streams as those which flow 20%-80% of the time, and ephemeral streams as those which flow <20% of the time.
2. Hedman and Osterkamp (1982) defined perennial streams as those having measurable discharge 80% of the time, intermittent 10-80% of the time, and ephemeral <10% of the time.
3. Hewlett (1982) defined perennial streams as having water present >90% of the time. As shown by the literature, there are even discrepancies in the stream class definitions.

**SWQB Response 8:** Comment noted. No change was made. The Hydrology Protocol was designed to be applicable to the varying types of ecoregions and hydrologic systems found throughout the state. Placing definitive qualifiers on actual flow would limit the applicability of the survey method and reduce the need to evaluate using a multi-indicative approach that provides more information on the functionality of the system, which is what the designated uses are based on.

**Triad Comment 9:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. The term "existing use" should be followed by a statement: as defined by 20.6.4.7(E)(3).

**SWQB Response 9:** Comment noted. Language was added referencing both federal and state definitions for an existing use. The term existing use has a specific definition and application under the CWA and should be referenced accordingly.

**Triad Comment 10:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. See Comment 2 in Executive Summary.
**SWQB Response 10:** Comment noted. No change made. NMED does not support adding steps outlining project specific quality assurances in this document which is intended to serve as a standard operating procedure for a field survey method. In general, a project involving data collection activities being used for decision making must have a Quality Assurance Project Plan ("QAPP"), or equivalent. The elements of a QAPP include the project's goals, data quality indicators that will ensure accuracy, precision, consistency and repeatability while reducing bias of the data. In addition, the QAPP requires assurances of individuals qualifications to manage the various aspects of the project which would include training for conducting hydrology protocol surveys. Without a QAPP, or equivalent, the data collected under this method, or any other method may not be useable for a WQS amendment.

**Triad Comment 11:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. The HP states the 12-month Standard Precipitation Index ("SPI") will be used to determine drought conditions. Triad agrees that field evaluations should be conducted outside of drought conditions and supports the recommendation for using the 12-month SPI. There may be value in looking at the one month, three months, six months and twenty-four-month SPI values also. The SPI value(s) should be noted in the Stream Determination Field Sheet and justification should be documented.
**SWQB Response 11:** Comment noted. No change made. Although informative, the intention of using the 12-month SPI along with documentation of recent rain events has been vetted as providing the necessary confirmation that results of the survey would not be biased on climate variability. The Hydrology Protocol Field Form does provide for the 12-month SPI value with details on when and where it was obtained. In addition, the field form now provides for the observer to denote if an alternative or supporting drought indices were utilized.

**Triad Comment 12:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Latitude/Longitude-is this information sought for the assessment unit or the sample reach coordinates?
**SWQB Response 12:** Comment noted. Added language to the Hydrology Protocol describing that a survey reach area should be no less than 160 meters and the latitude/longitude of the reach should be documented on the field sheets. The survey reach (as determined to be representative of the AU) as denoted on the field form includes the origination latitude/longitude and the terminal latitude/longitude. This additional level of detail enhances data quality indicators and overall quality assurance as it pertains to reducing bias and increasing repeatability.

**Triad Comment 13:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Drought conditions-what information should be recorded.
**SWQB Response 13:** Comment noted. Added language to the Hydrology Protocol under III.F.1 Office Procedures to clarify that at a minimum the 12-month Standardized Precipitation Index must be recorded on the field sheets. Adding language on documentation of the drought conditions will better aid the surveyor in ensuring the completeness of the survey and the supporting documentation found on the field sheets.

**Triad Comment 14:** Appendix C-Hydrology Protocol- Hydrology Protocol Field Form. Precipitation past 48 hours- should this be a yes or no answer? Is a check box needed?
**SWQB Response 14:** Comment noted. No change made. The information required for this survey has been adjusted to reduce subjectivity. The question is now posed to respond if there either yes or no on any precipitation with documentation of how much. This is replacing the prior subjective yes or no question of "significant" rain in past 48 hours. The term "significant" is a statistical term and in the context of this survey, not defensible.

**Triad Comment 15:** Appendix C-Hydrology Protocol- Hydrology Protocol Field Form. Field evaluations should be performed at least 48 hours after the last major rainfall event.
**SWQB Response 15:** Comment noted. No change made. The Hydrology Protocol (under Recent Rainfall Activity in Section 1) and the Hydrology Protocol Field Sheets both identify that field evaluations should be done "at least" 48 hours after a precipitation event. It is believed that the document, as drafted addresses the commenters request.

**Triad Comment 16:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Guidance is needed on what constitutes a major or severe event. Federal storm water permits such as MSGP and CGP contain different standards. Should this be based on rainfall intensity? rainfall volume? conditions following precipitation events?
**SWQB Response 16:** Comment noted. No change made. The HP was designed to be applicable to the varying types of ecoregions and hydrologic systems found throughout the state. Placing definitive qualifiers on would limit the applicability of the survey to very specific systems. The Hydrology Protocol is a survey method that will be part of a Use Attainability Analysis to which the petitioner will have to defend the usability of the data which includes defending that the conditions were appropriate to survey under. It is intended to evaluate baseflow conditions, therefore if any conditions that would arise that would skew the multi-indicators to be absent or present that would not have been under baseflow conditions should be critically evaluated for application of this survey method for a Use Attainability Analysis. There are other applications of the Hydrology Protocol, that may have more sensitive application or be able to function with a higher level of disturbance to baseflow conditions. It is pertinent to recognize that the data quality assurances are outlined in the work plan for any Use Attainability Analysis including those proposing to utilize the Hydrology Protocol survey method.

**Triad Comment 17:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Level 1 Indicators 1.1. Wet channel may mean water present or wet sediment. Scores based on sediment moisture could vary tremendously depending on timing of visit. Consider the question: Is water present?
**SWQB Response 17:** Comment noted. No change made. It is the intent of the Hydrology Protocol survey to document both actual flow, and conditions where there is wet sediment, not just actual water. The survey has been designed to be conducted under baseflow conditions, which may include actual flow, or minimal flow to the point in which there is only saturation, which may still support aquatic life.

**Triad Comment 18:** Appendix C-Hydrology Protocol- Hydrology Protocol Field Form. Level 1 Indicators 1.5. The addition of the statement: vegetation growing along the riparian area does not occur in greater density or grow more vigorously than in the adjacent uplands, is not needed for clarity. True riparian plants are likely present under strong and moderate conditions. The addition of riparian corridor terminology may be confusing. The original statement: No compositional or density differences in vegetation are present between the banks and the adjacent uplands is clear and directly gets to the issue of differences between banks and adjacent uplands.

**SWQB Response 18:** Comment noted. Language was changed slightly to be consistent with the rest of the classifications in this section. "riparian area" was changed to "riparian corridor". There are two criteria that must be evaluated, and both have to do with the Riparian corridor as described in the Protocol. The first being species composition and the other being density and vigor.

**Triad Comment 19:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Level 1 Indicators 1.6. Consider a revision to the form that directly takes into consideration the absence of rooted upland plants within the streambed/thalweg that is due to sand bedded streams caused by highly erosive flows or flashy conditions.
**SWQB Response 19:** Comment noted. No change made. The functionality of the survey, as developed, would not lead to a false determination of perenniality given the absence of rooted upland plants due to extreme flashy flows associated primarily with ephemeral tributaries as none of the other indicators would be present in significant levels to incorrectly classify the tributary. On the contrary, for perennial tributaries, the absence of rooted upland plants would support the other indicators. For intermittent waters, there would be presence of rooted upland plants and may provide the necessary evidence to support the determination. The gradient to which these indicators can be observed are critical in the determination between ephemeral/intermittent and intermittent/perennial.

**Triad Comment 20:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Level 1 Indicators 1.8. Floodplain and Channel Dimensions-local geology and topography can render this indicator as unreliable. For example, an ephemeral channel could have a very high entrenchment ratio and would score 3 points, while a perennial steam in a steep confined reach could score a zero. In addition, please review this section against directions and terms in Figure 3.
**SWQB Response 20:** Comment noted. No change made. The HP is intended to be inclusive using all indicators, a determination of hydrologic regime is not dependent on any one factor but the interaction of all physical and biological characteristics to provide a more complete understanding of the system.

**Triad Comment 21:** Appendix C-Hydrology Protocol-Section 1-Hydrology Determination and Rating Form. Level 1 Indicators 1.10. The wording changes may not be helpful. The original language is easily understood by the evaluator, i.e., areas close to but not in the channel. The concept of flood prone is introduced but is not addressed in the 1.10 narrative. Consider retaining original wording.
**SWQB Response 21:** Comment noted. No change made. This language was changed in direct response to noted biases between observers in field surveys, especially those that relied on visual observation only. The clarification on wording was warranted to reduce any subjective variability during the survey.

**Triad Comment 22:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Level 2 Indicators. Level 2 evaluation may be conducted if Level 1 evaluation is inconclusive (i.e., in gray zone Table 5). It should be made clear that Level 2 evaluations may be warranted for sites with scores outside of the gray zone. The determination on whether to conduct a Level 2 evaluation requires professional judgement and consideration of corroborating information. This may include laboratory evaluation of macroinvertebrates, gaging records and groundwater monitoring records.
**SWQB Response 22:** Comment noted. No change made. The use of Level 2 should be addressed in the Use Attainability Analysis work plan and the application for such would be discussed to demonstrate validity in use outside of the process described under this procedure.

**Triad Comment 23:** Appendix C-Hydrology Protocol- Section 1-Hydrology Determination and Rating Form. Level 2 Indicators 2.6. Ephemoptera, Plecoptera and Trichoptera (EPT) taxa- Section 2- Guidance for the Overall Score Interpretation-Retain the word Guidance.

**SWQB Response 23:** Comment noted. No change made. This document is not a guidance but rather a procedure approved by the WQCC and EPA. If alternate applications are going to be assumed the application of those variances would need to be defended in the UAA workplan.

February 5, 2020

NMED-SWQB
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**RE: Comments on Proposed Changes to the Water Quality Management Plan/Continuing Planning Process and Hydrology Protocol**

Dear Ms. Fullam,

The undersigned organizations thank the New Mexico Environment Department ("NMED") for the opportunity to submit these comments regarding the proposed changes to the Water Quality Management Plan and Continuing Planning Process ("WQMP/CPP"), the Hydrology Protocol ("HP") and the Antidegradation Policy Implementation Procedure ("APIP").

Our comments provide constructive suggestions to strengthen the WQMP/CPP, HP, and APIP to protect New Mexico's water quality, in particular in the face of federal regulatory and policy rollbacks of water protections. These rollbacks present a serious risk of harm to the resilience, health, and future of New Mexico's rivers, streams, wetlands, lakes, and other surface waters, particularly in a changing climate.

## I. PURPOSE AND GOALS

The WQMP/CPP is intended to summarize the framework governing water quality management and to direct prioritization and implementation of surface water quality protections.[1] Such water quality management planning is completed in accordance with section 205(j) of the Clean Water Act ("CWA"). CWA rules provide that the CPP specifically must describe nine distinct CWA processes and "other processes at [NMED's] discretion." 40 C.F.R. § 130.5(b). The WQMP complements the CPP, providing the specific plan elements to protect water quality, including total maximum daily loads, effluent limitations, and nonpoint source management controls. 40 C.F.R. § 130.6(c). On this basis of the CWA and these rules, NMED has identified the primary goals of the WQMP/CPP update as:

- Incorporating changes and new developments that have occurred since the last revision in 2011.

- Updating the antidegradation policy implementation procedure (Appendix A).

[1] NMED, SWQB. 2019. *Draft State of New Mexico Statewide Water Quality Management Plan and Continuing Planning Process Public Comment Draft.* https://www.env.nm.gov/surface-water-quality/wqmp-cpp/. [hereinafter "2019 Draft WQMP/CPP"] p. I-8.

- Incorporating the Wetland Program (Previously Section XV) into regulatory mandated portions of the WQMP/CPP primarily under the Nonpoint Source Management and Control (Section VII).

- Updating program descriptions and citations to referenced documents

We suggest two additional primary goals to be carried forward into future updates:

- **Updating the WQMP/CPP to take necessary state-level action to mitigate and adapt to a changing climate.** Effective water quality management can bolster New Mexico's carbon sink capacity and NMED will certainly have to account for and adapt to climate change impacts to surface water quality. Accordingly, the WQMP/CPP should proactively articulate how NMED will adjust water quality management procedures and practices in light of reasonably foreseeable climate change projections. We specifically suggest that NMED add a section to the WQMP/CPP that identifies climate mitigation and adaptation strategies, whether by leveraging existing or new water quality management tools. For example, the WQMP/CPP could reference and build upon the Governor's 2019 Climate Strategy which recommends increasing the number of action plans for wildfire control and watershed health and designating Outstanding National Resource Waters as a mechanism for protecting New Mexico's waters in the face of a changing climate.[2]

- **Updating the WQMP/CPP in light of changing federal regulatory structures.** NMED's WQMP/CPP update is taking place at the precise moment the Trump administration is weakening if not eliminating federal water quality protections. Such action includes rules undercutting New Mexico's Clean Water Act 401 authority and rules drastically scaling back the jurisdictional reach of the federal Clean Water Act to New Mexico's surface waters. The WQMP/CPP should acknowledge and account for these attacks on bedrock water quality protections, articulating management actions that NMED will take to ensure that New Mexico's rivers, streams, wetlands, and other surface waters are protected and restored.

## II. TRIBAL WATER QUALITY AUTHORITY AND FEDERAL AGENCY DUTIES

We appreciate that the WQMP/CPP's outlines the role of federal, tribal, and state agencies in managing water quality in New Mexico. *See* WQMP/CPP at I-13 thru I-22. We have three recommendations for this section.

First, in the section discussing tribal roles, we recommend that NMED specifically identify tribes with EPA approved water quality standards and the authority to manage a water quality standards program.[3] Those tribes include:

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[2] New Mexico Interagency Climate Change Task Force. 2019. *New Mexico Climate Strategy: Initial Recommendations and Status Update* at p.25 (https://www.climateaction.state.nm.us/documents/reports/NMClimateChange_2019.pdf).

[3] List of tribes with EPA approved water quality standards and water quality standards programs: https://www.epa.gov/wqs-tech/epa-actions-tribal-water-quality-standards-and-contacts.

- Ohkay Owingeh
- Pueblo of Acoma
- Pueblo of Isleta
- Pueblo of Isleta
- Pueblo of Laguna
- Pueblo of Nambe
- Pueblo of Picuris
- Pueblo of Pojoaque
- Pueblo of Sandia
- Pueblo of Santa Ana
- Pueblo of Santa Clara
- Pueblo of Taos
- Pueblo of Tesuque
- Navajo Nation

Second, we recommend that this section of the WQMP/CPP recognize tribal authority to complete CWA 401 certifications. Entities proposing to discharge either in water bodies managed by tribes with EPA approved water quality standards or upstream from those water bodies are subject to tribal CWA 401 certification and any conditions these downstream tribes may require in accord with the certification process.

Third, we recommend that this section, in identifying the role of federal agencies, acknowledge that section 313(a) of Clean Water Act providesincludes a clear and unambiguous waiver of federal sovereign immunity from water quality requirements. It provides that federal agencies:

> shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity including the payment of reasonable service charges.

This reference to section 313(a) of the Clean Water Act would provide helpful reminder to federal agencies and the public that federal agencies must adhere to New Mexico water quality protections for all surface waters of the state, including those that flow on or downstream of federal public lands and facilities.

## III. WATER QUALITY STANDARDS

This section of the WQMP/CPP outlines the different components of water quality standards and how water quality standards are revised and adopted.

### 1. NMED Should Acknowledge and Explain the Public's Ability to Seek Revisions to Water Quality Standards Outside of the Triennial Review

Section II of the WQMP/CPP outlines various mechanisms for changing water quality standards, but does not mention that any member of the public can petition the Water Quality Control Commission ("WQCC") at any time to strengthen water quality standards. While parties that want to strengthen New Mexico's water quality standards typically do so during the Triennial Review, parties may also petition the WQCC to do so at any time. Accordingly, the WQMP/CPP should acknowledge and provide the public with guidance on how that process works. This is

particularly important to members of the general public and communities who may otherwise not realize they have this opportunity. Examples of public-driven petition topics could include, but are not limited to, proposing to change segments delineations, proposing changes to criteria, proposing the designation of Outstanding National Resource Waters, or proposing changes to narrative criteria.

