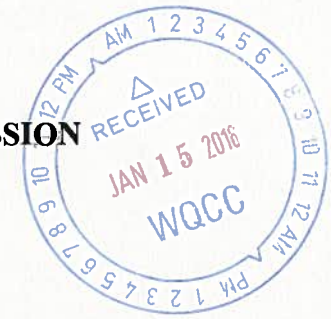
STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION



In the Matter of:	
PROPOSED AMENDMENTS TO *STANDARDS FOR INTERSTATE AND INTRASTATE WATERS*, 20.6.4 NMAC	**No. WQCC 14-05 (R)**

NEW MEXICO ENVIRONMENT DEPARTMENT'S CLOSING ARGUMENTS AND PROPOSED FINAL RULE

In accordance with the Department's Rulemaking Procedures, 20.1.9.13.C NMAC, the Guidelines for Water Quality Control Commission ("WQCC" or "Commission") Regulation Hearings, and the Procedural Order, the New Mexico Environment Department ("Department" or "NMED") hereby submits these closing arguments in this matter. The Department is concurrently submitting a separate document containing Proposed Statement of Reasons, also in accordance with 20.1.9.13.C NMAC. All relevant findings and conclusions in that document are incorporated herein by reference. This Closing Argument addresses only those disputed issues that require additional legal analysis.

This matter comes before the Commission upon a petition filed by the Department proposing amendments to the State of New Mexico's Standards for Interstate and Intrastate Surface Waters ("Standards"), which are codified as Title 20, Chapter 6, Part 4 of the New Mexico Administrative Code (20.6.4 NMAC).

NMED's final proposed changed to the Standards are included in Attachment A.

I. APPLICABLE LAW

Under the New Mexico Water Quality Act ("WQA"), the WQCC is responsible for adopting water quality standards and for all other purposes of the federal Clean Water Act ("CWA"). Section 303(c) of the CWA requires each State to hold public hearings from time to time, but at least every three years, for the purpose of reviewing and, as appropriate, modifying and adopting water quality standards. New or revised standards must be submitted by the State to the U.S. Environmental Protection Agency ("EPA") for approval.[1]

Under the WQA, any person (including NMED) may at any time petition the WQCC to adopt, amend or repeal a water quality standard. NMSA 1978, § 74-6-6.B. The WQCC must hold a public hearing in order to adopt new or amended standards. NMSA 1978, §§ 74-6-3.E, 74-6-6.A.

Section 74-6-4.D provides that:

> The WQCC shall adopt water quality standards for surface and ground water of the state subject to the Water Quality Act. The standards shall include narrative standards and, as appropriate, the designated uses of the waters and the water quality criteria necessary to protect such uses. The standards shall at a minimum protect the public health or welfare, enhance the quality of water and serve the purposes of the Water Quality Act. NMSA 1978, § 74-6-4.D.

CWA regulations provide similar direction: "States adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act." 40 CFR § 131.2. Serving the purposes of the CWA means that "water quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation." *Id.* A water quality standard "defines the goals for a water body, or portion thereof, by designating the use or uses to be made of the water and by setting

[1] New Mexico's last "triennial review" commenced in August 2008 and concluded with EPA's approval in April 2011 of nearly all of the WQCC's amendments.

criteria necessary to protect the uses." *Id.* The designated uses in New Mexico's Standards are set forth in 20.6.4.7 NMAC. The Standards also establish water quality criteria that will protect the designated uses of a water body. These criteria must be based on robust scientific rationale and must contain sufficient parameters or constituents to protect the designated use. 40 CFR § 131.11(a). The Standards contain narrative criteria that apply to all designated uses. 20.6.4.13 NMAC. The Standards also identify numeric criteria that are specific to particular designated uses 20.6.4.900 NMAC.[2] In addition to setting water quality goals, standards also serve "as the regulatory basis for the establishment of water-quality-based treatment controls and strategies beyond technology-based levels of treatment required by sections 301(b) and 306 of the [Clean Water] Act". 40 CFR §131.2.

In preparing the proposed amendments, NMED followed all state and federal requirements for the content and justification of revisions to water quality standards. In particular, the proposed revisions must be based on: ". . . credible scientific data and other evidence appropriate under the Water Quality Act. . . . [T]he commission shall give weight it deems appropriate to all facts and circumstances, including the use and value of the water for water supplies, propagation of fish and wildlife, recreational purposes and agricultural, industrial and other purposes." NMSA 1978, § 74-6-4.D.

Federal regulation requires that designated uses reflect the uses actually being attained. 40 CFR § 131.10(i). EPA's Water Quality Standards Handbook explains the requirement as follows: "If a water body is designated for a use that requires less stringent criteria than a use that is being attained, the State must revise the use on that water body to reflect the use that is being attained."

[2] According to EPA regulations, water quality standards must also contain an antidegradation policy. 40 CFR § 131.6(d). New Mexico's antidegradation policy is articulated at 20.6.4.8.A NMAC. These amendments make no changes to the antidegradation policy.

The Standards and federal regulation prohibit the removal of designated uses if they are "existing uses." 20.6.4.15.A(2) NMAC; 40 CFR § 131.10(h). An existing use is "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." 20.6.4.7.E(3) NMAC.

The Standards also mandate protection of existing uses. The general and use-specific criteria apply to existing uses [20.6.4.13; 20.6.4.900 NMAC] and the antidegradation policy requires that the level of water quality necessary to protect existing uses must be maintained. 20.6.4.8.A(1) NMAC.

The Standards and federal regulation prohibit the removal of a designated use that is a CWA Section 101(a)(2) use unless a Use Attainability Analysis ("UAA") demonstrates that attaining the use is not feasible. 20.6.4.15.A(1) NMAC; 40 CFR § 131.10(j). CWA Section 101(a)(2) establishes as a national goal the achievement of a level of water quality that "provides for the protection and propagation of fish, shellfish and wildlife, and provides for recreation in and on the water." The corresponding designated uses in New Mexico are the primary contact use, the wildlife habitat use, and all aquatic life use subcategories except the limited aquatic life use. The UAA requirement applies, for example, to changing from a subcategory such as marginal warmwater to one with less stringent criteria such as limited aquatic life, or from high quality coldwater to coolwater aquatic life.

II. CLOSING ARGUMENTS REGARDING AMIGOS BRAVOS' PROPOSAL TO REVERT TO THE PRE-2009 ALUMINUM CRITERIA

This section presents the Department's closing arguments in support of its position that the current, hardness-based criteria for Aluminum contained in 20.6.4.900.I NMAC, adopted by this Commission in 2009, represent a higher degree of protection for New Mexico's waters than

the previous criteria Amigos Bravos proposes to revert to. Hearing Transcript ("Hrg. Trans.") Vol. 3, 593:20-23.

Written rebuttal testimony by the Department's witness, Dr. Bryan D. Dail, demonstrates how the current criteria for Aluminum result in greater protection to New Mexico waters than the criteria they replaced. *See* SWQB Rebuttal Exhibit 14. In addition, Dr. Dail provided verbal testimony in opposition to Amigos Bravos' proposal which addressed the issues brought up by Amigos Bravos' witness at the hearing. *See* Hrg. Trans. Vol. 4, 904:9-914:21. Under cross examination by the Commission, Dr. Dail explained that there is only one water body assessed by the SWQB in New Mexico with a pH below 6.5, where a pH-based Aluminum standard could potentially be more protective than the current hardness-based standard, and the natural acidity in that water body is inhospitable to aquatic life as to render any standard futile. Hrg. Trans. Vol. 2, 270:10-271:9.