We note that the WQMP/CPP already explains how regulated entities may seek a site-specific standard weaker than the standard that would otherwise apply. *See* WQMP/CPP at II-10. Acknowledging the broader public's ability to revise (and strengthen) water quality standards, in particular those standards that impact communities, would provide helpful and constructive symmetry relative to regulated entities and improve public accessibility to water quality management and governance.

Relatedly, the WQMP/CPP should also clearly state that the proponent of a petition submitted to the WQCC for a change to water quality standards bears the costs of that petition, including any public notice and hearing requirements, if the requested changes fall outside of the Triennial Review process or other NMED initiated hearing. This ensures that members of the public who may otherwise be unfamiliar with WQCC operations can plan ahead to pay those costs.

### 2. The WQMP/CPP Should Revise the Use Attainability Analysis Guidance

The WQMP/CPP outlines the process to downgrade a CWA section 101(a) use through a Use Attainability Analysis ("UAA"). *See* WQMP/CPP at II-4 thru II-7. However, because a UAA is only needed to *downgrade* a use, and a UAA is not needed to *upgrade* a use, we suggest deleting the first sentence in this section and making several other changes in this first paragraph to make it clear that a UAA is only needed when removing or revising a 101(a) use.[4] In addition, we note that the secondary contact use does not meet CWA 101(a)(2) goals and should not be included in the list of uses meeting these goals. Specifically, we suggest the following alternative language for the first paragraph of the UAA section:

> A Use Attainability Analysis (UAA) must be completed and approved pursuant to 20.6.4.15 NMAC and 40 C.F.R. § 131.10 before:
>
> - A waterbody is assigned uses that do not include the designated uses specified in Section 101(a)(2) of the CWA;
> - A 101(a)(2) use is removed; or
> - A use is changed to include less stringent criteria than was previously applicable.
>
> The uses specified in Section 101(a)(2) reflect "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." The established designated uses meeting this goal in the State's WQS include wildlife habitat use, primary contact use, and all aquatic life use subcategories except the limited aquatic life use. A UAA is a

[4] https://www.epa.gov/wqs-tech/use-attainability-analysis-uaa.

> scientific study that assesses the factors affecting the attainment of a designated use. A UAA is not needed to upgrade a designated use to a subcategory subject to more stringent criteria.

The first sentence of the second paragraph (WQMP/CPP at II-4) is also misleading. A UAA is not necessary to designate a use; a UAA is only necessary to designate a use less stringent than a CWA 101(a)(2) use or less stringent than a previously applicable use.[5] We therefore suggest the following changes to the first sentence of the second paragraph:

> The UAA must demonstrate that attainment of a CWA 101(a)(2) use is not feasible based on one of the factors identified at 40 CFR 131.10(g):

In addition, the WQMP/CPP should specify that even if a UAA is conducted and a use is subsequently downgraded, the highest attainable use must nonetheless be assigned.[6] We suggested the following changes to the last paragraph of this section (WQMP/CPP at II-5):

> Existing uses, defined in the WQS as "a use actually attained in a surface water of the state on or after November 28, 1975, whether or not it is a designated use", may not be removed regardless of the outcome of a UAA unless a use with more stringent criteria is added. (40 CFR 131.10(h) and Subsection A of 20.6.4.15 NMAC). In addition, even if a UAA is conducted and a use is downgraded, the highest attainable use must be assigned.

We appreciate NMED's inclusion of Figure II-2. Graphics help the public more easily understand the complicated UAA and Hydrology Protocol processes, in particular given that many people in fact understand and learn information graphically. Thank you. However, Figure II-2 should be revised to show that a UAA is not required to classify a waterbody as perennial unless the segment specific criteria are not supportive of CWA 101(a)(2) uses. *See* WQMPP/CPP at II-8. In addition Figure II-2 fails to show an outcome for waterbody that keyed ephemeral using the hydrology protocol other than placing that waterbody in 20.6.1.97 NMAC. This precludes an outcome premised on evidence that could be presented at a hearing demonstrated that there were in fact CWA 101(a)(2) existing uses of that waterbody or that CWA 101(a)(2) uses were attainable. This outcome should be provided for in Figure II-2 as a possibility, presumably to continue protections for that water body pursuant to 20.6.4.98 NMAC.

Finally, we note here that we remain concerned with the expedited UAA process outlined in 20.6.4.15 NMAC. We intend to articulate and advance our concerns during the upcoming triennial review.

### 3. The Section Pertaining to Site-Specific Standards Appears to Omit Words

The last sentence of the first paragraph of this section (WQMP/CPP at II-10) appears to omit a word or words between "to" and "listed."

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[5] *Id*.
[6] 40 C.F.R. § 131.10(g).

### 4. Wetland Water Quality Standards

We thank NMED for including this section in the WQMP/CPP and fully support NMED's efforts to establish water quality standards for wetlands. *See* WQMP/CPP at II-10. We urge NMED to follow through on these efforts and to propose wetland standards during the next triennial review.

## IV. SURFACE WATER QUALITY MONITORING AND ASSESSMENT

We suggest not referring to a specific version of the 10-year Monitoring and Assessment Strategy in case the Monitoring Strategy is updated prior to the next WQMP/CPP update. *See* WQMP/CPP at III-1.

While we realize that the once every 8-year intervals for monitoring surface water in the state is based on lack of staff and financial resources, it would be good to state at least an aspirational goal of increasing monitoring frequency in the WQMP/CPP. We suggest adding the following language to this section:

> The SWQB will strive to identify and secure additional resources to increase the frequency of water quality monitoring in New Mexico's surface waters.

## V. TOTAL MAXIMUM DAILY LOADS

The section involving nonpoint sources (*see* WQMP/CPP at IV-3) first introduces the categories 4A, 4B, and 4C. We are not sure this is the correct location to introduce these terms, and recommend that NMED consider introducing these categories in the separate section that describes the CWA 303d/305b Report (*see* WQMP/CPP at III-2). Regardless, it would be helpful to briefly define the differences to these categories wherever they are first introduced.

## VI. EFFLUENT LIMITATIONS

### 1. The WQMP/CPP Should Acknowledge and Account for the Implications of the Trump Administration's Dirty Water Rule and Consider a State-Run Discharge Permitting Program to Protect All Surface Waters of the State

The WQMP/CPP outlines the current National Pollutant Discharge Elimination System ("NPDES") permitting structure in New Mexico. *See* WQMP/CPP at V-1 thru V-5. However, changes in federal policy and regulations have weakened the effectiveness of the federal NPDES program to protect against point source pollution to New Mexico surface waters. In particular, the Trump administration's recent "Dirty Water" Rule, also known as the 2020 Navigable Waters Protection Rule,[7] drastically reduces the scope of surface waters afforded federal CWA protection and will have disproportionately negative—and perhaps even disastrous—impacts to New Mexico surface waters. Despite the fact that pollution discharges will not stop, the dirty water rule may eliminate NPDES permitting requirements for various discharges across New Mexico.

[7] 84 Fed. Reg. 4154 (Feb. 14, 2019).

Given these new circumstances, the WQMP/CPP should identify what the state intends to do to protect water quality in the wake of the federal government's abdication of responsibility to protect water quality. We recommend that the WQMP/CPP identify the prospect of a state-run program to protect surface waters of the state that are not also waters of the U.S., extending coverage to discharges that would not otherwise be covered by CWA 402 or 404 permitting.

Indeed, there is considerable value in the adoption of such a program even absent the 2020 "Dirty Water" rule given that 20% of the land area of New Mexico falls in closed basins which have not been protected by the CWA since 2006. Accordingly, there is a longstanding and now urgent and pressing need for the state to establish a safety net permitting program to protect surface waters of the state. This could be carried out in conjunction with New Mexico obtaining primacy over the NPDES program, but we emphasize the primary need for a safety net program to ensure protection of all surface waters of the state, as defined in the regulations, 20.6.2.7.T(2) NMAC, even if EPA retains NPDES permitting authority for waters of the U.S. Regardless, the WQMP/CPP should identify this need and opportunity. We suggest the following language to this section:

> Given the loss of federal CWA protections of many of New Mexico's waters (closed basins, isolated waters, and ephemeral streams), the state is considering a program to control discharges into waters of the state. Surface waters of the state that are not protected under the federal CWA are still protected under the New Mexico Water Quality Act and discharges to state waters that violate water quality standards are subject to civil and/or criminal actions pursuant to the WQA at NMSA 1978, Section 74-6-10.

### 2. The WQMP/CPP Should Clarify Language Regarding Technology Based Effluent Limits and Water Quality Based Effluent Limitations

Water Quality Based Effluent Limits ("WQBELs"), not just Technology Based Effluent limits ("TBELs"), are defined in federal regulations and widely applicable. We suggest the inclusion of the following language before the last sentence of the second paragraph of Section V.A. (*see* WQMP/CPP at V-1) such that the end of that paragraph would read:

> TBELs and WQBELs are defined in federal regulations and applicable across many categories of effluent discharge. TBELs are developed independently of the specific impact that the discharge may have on water quality in the receiving waterbody. WQBELs must be included in permits when TBELs themselves will not achieve the desired water quality. The applicability of effluent limitations is summarized in Table V-1.

### 3. The WQMP/CPP Should Reference Anti-backsliding Requirements

Anti-backing sliding is an important component of regulating discharges to surface waters. NMED should include a new section on anti-backsliding in the WQMP/CPP within section V (*see* WQMP/CPP at V-1 thru V-5). We suggest the inclusion of the following language:

Anti-backsliding requirements apply to NPDES permit effluent limitations. Anti-backsliding refers to statutory and regulatory provisions under the CWA that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limitations, permit conditions, or standards less stringent than those established in the previous permit.

### 4. The WQMP/CPP Should Strengthen Language Regarding the Stringency of CWA 401 Certification Conditions for NPDES Permits

The WQMP/CPP should more clearly constrain the inclusion of final CWA 401 certification conditions that are less stringent than draft permit conditions. A detailed demonstration showing that the less stringent requirements would conform to water quality standards should be explicitly required. This is similar to what is included when a 401 certification sets more stringent conditions. We suggest the WQMP/CPP replace the last sentence of the first paragraph of the WQMP/CPP at V-3 with the following language:

> The Department may set a 401 condition that makes provisions of the draft permit less stringent so long as the Department demonstrates in detail that such action would not violate the requirements of State law, including WQS. Absent that demonstration, the Department waives the right to certify with respect to that less stringent condition and the more stringent condition included in the draft permit must be complied with as a condition of the final permit.

### 5. The WQMP/CPP's Process for Prioritizing Permit Issuance Should Account for the Trump Administration's Dirty Water Rule

As explained above, the Trump administration's "Dirty Water" Rule scales back the reach of federal CWA protections to New Mexico surface waters. Accordingly, there is an urgent need for the state to adopt a safety-net permitting program. However, in addition, NMED should consider (*see* WQMP/CPP at V-4) options to engage with EPA Region 6 to prioritize permit issuance. This need is particularly acute given that the WQMP/CPP is updated so infrequently.

### 6. We Support the Development of Narrative Standard-Based WQBELs

We appreciate that NMED has acknowledged the prospect of developing WQBELs on the basis of narrative standards. *See* WQMP/CPP at V-4. We encourage NMED to advance this concept through inclusion of the following language at the end of this section's paragraph:

> NMED will establish guidance for how to derive WQBELs based on narrative standards.

## VII. MUNICIPAL AND INDUSTRIAL WASTE TREATMENT & CLEAN WATERSHEDS NEEDS SURVEY

The WQMP/CPP states that "every four years EPA conducts the Clean Watersheds Needs Survey and submits a report to Congress in compliance with Section 516 of the CWA" (*see* WQMP/CPP at V-6), yet the last Clean Watershed Needs Survey was conducted in 2012. We encourage the NMED to urge EPA to maintain the 4-year schedule and if necessary follow up with legal action to ensure that this needs survey is done. The information included in the Needs Survey is critical to ensuring that adequate funding needs to protect New Mexico's waters are identified.

## VIII. NONPOINT SOURCE MANAGEMENT AND CONTROL

As outlined in our comments below, there is a need to better define Nonpoint Source (NPS) control measures, especially in the context of antidegradation protections. A section should be added to the NPS section of the WQMP/CPP that specifies that NPS management in the context of antidegradation must adhere to certain standards.

## IX. ANTIDEGRADATION POLICY IMPLEMENTATION PROCEDURE

### 1. The APIP Should Provide Guidance to Control All Sources of Water Quality Pollution and Degradation, Including Nonpoint Source Pollution.

As a primary matter, we are concerned that the APIP is fixated on permitted discharges to the exclusion of unpermitted discharges. We therefore ask that NMED strengthen the APIP to apply antidegradation protections to all sources of water quality pollution and degradation, whether point or nonpoint, and regardless of whether that source must obtain a federal permit or license.

The plain language of New Mexico's antidegradation standards in 20.6.4.8 NMAC extend antidegradation standards to *all* surface waters of the state and constrain *all* sources of pollution and degradation, regardless of the source of pollution or the procedural mechanism (e.g., permits or best management practices) used to protect against water quality pollution or degradation from those sources. For example, the Tier 1 antidegradation standard states that:

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

20.6.4.8(A)(1) NMAC. Similarly, the Tier 2 antidegradation standard provides that:

> 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."

20.6.4.8(A)(2) NMAC. And, finally, the Tier 3 antidegradation standard explains that:

> 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 an in Paragraph (4) of this Subsection.

20.6.4.8(A)(3) NMAC. As is evident, the plain language of these standards provides no harbor for the conclusion that antidegradation standards only apply to particular, rather than all, sources of water quality pollution or degradation or only where an activity is subject to federal permitting or licensing requirements. To be clear, we assume that NMED agrees with our position and the plain language of the standards. But, problematically, the APIP contends that it only applies to "regulated discharges" defined as discharges "that require a permit and/or a water quality certification under Section 401 of the Clean Water Act (CWA) pursuant to state or federal law." APIP at 1. The APIP proceeds to explain that "[t]hese procedures do not apply to non-point sources" and that, "when significant degradation is determined to be a concern and NPS sources are impacting water quality, NMED will work with stakeholders to identify and implement best management practices." APIP, Section 1.2 at 2.

While it is true that nonpoint sources are principally controlled through best management practices (as well as other nonpoint source pollution controls), this is besides the point. Best management practices (and other nonpoint source pollution controls) must be developed to conform to the antidegradation standards. Providing guidance within the APIP to conform to antidegradation protections also presents an opportunity for NMED to better protect water quality. Nonpoint source pollution is a serious problem that can, at least in part, be remedied by straightforward action: best management practices that are explicitly calibrated, implemented, and monitored to satisfy antidegradation standards. Otherwise, the status quo—generic best management practices of dubious efficacy and uncertain implementation—will persist.

Our concern over the APIP's narrow scope is amplified by the Trump administration's promulgation, through the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, of the dirty water rule, which drastically scaled back the reach of federal water quality protections afforded to New Mexico's surface waters. As a result, existing, permitted discharge sources may soon be left unpermitted, creating a deeply uncertain future for New Mexico's surface waters of the state. Indeed, the prospect of serious, unpermitted discharges across New Mexico without any federal oversight and, in the absence of a state-level safety net permitting program, is extremely high.

Given that New Mexico's definition of surface waters of the state covers, as it should and unlike the dirty water rule, all of New Mexico's surface waters, the APIP's current focus on permitted discharges operates to undercut antidegradation protections for the vast majority of New Mexico's surface waters, limiting those protections to a far-too-narrow subset of permitted discharges dictated by the Trump administration's "Dirty Water" Rule.

We also note that New Mexico retains considerable CWA section 401 certification authority to oversee activities that risk water quality pollution or degradation even though those activities may no longer be subject to Clean Water Act section 402 or 404 permitting requirements. The universe of activities that must obtain federal permits and licenses subject to Clean Water Act

section 401 certification is more expansive than the universe of activities that must obtain Clean Water Act section 402 or 404 permits. This is because discharges into surface waters of the state not subject to the Clean Water Act's section 402 or 404 permitting programs nonetheless, pursuant to CWA section 401, "may result in a[] discharge into the navigable waters" and thus be subject to CWA section 401 certification.[8]

We thus recommend that NMED revisit the APIP to provide guidance ensuring the application of antidegradation protections to all surface waters of the state and to all sources of pollution or degradation. This entails providing clear antidegradation guidance to three areas:

- Facilities that, even if unregulated pursuant to the CWA section 402 or 404 permitting programs, still discharge pollution or cause degradation of surface waters of the state.

- Activities subject to federal permits and licenses, other than Clean Water Act section 402 or 404 permits, subject to Clean Water Act section 401 certification.

- Development, implementation, and monitoring of best management practices and other nonpoint source pollution controls, such as Watershed Based Plans and Wetland Action Plans, that cover nonpoint sources of pollution or degradation. This would include procedures to review and monitor the efficacy of BMPs and other nonpoint source pollution management actions relative to each of the three antidegradation tiers.

### 2. Section-by-Section APIP Comments

#### a. Section 1 Overview

The second paragraph purports to communicate the general thrust of antidegradation protections, but is confusing by virtue of not delineating the particular antidegradation tiers explicitly and by failing to reference Tier 3, even implicitly, at all. We suggest replacing the second paragraph in its entirety with the following;

> Antidegradation protections consist of three levels, or tiers, of protection defined by New Mexico's water quality standards in 20.6.4.8 NMAC. Tier 1 protections provide a floor of protection, ensuring that existing instream water uses and the level of water quality necessary to protect those existing uses are maintained and protected. Tier 2 protections maintain and protects water quality that exceeds water quality numeric and narrative criteria, prohibiting any lowering of water quality unless necessary to accommodate social or economic need. Tier 3 protections are afforded to waters designated by the WQCC as Outstanding National Resource Waters (ONRWs). In ONRWs, no degradation is permitted except in limited, specifically defined instances, such as to accommodate public health or safety activities or to enable activities to restore or maintain water quality.

[8] In contrast, Clean Water Act 402 permits are required for "any addition of any pollutant to navigable waters from any point source."

### b. Section 1.2

We appreciate the APIP's clear application, on page 2, to all "surface water[s] of the state." We, however, recommend that NMED take action to in fact protect *all* surface waters of the state by accounting for climate change and federal actions to weaken or eliminate federal water quality protections. At present, the APIP does not acknowledge the massive threat presented by climate change to New Mexico's surface waters. Moreover, by fixating on "permitted discharge[s]" to the exclusion of nonpoint source pollution, NMED is effectively delimiting the reach of antidegradation protections to the Trump administration's 2020 "Dirty Water" Rule.

### c. Section 1.3

For Tier 3, the APIP on page 3 says "[n]o long-term degradation is allowed in an ONRW." This statement is imprecise, does not reflect Tier 3 standards provided by 20.6.4.8(A)(3) NMAC, and should be corrected. Tier 3 standards provide that no degradation is permitted except in narrow, specifically-defined circumstances, including where degradation is confined to the "shortest possible time and shall not exceed six months" and subject to further caveats, e.g., that it is necessary for public health or safety activities or water quality restoration or maintenance activities and, even then, must "not alter the essential character or special use that makes the water an ORNW."

Thus, there are circumstances where, e.g., "short-term" degradation of 5 months is precluded if that degradation does not fall into specific, allowable categories of temporary degradation (e.g., activities that accommodate public health and safety or restoration) or if that degradation can be further limited, e.g., through modification to project design, to 1-month period or where, e.g., even if limited to the shortest possible time, the degradation would "alter the essential character or special use" underpinning the ONRW designation. In addition, the last sentence is confusing and seems to indicate that projects that cause short term degradation are to be prioritized for funding, which shouldn't be the case. We recommend replacing the language in the Tier 3 bullet on page 3 with the following language:

> *Tier 3 Protection (applicable to all waters designated as an ONRW):* No degradation is allowed in waters designated as ONRWs except in specifically defined circumstances and for the shortest possible amount of time. Even short-term degradation is prohibited if it would alter the essential character or special use of the ONRW. NMED may award priority points for grants or other funding programs that restore or maintain water quality in ONRWs.

### d. Section 2.1

We have several comments regarding this section as follows:

First, the reference to "state antidegradation rule" on page 4 should be changed to "state antidegradation standard." This is a distinction with a legally significant difference; antidegradation protections are "standards" promulgated pursuant to § 74-6-4(D) NMSA, *not* "rules" promulgated pursuant to separate authority in § 74-6-4(E) NMSA.

Second, we have substantial concerns with the APIP's allowance for what it characterizes as "de minimis" degradation, defined as consumption of less than 20% of the assimilative capacity of the receiving water or any consumption of assimilative capacity that exceeds a cumulative cap of 50% for a pollutant of concern. *See* APIP at 4. While de minimis thresholds are used in some states, they are not sanctioned by the Clean Water Act, associated regulations, or the water quality standards handbook as an option for avoiding antidegradation review.

We also question the lack of basis for NMED's determination that degradation is only significant if it consumes more than 20% of the assimilative capacity (or 50% cumulatively). The APIP provides no scientific or credible basis for the 20% and 50% levels. Indeed, these levels seem extreme, in particular because an exceedance of these thresholds only triggers a Tier 2 review, not an outright denial of a new or increased discharge. Moreover, the de minimis threshold fails to provide for critical case-by-case evaluation to determine whether actions that consume less than 20% of the assimilative capacity of the receiving water (or less than 50%, cumulatively) nonetheless constitutes, in context, significant degradation compelling comprehensive Tier 2 antidegradation review. As EPA rightly cautioned in 2015:

> EPA has not found a scientific basis to identify a specific percentage of loss of assimilative capacity or lowering of water quality that could reasonably be considered insignificant for all parameters, in all waters, at all times, for all activities. Depending on the water body's chemical, physical, and biological characteristics and the circumstances of the lowering of water quality, even very small changes in water quality could cause significant effects to the water body.
>
> Courts have explained that the implied de minimis provision authority is ''narrow in reach and tightly bounded by the need to show that the situation is genuinely de minimis or one of administrative necessity.''Accordingly, this authority only applies ''when the burdens of regulation yield again of trivial or no value.''
>
> Finally, a ''determination of when matters are truly de minimis naturally will turn on the assessment of particular circumstances, and the agency will bear the burden of making the required showing.'' Unless a state or authorized tribe can provide appropriate technical justification, it should not create categorical exemptions from Tier 2 review for specific types of activities based on a general finding that such activities do not result in significant degradation. States and authorized tribes should also consider the appropriateness of exemptions depending on the types of chemical, physical, and biological parameters that would be affected.

U.S. EPA, Water Quality Standards Regulatory Provisions, 80 Fed. Reg. 51020, 51034-35 (Aug. 21, 2015) (footnotes and citations omitted).

Applied here, EPA's words should compel NMED to revisit its attempted use of a de minimis threshold because the threshold: (1) lacks any basis, let alone a requisite reasoned scientific and technical basis; (2) fails to account for the possibility that even small changes to water quality can cause significant degradation by providing for a case-by-case evaluation to determine

significance; (3) is neither narrowly tailored nor tightly bounded; and (4) provides no showing that Tier 2 antidegradation review for actions that consume less than 20% of a receiving water body's assimilative capacity (or 50% cumulatively) would yield only trivial or no value. NMED has thus not satisfied its high burden to justify the APIP's de minimis threshold and the de minimis threshold should be eliminated from the APIP in its entirety.

EPA has notably rejected other state's use of de minimis levels that are far less than the 20% included in New Mexico's APIP. In 2013, EPA disapproved Idaho's Antidegradation Implementation Procedures because of their use of a 10% cumulative de minimis before antidegradation is triggered. EPA found that "in at least some cases, the [10%] provision could require Idaho to deem insignificant and, therefore, exempt from Tier 2 review, certain proposed activities or discharges involving bioaccumulative pollutants even though such activities or discharges may cause significant degradation."[9] These factors combined with the fact that to our knowledge few, if any, Tier 2 antidegradation reviews have occured in New Mexico, demonstrates that this threshold is unreasonably high and indeed entirely unwarranted and unjustified. Water quality in New Mexico is too precious for the use of any de minimis thresholds--in particular in light of federal actions weakening federal CWA protections--and we strongly suggest that NMED eliminate the de minimis threshold entirely.

Third, the statement on page 4 that "Tier 2 may also apply to intermittent waters if data are available and indicate a high-quality water" should be removed. The next sentence in this section correctly states that "Tier 2 is the default protection level for all high-quality perennial and intermittent waters (i.e., water quality is better than the applicable WQS)." Tier 2 protections should not be premised on the availability of water quality data. If baseline water quality (BWQ) data does not exist, a potential discharger should collect water quality data prior to applying for a permit. In addition, the language in section 2.1, read in isolation, does not explain what level of protection is provided in the absence of data. We suggest adding the following language to clarify this situation:

> If BWQ data is not available for the proposed receiving stream, whether it is perennial or intermittent, BWQ must be collected prior to subsequent antidegradation review and associated permitting decisions.

Elsewhere, the APIP in section 3.1 on page 7 explains that "non-perennial waters will receive Tier 1 protection for all pollutants of concern unless there is sufficient BWQ data to demonstrate a high-quality water for intermittent waters to which a Tier 2 evaluation would be appropriate." As per our comments above, we suggest removing this language and replacing it with the following:

> Non-perennial waters will receive Tier 2 protections for all pollutants of concern unless there is significant BWQ data to demonstrate that Tier 1 protections are more appropriate, or the water is an ONRW in which case Tier 3 protections apply.

[9] U.S. EPA, Letter to Idaho Department of Environmental Quality re: Antidegradation Implementation Methods (Idaho Docket Number 58-0102-1001) (July 23, 2013) (available at https://www3.epa.gov/region10/pdf/water/wqs/id_de_minimis_disapproval_072313.pdf).

Section 2.1 should therefore clearly communicate that Tier 2 protections are appropriate for all waters unless there is data to show that the water is impaired or the water is designated an ONRW. This recommendation should be carried forward through commensurate changes to section 4, which defines how baseline water quality is determined. See APIP, Section 4 at 21.

Fourth, the statement on page 4 regarding Tier 3 protections is imprecise by omission. The language in this section should be changed as follows:

> Tier 3 prohibits degradation except in circumstances provided by and subject to 20.6.4.8(A)(3) and 20.6.4.8(A)(4) NMAC.

Fifth, the paragraph on page 4 providing that "[a]ntidegradation is more about levels of protection than it is about levels of quality" is confusing and should be rephrased as follows:

> Conformance with antidegradation standards may involve consideration of numeric and narrative water quality as well as other considerations. For example, Tier 3 Outstanding National Resource Waters require consideration of "the essential character or special use that makes the water an ORNW," such as high ecological or recreational value.

Sixth, the statement on page 4 contending that "[m]ost of the interest in antidegradation policy is regarding Tier 2 waters" is subjective, unsubstantiated, and unnecessary. Accordingly, it should be struck.

Seventh, the statement on page 4 contending that dischargers "may have to expend extra effort" is imprecise and subjective. We recommend that NMED change the APIP to match the antidegradation standards as follows:

> Tier 2 waters maintain high-quality waters by requiring proponents of action that would degrade water quality to demonstrate that allowing lower water quality is necessary to accommodate important economic and social development in the area in which the water is located.

**e. Section 2.2**

We have several comments regarding this section of the APIP.

The first paragraph of this section and Table 2-1 both identify effluent dependent waters as categorically receiving Tier 1 protections. The APIP fails to provide a basis for this categorization. In New Mexico even the Rio Grande could be considered an effluent dependent water during certain times of the year. This broad categorization does not take into account that many downstream users depend on effluent dependent waters for irrigation, recreation, and even drinking water. In addition, treatment technology in many cases and for many parameters can treat water to levels higher than water quality standards resulting in water quality that is higher than the applicable standards. Also, for some parameters, such as *E. coli* or temperature, pollution can be assimilated or diminished downstream resulting in higher water quality than at

the point of discharge. We suggest removing all references to effluent dependent waters in both this section and in all other sections (such as in section 5.2 on page 28) and therefore, by default, granting effluent dependent waters the same protections as other waters of the state.

The first sentence of paragraph 2 should be revised to assign Tier 2 protections to all waters—not just perennial and possibly some intermittent waters—if BWQ shows that water quality exceeds standards. Suggested language for the first sentence of paragraph 2 on page 5:

> Waters that are found to have existing water quality better than applicable water quality standards are protected at the Tier 2 level.

**f. Section 3.1**

We have several comments regarding this section of the APIP.

First, as per our comments above we do not think it is appropriate to permit discharges into waters unless BWQ has been established. Potential dischargers should be required to collect BWQ prior to requesting permission to discharge. This should be applicable to all waters including intermittent and effluent dependent waters.

Second, page 8 uses the word "translators" in several instances. We recommend that NMED, in this section, clearly explain that term and its meaning for non-technical readers.

Third, the APIP, on page 8, categorically states that "[i]f a narrative standard does not have associated translators, NMED will not evaluate the narrative standard for antidegradation purposes due to the impracticality of such an evaluation." Absent further explanation, the APIP does not seem to provide an adequate basis for this statement. We recommend that NMED, rather than categorically decide not to evaluate narrative standards for antidegradation purposes, instead apply a case-by-case evaluation to gauge whether or not it is in fact impractical to evaluate such narrative standards and, if so, to provide a reasoned explanation for that conclusion.

Fourth, the APIP, on page 9 states that "Any discharge that would degrade existing water quality in an ONRW is prohibited, unless the applicant demonstrates that the water quality impacts are temporary and receives approval according to the process in 20.6.4.8 NMAC." We suggest a slight change in this language to:

> Any discharge that would degrade existing water quality in an ONRW is prohibited, unless the applicant demonstrates that the water quality impacts are necessary for public health and safety or restoration, are temporary, and receives approval according to the process in 20.6.4.8 NMAC.

Fifth the APIP on page 9, provides that "NMED will impose controls necessary on indirect discharges that occur upstream or to tributaries of an ONRW to maintain and protect existing water quality in the downstream ONRW." We recommend that NMED strike the word

"necessary" as this imposes an inappropriate burden on the application of such controls not found in the antidegradation standards.

Sixth, the APIP, on page 9, references the responsibility imposed by Tier 3 antidegradation standards to ensure that "degradation shall not alter the essential character or special use that makes the water an ONRW." We recommend that NMED provide guidance on how to identify that essential character or special use and how to complete the requisite evaluation of potential degradation relative to those factors. We suggest that the WQMP/CPP at least replace the fourth bullet on the bottom of page 9 to the following:

- The degradation shall not alter the essential character or special use that makes the water an ONRW by reference to the proceedings and final decision establishing that ONRW.

Seventh, we suggest adding a new subsection to the Tier 3 Review section to provide guidance as to what steps should be taken if degradation is found in Tier 3 waters. This is not a hypothetical situation as some waters in the Valle Vidal, all of which are ONRWs, are showing new degradation. We recommend the following language be incorporated into the APIP:

> If degradation of water quality is detected in an ONRW the following actions will be taken:
> - NMED will reach out to the appropriate land owner(s), land manager(s), and other interested parties, including the original ONRW petitioners, and will conduct a meeting or meetings with the purpose of drafting an action plan that details potential sources of the degradation and actions to take to address and/or remedy the degradation.
> - NMED, in collaboration with the land managers and owners associated with the ONRW, will increase water quality sampling frequency to at least once annually in the ONRW until degradation is improved to the baseline water quality levels in existence at the time of ONRW designation.

### g. Section 3.2

We have two comments regarding figure 3-2 on page 13 of the APIP:

First, relative to Tier 3 protections, we understand that the graphic is intended to provide a shorthand understanding of 20.6.4.8(A)(3) NMAC, but we are nonetheless concerned that the shorthand reduction of Tier 3 protections to "temporary" degradation and will cause confusion. We thus recommend that all references to "Degradation longer than temporary" be replaced with "conforms to Tier 3 requirements."