Amigos Bravos' witness regarding the proposal to revert to the older Aluminum standard, Dr. Deke Gundersen, testified that New Mexico's current standard, adopted by this Commission in 2009, was the "weakest in United States". Hrg. Trans. Vol. 3, 617:22-25. *See also*, Witness Statement of Dr. Deke Gundersen, PhD Submitted on Behalf of Amigos Bravos at 3. ("New Mexico's aluminum criteria—which are the least protective of anywhere in the country.") However, upon cross examination, Dr. Gundersen admitted to not being aware that 24 states do not even have a standard for Aluminum. Hrg. Trans. Vol. 3, 662:13-663:19. Further, despite testifying extensively as to New Mexico's current Aluminum standard being insufficiently protective of aquatic life (*See* Witness Statement of Dr. Deke Gundersen, PhD Submitted on Behalf of Amigos Bravos), Dr. Gundersen admitted to not having studied the toxicity of aluminum on aquatic life since 1995. Hrg. Trans. Vol. 3, 661:25-662:7.

For the forgoing reasons, the Department respectfully recommends the Commission deny Amigos Bravos' proposal, and retain the existing Aluminum criteria as adopted by this Commission in 2009.

III. CLOSING ARGUMENTS REGARDING AMIGOS BRAVOS' LATE SUBMISSION OF ADDITIONAL MATERIAL TO THE ADMINISTRATIVE RECORD

This section presents the Department's closing arguments in support of its position that the pre-hearing filing deadlines are procedural deadlines that must be met and the consequence of failing to meet an ordered deadline is exclusion. The Hearing Officer issued a Procedural Order on August 7, 2015. Pleading Log #50. The Procedural Order states that the Hearing Officer shall enforce the presentation of technical testimony through the exclusion of technical testimony or exhibits, as applicable. Procedural Order at E.a. and H.c. The purpose of pre-filing technical testimony in advance is so that at the hearing, persons presenting technical testimony need not read their full, pre-filed testimony, but shall adopt it under oath and may present a brief summary prior to standing for cross-examination. Procedural Order at E.d. In essence, the pre-filing of technical testimony and evidence benefits all parties in preparing for a hearing, and are especially designed to aid the Commission in its record for review and decision making.

The Procedural Order established October 5, 2015 as the date all rebuttal testimony was due and directed all rebuttal testimony to comply with the requirements for filing technical testimony. *See* Procedural Order at E.b. Further, the Procedural Order directed that "if a Party takes a position on proposed changes to the Petition by other Parties, i.e., either supports or opposes changes to the Petition, the notice of intent to file rebuttal testimony shall also include the basis for that support or opposition." *Id.* Amigos Bravos, a party to the Triennial Review (WQCC 14-05(R)) filed timely rebuttal testimony on February 13, 2015 based on a prior hearing date and procedural order. Pleading Log #35. The Department filed a Notice of Changes to the

Department's Petition on September 4, 2015. Pleading Log #58. In the ensuing month before the amended rebuttal filing deadline, Amigos Bravos did not file any amended rebuttal testimony or exhibits to indicate any change in position to the Department's Petition. Days before the hearing was to begin, parties filed notices of withdrawal of objection. *See* Peabody Energy's Notice of Withdrawal of Positions, Pleading Log #62; S*ee also* Joint Stipulation Regarding Proposed Changes to 20.6.4.128 NMAC (notably Amigos Bravos withdrawing objections to this particular section of the changes in the Triennial Review), Pleading Log #63.

Yet, on the date of the hearing, October 13, 2015, Amigos Bravos filed a Notice of Withdrawal of Objection Regarding Piscicide Issues, Supplemental Proposed Changes and Exhibit Regarding Temporary Standards, and Supplement Exhibits Pertinent to Aluminum Criteria. Pleading Log #64. The Department argues that any supplement changes and exhibits were due on October 5, and should have been excluded from the record. Counsel for Amigos Bravos argued orally at the hearing that, while it would have been ideal to agree to changes to the petition in advance, Amigos Bravos should not be precluded from introducing changes at the hearing because they are entitled to raise proposed changes to help inform a good rulemaking process. Hrg. Trans. Vol. 3, 639:14- 640:10. Further, counsel for Amigos Bravos argued that, as for the three supplementary exhibits, the Commission should consider them a logical outgrowth of the underlying testimony of the parties and not an evidentiary matter. Hrg. Trans. Vol. 3, 641:1-25.

This is wrong as a matter of law - exhibits are evidence. The Commission's Hearing Officer conducts the hearing in order to aid the Commission in its review capacity to make a determination on whether to adopt the rule as proposed. Guidelines for Water Quality Control Commission Regulation Hearings, June 8, 1993. While the rules of civil procedure and the rules

of evidence do not apply to Commission rulemakings, these rules are generally followed as guidance. *Id.* Any appeal of the Commission's rulemaking decision shall be taken to the New Mexico Court of Appeals in its review capacity of whether the Commission was arbitrary, capricious or an abuse of discretion; not supported by substantial evidence in the record; or otherwise not in accordance with the law. NMSA 1978, § 74-6-7. Judicial review of an agency decision is generally limited to review of the administrative record. *Custer Cnty Action Ass'n v. Garvey,* 256 F.3d 1024 (10th Cir. 2001). Tenth Circuit precedent does allow the parties to supplement the administrative record with extra-record evidence, albeit in "extremely limited" circumstances. *Id.* at 1028 (listing the five conditions when supplemental evidence is justified citing *Am. Mining Congress v. Thomas*, 772 F.2d 617, 626 (10th Cir. 1985). The party moving to supplement the record bears the burden of showing why it is necessary. *Murphy v. Deloitte & Touche Grp. Ins. Plan,* 619 F.3d 10151, 1163 (10th Cir. 2010).

However captioned, what Amigos Bravos did was fail to timely submit rebuttal testimony and exhibits, and then argue at hearing that it is relevant and important not as a matter of evidence, but as a logical outgrowth of prior testimony. The law supports supplemental filings to the record as matters of evidence. *Custer Cnty Action Ass'n v. Garvey,* 256 F.3d 1024 (10th Cir. 2001). Although the Department appreciates the multiple filings of withdrawal of objections preceding the hearing, it nevertheless acknowledges that untimely changes in position and supplemental filings are inexcusable. Procedural Order at H.c. Under the rules of evidence, Amigos Bravos would have needed to demonstrate the need for its supplemental evidence pursuant to the Tenth Circuit test established in *Am. Mining Congress v. Thomas*, 772 F.2d 617, 626 (10th Cir. 1985). This is because the pre-filings, combined with those pre-filed exhibits entered into the record at hearing, the transcript, and the post hearing submissions are the basis

for the Commission's decision. *See* Procedural Order. At the close of the hearing, the Hearing Officer shall announce that the record is closed. *Id.* at F.viii. Even though the record was not closed at the time of Amigos Bravos filing of supplement changes and exhibits, Amigos Bravos confuses the relevance of its supplemental filings as a logical outgrowth of the rulemaking instead of what they are, untimely evidence in support of its position on the petition. *Am. Mining Cong. v. Thomas*, 772 F.2d 617, 637 (10th Cir. 1985) (averring that a different opinion or different finding does not necessitate the finding that the final guidance does not represent a logical outgrowth from the proposed regulations). Logical outgrowth arguments do not apply in advance of the Commission's decision on the proposed changes to 20.6.4 NMAC, but only to final regulations that don't follow the record on a proposed regulation. *Id.*

For this proceeding and future proceedings, the Department contends that it is important that untimely evidence be excluded unless it survives the exceptions as outlined in the cases discussed *supra*, so that all parties may prepare most effectively and efficiently for rulemakings, and so the record is clear what may be relied upon in the Commission's decision.

IV. Conclusion

For the forgoing reasons, and in consideration of the findings and conclusions presented in the Department's Proposed Statement of Reasons, and testimony provided by the Department's witnesses, the Department respectfully requests that the Commission adopt the Department's proposed amendments to 20.6.4 NMAC as provided in Attachment A.

Respectfully submitted, this the 15th day of January, 2016.

NEW MEXICO ENVIRONMENT DEPARTMENT

John Verheul
Kathryn S. Becker
Assistant General Counsels
P.O. Box 5469
1190 S. St. Francis Dr., Suite N-4050
Santa Fe, New Mexico 87502-5469
Tel (505) 383-2063
Fax (505) 827-1628
john.verheul@state.nm.us
kathryn.becker@state.nm.us

CERTIFICATE OF SERVICE

I hereby certify that I caused a true and correct copy of the New Mexico Environment Department's Closing Argument on the following parties on this the 15th day of January, 2016 via the stated delivery methods below:

Hand delivery:

Ms. Pam Castaneda, Administrator
Water Quality Control Commission
Room S-2102, Harold Runnels Building
1190 St. Francis Dr.
Santa Fe, New Mexico 87505
Electronic Mail:

For Freeport-McMoRan Chino Mines Company:
Dalva L. Moellenberg
Germaine R. Chappelle
Gallagher & Kennedy, P.A.
1239 Paseo de Peralta
Santa Fe, NM 87501
Phone: 505-982-9523
Email: dlm@gknet.com
Email: germaine.chappelle@gknet.com

For Peabody Energy:
Stuart R. Butzier
Modrall, Sperling, Roehl, Harris & Sisk, P.A.
P.O. Box 9318
Santa Fe, NM 87504-9318
Phone: 505-848-1832
Email: sbutzier@modrall.com

For Amigos Bravos:
Erik Schlenker-Goodrich
Kyle Tisdel
Western Environmental Law Center
208 Paseo Del Pueblo Sur, #602
Taos, NM 87571
Phone: 575-613-4197
Email: eriksg@westernlaw.org
Email: tisdel@westernlaw.org

For San Juan Water Commission:
Jolene L. McCaleb
Taylor & McCaleb, P.A.
P.O. Box 2540
Corrales, New Mexico 87048-2540
Phone: 505-888-6600
Email: jmccaleb@taylormccaleb.com

For Chevron Mining, Inc.:
Louis W. Rose
Montgomery & Andrews, P.A.
P.O. Box 2307
Santa Fe, New Mexico 87504-2307
Phone: 505-982-3873
Email: lrose@montand.com

For Los Alamos National Security LLC
and the United States Department of Energy:
Lara Katz
Montgomery & Andrews, P.A.
Post Office Box 2307
Santa Fe, New Mexico 87504-2307
Phone: 505-982-3873
Email: lkatz@montand.com

Timothy A. Dolan
Office of Laboratory Counsel
Los Alamos National Laboratory
P.O. Box 1663, MS A187
Los Alamos, NM 87545
Phone: 505-667-7512
Email: tdolan@lanl.gov

Lisa Cummings
Staff Attorney
Office of Counsel
Los Alamos Site Office
U.S. Department of Energy
528 35th Street
Los Alamos, NM 87544-2201
Phone: 505-667-4667
Email: Lisa.Cummings@nnsa.doe.gov

Kathryn S. Becker, Asst. General Counsel
Office of General Counsel
New Mexico Environment Department

Attachment A

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

A. Terms beginning with numerals or the letter "A," and abbreviations for units.

(1) "4T3 temperature" means the temperature not to be exceeded for four or more consecutive hours in a 24-hour period on more than three consecutive days.

(2) "6T3 temperature" means the temperature not to be exceeded for six or more consecutive hours in a 24-hour period on more than three consecutive days.

(3) Abbreviations used to indicate units are defined as follows:

(a) "cfu/100 mL" means colony-forming units per 100 milliliters. The results for *E. coli* may be reported as either cfu (colony forming units) or the most probable number (MPN), depending on the analytical method used.

20.6.4.7.A(3)(b) NMAC through 20.6.4.7.A(3)(f) NMAC – No changes proposed.

(g) "MPN" means most probable number per 100 milliliters.

[~~(g)~~](h) "NTU" means nephelometric turbidity unit;

[~~(h)~~](i) "pCi/L" means picocuries per liter.

[~~(i)~~](j) "pH" means the measure of the acidity or alkalinity and is expressed in standard units (su).

20.6.4.7.A(4) NMAC through 20.6.4.7.B(4) NMAC – No changes proposed.

C. Terms beginning with the letter "C".

(1) "CAS number" means an assigned number by chemical abstract service (CAS) to identify a substance. CAS numbers index information published in chemical abstracts by the American chemical society.

(2) "Chronic toxicity" means toxicity involving a stimulus that lingers or continues for a relatively long period relative to the life span of an organism. Chronic effects include, but are not limited to, lethality, growth impairment, behavioral modifications, disease and reduced reproduction.

(3) "Classified water of the state" means a surface water of the state, or reach of a surface water of the state, for which the commission has adopted a segment description and has designated a use or uses and applicable water quality criteria in 20.6.4.101 through 20.6.4.899 NMAC.

(4) "Closed basin" is a basin where topography prevents the surface outflow of water and water escapes by evapotranspiration or percolation.

[~~(4)~~](5) "Coldwater" in reference to an aquatic life use means a surface water of the state where the water temperature and other characteristics are suitable for the support or propagation or both of coldwater aquatic life.

[~~(5)~~](6) "Coolwater" in reference to an aquatic life use means the water temperature and other characteristics are suitable for the support or propagation of aquatic life whose physiological tolerances are intermediate between and may overlap those of warm and coldwater aquatic life.

[~~(6)~~](7) "Commission" means the New Mexico water quality control commission.

[~~(7)~~](8) "Criteria" are elements of state water quality standards, expressed as constituent concentrations, levels or narrative statements, representing a quality of water that supports a use. When criteria are met, water quality will protect the designated use.

20.6.4.7.D NMAC – 20.6.4.7.H (2) NMAC No changes proposed.

I. Terms beginning with the letter "I".

(1) "Industrial water supply" means the use or storage of water by a facility for process operations unless the water is supplied by a public water system. Industrial water supply does not include irrigation or other agricultural uses.

(2) "Intermittent" when used to describe a surface water of the state means the water body contains water for extended periods only at certain times of the year, such as when it receives seasonal flow from springs or melting snow.

(3) **"Interstate waters"** means all surface waters of the state that cross or form a part of the border between states.

(4) **"Intrastate waters"** means all surface waters of the state that are not interstate waters.

(5) **"Irrigation"** [~~or "irrigation storage"~~] means application of water to land areas to supply the water needs of beneficial plants.

(6) **"Irrigation storage"** means storage of water to supply the needs of beneficial plants.

J. Terms beginning with the letter "J". [RESERVED]

K. Terms beginning with the letter "K". [RESERVED]

20.6.4.7.L NMAC through 20.6.4.W(5) NMAC- No changes proposed.

X. Terms beginning with the letters "X" through "Z". [RESERVED]

[20.6.4.7 NMAC - Rp 20 NMAC 6.1.1007, 10-12-00; A, 7-19-01; A, 05-23-05; A, 07-17-05; A, 08-01-07; A, 12-01-10; A, 01-14-11, A, XX-XX-XX]

20.6.4.8 NMAC – 20.6.4.9 NMAC – No changes proposed

20.6.4.10 REVIEW OF STANDARDS; NEED FOR ADDITIONAL STUDIES:

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

20.6.4.10.B NMAC – 20.6.4.10.E NMAC – No changes proposed

F. Temporary Standards.

(1) Any person may petition the commission to adopt a temporary standard applicable to all or part of a surface water of the state as provided for in this section and applicable Subsections in 40 CFR Part 131.14. The commission may adopt a proposed temporary standard if the petitioner demonstrates that:

(a) attainment of the associated designated use may not be feasible in the short term due to one or more of the factors listed in 40 CFR 131.10(g), or due to the implementation of actions necessary to facilitate restoration such as through dam removal or other significant wetland or water body reconfiguration activities as demonstrated by the petition and supporting work plan requirements in Paragraphs (4) and (5) below;

(b) the proposed temporary standard represents the highest degree of protection feasible in the short term, limits the degradation of water quality to the minimum necessary to achieve the original standard by the expiration date of the temporary standard, and adoption will not cause the further impairment or loss of an existing use;

(c) for point sources, existing or proposed discharge control technologies will comply with applicable technology-based limitations and feasible technological controls and other management alternatives, such as a pollution prevention program; and

(d) for restoration activities, nonpoint source or other control technologies shall limit downstream impacts, and if applicable, existing or proposed discharge control technologies shall be in place consistent with Subparagraph (c).