Second, for individual NPDES stormwater permits, there is no outcome that results in the denial of a permit. We understand that an opportunity should be provided to strengthen a stormwater plan to address deficiencies, but permits should be denied where, even with action to strengthen a stormwater plan, BMPs are still ineffective, permit conditions remain unsatisfied, or the permit

would otherwise still cause a violation of water quality standards. This should be made clear in figure 3-2.

### h. Section 3.3

We appreciate the need for NMED to identify a metric to determine whether a non-degrading or less degrading pollution control alternative is cost-effective and reasonable. However, NMED should, in addition to using this metric, also apply other factors, including the water quality benefits obtained by alternatives that cost more than the base cost of the pollution control measures associated with the proposed discharge. We thus recommend the inclusion of "presumptively" in the second to last paragraph on page 16 before "cost effective and reasonable" as well as the inclusion of language providing for consideration of other factors such that the second to last paragraph would read as follows:

> As a rule of thumb, NMED will consider non-degrading or less degrading pollution control alternatives with costs that are less than 110 percent of the base costs of the pollution control measures associated with the proposed discharge to be presumptively cost-effective and reasonable (see Chapter 6.4 of this appendix). NMED may also determine that non-degrading or less degrading pollution control alternatives with costs exceeding 110 percent of the base costs of the pollution control measures associated with the proposed discharge are cost-effective and reasonable if NMED determines that the water quality benefits of those alternatives outweigh the costs.

This change should also be carried forward into section 6.4 by revising the last sentence of the first paragraph straddling pages 34 and 35 by striking "slightly" and otherwise adjusting the language as follows:

> It should be noted that the 110% cost-effectiveness criterion is a general rule-of-thumb—if pollution control costs for alternatives that would result in substantial water quality benefits exceed the 110% threshold, those alternatives may be required if NMED determines that the benefits of those alternatives outweigh the costs.

We further recommend that NMED strengthen the language on page 17 regarding BMPs. BMPs should not just be identified, they should be calibrated to achieve WQS, in fact implemented, and monitored, once implemented, for effectiveness to determine whether such BMPs need to be strengthened to achieve WQS. Accordingly, we recommend that the last sentence in the first full paragraph on page 17 be revised as follows:

> If significant degradation is proposed, the applicant must show that the highest requirements for new and existing point source discharges are achieved, that all cost effective and reasonable best management practices for non-point source pollution control are identified, calibrated to achieve WQS, implemented in fact, and monitored to ensure effectiveness, and strengthened if necessary to achieve WQS and that Tier 1 protection is provided.

### i. Sections 3.3, 3.4, 3.5

In section 3.6, the WQMP/CPP references NMED's CWA section 401 certification authority regarding CWA section 404 permits. We appreciate this language, but wonder why similar language is not provided in sections 3.3, 3.4, and 3.5 relative to NPDES individual, stormwater, and general permits. We suggest that NMED consider a consolidated section in the WQMP/CPP regarding its CWA section 401 certification authority relative to antidegradation as applied to all federal permits and licenses, inclusive of sections 402 and 404 permits and other federal permits or licenses subject to CWA section 401 certification.

### j. Section 3.6

We appreciate that the APIP, on page 19 provides for individual certification of CWA 404 permits in ONRWs. This is reasonable and appropriate.

However, the APIP unfortunately reduces Tier 3 antidegradation requirements to a limited shorthand description contained within a parenthetical that states "i.e., only temporary impacts are allowed." APIP at 19. This shorthand is problematic as it is imprecise by omission and the use of "i.e." rather than "e.g." suggests that Tier 3 antidegradation protections only prohibits impacts longer than temporary. This is not the case. Furthermore, while temporary impacts *may* be allowed, they *may also* be prohibited if, for example, the impacts would degrade the essential character or special use that makes the water an ORNW. 20.6.4.8(A)(3)(a)(iv) NMAC. Whether impacts are "temporary" is thus a single, but not exclusive, criterion in preventing degradation. This section should refer to Tier 3 antidegradation protections as a whole by replacing reference to "temporary impacts" with reference to 20.6.4.8(A)(3) NMAC as a whole.

We also note that the overview of antidegradation review for individual section 404 permits on page 20 provides explanations for Tier 1 and Tier 2, but not Tier 3. This should be remedied by including a reference to Tier 3.

### k. Section 6.2

Section 6.2 provides a framework to assess the costs related to different alternatives considered as part of Tier 2 antidegradation reviews. Here, we recommend that NMED account for not only the direct capital, operating, and other costs incurred by the proponent of an action, but the true, full costs incurred by the public by virtue of degraded water quality and related ecosystem services.[10] Using such an approach acknowledges that protecting water quality and the ecological integrity of surface waters of the state provide non-market value that contributes to social and economic conditions.

[10] Our comments regarding Total Economic Valuation are liberally appropriated—in certain instances, virtually word-for-word—from the excellent June 2015 comments submitted by the Conservation Economics Institute to the U.S. Bureau of Land Management regarding proposed oil and gas rules. *See* http://www.conservationecon.org/#!og/kl7ht.

Such non-market costs can be accounted for through adoption of a "Total Economic Valuation" framework.[11] Use of such a framework is well established in economics literature and far from novel in application to government decision-making. For example, the White House Office of Management and Budget, Council on Environmental Quality, and Office of Science and Technology Policy released a memorandum, M-16-01, on October 7, 2015 directing federal agencies to incorporate ecosystem services into their decision-making, including through "monetization" and "ecosystem-services assessment methods" where "an agency's analysis require consideration of costs." [12]

Total Economic Valuation provides an excellent means of assessing the non-market economic costs of water quality degradation (and the non-market economic benefits of water quality protection) to sharply defining the issues and providing a clear basis for choice among alternatives by the decisionmaker and the public. Total Economic Valuation has been effectively harnessed to evaluate the non-market benefits of clean groundwater[13] and Wilderness[14].

Total Economic Valuation recognizes that the public goods and services produced by protected surface waters of the state have characteristics that are not necessarily profitable if exploited by private enterprise. The ecological value of a watershed, for example, is difficult to divide up and sell to individual consumers. It is also difficult to exclude "free riders" that consume the assimilative capacity of a surface water of the state but are unwilling to pay for it. In these situations, private firms have little economic incentive to protect watersheds and market forces fail to produce an adequate supply, despite the fact that additional, protected watersheds may be economically rational and socially desirable. Without adequate protection of these public goods and services from new or increased discharges, society as a whole is less wealthy, and people and communities may be left worse off.

While the economic value of rival and excludable commodities, such as commercial activities which discharge pollution into surface waters of the state, can be measured with market data, there are externalities (negative public goods, or public "bads") that often result from these activities (such as water quality degradation) that are not traded in markets and whose values are not reflected in market prices. Exclusive reliance on measures of value based on the market prices of commodities is thus incomplete. Put simply, the value of non-market public goods and services produced by surface waters of the state are not reflected in market transactions and therefore lack prices. The fact that non-market goods are not priced does not mean they have no value, only that market indicators of the value do not exist. Fortunately, economists have

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[11] Peterson, G.L. and C.F. Sorg. 1987. Toward the measurement of total economic value. USDA Forest Service. GTR RM-148. Fort Collins, CO.

[12] Available at https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2016/m-16-01.pdf. M-16-01 at 2

[13] *See*, *e.g.*, National Academy of Sciences, *Valuing Groundwater: Economic Concepts and Approaches, Committee on Valuing Groundwater*, National Research Council (1997); Young, R. A., & Loomis, J. B., *Determining the Economic Value of Water: Concepts and Methods,* Routledge (2014); U.S. Environmental Protection Agency, *Economic Analysis for Revised Uranium Mill Tailings Standards* (EPA 402-R-14-003) (2015).

[14] Morton, P., *The Economic Benefits of Wilderness: Theory and Practice*, University of Denver Law Review, Volume 76, No. 2 pp. 465-518 (1999).

developed methods for estimating non-market values when consumers are unable to express their preferences and willingness-to-pay via the marketplace.

Non-market values are estimated by economists using two main methods: (1) stated preference; and (2) and revealed preference. Stated preference relies on surveys that ask respondents to state their maximum willingness to pay for a non-market good or to choose from among a set of nonmarket goods with varying attributes and price levels. Revealed preference methods derive the value of non-market goods through actual behavior including expenditures on travel and medical care, property values, and wage rates. Stated preference methods are the only way to estimate passive-use benefits (e.g., option, bequest and existence values). Several choice experiment applications have examined passive use values from the management of public land. Garber-Yonts, *et al*. studied the preferences of Oregonians regarding the management of Oregon's Coast Range, including large acreage of BLM land.[15] And Adomowicz, *et al*. studied stakeholders' preferences regarding industrial forest management and other use and passive use values.[16] Both studies find evidence of high valuations for passive-use values.

To complete a reasoned and informed benefits-cost analysis, we therefore recommend that NMED employ a Total Economic Valuation framework to fully assess the non-market benefits and costs associated with actions that would degrade Tier 2 surface waters of the state. As Field and Field point out, "[b]enefit-cost analysis is for the public sector what a profit-and-loss analysis is for a business firm" (p. 118).[17] Economic efficiency takes the perspective of all of society, and examines all the costs and benefits associated with activities that degrade surface waters of the state, including non-market values, to make a reasoned and informed determination whether a proposed activity that would degrade a Tier 2 water is justified on the basis that it in fact provides a sufficiently compelling economic or social benefit.

### l. Section 7

Section 7 of the APIP provides for consideration of the social and economic importance of a proposed discharge to determine whether that discharge is permissible in accord with Tier 2 antidegradation protections. *See* APIP, Section 7 at 38-40. Yet the social and economic benefits advanced by the proponent of a particular activity that results in a discharge into a Tier 2 water should be considered in the context of total market and non-market social and economic benefits (and costs) of either allowing *or* prohibiting that discharge. Moreover, social and economic benefits should clearly account for public health and environmental justice issues, which are fundamental to accurate and effective analysis of social and economic benefits and costs and conformance to New Mexico Executive Order 2005-056 (Nov. 18, 2005).

We thus recommend the following changes to section 7:

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[15] Garber-Yonts, *et al*. 2004. Public Values for Biodiversity Conservation Policies in the Oregon Coast Range. Forest Science 50(5).

[16] Adomowicz, W.L.; P.C. Boxall. Pages E950E99 in Proceedings of the technology and paper 79th annual meeting. Canadian Woodland Forum, March 22-25, 1998, Montreal, Quebec;

[17] Field, B.C. and M. K. Field. 2009. Environmental Economics: An Introduction (5th edition). McGraw Hill: Boston, MA 448 pp.

First, whenever the APIP references benefits, it should also reference costs. Thus, for example, we recommend that the second sentence of the second paragraph in section 7.1 on page 38 read as follows:

> First, the applicant conducts an analysis of the market and non-market social and economic benefits and costs associated with the discharge.

This change would align that sentence of section 7.1 with the sentence that immediately follows, which does reference both "social and economic benefits/costs." And this basic change—e.g., referencing the prospect of both market and non-market benefits and costs—should be made throughout section 7 of the APIP and, ideally, throughout the APIP as a whole, including through changes to the Appendix A.2 worksheet.

Second, in section 7.2, NMED should acknowledge that each of the identified benefits could also be considered a potential cost of a proposed discharge. For example, a proposed discharge may create, expand, or maintain employment at a facility or it may cause the loss of employment at a farm or ranch downstream of the proposed discharge that is no longer able to operate. This section should be revised accordingly throughout.

Third, in section 7.2, NMED should include, as a potential benefit or cost, environmental justice impacts to people of color and low-income communities in accordance with New Mexico Executive Order 2005-056. Such impacts could, for example, have beneficial or adverse impacts to community water supplies or access to clean water for agriculture or recreation. Here, NMED should acknowledge that people of color and low-income communities are "overburdened" and suffer disproportionate harm or exposure from not only specific actions—e.g., a proposed new or expanded discharge—but from the cumulative impact of multiple actions—e.g., multiple past, existing, and future discharges that, in total, may operate to "overburden" communities. Moreover, adverse environmental justice impacts can be amplified by underlying social, economic, health, or other structural factors, such as lack of access to education or health facilities. Of note, the inclusion of environmental justice as a potential benefit or cost of a proposed action should be carried forward with a commensurate addition in the Appendix A.2 worksheet.

Fourth, we recommend the addition of the following language before the last sentence of the first paragraph of section 7.3 on page 39 to make it clear that NMED retains the authority to fully assess the social and economic benefits *and* costs of the proposed discharge:

> However, NMED may also collect and analyze additional information to assess the market and non-market social and economic benefits and costs of the proposed discharge, including by soliciting public information and comment where appropriate or by accessing information available from the New Mexico Community Data Collaborative (http://www.nmcdcmaps.org/), the Distressed Communities Index (https://eig.org/dci), or EPA, including EJscreen (https://www.epa.gov/healthresearch/tools-support-environmental-justice).

Fifth, we recommend the inclusion of the following language after the last sentence of the third paragraph of section 7.3:

> In providing the preliminary determination to the public, NMED shall ensure the fair treatment and meaningful involvement of the public, in particular from people of color and low-income communities that may be impacted by the proposed discharge or otherwise value or have a stake in the water body that would receive the proposed discharge. In doing so, NMED shall endeavor to empower these communities to participate by providing clear, accessible information and by affirmatively responding to community concerns in a timely manner.

Sixth, we recommend the inclusion of a new section 7.4 as follows to acknowledge the critical role of the public in Tier 2 antidegradation reviews:

> **7.4 ROLE OF THE PUBLIC**
>
> The role of the public is to provide information and comment regarding the market and non-market social and economic benefits and costs of the proposed new or expanded discharge associated with allowing or disallowing significant degradation of high quality water. The public, in providing such information and comment, should reference the social, economic, and environmental considerations identified in section 7.2 and in Appendix A.3, *Other Economic and Environmental Considerations*.

## X. HYDROLOGY PROTOCOL

### 1. We Support Improvements to the Organization and Clarity of the HP as well as the De-emphasis of Linking the HP to Expedited UAAs

In general we support the proposed changes to the HP related to organization and clarity and appreciate the effort that was made to make the HP easier to follow and use. We also support the de-emphasis of linking the HP to expedited UAAs. In terms of organization, we do suggest numbering subheadings to provide more ease in referencing sections.

### 2. Determining the Hydrology of a Stream is Different than Determining 101(A)(2) Uses

While the HP does a good job with directing the gathering of data to help determine whether a stream is ephemeral, intermittent or perennial, the HP makes broad determinations about 101(a)(2) uses and even whether these uses can be supported, without any data. The HP does not direct data gathering would allow comprehensive determinations regarding 101(a)(2) uses. For example, the only way you can determine if the stream supports amphibian reproduction is to do appropriate surveys during the monsoon season. The HP, as written, outlines a process for determining only the physical characteristics of a stream, not to determine whether the stream's existing uses. While it may be useful as one piece of information in a UAA, the HP in its current

form cannot possibly reach a comprehensive conclusion about 101(a)(2) uses. This is especially of a concern since there is not a corresponding detailed protocol or guidance that outlines how a UAA should be conducted.

### 3. If a Primary Purpose of the HP is to Provide Data for Use Determination, then the Timing of The HP Survey Should be Changed to Occur During Wetter Times of the Year.

As is indicated in the title of the HP ("Hydrology Protocol for the Determination of Uses Supported by Perennial, Intermittent, and Ephemeral Streams") a main purpose of the HP is to provide documentation of uses. In addition, the HP is used as the primary source of data for the development of a UAA. Ideally, use determination should be part of a separate UAA field study. While something labeled as a Hydrology Protocol should not have a primary function of 101(a)(2) use determination, in reality, this is very much how it is used. It has been our experience that that almost all parties that choose to use the HP to determine the hydrology of a stream segment in New Mexico have done so to identify appropriate designated uses not just to know if the stream should be called "ephemeral" rather than "intermittent" or "perennial". Those definitions by themselves do not mean much, as dictated by the CWA it is only the existing uses that are found in the stream that tell us what specific protections are appropriate. Most, if not all parties, who will be using the HP will be doing so as a step in the UAA process because the HP has been identified as the primary documentation for the UAA process. In the absence of more detailed UAA guidance that requires fieldwork and research, it makes sense for the HP to focus on documenting uses as a primary function. Therefore, the recommended timing of the UAA should be conducted during wet periods when, if 101(a)(2) uses are occurring, they can be properly observed and documented. In many ephemeral streams such as arroyos and other drainages the geomorphology and lack of aquatic habitat precludes 101(a)(2) uses, even if moisture is present, so there is no risk of mis categorizing these streams. For example, to rely on trying to find dried casings of macro invertebrate during the dry months of the year to determine the absence or presence of aquatic life does not make sense when the survey could be conducted at a wetter time of year when documentation would be easier. There are species (anurans) that go through their whole life cycle during the couple of months of wetter periods of the year and therefore deserve warmwater aquatic life protections afforded under 20.6.4.98 NMAC even if the drainage is otherwise dry, and there is not evidence of the species, for a majority of the year.