(2) A temporary standard shall apply to specific pollutant(s), and to specific water body segment(s). The adoption of a temporary standard does not exempt dischargers from complying with all other applicable water quality standards, control technologies or antidegradation requirements under 20.6.4.8 NMAC.

(3) Designated uses shall not be modified on a temporary basis. Designated use attainment as reported in the CWA Section 305(b)/303(d) Integrated Report shall be based on the original standard and not on a temporary standard.

(4) A petition for a temporary standard shall:

(a) identify the currently applicable standard(s), the proposed temporary standard for the specific pollutant(s) and the specific surface water body segment(s) of the state to which the temporary standard would apply;

(b) include the basis for any factor(s) specific to the applicability of the temporary standard (for example critical flow under Subsection B of 20.6.4.11 NMAC);

(c) demonstrate that the proposed temporary standard meets the requirements in this Subsection;

(d) present a work plan with timetable of proposed actions for achieving compliance with the original standard in accordance with Paragraph (5);

(e) include any other information necessary to support the petition.

(5) As a condition of a petition for a temporary standard, in addition to meeting the requirements in this Subsection, the petitioner shall prepare a work plan in accordance with Paragraph (4) and submit the work plan to the department for review and comment. The work plan shall identify the factor(s) listed in 40 CFR 131.10(g) or Subparagraph 20.6.4.10.F(1)(a) NMAC affecting attainment of the standard that will be analyzed and the timeline for proposed actions to be taken to achieve the uses attainable over the term of the temporary standard, including baseline water quality, and any investigations, projects, facility modifications, monitoring, or other measures necessary to achieve compliance with the original standard. The work plan shall include provisions for review of progress in accordance with Paragraph (8), public notice and consultation with appropriate state, tribal, local and federal agencies.

(6) The commission may condition the approval of a temporary standard by requiring additional monitoring, relevant analyses, the completion of specified projects, submittal of information, or any other actions.

(7) Temporary standards may be implemented only after a public hearing before the commission, commission approval and adoption pursuant to this Subsection for all state purposes, and EPA Clean Water Act Section 303 (c) approval for any federal action.

(8) All temporary standards are subject to a required review during each succeeding review of water quality standards conducted in accordance with Subsection A of 20.6.4.10 NMAC. The petitioner shall provide a written report to the commission documenting the progress of proposed actions, pursuant to a reporting schedule stipulated in the approved temporary standard. The purpose of the review is to determine progress consistent with the original conditions of the petition for the duration of the temporary standard. If the petitioner cannot demonstrate that sufficient progress has been made the commission may revoke approval of the temporary standard or provide additional conditions to the approval of the temporary standard.

(9) The commission may consider a petition to extend a temporary standard. The effective period of a temporary standard shall be extended only if demonstrated to the commission that the factors precluding attainment of the underlying standard still apply, that the petitioner is meeting the conditions required for approval of the temporary standard, and that reasonable progress towards meeting the underlying standard is being achieved.

(10) A temporary standard shall expire no later than the date specified in the approval of the temporary standard. Upon expiration of a temporary standard, the original standard becomes applicable.

(11) Temporary standards shall be identified in 20.6.4.97 – 899 NMAC as appropriate for the surface water affected.

[20.6.4.10 NMAC - Rp 20 NMAC 6.1.1102, 10-12-00; Rn, 20.6.4.9 NMAC, 05-23-05; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.11 NMAC - No changes proposed.

20.6.4.12 COMPLIANCE WITH WATER QUALITY STANDARDS: The following provisions apply to determining compliance for enforcement purposes; they do not apply for purposes of determining attainment of uses. The department has developed assessment protocols for the purpose of determining attainment of uses that are available for review from the department's surface water quality bureau.

A. Compliance with acute water quality criteria shall be determined from the analytical results of a single grab sample. Acute criteria shall not be exceeded.

20.6.4.12.B NMAC through 20.6.4.12.G NMAC - No changes proposed.

H. It is a policy of the commission to allow a temporary standard approved and adopted pursuant to Subsection F of 20.6.4.10 NMAC to be included in the applicable Clean Water Act permit as enforceable limits and conditions. The temporary standard and schedule of actions may be included at the earliest practicable time, and shall specify milestone dates so as to measure progress towards meeting the original standard.

[20.6.4.12 NMAC - Rp 20 NMAC 6.1.1104, 10-12-00; A, 10-11-02; Rn, 20.6.4.11 NMAC, 05-23-05; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.13 NMAC through 20.6.4.15 NMAC - No changes proposed.

20.6.4.16 PLANNED USE OF A PISCICIDE: The use of a piscicide registered under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), 7 U.S.C. Section 136 *et seq.*, and under the New Mexico Pesticide Control Act ("NMPCA"), Section 76-4-1 *et seq.* NMSA 1978 (1973) in a surface water of the state, shall not be a violation of Subsection F of 20.6.4.13 NMAC when such use is covered by a federal National Pollutant Discharge Elimination System (NPDES) permit or has been approved by the commission under procedures provided in this section. The use of a piscicide which is covered by a NPDES permit shall require no further review by the commission and the person whose application is covered by the NPDES permit shall meet the additional notification and monitoring requirements outlined in Subsection G of 20.6.4.16 NMAC. The commission may approve the reasonable use of a piscicide under this section if the proposed use is not covered by a NPDES permit to further a Clean Water Act objective to restore and maintain the physical or biological integrity of surface waters of the state, including restoration of native species.

A. Any person seeking commission approval of the use of a piscicide not covered by a NPDES permit shall file a written petition concurrently with the commission and the surface water bureau of the department. The petition shall contain, at a minimum, the following information:

(1) petitioner's name and address;

(2) identity of the piscicide and the period of time (not to exceed five years) or number of applications for which approval is requested;

(3) documentation of registration under FIFRA and NMPCA and certification that the petitioner intends to use the piscicide according to the label directions, for its intended function;

(4) target and potential non-target species in the treated waters and adjacent riparian area, including threatened or endangered species;

(5) potential environmental consequences to the treated waters and the adjacent riparian area, and protocols for limiting such impacts;

(6) surface water of the state proposed for treatment;

(7) results of pre-treatment survey;

(8) evaluation of available alternatives and justification for selecting piscicide use;

(9) documentation of notice requesting public comment on the proposed use within a 30-day period, including information as described in Paragraphs (1), (2) and (6) of this Subsection, provided to:

(a) local political subdivisions;

(b) local water planning entities;

(c) local conservancy and irrigation districts; and

(d) local media outlets, except that the petitioner shall only be required to publish notice in a newspaper of circulation in the locality affected by the proposed use.

(10) copies of public comments received in response to the publication of notice and the petitioner's responses to public comments received;

(11) post-treatment assessment monitoring protocol; and

(12) any other information required by the commission.

B. Within thirty days of receipt of the petition, the department shall review the petition and file a recommendation with the commission to grant, grant with conditions or deny the petition. The recommendation shall include reasons, and a copy shall be sent to the petitioner by certified mail.

~~**[C.** The commission shall review the petition and the department's recommendation and shall within 90 days of receipt of the department's recommendation hold a public hearing in the locality affected by the proposed use in accordance with Adjudicatory Procedures, 20.1.3 NMAC. In addition to the public notice requirements in Adjudicatory Procedures, 20.1.3 NMAC, the petitioner shall provide written notice to:~~

~~**(1)** local political subdivisions;~~

~~**(2)** local water planning entities;~~

~~**(3)** local conservancy and irrigation districts; and~~

~~**(4)** local media outlets, except that the petitioner shall only be required to publish notice in a newspaper of circulation in the locality affected by the proposed use.~~]

C. The commission shall review the petition, the public comments received under Paragraphs (9) and (10) of Subsection A of 20.6.4.16 NMAC, the petitioner's responses to public comments and the department's technical recommendations for the petition. A public hearing shall be held if the commission determines there is substantial public interest. The commission shall notify the petitioner and those commenting on the petition of the decision whether to hold a hearing and the reasons therefore in writing.

D. If the commission determines there is substantial public interest a public hearing shall be held within 90 days of receipt of the department's recommendation in the locality affected by the proposed use in

accordance with Adjudicatory Procedures, 20.1.3 NMAC. Notice of the hearing shall be given in writing by the petitioner to individuals listed under Subsection A of 20.6.4.16 NMAC as well as to individuals who provided public comment under that Subsection at least 30 days prior to the hearing.

[~~D.~~]E. In a hearing provided for in this Section or, if no hearing is held, in a commission meeting, the registration of a piscicide under FIFRA and NMPCA shall provide a rebuttable presumption that the determinations of the EPA Administrator in registering the piscicide, as outlined in 7 U.S.C. Section 136a(c)(5), are valid. For purposes of this Section the rebuttable presumptions regarding the piscicide include:

(1) Its composition is such as to warrant the proposed claims for it;

(2) Its labeling and other material submitted for registration comply with the requirements of FIFRA and NMPCA;

(3) It will perform its intended function without unreasonable adverse effects on the environment; and

(4) When used in accordance with all FIFRA label requirements it will not generally cause unreasonable adverse effects on the environment.

(5) "Unreasonable adverse effects on the environment" has the meaning provided in FIFRA, 7 U.S.C. Section 136(bb): "any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide."

[~~E~~]F. After a public hearing, or commission meeting if no hearing is held, the commission may grant the petition in whole or in part, may grant the petition subject to conditions, or may deny the petition. In granting any petition in whole or part or subject to conditions, the commission shall require the petitioner to implement post-treatment assessment monitoring and provide notice to the public in the immediate and near downstream vicinity of the application prior to and during the application.

[~~F.~~]G. Any person whose application is covered by a NPDES permit shall provide written notice to local entities as described in Subsection A of 20.6.4.16 NMAC and implement post-treatment assessment monitoring within the application area as described in Subsection (F).

[20.6.4.16 NMAC - Rn, Paragraph (6) of Subsection F of 20.6.4.12 NMAC, 05-23-05; A, 05-23-05; A, XX-XX-XX]

20.6.4.17 – 20.6.4.49: [RESERVED]

20.6.4.50 – 20.6.4.96 NMAC – No changes proposed.

20.6.4.97 EPHEMERAL WATERS - Ephemeral [~~unclassified~~] surface waters of the state as identified below and additional ephemeral waters as identified on the department's water quality standards website pursuant to Subsection C of 20.6.4.15 NMAC.

A. Designated Uses: livestock watering, wildlife habitat, limited aquatic life and secondary contact.

B. Criteria: the use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses.

C. Waters:

(1) the following waters are designated in the **Rio Grande basin**:

(a) Cunningham gulch from Santa Fe county road 55 upstream 1.4 miles to a point upstream of the LAC Minerals mine, identified as Ortiz Mine on USGS topographic maps;

(b) an unnamed tributary from Arroyo Hondo upstream 0.4 miles to the Village of Oshara water reclamation facility outfall;

(c) an unnamed tributary from San Pedro creek upstream 0.8 miles to the PAA-KO community sewer outfall;

(d) Inditos draw from the crossing of an unnamed road along a power line one-quarter mile west of McKinley county road 19 upstream to New Mexico highway 509;

(e) an unnamed tributary from the diversion channel connecting Blue canyon and Socorro canyon upstream 0.6 miles to the New Mexico Firefighters Academy treatment facility outfall;

(f) an unnamed tributary from the AMAFCA Rio Grande south channel upstream of the crossing of New Mexico highway 47 upstream to I-25;

(g) the south fork of Cañon del Piojo from Canon del Piojo upstream 1.2 miles to an unnamed tributary;

(h) an unnamed tributary from the south fork of Cañon del Piojo upstream 1 mile to the Resurrection mine outfall;

(i) Arroyo del Puerto from San Mateo creek upstream 6.8 miles to the Ambrosia Lake mine entrance road;

(j) an unnamed tributary from San Mateo creek upstream 1.5 miles to the Roca Honda mine facility outfall in NPDES permit number;

(k) San Isidro arroyo from the Lee Ranch mine facility outfall upstream to Tinaja arroyo;

(l) Tinaja arroyo from San Isidro arroyo upstream to Mulatto canyon; and

(m) Mulatto canyon from Tinaja arroyo upstream to 1 mile northeast of the Cibola national forest boundary.

(2) the following waters are designated in the **Pecos river basin**:

(a) an unnamed tributary from Hart canyon upstream 1 mile to South Union road;

(b) Aqua Chiquita from Rio Peñasco upstream to McEwan canyon; and

(c) Grindstone canyon upstream of Grindstone Reservoir.

(3) the following waters are designated in the **Canadian river basin**:

(a) Bracket canyon upstream of the Vermejo river;

(b) an unnamed tributary from Bracket canyon upstream 2 miles to the Ancho mine; and

(c) Gachupin canyon from the Vermejo river upstream 2.9 miles to an unnamed west tributary near the Ancho mine outfall.

(4) in the **San Juan river basin** an unnamed tributary of Kim-me-ni-oli wash upstream of the mine outfall.

(5) the following waters are designated in the **Little Colorado river basin**:

(a) Defiance draw from County Road 1 to upstream of West Defiance Road; and

(b) an unnamed tributary of Defiance draw from McKinley County Road 1 upstream to New Mexico Highway 264.

(6) the following waters are designated in the **closed basins**:

(a) in the Tularosa river closed basin San Andres canyon downstream of South San Andres canyon; and

(b) in the Mimbres river closed basin:

(i) San Vicente arroyo from the Mimbres river upstream to Maudes canyon;

(ii) Chino Mines property subwatershed drainage A and tributaries thereof;

(iii) Chino Mines property subwatershed drainage B and tributaries thereof (excluding the northwest tributary containing Ash spring);

(iv) Chino Mines property subwatershed drainage C and tributaries thereof (excluding reaches containing Bolton spring, the Chiricahua Leopard Frog critical habitat transect, and all reaches in Subwatershed C that are upstream of the Chiricahua Leopard Frog critical habitat);

(v) Chino Mines property subwatershed drainage D and tributaries thereof (drainages D-1, D-2 and D-3, excluding the southeast tributary in drainage D1 that contains Brown spring); and,

(vi) Chino Mines property subwatershed drainage E and tributaries thereof (drainages E-1, E-2 and E-3).

[20.6.4.97 NMAC - N, 05-23-05; A, 12-01-10; A, XX-XX-XX]

[~~**NOTE: Effective 12-01-10, no waters are yet approved for listing in Subsection C of this section.**~~]

20.6.4.98 INTERMITTENT WATERS: All non-perennial [~~unclassified~~] surface waters of the state, except those ephemeral waters included under 20.6.4.97 NMAC or classified in 20.6.4.100 thru 899.

A. Designated Uses: livestock watering, wildlife habitat, marginal warmwater aquatic life and primary contact.

B. Criteria: the use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses, except that the following site-specific criteria apply: the monthly geometric mean of E. coli bacteria 206 cfu/100 mL or less, single sample 940 cfu/100 mL or less.

[20.6.4.98 NMAC - N, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.99 PERENNIAL WATERS: All perennial [~~unclassified~~] surface waters of the state except those classified in 20.6.4.100 thru 899.

A. Designated Uses: warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

B. Criteria: the use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses, except that the following site-specific criteria apply: the monthly geometric mean of E. coli bacteria 206 cfu/100 mL or less, single sample 940 cfu/100 mL or less.
[20.6.4.99 NMAC - N, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.100: [RESERVED]

20.6.4.101 RIO GRANDE BASIN: The main stem of the Rio Grande from the international boundary with Mexico upstream to one mile [~~below~~] downstream of Percha dam.