### 4. It Cannot be Assumed that all Ephemeral Streams do not Meet 101(A)(2) Uses

The HP makes an assumption that if a stream is identified as being ephemeral then it therefore does not support 101(a)(2) uses. The HP and the Expedited UAA Sheet both refer to 40 CFR 131.10(g)(2) as a justification for this assumption. Yet 40 CFR 131.10(g)(2) simply states that uses can be removed if the State can demonstrate that "attaining the designated use is not feasible because natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use." Clearly the regulations are not stating that 101(a)(2) uses cannot be met in ephemeral, intermittent, or low flow conditions, rather the regulations are stating that various low flow conditions could be a cause of non attainment of 101(a)(2) uses. If EPA, or the indeed the WQCC, interpreted this language to mean that ephemeral streams by their very nature do not meet 101(a)(2) uses then why are all intermittent streams (also named in 40 CFR 131.10(g)(2))

given 101(a)(2) protections? In fact, EPA has required that New Mexico protect all ephemeral streams with 101(a)(2) uses until such a time that a UAA is conducted that proves that these uses cannot be met. Therefore, merely because a stream is ephemeral does not automatically mean that the stream does not support 101(a)(2) uses. Some ephemeral streams will not support 101(a)(2) uses and it may be quite obvious in the field, if the appropriate assessment is done. However, to be able to state that a stream does not and cannot attain any of those uses, the assessment would have to include the following:

- The entire stream segment has been examined, including upstream perennial or intermittent connections
- There is nowhere on the stream that water could puddle or pond (including stock tanks) long enough to support amphibian reproduction, peaclams, or aquatic snails.
- There is no upstream connection to perennial or intermittent waters, or ephemeral waters that could support uses identified in #3 above.
- There is no downstream connection that would allow fish to use the stream during high flows.
- The stream is not, has not, and cannot be used for recreation, even by kids during high runoff. This probably requires surveys of local residents and people with long-term knowledge of the stream.

**5. The Hydrology Protocol and/or the Expedited UAA Needs to Solicit more Social and Historical Information about Existing Uses**

The intention of both the national Clean Water Act and the NM Water Quality Act is to protect water quality for all existing uses of a stream, regardless of the stream's hydrologic characteristics. The HP even in combination with the Expedited Use Attainability Analysis process outlined in Appendix 2, does not satisfy the rigors of a scientifically based Use Attainability Study (UAA) as required in Clean Water Act regulations at 40 CFR 131.10(g), (j) and (k) , in EPA's Water Quality Standard Handbook at chapter 2.9, and EPA's 1983 Technical Support Manual: Waterbody Surveys and Assessments for Conducting Use Attainability Analyses (EPA Number: 440486037). As outlined in all three of these references a use cannot be removed if it is an existing use. An existing use is defined as "those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards" 40 CFR 131.3(e). Neither the HP nor the associated Expedited UAA provides adequate analysis of existing uses. This, at a minimum, would involve speaking to local landowners and local, state, or federal land management representatives about historical (1975-Present) conditions of the stream. Land use practices (both current and historic) should be documented and their impact on the conditions of the stream should be examined. In addition, historic flow data could be collected if available, or the watebody in question could be examined for signs that uses, that while they may not currently be occurring, occurred since 1975. By only examining the current conditions in the stream the HP/ Expedited UAA cannot make a determination whether the 101(a)(2) uses are existing uses.

**5. The HP and/or the UAA Process Need to Solicit Data about Possible Future Attainment of 101(A)(2) Uses.**

As outlined in a 2006 EPA Memorandum, "UAAs are meant to assess what is attainable, is it not simply about documenting the current water quality conditions and use."[18] Therefore it is essential, as part of the UAA process to do a through analysis of what could be attainable in the water body in the future. This would involve examining the potential impact on the waterbody if land use practices were to change. For example would stream flow, aquatic habitat, or recreational opportunities be restored if impacts from land uses practices such as grazing in the riparian area or motorized recreation on or near stream banks were mitigated or stopped? This is an essential component of a Use Attainability Analysis that is not included in the proposed HP and associated UAA process.

## XI. CONCLUSION

We thank NMED for the opportunity to provide comments on the WQMP/CPP, APIP, and HP and for providing us with additional time for reviewing and commenting on these documents. We also welcome the opportunity to discuss our comments in more detail and support NMED's efforts to protect New Mexico's waters.

Sincerely,

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[18] U.S. EPA, Memorandum: Improving the Effectiveness of the UAA Process (March 13, 2006) (available at https://www.epa.govsites/production/files/2014-10/documents/king-memo.pdf.

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 6
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February 5, 2020

Shelly Lemon
New Mexico Water Quality Control Commission
1190 South St. Francis Drive (87505)
P.O. Box 5469
Santa Fe, NM 87502-5469

Re: Review of the New Mexico's Proposed 2020 Water Quality Management Plan and Continuing Planning Process Document

Dear Ms. Lemon:

The U.S. Environmental Protection Agency (EPA) appreciates the opportunity to review New Mexico's 2020 Consolidated Water Quality Management Plan and Continuing Planning Process (WQMP/CPP).

New Mexico Environment Department (NMED) has proposed revisions that will further strengthen what Region 6 considers a well-developed and useful WQMP/CPP. During our review, we identified some portions of the WQMP/CPP that can be further improved to provide clarity for both the public and regulated community. Recommendations specific to the legal status of portions of the WQMP/CPP and antidegradation implementation procedures (AIP) provisions are the most significant given the Environmental Protection Agency's Clean Water Act Section 303(c) duty and authority to review and act on the AIPs. We also offer additional comments and recommendations on the process for adopting new or revised water quality standards, guidance on permitting as it relates to temporary standards and assessments based on NMED's *Hydrology Protocol* for consideration.

I appreciate the work you and your staff has put into further refining the state's WQMP/CPP and the opportunity to support your efforts. If you have any questions, please feel free to call me, or have your staff contact me at 214-665-6646 or via e-mail at nelson.russell@epa.gov.

Sincerely,

Russell Nelson
Regional Water Quality Standards Coordinator

Enclosure
cc: Kris Barrios, Monitoring, Assessment and Standards Section Manager, SWQB
Jennifer Fullam, Standards, Planning & Reporting Team Leader, SWQB

**Water Quality Management Plan and**
**Continuing Planning Process (WQMP/CPP) Documents**

**EPA Comments / Recommendations**

**Draft WQMP/CPP:**

**II. Surface Water Quality Standards.**
**D. Process for Establishing and Updating Water Quality Standards / Process for establishing or revising standards through the Triennial Review:**

EPA recommends that this section be revised to more specifically outline the process for adopting new or revised surface WQS and for triennial reviews. This includes outlining the revisions process and specifying at which points in the process comment is invited from the public. Please note that EPA's public participation regulations at 40 CFR Part 25.5 require public notice of hearings, including for changes to water quality standards, to be provided at least 45 days in advance. On a case-by-case basis, EPA may determine that the hearing notice requirement may be reduced to 30 days when there are no controversial or complex matters and no substantial documents which must be reviewed for effective hearing participation.

**Establishing or Revising a Designated Use through a Use Attainability Analysis / *Hydrology Protocol*:**

Please identify the process to review waters that the State has previously presumed not capable of supporting CWA §101(a)(2) uses as required by 40 CFR §131.20(a).

- The regulation (40 CFR §131.20(a)) specifically requires that states re-examine any waterbody segment with water quality standards that do not include the uses specified in section 101(a)(2) of the CWA every 3 years to determine if any new information has become available. If such new information indicates that the uses specified in section 101(a)(2) of the CWA are attainable, the state is obligated to revise its standards accordingly. The regulation indicates that state procedures for both identifying and reviewing water bodies should be incorporated into their CPP. In addition to outlining the process in its CPP, EPA suggests that NMED could report the results of its re-examination of these waters periodically as part of its triennial review scoping process.

EPA cannot revise a permit that is not consistent with state water quality standards. Although EPA can provide NMED a "technical approval" regarding UAAs whether based on the Departments the *Hydrology Protocol* as outlined in 20.6.4.15 C. NMAC, that technical approval is not an action pursuant to Section 303(c) of the CWA. As a result, EPA recommends that this section be revised to indicate that NPDES permits based on the prior designated use and applicable criteria will remain in effect until the Commission revises the applicable standard, submits and EPA has approved those revisions pursuant to Section 303(c) of the CWA.

**V. Effluent Limitations.**

EPA recommends that NMED provide specific guidance on how effluent limits shall be derived for waterbodies with temporary standards established pursuant to 20.6.4.10 F. NMAC. In discussions in 2019 between EPA and NMED on the temporary standard demonstration projects, both parties agreed that including such language would be helpful to permit writers and provide

transparency to the public regarding how temporary standards are intended to be implemented in permits. EPA recommends that NMED specifically consider including the following details:

- Explain the highest attainable condition (HAC) under a temporary standard, the different ways it can be expressed and derived per 40 CFR 131.14(b)(1)(ii)(A) and (B), and how the permit writer would translate each into an effluent limit based on its expression and associated duration (e.g. effluent condition vs. in-stream condition, LTA vs. 30-day average).
- How compliance schedules and interim permit limits will be developed based on a temporary standard.
- Clarify that if a receiving water has both an applicable TMDL WLA and a temporary standard, the permit limit must be based on the temporary standard, per the preamble to the federal water quality standards rule at 80 FR 162 (p. 51040).
- For temporary standards with durations greater than 5 years, EPA recommends that NMED explain how results of re-evaluations will affect and be incorporated into the renewed permit.
- How loading limits should be calculated where the receiving water has an approved, concentration-based temporary standard.

EPA also recommends that NMED consider including more detailed guidance on development of temporary standards as an appendix to the CPP.

**Appendix A – Antidegradation Policy:**

Please provide EPA with clarification as to whether the CPP and its appendices are binding under New Mexico law.

**Specific Comments/Recommendations**

EPA commends NMED on development and maintenance of detailed antidegradation implementation procedures, including details of how baseline water quality is to be determined and the procedures for Tier 2 review. EPA has reviewed draft Appendix A and offers the following recommendations for strengthening NM's antidegradation protections and improving clarity and transparency to the public.

- Glossary
  - EPA recommends revising the definition of "antidegradation" to say "… policy and implementation procedure adopted by NMED and approved by EPA to protect existing uses…".
  - EPA recommends defining a "non-degrading alternative" as one that does not cause any degradation, not just one that doesn't cause significant degradation. This would distinguish between alternatives that do not cause any degradation to the water quality versus those alternatives that minimize degradation of the water quality. This would provide greater clarity to the public when providing comments on an analysis of alternatives.
  - EPA recommends revising the Tier 2 Protection definition to state: "Policies and procedures that prohibit significant degradation of a surface water unless a review of reasonable alternatives shows that the lowering of water quality is necessary for important social and economic considerations in the area in which the waters are located." The word "justify" could be read as being inconsistent with the federal regulations at 40 CFR 131.12(a)(2). It needs to be demonstrated that a lowering of water quality is "necessary", indicating the need for an analysis of alternatives that demonstrates there are no other practicable alternatives than lowering water quality. The use of the word "justifies" could indicate that an alternate reason was used to

allow the lowering of water quality rather than demonstrating there were no practicable alternatives available to prevent the degradation of water quality.
        - EPA recommends revising the definition of Tier 2 Protection to reflect that to the extent that certain waters, including effluent dependent waters, are waters of the United States and data confirms that these waters are high quality, Tier 2 protections are applicable to these waters. Like all water quality standards, Tier 2 antidegradation protections apply to all waters of the U.S. The assumption that these waters could never qualify for Tier 2 protection is too general without data and information to indicate that the water quality of these water bodies is not high quality. EPA recommends New Mexico recognize the ability to provide Tier 2 protection to effluent dependent waters on a case-by-case basis when data and information indicate that it is appropriate. This comment is applicable throughout this document when referencing the applicability of Tier 2 protection to waters of the United States.
- Designated Uses and Criteria.
    - What does it mean that "…existing uses are recognized…?" Please clarify how existing uses are recognized.
    - "…the use with the most stringent water quality standard must be maintained and protected." EPA recommends replacing "standard" in the above phrase with "criteria" for greater specificity.
- Coverage and General Applicability
    - EPA recommends revising the language to clarify that antidegradation protections *apply* to the water body (when the water is considered a water of the U.S.) and the protections are being implemented by these procedures, which are triggered by regulated discharges.
- 1.3 Coordination with Assessment and Impairment Listing
    - EPA recommends that NMED add a definition for "priority points" or define the them when they are discussed on pg. 3.
- 2.1 Tier Definitions
    - This section specifies that all three tiers of protection for NM waters are "applied" on a pollutant-by-pollutant basis. EPA recommends adding clarification that although protections under all three tiers are applied on a pollutant-by-pollutant basis, ONRWs are identified on a waterbody-by-waterbody basis as described further below in this section and in NMAC 20.6.4.9(D).
- 2.2 Designation of Tier Category
    - In Table 2-1, EPA recommends revising the description of protection requirements for Tier 2 per our comment above on the glossary to say, "…unless a comprehensive antidegradation review of reasonable alternatives shows that the lowering of water quality is necessary for ~~and~~ important social and economic considerations in the area in which the waters are located." The word "justify" could be read as being inconsistent with the federal regulations at 40 CFR 131.12(a)(2).
- 3.1 Antidegradation Review Requirements by Tier
    - Under the heading "General Applicability," EPA recommends that NMED specify how the state will assure protection for existing uses that are potentially not included in the WQS.
    - Under the heading "plant nutrients" it is stated that "There are no technologically based effluent limits (TBELs) available for nutrients at this time." EPA recommends clarifying that there are no TBELs currently available for nutrients *for POTWs*. TBELs exist for nutrients for other categories of dischargers.
    - EPA recommends revising the section "Other General Criteria," to reflect the application of antidegradation to all criteria, including narratives without translators. Since antidegradation protections, like all water quality standards, apply to all waters of the U.S., it is inappropriate to exempt narrative criteria from antidegradation

evaluations, especially for Tier 1 protection, as they are the standard that is protecting the use. Narrative criteria must be evaluated for protection of existing uses in the same manner as they are applied to permits for protection of the water quality standards.

- Consumption of less than 20% or a cumulative 50% of the assimilative capacity for a pollutant of concern under critical low flow (4Q3) conditions is identified as the *de minimis* level below which no tier 2 antidegradation review is required. EPA is concerned that this *de minimis* policy is inconsistent with 40 CFR 131.12(a)(2) and would allow a significant level of degradation in a Tier 2 water without the appropriate Tier 2 review. During the development of water quality guidance for the Great Lakes, Great Lake states and EPA technical experts came to consensus that a significance threshold of 10% available assimilative capacity or less, paired with a cumulative cap was an appropriate *de minimis* threshold. The recommendation was reiterated in a memorandum by Ephraim King in 2005. In addition, in the case *Ohio Valley Environmental Coalition v. Horinko*; the judge ruled that EPA's approval of a 20% cumulative cap in West Virginia's antidegradation procedures was arbitrary and capricious as no evidence was presented that supported the conclusion that this level of degradation was insignificant. In this same case, the judge found that a 10% cumulative cap was acceptable, as supported by the development of water quality guidance for the Great Lakes. In addition, in *Kentucky Waterways Alliance v Johnson*, the judge confirmed that a loss of greater than 10% of assimilative capacity cumulatively could not be considered *de minimis.* Given EPA's longstanding policy and past case law, EPA recommends that NMED revise the *de minimis* level to a cumulative cap of 10% or something less than 10% and provide evidence in the record showing that this reduction in available assimilative capacity can be considered insignificant. EPA recommends similar changes to sections 2.1, 3.3 and 5 for consistency.
- EPA also recommends that NM exempt bioaccumulative pollutants from the *de minimis* threshold. As cautioned in the preamble to the final rule of EPA's *Water Quality Standards Regulatory Revisions* "States and authorized tribes should also consider the appropriateness of exemptions depending on the types of chemical, physical, and biological parameters that would be affected. For example, if a potential lowering of water quality contains bioaccumulative chemicals of concern, a state or authorized tribe should not apply a categorical *de minimis* exclusion, because even extremely small additions of such chemicals could have a significant effect. For such pollutants, it could be possible to apply a *de minimis* exclusion on a case-by-case basis, but the state or authorized tribe should carefully consider any such proposed lowering prior to determining that it would be insignificant" (FR Vol. 80 No. 162 August 21, 2015 51034-51035).

- 3.2 Antidegradation Review Requirement by Type of Permit
  - To improve clarity, for Figure 3-2, EPA recommends specifying that this flow chart represents the process for Tier 1 and Tier 3 procedures.
- 3.3 Individual NPDES Permits
  - EPA recommends revising the second sentence of the General Applicability paragraph for clarity, as "at a minimum" is used twice to describe two different things.
- 4 Determining Baseline Water Quality
  - EPA recommends revising the third paragraph of Section 4.1. This paragraph states that intermittent, ephemeral, and effluent dependent waters will only receive Tier 1 protection and that baseline water quality does not need to be determined for these waters. However, previously in the guidance, it was stated that intermittent waters will receive Tier 2 protection and that baseline water quality (BWQ) would be

determined for these waters, if possible. EPA recommends revising this paragraph to reflect the need to evaluate intermittent waters, when possible.
    - EPA recommends clarifying what type of changes to water quality would prompt an adjustment of a BWQ once it has already been established.
    - In Section 4.3, it is unclear why the BWQ concentrations will be assumed to be the concentrations present at normal annual low-flow periods if the data wasn't collected then. Is there a requirement that the data will be collected during low flow periods or that the data will be adjusted to reflect low flow conditions? Otherwise, making this assumption could result in overestimating the amount of assimilative capacity in this water body.
- 5 Evaluating the Level of Degradation of Proposed Discharges
    - EPA recommends specifying in the first paragraph of Section 5 that these review procedures do not apply to Section 404 or general permits because antidegradation is assessed for these permits through alternate mechanisms. The current language implies that Tier 2 requirements do not apply to the permits at all, which is not accurate if the activity causes significant degradation.
- 5.2 Procedure for Tier 2 Degradation Evaluation
    - EPA recommends revising the second sentence in the *Discharges to Non-Perennial Waters* section as follows: Tier 2 degradation evaluation procedures will not be triggered by these discharges. Please note that antidegradation protections, like all EPA-approved water quality standards, apply to all waters of the U.S.
    - The applicability of Tier 2 protections to intermittent waters is not discussed consistently throughout this document. In Section 5.2, it is stated that Tier 2 protections do not apply to intermittent waters, however a previous section states "Tier 2 may also apply to intermittent waters if data are available and indicate a high-quality water (i.e., water quality better than applicable WQS). Tier 2 is the default protection level for all high-quality perennial and intermittent waters (i.e., water quality is better than the applicable WQS). " EPA recommends consistently referring to application of Tier 2 protection to intermittent waters when data is available and indicates that these waters are high quality.
- 6.6 Summary of the Alternative Analysis Process
    - Please specify where the BWQ point is located in a water body relative to the discharge location.

**Appendix C – Hydrologic Protocol / Field Sheet:**

EPA considers NMED's *Hydrology Protocol* to be a very useful tool in ensuring appropriate designated uses are assigned to waters in New Mexico and offers the following comments:

**Executive Summary:**

This section describes the development of the *Hydrology Protocol* referring to particular circumstances where the document can be used for the "expedited" UAA process (20.6.4.15 C. NMAC). This provision is intended to facilitate the application of the limited aquatic life and secondary contact uses to ephemeral waters, where appropriate, prior to the Water Quality Control Commission undertaking the full administrative rule-making process. EPA recommends that NMED remove any reference to the "expedited" UAA process throughout the draft WQMP/CPP and Appendix C - *Hydrology Protocol* and would like to discuss the implications of use determinations pursuant to 20.6.4.15 C. NMAC in the context of the state's upcoming triennial revisions.

**Drought Conditions:**

EPA recommends that the *Hydrology Protocol* require that in addition to the Standardized Precipitation Index (SPI) the Standardized Precipitation Evapotranspiration Index (SPEI) be used to verify that no more than mild drought conditions exist prior to field assessment. EPA also recommends that specifics be provided on how differences in the SPI and SPEI (or other indices if used) will be reconciled. This would reduce the potential for error where drought or abnormal precipitation may be influencing conditions. Although the SPI is commonly used and is an indicator of the intensity of drought or precipitation deficit, it can be difficult to interpret the magnitude of the precipitation deficit given geographic and temporal variability. This has occurred in EPA's review of prior rulemakings based on the *Hydrology Protocol* that relied on the SPI; we found that both the Palmer Drought Severity Index (PDSI), which is a long-term measure of drought conditions, and the short- term Palmer Z Index provided very different results than the SPI. EPA considers the SPEI to be more accurate as a default over the SPI since it uses "climatic water balance" - the difference between precipitation and reference evapotranspiration, rather than precipitation as the input (Beguería, et al. 2014).

**Stream Segment Identification and Sample Reach Selection:**

The inconsistency between the terminology used in 20.6.4 NMAC and the WQMP/CCP with regard to regulatory segments and assessment units should be addressed. The term "segment" is defined in 20.6.4.7 S.(2) NMAC refers to similarities in physical and hydrologic characteristics and is specific to classified waters of the state described in 20.6.4.101 through 20.6.4.899 NMAC. The term assessment unit is not defined in 20.6.4.7 NMAC but is described in the *Hydrology Protocol*.

Although the *Hydrology Protocol* provides a similar physical description and reference to water quality standards for a regulatory segment and an assessment unit (AU). Neither 20.6.4.NMAC or the *Hydrology Protocol* describe the physical length of regulatory segments but describe AUs as averaging 10 miles but typically no more than 25 miles in length. Given the length described, it suggests, but does not confirm that the terms are interchangeable. Clarification of the meaning and how the two terms apply is needed since the *Hydrology Protocol* could potentially be applied classified water although it is primarily used for unclassified waters of the state. If an assessment were carried out in a current classified water of the state, the results of a UAA supported by the *Hydrology Protocol* would mean that the designated use and supporting criteria specified in 20.6.4.97 NMAC must be applied to the entire regulatory segment or a subsegment of that waterbody. If applied to an unclassified segment, some portions of the waterbody may remain unclassified with only the portion assessed subject to 20.6.4.97 NMAC.

## Literature Cited

Beguería, S., Vicente-Serrano, S.M., Fergus Reig, Borja Latorre. (2014). Standardized Precipitation Evapotranspiration Index (SPEI) revisited: parameter fitting, evapotranspiration models, kernel weighting, tools, datasets and drought monitoring. *International Journal of Climatology*, 34, 3001-3023.

Consulting
Engineers and
Scientists

GEI Consultants

February 5, 2020

Jennifer Fullam
NMED SWQB
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**RE: Comments on Draft Water Quality Management Plan and Continuing Planning Process (WQMP/CPP)**

Dear Ms. Fullam,

On behalf of Chevron Mining Inc. – Questa Mine, GEI Consultants Inc. (GEI) has reviewed New Mexico Environment Department's (NMED) draft 2020 Water Quality Management Plan and Continuing Planning Process (WQMP/CPP) and its appendices. This letter provides comments that are focused on Appendix A, the Antidegradation Policy Implementation Procedure. Our comments are provided with a reference to the applicable section of Appendix A. We note that draft WQMP/CPP does not include an explanation of the proposed changes. In some areas, we have provided comments based on our perception of NMED's intent. We have tried to identify those comments.

**Tier Definitions (Section 2.1)**

The wording used in describing Tier 1 waters in the draft document is not consistent with commonly used ways to describe water quality. The document states that "Tier 1 prohibits further degradation of existing water quality where a pollutant of concern does not meet or meets but does not exceed applicable water quality standards." Based on descriptions of Tier 1 waters elsewhere in this document, we believe the intent of this sentence is to prohibit degradation of waters where a pollutant "does not meet or meets but is not better than applicable water quality standards". Use of the phrase "exceeding" water quality standards would generally be interpreted as an impaired water, as in the ambient concentration is greater than the standard. If a pollutant is exceeding water quality standards this would be the same as "does not meet" water quality standards. The document should be revised to change all descriptions of Tier 1 waters by removing the "does not exceed" phrase and replace it with "water quality is not better than". This is how it has been described in some instances but not all.

**Designation of Tier Category (Section 2.2)**

It is not appropriate to automatically classify all effluent dependent waters as Tier I status as there are cases where effluent dependent waters are still high-quality waters. The same



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footnote listed for intermittent waters in Table 2-1 should also be applied to effluent dependent waters.

**Antidegradation Review Requirements by Tier (Section 3.1)**

The draft document states that "under Tier 1, no discharges will be permitted to cause further degradation for pollutants that do not meet applicable water quality standards." However, the existing antidegradation policy allows for certain permitted activities as long as water quality conditions are monitored and restored after the activity or project has been completed. The draft document is much more restrictive and does not seem to make any allowances for projects that may require temporary degradation. If the intent is that temporary degradation would be covered by temporary standards rather than a Tier 1 antidegradation review, it would be helpful to note that in this section so that dischargers are aware of their options in these situations.

A discussion on effluent dependent waters should be included in this section, similar to the non-perennial waters discussion. See our comment on Section 2.2.

The draft document does allow for non-significant degradation of Tier 2 waters, which is determined based on a de minimis degradation of 20% of the available assimilative capacity. We agree with this approach, as it allows for some flexibility in permitting new or increased discharges before a comprehensive Tier 2 antidegradation review is required.

The draft document states that new or expanded discharges to Outstanding National Resource Waters (ONRWs), or Tier 3 waters, are prohibited. This is quite different from the current policy which prohibits degradation, not discharges, in Tier 3 waters. If a treatment facility discharges to an ONRW but needs to expand due to issues such as revised environmental requirements resulting in different treatment methods needing to be implemented, or due to population changes in the area, the current document prohibits any expansion as written. Expansion of facilities and discharge to ONRWs should still be allowed as long as degradation does not occur, because in some instances, expansion may be unavoidable.

The draft document includes a discussion of upstream discharges and Tier 3 reviews, stating that upstream discharges are prohibited where the proposed discharge would degrade the water quality of the downstream ONRW. While there are factors listed that describe how the discharge will be evaluated, it would be useful for NMED to provide information on the distance upstream that will be considered so permittees have a point of reference.

**Individual NPDES Permits (Section 3.3)**

While we agree that early discussions between the permittee, EPA, and NMED are beneficial and help with the permitting process, we believe that it would be helpful if

clarification on how this would work in practice when considering the steps provided in the "Permit Limits and Antidegradation Requirements for Individual Permits" section. Specifically, Step 4 states that determination of minimal/significant degradation will be done after the BWQ and assimilative capacity are determined, however, if degradation is going to be determined at this time, it will also be necessary to calculate anticipated permit load limits to determine the amount of degradation that may occur. Generally, this effort would not be done until the permit application is submitted, and all data are available to allow for a determination whether new limits would result in minimal/significant degradation. Without the data from the application, it would be difficult to make this determination at this point in the process. If the data are provided early (prior to application submittal as suggested in the draft document), a more recent dataset may ultimately be used for standard permit evaluations such as reasonable potential analysis which will occur later in the process. While initiating the antidegradation process early is generally a good idea, all the necessary information may not always be available early, and in some cases it may result in duplication of effort, or outdated information being used in the permitting process.

Step 4 should also be clarified to say that the letter will be provided to the discharger and to EPA after NMED conducts their antidegradation review to determine baseline water quality (BWQ) and assimilative capacity.

Additionally, step 6 states that if significant degradation is deemed necessary based on the Tier 2 review, that public participation will be conducted at this time, before the applicant even applies for the permit. We believe the public participation and intergovernmental review is more appropriate after the entire permit is drafted and all data and analyses have been completed, during the standard public comment period for the permit. This procedure is consistent with other states' implementation of antidegradation policies.

**Baseline Water Quality Evaluation Procedures (Section 4.2)**

The section of the draft document on baseline water quality (BWQ) is entirely new and was not included at all in the previous policy document. The requirements for BWQ data seem to be very specific and restrictive regarding sample collection requirements. There are likely instances where studies may have been conducted by other entities that do not have documented Standard Operating Procedures or QA/QC procedures that have been approved by NMED, but still follow acceptable QA/QC protocols. While data should definitely be evaluated for quality and representativeness, and appropriate SOPs and QA/QC should be required for data collection going forward, the draft document should allow for some flexibility on use of historical data from different sources.

**BWQ Sampling Location (Section 4.3)**

Please consider the following addition (in bold) to the first paragraph in Section 4.3: "Determinations regarding BWQ characterization and accommodation of variations

caused by seasonal impacts, water level fluctuations, or other factors will be made by NMED **with consideration of information and positions submitted by the discharger**." In many cases the discharger has more local knowledge of the receiving waters and may be able to provide additional information that NMED is not aware of.

The discussion of sampling location states that stream flow should be measured each time BWQ sampling is performed. While this may be desirable for generation of new BWQ data, there are likely historical data which do not have concurrent flow measurements.

**Interpretation of Data and Establishment of BWQ (Section 4.5)**

The draft document states that in general NMED will use the arithmetic average to determine BWQ for pollutants, with the exception of *E. coli* which used the geometric mean. We agree that this approach is reasonable.

For clarity, the "detection limit" should be defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results.

**Calculations to Determine Significance of Degradation (Section 5.3)**

The draft document proposes a 50% cumulative cap to address degradation associated with multiple discharges to the same receiving water. It is not clear what the cap is intended to address. The regulation requires that the water quality of Tier 2 waters "shall be maintained and protected unless the [WQCC] finds . . . that allowing lower water quality is necessary to accommodate important economic and social development in the area in which the water is located". Conceptually, the idea of a cumulative cap does not relate to how an individual discharge is necessary or appropriate in protecting and maintaining the quality of the receiving stream. It is also unclear exactly how this will be implemented. For example, if the first three discharges to get permits for a specific receiving water reach 50% of the assimilative capacity, the next discharger to apply would be subject to a comprehensive Tier 2 antidegradation review and alternatives analysis. However, at permit renewal, would the first three original dischargers now be subject to comprehensive Tier 2 reviews as well since the 50% cap has been reached, or are they excluded since they were part of the original non-significant increases? We suggest excluding a cap from the implementation procedures.

**Role of the Applicant (in Social and Economic Importance for Tier 2 Reviews) (Section 7.2)**

The draft document requires the applicant to demonstrate the social and economic analysis of the proposed discharge using forms in Appendix A.2. These forms are much simpler and general than previous forms that were recommended for this use. We feel this is appropriate, as every evaluation is going to be extremely different and the flexibility

offered by the new forms will be very useful for dischargers, while still providing sufficient information for NMED review.

**Conclusions**

Overall, we support NMED's revisions to Appendix A, the Antidegradation Policy Implementation Procedure. The revisions provide more clarification on NMED's antidegradation implementation policy and provides dischargers with guidance on how to work with NMED to establish appropriate permit limits. However, we recommend clarification in certain areas on the document as described above. We would also request revisions to allow for more flexibility in areas that have changed substantially from the previous document. If the requirements are too restrictive it will be very difficult for discharges to make necessary modifications to their treatment facilities.

Please feel free to contact us should you require any additional information.

Sincerely,
GEI Consultants, Inc.