A. Designated Uses: irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

B. Criteria:

(1) The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses except that the following segment-specific criterion applies: temperature 34°C (93.2°F) or less.

(2) At mean monthly flows above 350 cfs, the monthly average concentration for: TDS 2,000 mg/L or less, sulfate 500 mg/L or less and chloride 400 mg/L or less.

C. Remarks: sustained flow in the Rio Grande below Caballo reservoir is dependent on release from Caballo reservoir during the irrigation season; at other times of the year, there may be little or no flow.
[20.6.4.101 NMAC - Rp 20 NMAC 6.1.2101, 10-12-00; A, 12-15-01; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.102 RIO GRANDE BASIN: The main stem of the Rio Grande from one mile [~~below~~] downstream of Percha dam upstream to Caballo dam.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, primary contact and warmwater aquatic life.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

C. Remarks: sustained flow in the Rio Grande below Caballo reservoir is dependent on release from Caballo reservoir during the irrigation season; at other times of the year, there may be little or no flow.
[20.6.4.102 NMAC - Rp 20 NMAC 6.1.2102, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.103 RIO GRANDE BASIN: The main stem of the Rio Grande from the headwaters of Caballo reservoir upstream to Elephant Butte dam and perennial reaches of tributaries to the Rio Grande in Sierra and Socorro counties, excluding waters on tribal lands.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, [~~secondary~~] primary contact and warmwater aquatic life.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

C. Remarks: flow in this reach of the Rio Grande main stem is dependent upon release from Elephant Butte dam.
[20.6.4.103 NMAC - Rp 20 NMAC 6.1.2103, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.104 NMAC – 20.6.4.109 NMAC – No changes proposed.

20.6.4.110 RIO GRANDE BASIN - The main stem of the Rio Grande from Angostura diversion works upstream to Cochiti dam, excluding the reaches on San Felipe, ~~Santo [Domingo]~~Kewa and Cochiti pueblos.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, primary contact, coldwater aquatic life and warmwater aquatic life.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: pH within the range of 6.6 to 9.0 and temperature 25°C (77°F) or less.
[20.6.4.110 NMAC - Rp 20 NMAC 6.1.2108, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.111 NMAC – 20.6.4.115 NMAC – No changes proposed.

20.6.4.116 RIO GRANDE BASIN - The Rio Chama from its mouth on the Rio Grande upstream to Abiquiu reservoir, perennial reaches of the Rio Tusas, perennial reaches of the Rio Ojo Caliente, perennial reaches of Abiquiu creek and perennial reaches of El Rito creek [~~below~~] downstream of the town of El Rito.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, coldwater aquatic life, warmwater aquatic life and [~~secondary~~] primary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criterion applies: temperature 31°C (87.8°F) or less.

[20.6.4.116 NMAC - Rp 20 NMAC 6.1.2113, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.117 NMAC – 20.6.4.123 NMAC – No changes proposed.

20.6.4.124 RIO GRANDE BASIN - Perennial reaches of Sulphur creek from [~~its headwaters to~~] its confluence with Redondo creek upstream to its headwaters.

A. Designated Uses: limited aquatic life, wildlife habitat, livestock watering and [~~secondary~~] primary contact.

B. Criteria: the use-specific criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: pH within the range of 2.0 to 9.0, maximum temperature 30°C (86°F), and the chronic aquatic life criteria of Subsections I and J of 20.6.4.900 NMAC.

[20.6.4.124 NMAC - N, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.125 NMAC – 20.6.4.203 NMAC – No changes proposed.

20.6.4.204 PECOS RIVER BASIN - The main stem of the Pecos river from the headwaters of Avalon reservoir upstream to Brantley dam.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, [~~secondary~~] primary contact and warmwater aquatic life.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

[20.6.4.204 NMAC - Rp 20 NMAC 6.1.2204, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for Avalon Reservoir are under 20.6.4.219 NMAC.]

20.6.4.205 PECOS RIVER BASIN - Brantley reservoir.

A. Designated Uses: irrigation storage, livestock watering, wildlife habitat, primary contact and warmwater aquatic life.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

[20.6.4.205 NMAC - Rp 20 NMAC 6.1.2205, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.206 PECOS RIVER BASIN - The main stem of the Pecos river from the headwaters of Brantley reservoir upstream to Salt creek (near Acme), perennial reaches of the Rio Peñasco downstream from state highway 24 near Dunken, perennial reaches of the Rio Hondo and its tributaries [~~below~~] downstream of Bonney canyon and perennial reaches of the Rio Felix.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, [~~secondary~~] primary contact and warmwater aquatic life.

B. Criteria:

(1) The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

(2) At all flows above 50 cfs: TDS 14,000 mg/L or less, sulfate 3,000 mg/L or less and chloride 6,000 mg/L or less.

[20.6.4.206 NMAC - Rp 20 NMAC 6.1.2206, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.207 PECOS RIVER BASIN - The main stem of the Pecos river from Salt creek (near Acme) upstream to Sumner dam.

A. Designated Uses: irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and [~~secondary~~] primary contact.

B. Criteria:

(1) The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

(2) At all flows above 50 cfs: TDS 8,000 mg/L or less, sulfate 2,500 mg/L or less and chloride 4,000 mg/L or less.

[20.6.4.207 NMAC - Rp 20 NMAC 6.1.2207, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.208 NMAC – 20.6.4.212 NMAC – No changes proposed.

20.6.4.213 PECOS RIVER BASIN - McAllister lake.

A. Designated Uses: coldwater aquatic life, [~~secondary~~] primary contact, livestock watering and wildlife habitat.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criterion applies: temperature 25°C (77°F) or less.

[20.6.4.213 NMAC - Rp 20 NMAC 6.1.2211.3, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.214 NMAC– 20.6.4.218 NMAC – No changes proposed.

20.6.4.219 PECOS RIVER BASIN - Avalon reservoir.

A. Designated Uses: irrigation storage, livestock watering, wildlife habitat, [~~secondary~~] primary contact and warmwater aquatic life.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

[20.6.4.219 NMAC - N, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.220 NMAC – 20.6.4.304 NMAC – No changes proposed.

20.6.4.305 CANADIAN RIVER BASIN - The main stem of the Canadian river from the headwaters of Conchas reservoir upstream to the New Mexico-Colorado line, perennial reaches of the Conchas river, the Mora river downstream from the USGS gaging station near Shoemaker, the Vermejo river downstream from Rail canyon and perennial reaches of Raton, Chicorica (except Lake Maloya and Lake Alice) and Uña de Gato creeks.

A. Designated Uses: irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

B. Criteria:

(1) The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

(2) TDS 3,500 mg/L or less at flows above 10 cfs.

[20.6.4.305 NMAC - Rp 20 NMAC 6.1.2305, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

[**NOTE:** This segment was divided effective 12-01-10. The standards for [~~Lake Maloya and~~] Lake Alice and Lake Maloya are under 20.6.4.311 and 20.6.4.312 NMAC, respectively.]

20.6.4.306 NMAC – 20.6.4.307 NMAC – No changes proposed.

20.6.4.308 CANADIAN RIVER BASIN - Charette lakes.

A. Designated Uses: coldwater aquatic life, warmwater aquatic life,[~~secondary~~] primary contact, livestock watering and wildlife habitat.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.

[20.6.4.308 NMAC - Rp 20 NMAC 6.1.2305.5, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.309 – 20.6.4.316 – No changes proposed.

20.6.4.317 CANADIAN RIVER BASIN - Springer lake.

A. Designated Uses: coolwater aquatic life, irrigation, primary contact, livestock watering, [~~and~~] wildlife habitat, and public water supply.

B. Criteria: The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.
[20.6.4.317 NMAC - N, 07-10-12; A, XX-XX-XX]

20.6.4.318 NMAC - 20.6.4.400: [RESERVED]

20.6.4.401 – 20.6.4.402 – No changes proposed.