Suzanne Pargee
Senior Water Quality Specialist &
Ecotoxicologist

Natalie Love
Reviewer

| | |
|---|---|
| **From:** | Barrios, Kristopher, NMENV |
| **To:** | David B. Dail |
| **Cc:** | Amanda B. White; Steve J. Veenis; Fullam, Jennifer, NMENV |
| **Subject:** | RE: WQMP draft |
| **Date:** | Thursday, February 13, 2020 5:12:02 PM |

Hi Bryan,
Thank you for submitting comments, though late. We will take your comments and suggestions under advisement; however, our priority will be to address comments received prior to the deadline.
Best,
Kris

---

**From:** David B. Dail <David.Dail@EM-LA.DOE.GOV>
**Sent:** Friday, February 7, 2020 3:07 PM
**To:** Barrios, Kristopher, NMENV <Kristopher.Barrios@state.nm.us>
**Cc:** Amanda B. White <Amanda.White@em-la.doe.gov>; Steve J. Veenis <Steve.Veenis@em-la.doe.gov>
**Subject:** [EXT] WQMP draft

Dear Kris:

Thank you for taking my call this week to discuss comments we wanted to make on the 2019 Draft WQMP. Despite the extension of the deadline on public comments, the reporting season and IP has us all very busy. We understand that there is no requirement for consideration and formal reply on late comments, but you seemed open to anything that might improve the document.

Below, I include what we had been considering internally as suggestions to the draft and particularly Appendix C, the Hydrology Protocol.

If you should have any questions about these or need clarification, please let me know.

Thanks again,

-Bryan

(my comments in Red)

**Comments on NMED's WQMP 2019 Draft:**

1. Page II-3:

"*For all proposed changes* to the State's WQS, the WQCC bases its decision on evidence presented at the public hearing. The process to adopt new or amended surface WQS conforms to requirements under numerous federal and state acts including, but not limited to, the CWA (33 U.S.C. § 1251 et seq), the Endangered Species Act (16 U.S.C. §1531 et seq), the Civil Rights Act (18 U.S.C. § 241 et seq), the Americans with Disabilities Act (42 U.S.C. 12101 et seq), the Freedom of Information Act 5 U.S.C. § 552, the WQA (NMSA 1978, Section 74-6-4), the New Mexico State Rules Act (NMSA 1978,

Section 14-4-1), and the New Mexico Open Meetings Act (NMSA 1978, Section 10-15-1). New or amended WQS codified under 20.6.4 NMAC, as adopted by the Commission, are filed with the State Records Center pursuant to the regulatory provisions under the State's WQA (NMSA 1978, Section 74-6-1 et seq.) and the State Rules Act (NMSA 1978, Section 14-4-1 et seq.),"

**BD: It is recommended that this requirement apply to substantive changes only and that 20.6.4 NMAC amendments be designated by the proposer as substantive or non-substantive, subject to review by NMED/EPA6.**

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2. **XIII. DETERMINATION OF COMPLIANCE WITH WATER QUALITY STANDARDS FOR THE PROTECTION OF HUMAN HEALTH CRITERIA**

[As required by 20.6.4.12 NMAC]

**A. Background**

In accordance with 20.6.4.12(D) NMAC:

*Compliance with the human health-organism only criteria shall be determined from the analytical results of representative grab samples, as defined in the water quality management plan. Human health-organism only criteria shall not be exceeded.*

The procedures and methods used in the scientific studies necessary to make compliance determinations are found in several documents developed by SWQB. These documents include the WQS (20.6.4 NMAC) and the Surface Water Quality Bureau's QAPP for Water Quality Management Programs, which are reviewed and approved by EPA. The Water Quality Management Programs QAPP specifically addresses both laboratory and field procedures, including data interpretation approaches and field sampling techniques. The 2002 action by WQCC concerning human health priority toxic pollutants relies on grab sample techniques to determine standards compliance. Accordingly, specification of this technique is appropriate.

SWQB interprets a grab sample as a discrete, individual sample taken within a short period of time (usually less than 15 minutes) and is representative of the conditions at the time of sampling. This definition is operationally sufficient for perennial, intermittent and ephemeral waters. As stated in the Bureau's QAPP, SWQB relies on standard procedures and laboratory quality assurance to ensure the repeatability of the data. Procedures used for the evaluation of quality assurance and quality control are found in the QAPP. The analytical results of the representative grab samples shall be used for the determination of compliance with applicable human health criteria.

**B. Process for Determination of Compliance**

The following procedures apply to determining compliance for enforcement purposes; they do not apply for purposes of determining attainment of designated uses. Sampling for determination of compliance with WQS human health criteria shall be accomplished as follows:

• A minimum of three individual grab samples, separated in time by no less than 15 minutes each, shall be taken during the same sampling/storm event from the same location. For the purpose of determining non-compliance, the analytical results of two or more of these samples must be greater than the applicable human health criteria. Results of all grab samples shall be recorded and reported.

**BD: It is unclear why this sampling requirement is proposed for compliance only and not for assessment purposes.**

**However, equiring evidence of multiple, temporal exceedances of an HH-OO criteria in a sampling/storm event is stronger indication of non-compliance than a single grab sample exceedance.**

**There are several issues, however, which may make this sampling and compliance assessment infeasible:**

**First, several permits have sampling requirements that are based on flow and hydrograph period (e.g., sampling at specific points in the rising limb, peak or falling limb). Which will take precedence; the need to obtain samples that meet current permit requirements and sampling protocols, or a requirement to collect samples at time=0, time≈15 minutes and again at time≈30 minutes? For instance, a current gauge network begins a sampling routine at peak +10 minutes; would this need to change to address the HH-OO requirement?**

**Second, currently, many automated collectors partition samples for different pollutants of concern, and programming these samplers to optimize these and to meet these HH-OO grab sample requirements may not be possible.**

**Third, most stormflow durations would not allow for this minimum requirement to be met. While this requirement (currently) does not apply to assessments of designated uses, perhaps language that borrows from the CALM document (listing of impaired waters) wherein one exceedance places the water body in a 5B/5C-type category where more data (subsequent flow sampling or soils/sediment investigation) is necessary to designate non-compliance.**

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**Comments on Appendix C comments (Hydrology Protocol):**

1. **The acknowledgement of intermediary scores (Example, a 3.5 on a whole-number score of 1 to 4) "with justification" is a welcome element to the new HP guidance.**
2. **Use of additional indices of drought (SPEI in support of SPI) is also a welcome addition; however, has NMED checked these websites to make certain that forecasting a 12 month index (for planned fieldwork) or back-casting (for prior work, climate, and gage records previously collected) is possible among the different drought indices mentioned? It is often the case that SPI data validations do not allow for an SPI calculation for the day an HP field exercise is planned, rather, the data up to the month prior to field sampling is often all the HP practitioner has to work with.**
3. **Updates to the links regarding climate, drought (SPI and others), and gage or sampling networks is supported; Because links often change during a document's lifespan, it is recommended that NMED create a "living document" or Addendum/Errata on the HP webpage such that web links (and other information) can be updated in a timely manner, and certainly more often than the 5-year document life of the WQMP/CPP.**
4. **Often, field reconnaissance indicates that established assessment units (AUs) —a stream reach characterized by uniform topographic, hydrologic, and geologic character—are less uniform than remotely sensed or other data used to establish an AU may have indicated. For water bodies wherein field reconnaissance indicates a need to alter the AU or create another, the HP should indicate the process for proposing such.**
5. **A mechanism to address water bodies (dry channel, stream, or tributary) that along their length, principally an AU, or stream segment score differently among performed HPs (indication of improper AU assignments) is needed. While inter-annual variation could shrink or advance a perennial, intermittent or ephemeral reach, guidance on establishing AU length identified with the appropriate hydrologic regime, with a margin of safety would be welcome. Can Lat/Long at top and bottom of an AU, with this margin of safety be used to identify an AU extent with its associated hydrology when little-to-no physical, geologic or hydrologic change is evident?**
6. **The statement on Alternative methods for determining floodplain (pg 23), descriptions and recordings may need more explanation/justification than might be available (space-wise) through field sheets and may need stronger rationale within the text of the HP-UAA.**

[end]

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Re: Draft Water Quality Management Plan/Continuing Planning Process

Dear Ms. Fullam:

The New Mexico Municipal League's Environmental Quality Association subsection has reviewed the draft Water Quality Management Plan/Continuing Planning Process (WQMP/CPP). The general revisions to the WQMP/CPP were found to be primarily editorial in nature and provide clarity on the process. The bulk of the changes are in the Appendix A, Antidegradation Implementation Policy. Specific comments relating to the proposed changes are provided below.

WQMP/CPP

Section XIV Public Participation. In Table XIV-1, the first entry summarizing the public participation steps for the WQMP/CPP, the list no longer includes "Public participation at open WQCC meeting." This is a concern as the WQMP/CPP (which includes the Antidegradation Implementation Policy and the Hydrology Protocol) has substantial impacts on the regulated community. Although NMED is soliciting comments on the proposed changes, the proposed process no longer includes the step where the public can offer official comment on the final draft of the WQMP/CPP. The WQCC should consider the feedback from the public (including regulated community) on NMED's final draft.

**Antidegradation Implementation Policy**

1. Assimilative Capacity. This term is defined in the glossary and used throughout the document. Other terms such as: "available assimilative capacity" and "total available assimilative capacity" are also used but not defined in the glossary. The difference between "available assimilative capacity" and "total available assimilative capacity" is not clear. NMED should use one or the other of the terms or define them. In addition, there isn't Assimilative Capacity is concentration based. Based on the discussion in the sections of the Implementation Policy in which the terms are used, the terms are based on load. The basis for the concept of "assimilative capacity" should be the same throughout; therefore NMED should revised the discussion for consistency.

2. Baseline Water Quality (BWQ).
   a. Requirement for the applicant/permittee to collect stream data for BWQ determination. NMED requires the applicant to generate BWQ information where few or no data exist (Sections 3.3 and 4). The data collection burden, along with additional costs, are being shifted to the permittee.
   b. Tracking BWQ levels. NMED specifies that it will track BWQ levels in order to ensure when Tier 2 Review will be triggered. However, NMED did not provide specific details for tracking the levels and how the information can be accessed. This is critical because NMED stated that once BWQ is established, it is the yardstick against degradation.
   c. Calculating BWQ. NMED proposes to use ambient water quality data collected within the last five (5) years. This means that the BWQ will only be valid for the term of a permit. Thus at the time of permit renewal a new BWQ calculation will need to be

conducted. However, NMED specifies only that "BWQ re-evaluations may be appropriate if the data used in the original determination is shown to be inaccurate or invalid or if the water quality of the segment is believed to be significantly improved over that which existed at the time of the original BWQ determination. Affected stakeholders may submit a request to NMED for a BWQ re-evaluation under those circumstances." The Water Authority appreciates the options to re-evaluate the BWQ based on newer data. However, NMED should either strike the reference to "significantly improved water quality" or provide the criteria for determining "significant".

d. Basis for BWQ. Although the implementation policy describes the BWQ as based on surface water quality, the policy also states: "The BWQ requirements will be based on the effluent characterization of the facility." In addition, the implementation policy uses Baseline characterization and Baseline evaluation. Additional clarification for these other terms would be useful. If any of these terms are based on effluent quality, NMED should explain why those data are appropriate for BWQ.

3. Expanded Discharge. The proposed policy doesn't define "expanded" discharge. This definition is critical for municipalities as the volume of wastewater received for treatment fluctuates greatly. For the most part, publicly-owned treatment works (wastewater treatment plant) (POTW) are not able to control the amount of influent (flow discharged to the sewer system that reaches the POTW for treatment). A municipal discharger should not be required to undergo an Antidegradation review in response to when normal fluctuations occur. EPA bases permit limitations (technology and water quality based effluent limitations) on flow rates[1] Based on that procedure, the trigger for when a POTW discharge is an "expanded" discharge should be an increase in the design flow and not an increase in the actual discharge rate. The policy should clearly specify for POTWs, if there is no change in design flow, but the actual flows have increased, a Tier 2 review will not be triggered.

4. Tier 2 Review Applicability Figure 3-1 depicts the flow of the Tier 2 review for either a renewal or a new/expanded discharge. The portion of the chart for new or expanded individual permits indicates that the outcome may be "Deny Permit". NMED should consider changing this to "Deny Permit/Expansion" to account for existing facilities that will continue to operate even if the expansion is denied.

5. Tier 2 Demonstrations. NMED is requiring applicants to demonstrate that the proposed new or expanded discharge "implements cost-effective, reasonable best management practices for non-point sources." Applicants do not have the authority to implement BMPs for non-point sources. The provision of 20.6.4.8(a)(2) New Mexico Administrative Code (NMAC) imposes a requirement on the state and not the applicant. The phrase should be removed from the concluding paragraph on p. 37.

6. Evaluation Criteria for Social and Economic Analysis. NMED has changed the terminology from "substantial and widespread impact" analyses to "social and economic" analysis in Appendices A.2 and A.3. The proposed language no longer includes criteria or evaluation factors. Because of those changes, it is not clear how NMED will evaluate the information provided by the permittee. Additional steps and deadlines along with ranking criteria should be specified.

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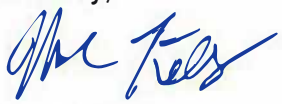
[1] See Section IV.D of the U.S. Environmental Protection Agency Region 6 Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico– NMIP, March 15, 2012

**Hydrology Protocol**

Section 2.6 EPT Taxa. NMED proposes a slight language change to this section. The language regarding EPT taxa data collected in highly urbanized areas was changed from "cannot be used to evaluate" to "may not be appropriate to evaluate." NMED should explain the reason for the change.

The Water Authority appreciates the opportunity to comments on the proposed revisions. Please contact me with questions regarding these comments.

Sincerely,



Mark Kelly, P.E.
President
New Mexico Municipal League Environmental Quality Association

# San Juan Water Commission

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


February 5, 2020

New Mexico Environment Department
Surface Water Quality Bureau
Attn: Jennifer Fullam
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Santa Fe, NM 87502-5469

Via U.S. Mail and E-mail to:
*jennifer.fullam@state.nm.us*

Re: Comments of San Juan Water Commission on Draft 2020 Water Quality Management Plan/Continuing Planning Process

Dear Ms. Fullam:

Pursuant to the public notices of a 75-day comment period for proposed revisions to the draft 2020 Water Quality Management Plan/Continuing Planning Process ("WQMP/CPP"), I hereby submit the following comments to the New Mexico Environment Department ("NMED") on behalf of the San Juan Water Commission ("SJWC"). SJWC appreciates the opportunity provided by NMED to comment on the draft WQMP/CPP.

## GENERAL COMMENTS

SJWC has the following general comments concerning the WQMP/CPP. Comments concerning specific provisions are provided after these general comments.

To begin, SJWC is highly supportive of the state's efforts to protect and improve the quality of ground and surface water throughout the state. SJWC commends NMED for its excellent work on the WQMP/CPP. Overall, the changes proposed by NMED improve the structure and readability of the document. Except for the specific concerns identified below, SJWC generally supports the changes proposed by NMED for each of the specific units of the WQMP/CPP and its appendices.

## SPECIFIC COMMENTS

### WQMP/CPP

#### Section XI: "Basin Plans."

On several occasions since 2002, SJWC has provided written public comment encouraging both NMED and the Water Quality Control Commission ("WQCC") to manage water quality in the state on a watershed basis rather than on a statewide

basis. SJWC believes that appropriate water quality management and planning cannot occur without consideration of both local water quality conditions and local economic and social issues. Although the state has chosen to do water planning on a statewide basis since the 1980s [WQMP/CPP at XI-1], the state should not continue along that path given the varied environmental, social and economic circumstances facing watersheds throughout New Mexico. Indeed, the state already recognizes the efficacy of managing various water quality issues on a watershed basis. For example, SWQB uses a rotating basin system to monitor the state's watersheds on an approximate eight-year cycle [WQMP/CPP at III-1],[1] the Nonpoint Source Management Program implements nonpoint source pollution abatement and restoration programs on a watershed basis [WQMP/CPP at VII-1], and the Total Maximum Daily Load process is performed on a watershed basis [WQMP/CPP at IV-1 to -3]. SJWC therefore urges the state to return to its earlier policy of managing water quality on a watershed basis. Section XI should be revised to include the development of basin plans.