20.6.4.403 SAN JUAN RIVER BASIN - The Animas river from its confluence with the San Juan river upstream to Estes Arroyo.

A. Designated Uses: public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, [~~marginal coldwater~~] coolwater aquatic life, and primary contact [~~and warmwater aquatic life~~].

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~.~~], except that the following segment-specific criterion applies: temperature 29°C (84.2°F) or less.
[20.6.4.403 NMAC - Rp 20 NMAC 6.1.2403, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.404 SAN JUAN RIVER BASIN - The Animas river from Estes Arroyo upstream to the [~~New Mexico-Colorado line~~] Southern Ute Indian tribal boundary.

A. Designated Uses: [~~coldwater~~]coolwater aquatic life, irrigation, livestock watering, wildlife habitat, public water supply, industrial water supply and primary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criterion applies: phosphorus (unfiltered sample) 0.1 mg/L or less.
[20.6.4.404 NMAC - Rp 20 NMAC 6.1.2404, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.405 – 20.6.4.501 – No changes proposed.

20.6.4.502 GILA RIVER BASIN - The main stem of the Gila river from Redrock canyon upstream to the confluence of the West Fork Gila river and East Fork Gila river and perennial reaches of tributaries to the Gila river [~~below~~] downstream of Mogollon creek.

A. Designated Uses: industrial water supply, irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, primary contact and warmwater aquatic life.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criterion applies: 28°C (82.4°F) or less.
[20.6.4.502 NMAC - Rp 20 NMAC 6.1.2502, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.503 GILA RIVER BASIN - All perennial tributaries to the Gila river [~~above~~] upstream of and including Mogollon creek.

A. Designated Uses: domestic water supply, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: specific conductance of 400 µS/cm or less for all perennial tributaries except West Fork Gila and tributaries thereto, specific conductance of 300 µS/cm or less; [~~main stem of the Gila river above Gila hot springs and 400 µS/cm or less for other reaches;~~] 32.2°C (90°F) or less in the east fork of the Gila river and Sapillo creek [~~below~~] downstream of Lake Roberts; the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.
[20.6.4.503 NMAC - Rp 20 NMAC 6.1.2503, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.504 – 20.6.4.802 – No changes proposed.

20.6.4.803 CLOSED BASINS - Perennial reaches of the Mimbres River downstream of the confluence with [~~Willow Springs~~] Allie canyon and all perennial reaches of tributaries thereto.

A. Designated Uses: [~~coldwater~~] coolwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less and temperature of 30°C (86°F) or less.

[20.6.4.803 NMAC - Rp 20 NMAC 6.1.2803, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.804 CLOSED BASINS - Perennial reaches of the Mimbres River upstream of the confluence with [~~Willow Springs~~] Allie canyon to Cooney canyon, and all perennial reaches of East Fork Mimbres (McKnight Canyon) downstream of the fish barrier, and all perennial reaches thereto.

A. Designated Uses: irrigation, domestic water supply, coldwater aquatic life, livestock watering, wildlife habitat and primary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: [~~specific conductance 300 µS/cm or less;~~] the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.804 NMAC - Rp 20 NMAC 6.1.2804, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]

[NOTE: The segment covered by this section was divided effective XX-XX-XX. The standards for the additional segment are covered under 20.6.4.807 NMAC.]

20.6.4.807 CLOSED BASINS - Perennial reaches of the Mimbres river upstream of Cooney Canyon and all perennial reaches thereto, including perennial reaches of East Fork Mimbres river (McKnight Canyon) upstream of the fish barrier.

A. Designated Uses: irrigation, domestic water supply, high quality coldwater aquatic life, livestock watering, wildlife habitat and primary contact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: specific conductance 300 µS/cm or less; the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.807 NMAC – A, XX-XX-XX]

20.6.4.7.808 CLOSED BASINS – Perennial and intermittent watercourses within Smelter Tailing Soils Investigation Unit lands at the Chino Mines Company, excluding those ephemeral waters listed in section 809 and including but not limited to the mainstem of Lampbright draw, beginning at the confluence of Lampbright Draw with Rustler canyon, all tributaries that originate west of Lampbright draw to the intersection of Lampbright draw with U.S. 180, and all tributaries of Whitewater creek that originate east of Whitewater creek from the confluence of Whitewater creek with Bayard canyon downstream to the intersection of Whitewater creek with U.S. 180.

A. Designated Uses: marginal warmwater aquatic life, livestock watering, wildlife habitat and primarycontact.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: the acute and chronic aquatic life criteria for copper set forth in Subsection I of Section 900 shall be determined by multiplying that criteria by the Water Effect Ratio ("WER") adjustment expressed by the following equation:

$$WER = \frac{[10^{0.588+(0.703 \times \log DOC)+(0.395 \times \log Alkalinity)}] \times (\frac{100}{Hardness})^{0.9422}}{19.31}$$

For purposes of this section, DOC is dissolved organic carbon, expressed in units of milligrams carbon per liter or mg C/L; alkalinity is expressed in units of mg/L as $CaCO_3$, and hardness is expressed in units of mg/L as $CaCO_3$. In waters that contain alkalinity concentrations greater than 250 mg/L, a value of 250 mg/L shall be used in the equation. In waters that contain DOC concentrations greater than 16 mg C/L, a value of 16 mg C/L shall be used in the equation. In waters that contain hardness concentrations greater than 400 mg/L, a value of 400 mg/L shall be used in the equation. The alkalinity, hardness and DOC concentrations used to calculate the WER value are those measured in the subject water sample.

20.6.4. 809 CLOSED BASINS - Ephemeral watercourses within Smelter Tailing Soils Investigation Unit lands at the Chino Mines Company, limited to Chino Mines property subwatershed drainage A and tributaries thereof, Chino Mines property subwatershed drainage B and tributaries thereof (excluding the northwest tributary containing Ash spring and the Chiricahua Leopard Frog critical habitat transect); Chino Mines property subwatershed drainage C and tributaries thereof (excluding reaches containing Bolton spring, the Chiricahua Leopard Frog critical habitat transect and all reaches in subwatershed C that are upstream of the Chiricahua Leopard Frog critical habitat); subwatershed drainage D and tributaries thereof (drainages D-1, D-2 and D-3, excluding the southeast tributary in drainage D1 that contains Brown spring) and subwatershed drainage E and all tributaries thereof (drainages E-1, E-2 and E-3).

A. **Designated Uses:** limited aquatic life, livestock watering, wildlife habitat and secondary contact.

B. **Criteria:** the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: the acute aquatic life criteria for copper set forth in Subsection I of Section 900 shall be determined by multiplying that criteria by the Water Effect Ratio ("WER") adjustment expressed by the following equation:

$$WER = \frac{[10^{0.588+(0.703 \times \log DOC)+(0.395 \times \log Alkalinity)}] \times (\frac{100}{Hardness})^{0.9422}}{19.31}$$

For purposes of this section, DOC is dissolved organic carbon, expressed in units of milligrams carbon per liter or mg C/L; alkalinity is expressed in units of mg/L as $CaCO_3$, and hardness is expressed in units of mg/L as $CaCO_3$. In waters that contain alkalinity concentrations greater than 250 mg/L, a value of 250 mg/L shall be used in the equation. In waters that contain DOC concentrations greater than 16 mg C/L, a value of 16 mg C/L shall be used in the equation. In waters that contain hardness concentrations greater than 400 mg/L, a value of 400 mg/L shall be used in the equation. The alkalinity, hardness and DOC concentrations used to calculate the WER value are those measured in the subject water sample.

[~~20.6.4.807~~]20.6.4.810 – 20.6.4.899: [RESERVED]

20.6.4.900 CRITERIA APPLICABLE TO EXISTING, DESIGNATED OR ATTAINABLE USES UNLESS OTHERWISE SPECIFIED IN 20.6.4.97 THROUGH 20.6.4.899 NMAC.