**Section XIII: "Determination of Compliance with Water Quality Standards for the Protection of Human Health Criteria."**

Since at least 2002, SJWC has asserted that this section of the WQMP/CPP is flawed because it describes a protocol for testing acute standards rather than the chronic standards at the heart of the human health criteria adopted by the WQCC:

> A minimum of three individual grab samples, separated in time by no less than 15 minutes each, *shall be taken during the same sampling/storm* event from the same location. For the purpose of determining non-compliance, the analytical results of two or more of these samples must be greater than the applicable human health criteria. . . .

[Section XIII(B) at XIII-1] While this provision alleviates concerns about the validity of a single grab sample, it fails to address the fact that, because human health standards are *chronic* standards, compliance should be based on multiple samples over time. The use of three samples taken during the same sampling event to determine compliance essentially means that compliance will be based on a single sample. SJWC therefore proposes that language be added to make it clear that no human health standard will be violated because of an isolated storm event or other incident that, while perhaps causing a violation of an acute standard, will not affect human health over a lifetime of fish consumption.

**Section XIV—"Public Participation."**

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[1] The subsections of Section III are labeled "F", "G" and "H." SJWC suggests these be changed to "A," "B" and "C."

As noted by NMED (at XIV-1), "stakeholder involvement is crucial to the successful implementation of CWA programs." In Table XIV-1, NMED sets out the "Public Participation Requirements" for the Clean Water Act and Water Quality Act programs administered by the Surface Water Quality Bureau ("SWQB"). The current version of the WQMP (2011) provides (at XIV-2) that all WQMP/CPP updates will be placed on the WQCC agenda and there will be "[p]ublic participation" at the open WQCC meeting where the updates will be discussed. NMED's current proposal removes the public participation provision, although "[p]ublic participation at WQCC meeting" is a stated requirement for TMDL documents and the CWA Section 303(d) List. SJWC urges NMED to retain the language of the 2011 WQMP with respect to WQMP/CPP updates. Interested stakeholders should have the clear right to address the WQCC whenever NMED proposes updates to the WQMP/CPP.

## APPENDIX A—
## ANTIDEGRADATION POLICY IMPLEMENTATION PROCEDURE

### Glossary—"Assimilative Capacity."

This term is defined as "[t]he difference between the baseline water quality concentration for a pollutant and the most stringent applicable water quality criterion for that pollutant." However, other similar terms, such as "available assimilative capacity" and "total available assimilative capacity," are used (and loosely defined) in Section 5.3—Calculations to Determine Significance of Degradation. The discussion of water quality degradation and a surface water's assimilative capacity for any pollutant on page 29 bounces back and forth between concentration and load (mass loading). The original definition of "assimilative capacity" and the example in Figure 5-1 refer to concentration, but the term "total available assimilative capacity" refers to load. These inconsistencies should be reconciled. There is a significant difference between relying on the difference in concentration versus the difference in load. SJWC recommends that NMED eliminate the use of the term "total available assimilative capacity."

### Section 3—"Antidegradation Review Requirements."

SJWC recommends the following clarifications or modifications to Section 3 of the Antidegradation Policy and associated provisions.

**Expanded Discharge.** The proposed Antidegradation Policy does not define "expanded" discharge. This definition is critical for municipalities as the discharge limits are based on design flow. The trigger for any determination that a POTW discharge is an "expanded" discharge should be an increase in the design flow and not an increase in the actual discharge rates. For POTWs, NMED should specify that if there is no change in design flow, a Tier 2 review will not be triggered even if actual flows have increased [Section 3.3 at 15 (2nd Paragraph)].

**Tier 2 Review Applicability.** Clarification is needed for Figure 3-1 [Section 3.2 at 12]. The portion of the chart for new or expanded individual NPDES permits indicates that the outcome may be "Deny Permit." This language should be changed to "Deny Permit/Expansion" as an existing facility should still be able to operate even if the expansion is denied.

**Policy or Program.** NMED refers to the Antidegradation Policy as "New Mexico's antidegradation program . . . ." [Section 3.3 at 15 (2nd full paragraph)] SJWC recommends replacing the word "program" with "policy." Antidegradation is a policy, not a program.

**Section 4—"Determining Baseline Water Quality."**

NMED proposes a process for determining baseline water quality ("BWQ") and imposes responsibilities on the regulated entity ("applicant"). Although the authority for this requirement is not cited, NMED requires the applicant to generate BWQ information where few or no data exist [Section 3.3 at 14 (6th paragraph), Section 4 at 21 (introductory paragraph)]. The applicant will need to follow NMED instructions on what data are needed and how to collect and report the needed information [Section 4.1 at 21]. Data will be required for pollutants of concern that are reasonably expected to be discharged to help NMED determine BWQ, existing uses and the applicable tier. Although the proposed language includes many warnings to initiate discussions with NMED early on (at least one year in advance of permit application), there is more than one year involved with collecting the minimum amount of data for BWQ (four quarters), plus time for planning. This approach shifts the burden and cost of collecting surface water quality data to the permittee. In addition, based on the general procedure outlined on page 15, the process imposes requirements years prior to permit issuance or renewal. NMED should specify the authority for requiring the permittee to conduct such monitoring. SJWC does not agree this data collection burden should be shifted from NMED to the applicant.

**Tracking BWQ.** NMED indicates that it will document BWQ and available assimilative capacity, determine minimal/significant degradation, and perform Tier 2 antidegradation reviews (if required) [Section 3.3 at 15 (4th bullet point)]. In addition, NMED specifies that once BWQ is established, it is the yardstick for degradation [Section 4 at 21 (last paragraph)]. The Antidegradation Policy should describe where BWQ information will be stored and how interested parties can access it. This information must be readily available to applicants.

**BWQ Calculation.** NMED specifies that ambient water quality data for perennial waters should not be more than five years old [Section 4.3 at 24]. If five years generally is the maximum age for data, the previous BWQ will not be valid for the next permit renewal, and the assimilative capacity should be evaluated yet again five years later. However, NMED specifies only that "BWQ re-evaluations may be appropriate if the data

used in the original determination is shown to be inaccurate or invalid or if the water quality of the segment is believed to be significantly improved over that which existed at the time of the original BWQ determination. Affected stakeholders may submit a request to NMED for a BWQ re-evaluation under those circumstances." [Section 4.5 at 26] SJWC agrees that the policy should allow for the re-evaluation of BWQ; however, the language as currently drafted will be difficult to implement because it is vague. SJWC recommends the following revisions:

> BWQ re-evaluations may be appropriate if the data used in the original determination is shown to be inaccurate or invalid or if the water quality of the segment ~~is believed to be significantly~~has improved over that which existed at the time of the original BWQ determination. Sampling and analysis will follow the approach in Section 4.3 of this policy, including collection of a minimum of four data points for the re-evaluation. Affected stakeholders may submit a request to NMED for a BWQ re- evaluation under those circumstances.

**Basis for BWQ.** Although most of the WQMP/CPP describes the BWQ as based on surface water quality, on page 22 NMED states: "The BWQ requirements will be based on the effluent characterization of the facility." To the contrary, the BWQ requirements should be based on surface water quality data. NMED has provided no justification for tying the BWQ to effluent data.

Further, throughout Section 4, NMED appears to be using a variety of terms when referring to baseline water quality: BWQ, baseline characterization, baseline evaluation, etc. If these terms are interchangeable, then NMED should use just one of them. If, on the other hand, each is a unique term, then each term should be defined and used appropriately.

**Section 6—"Identifying and Evaluating Pollution Control Alternatives for Tier 2 Protection."**

As noted in the introduction to this Section (at 32), an applicant proposing a new or expanded discharge "that would significantly degrade water quality in a Tier 2 surface water" must provide an evaluation of alternatives. As part of the alternatives analysis, NMED is requiring applicants to demonstrate that the proposed new or expanded discharge "implements cost-effective, reasonable best management practices for non-point source control." [Section 6.6 at 37 (last paragraph)] However, applicants do not have the authority to implement BMPs for non-point sources. Section 20.6.4.8(a)(2) of the New Mexico Administrative Code imposes this requirement on the state and not on the applicant. The phrase should be removed from the concluding paragraph on p. 37.

**Section 7—"Social and Economic Importance for Tier 2 Reviews."**

If an alternatives analysis is conducted for a new or expanded discharge to a Tier 2 water, there must be an analysis of the social and economic importance of the discharge if "the least degrading, cost-effective alternative still results in significant degradation . . . ." [Section 7.1 at 38] NMED proposes changing the terminology for this analysis from a "substantial and widespread impact" analysis to a "social and economic" analysis. However, the proposed Antidegradation Policy no longer includes criteria or evaluation factors. SJWC submits that without such evaluation criteria, the required analysis process is too vague and subjective. Additional steps and deadlines, along with ranking criteria, should be specified for Appendices A.2 ("Social and Economic Importance Worksheet") and A.3 ("Summary of Other Economic and Environmental Impact Categories").

## APPENDIX C—HYDROLOGY PROTOCOL

### Section 2.6—"Ephemeroptera, Plecoptera, and Trichoptera (EPT) Taxa."

NMED proposes a slight language change to this section (at 35). The language regarding EPT taxa data collected in highly urbanized areas was changed from "cannot be used to evaluate" to "may not be appropriate to evaluate". This change implies that what was previously prohibited ("cannot be used") is now permissive. NMED should explain the reason for the change.

## APPENDIX C—LEVEL 1 HYDROLOGY DETERMINATION FIELD SHEET

There appears to be an error with the scoring criteria for a Perennial Stream located at the bottom of the last page of the Field Sheet. The current draft specifies "<22", but the score should be ">22" to qualify as a perennial stream, as noted in Table 5 of the Hydrology Protocol [Section 2 at 37].

Again, the SJWC appreciates the opportunity to provide comments on the proposed revisions to the 2020 WQMP/CPP. Thank you very much for your consideration.

If you have any questions at all concerning SJWC's comments, please do not hesitate to contact me.

Sincerely,

Aaron Chavez
Executive Director

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Ms. Jennifer Fullam
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**Subject:** **Triad National Security, LLC (Triad) Comments to November 2019 Public Comment Draft – Statewide Water Quality Management Plan and Continuing Planning Process (WQMP CPP) – Appendix C**

Dear Ms. Fullam:

Thank you for providing the opportunity to comment on the New Mexico Environment Department's November 22, 2019 WQMP CPP Public Comment Draft. Comments provided here (Attachment 1) focus exclusively on Appendix C of the WQMP CPP – Hydrology Protocols (HPs).

Thank you for the opportunity to comment. Please contact Robert Gallegos at (505) 665-0450 or by email at rgallegos@lanl.gov if you have questions regarding these comments.

Sincerely,

Taunia S. Van Valkenburg
Group Leader

TSV/MTS/RMG:jdm

Attachment(s): Attachment 1- Triad Comments to November 2019 Public Comment Draft - Statewide Water Quality Management Plan and Continuing Planning Process (WQMP CPP) - Appendix C

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# ATTACHMENT 1

Triad Comments to November 2019 Public Comment Draft – Statewide Water Quality Management Plan and Continuing Planning Process (WQMP CPP) – Appendix C

EPC-DO: 20-038

LA-UR-20-21125

Date: FEB 0 5 2020

**Triad Comments to November 2019 Public Comment Draft – Statewide Water Quality Management Plan and Continuing Planning Process (WQMP CPP) – Appendix C**

**Executive Summary:**

1. It should be stated that the Hydrology Protocol (HP) can be used for efficient application of the limited aquatic life and secondary contact uses to ephemeral water, and intermittent waters in certain conditions.

2. The intent that HP surveys can be conducted by individuals and groups from different areas of expertise is a worthy feature of the process. Steps are needed to be incorporated into the protocol to ensure the consistency and quality of the process. For example, SWQB could provide training, or perform follow-up site visits for HPs conducted by third parties. When HPs are conducted by a third party, is direct participation in the assessments required by SWQB in the development of water quality standards?

3. Please clarify that the Level 1 Evaluation Field Sheets provide some of the necessary information needed for a UAA to demonstrate a stream's hydrologic conditions and not just ephemeral conditions.

**Introduction:**

1. Environmental conditions can change during droughts and wet years, and in cases where contributions from point source discharges change (e.g. NPDES outfalls are eliminated). Therefore, the protocol should note that hydrologic conditions may change from ephemeral to non-ephemeral, or vice versa.

2. Conducting a HP assessment is considered a snap shot in time. Multiple site assessments, and data collection and review over multiple years should be encouraged to make informed decisions regarding hydrologic conditions. For example, flow gage data may not be available in a particular Assessment Unit (AU). Tools are available that could be used to analyzed flow duration but may have to be deployed over extended periods of time or multiple years.

**Definitions:**

Ephemeral, intermittent and perennial streams are defined qualitatively in NMAC 20.6.4.7 based on the relative periods of time in which the stream channel contains water. These definitions do not clearly distinguish between ephemeral and intermittent, or intermittent and perennial in terms of the duration over which water can be observed in a particular stream. These definitions could be refined in the protocol to include quantifiable criteria for differentiating between each stream type. Examples include:

1. Matthews (1988) regarded intermittent streams as those which flow 20%-80% of the time, and ephemeral streams as those which flow <20% of the time.

2. Hedman and Osterkamp (1982) defined perennial streams as those having measurable discharge 80% of the time, intermittent 10-80% of the time, and ephemeral <10% of the time.
3. Hewlett (1982) defined perennial streams as having water present >90% of the time. As shown by the literature, there are even discrepancies in the stream class definitions.

**Section 1:**

1. The term "existing use" should be followed by a statement: as defined by 20.6.4.7(E)(3) NMAC.

2. Please see comment #2 in Executive Summary.

3. The HP states the 12-month Standard Precipitation Index (SPI) will be used to determine drought conditions. Triad agrees that field evaluations should be conducted outside of drought conditions and supports the recommendation for using the 12-month SPI. There may be value in looking at the one month, three months, six months and twenty-four months SPI values also. The SPI value(s) should be noted in the Stream Determination Field Sheet and justification should be documented.

**General Information:**

1. Latitude/Longitude – is this information sought for the assessment unit or the sample reach coordinates?
2. Drought Conditions – What information should be recorded?
3. Precipitation past 48 hours – Should this be a yes or no answer? Is a check box needed?
4. Field evaluations should be performed at least 48 hours after the last major rainfall event. Guidance is needed on what constitutes a major or severe event. Federal storm water permits such as MSGP and CGP contain different standards. Should this be based on rainfall intensity? Rainfall volume? Conditions following precipitation events?

**Level 1 Indicators:**

1.1 Wet Channel may mean water present or wet sediment. Scores based on sediment moisture could vary tremendously depending on timing of visit. Consider the question: Is water present?

1.5 The addition of the statement: *Vegetation growing along the riparian area does not occur in greater density or grow more vigorously than in the adjacent uplands,* is not needed for clarity. True riparian plants are likely present under strong and moderate conditions. The addition of *riparian corridor* terminology may be confusing. The original statement: *No compositional or density differences in vegetation are present between the banks and the adjacent uplands* - is clear and directly gets to the issue of differences between banks and adjacent uplands.

1.6 Consider a revision to the form that directly takes into consideration the absence of rooted upland plants within the streambed/thalweg that is due to sand bedded streams caused by highly erosive flows or flashy conditions.

1.8 Floodplain and Channel Dimensions – Local geology and topography can render this indicator as unreliable. For example, an ephemeral channel could have a very high entrenchment ratio and would score 3 points, while a perennial stream in a steep, confined reach could score a zero. In addition, please review this section against directions and terms in Figure 3.

1.10 The wording changes may not be helpful. The original language is easily understood by the evaluator, i.e., *areas close to but not in the channel*. The concept of flood prone is introduced but is not addressed in the 1.10 narrative. Consider retaining original wording.

**Level 2 Indicators:**

Level 2 Evaluation may be conducted if Level 1 Evaluation is inconclusive (i.e., in gray zone Table 5). It should be made clear that Level 2 evaluations may be warranted for sites with scores outside of the gray zone. The determination on whether to conduct a Level 2 evaluation requires professional judgement and consideration of corroborating information. This may include laboratory evaluation of macroinvertebrates, gaging records and groundwater monitoring records

2.6 Ephemeroptera, Plecoptera, and Trichoptera (EPT) taxa – Section 2 – Guidance for the Overall Score Interpretation – Retain the word *Guidance*.