A. **Fish Culture and Water Supply:** Fish culture, public water supply and industrial water supply are designated uses in particular classified waters of the state where these uses are actually being realized. However, no numeric criteria apply uniquely to these uses. Water quality adequate for these uses is ensured by the general criteria and numeric criteria for bacterial quality, pH and temperature.

Subsections B and C of 20.6.4.900 – No changes proposed.

D. **Primary Contact:** the monthly geometric mean of E. coli bacteria of 126 cfu/100 mL or MPN/100 ml and single sample of 410 cfu/100 mL or MPN/100 mL and pH within the range of 6.6 to 9.0 apply to this use. The results for *E. coli* may be reported as either cfu (colony forming units) or the most probable number (MPN) depending on the analytical method used.

E. **Secondary Contact:** the monthly geometric mean of E. coli bacteria of 548 cfu/100 mL or MPN/100 mL and single sample of 2507 cfu/100 mL or MPN/100 mL apply to this use. The results for *E. coli* may be reported as either cfu (colony forming units) or the most probable number (MPN), depending on the analytical method used.

Subsection F through Subsection H, Subparagraphs (1)-(2) of 20.6.4.900 NMAC - No changes proposed.

(3) **Marginal Coldwater:** dissolved oxygen 6.0 mg/L or more, 6T3 temperature 25°C (77°F), maximum temperature 29°C (84°F) and pH within the range from 6.6 to 9.0. Where a single segment-specific temperature criterion is indicated in 20.6.4.101-899 NMAC, it is the maximum temperature and no 6T3 temperature applies.

(4) Coolwater: dissolved oxygen 5.0 mg/L or more, maximum temperature 29°C (84°F) and pH within the range of 6.6 to 9.0.

(5) Warmwater: dissolved oxygen 5.0 mg/L or more, maximum temperature 32.2°C (90°F) and pH within the range of 6.6 to 9.0. Where a segment-specific temperature criterion is indicated in 20.6.4.101-899 NMAC, it is the maximum temperature.

(6) Marginal Warmwater: dissolved oxygen 5.0 mg/L or more, pH within the range of 6.6 to 9.0 and maximum temperature 32.2°C (90°F). Where a segment-specific temperature criterion is indicated in 20.6.4.101-899 NMAC, it is the maximum temperature.

(7) Limited Aquatic Life: The acute aquatic life criteria of Subsections I and J of this section apply to this subcategory. Chronic aquatic life criteria do not apply unless adopted on a segment-specific basis. Human health-organism only criteria apply only for persistent pollutants unless adopted on a segment-specific basis.

I. Hardness-dependent acute and chronic aquatic life criteria for metals are calculated using the following equations. The criteria are expressed as a function of dissolved hardness (as mg $CaCO_3$/L). With the exception of aluminum, the equations are valid only for dissolved hardness concentrations of 0-400 mg/L. For dissolved hardness concentrations above 400 mg/L, the criteria for 400 mg/L apply. For aluminum the equations are valid only for dissolved hardness concentrations of 0-220 mg/L. For dissolved hardness concentrations above 220 mg/L, the aluminum criteria for 220 mg/L apply.

(1) Acute aquatic life criteria for metals. The equation to calculate acute criteria in µg/L is $\exp(m_A[\ln(\text{hardness})] + b_A)(CF)$. Except for aluminum, the criteria are based on analysis of dissolved metal. For aluminum, the criteria are based on analysis of total recoverable aluminum in a sample that is filtered to minimize mineral phases as specified by the department.

The EPA has disapproved the hardness-based equation for total recoverable aluminum in waters where the pH is less than 6.5 in the receiving stream for federal purposes of the Clean Water Act. The equation parameters are as follows:

Metal	m_A	b_A	Conversion factor (CF)
Aluminum (Al)	1.3695	1.8308	
Cadmium (Cd)	0.8968	-3.5699	1.136672-[(ln hardness)(0.041838)]
Chromium (Cr) III	0.8190	3.7256	0.316
Copper (Cu)	0.9422	-1.700	0.960
Lead (Pb)	1.273	-1.460	1.46203-[(ln hardness)(0.145712)]
Manganese (Mn)	0.3331	6.4676	
Nickel (Ni)	0.8460	2.255	0.998
Silver (Ag)	1.72	-6.59	0.85
Zinc (Zn)	0.9094	0.9095	0.978

(2) Chronic aquatic life criteria for metals. The equation to calculate chronic criteria in µg/L is $\exp(m_C[\ln(\text{hardness})] + b_C)(CF)$. Except for aluminum, the criteria are based on analysis of dissolved metal. For aluminum, the criteria are based on analysis of total recoverable aluminum in a sample that is filtered to minimize mineral phases as specified by the department. The EPA has disapproved the hardness-based equation for total recoverable aluminum in waters where the pH is less than 6.5 in the receiving stream for federal purposes of the Clean Water Act. The equation parameters are as follows:

Metal	m_A	b_A	Conversion factor (CF)
Aluminum (Al)	1.3695	0.9161	
Cadmium (Cd)	0.7647	-4.2180	1.101672-[(ln hardness)(0.041838)]
Chromium (Cr) III	0.8190	0.6848	0.860
Copper (Cu)	0.8545	-1.702	0.960
Lead (Pb)	1.273	-4.705	1.46203-[(ln hardness)(0.145712)]
Manganese (Mn)	0.3331	5.8743	
Nickel (Ni)	0.8460	0.0584	0.997
Zinc (Zn)	0.9094	0.6235	0.986

(3) Selected values of calculated acute and chronic criteria (µg/L).

Hardness as $CaCO_3$, dissolved (mg/L)		Al	Cd	Cr III	Cu	Pb	Mn	Ni	Ag	Zn
25	Acute	512	0.51	180	4	14	1,881	140	0.3	45
	Chronic	205	0.17	24	3	1	1,040	16		34
30	Acute	658	0.59	210	4	17	1,999	170	0.4	54
	Chronic	263	0.19	28	3	1	1,105	19		41
40	Acute	975	0.76	270	6	24	2,200	220	0.7	70
	Chronic	391	0.23	35	4	1	1,216	24		53
50	Acute	1,324	0.91	320	7	30	2,370	260	1.0	85
	Chronic	530	0.28	42	5	1	1,309	29		65
60	Acute	1,699	1.07	370	8	37	2,519	300	1.3	101
	Chronic	681	0.31	49	6	1	1,391	34		76
70	Acute	2,099	1.22	430	10	44	2,651	350	1.7	116
	Chronic	841	0.35	55	7	2	1,465	38		88
80	Acute	2,520	1.37	470	11	51	2,772	390	2.2	131
	Chronic	1,010	0.39	62	7	2	1,531	43		99
90	Acute	2,961	1.51	520	12	58	2,883	430	2.7	145
	Chronic	1,186	0.42	68	8	2	1,593	48		110
100	Acute	3,421	1.65	570	13	65	2,986	470	3.2	160
	Chronic	1,370	0.45	74	9	3	1,650	52		121
200	Acute	8,838	2.98	1,010	26	140	3,761	840	11	301
	Chronic	3,541	0.75	130	16	5	2,078	90		228
220	Acute	10,071	3.23	1,087	28	151	3,882	912	13	328
	Chronic	4,035	0.80	141	18	6	2,145	101		248
300	Acute	~~[10,071]~~	4.21	1,400	38	210	4,305	1190	21	435
	Chronic	~~[4,035]~~	1.00	180	23	8	2,379	130		329
400 and above	Acute	~~[10,071]~~	5.38	1,770	50	280	4,738	1510	35	564
	Chronic	~~[4,035]~~	1.22	230	29	11	2,618	170		428

J. Use-Specific Numeric criteria.

~~[(1) Notes applicable to the table of numeric criteria in Paragraph (2) of this subsection.~~

~~(a) Where the letter "a" is indicated in a cell, the criterion is hardness-based and can be referenced in Subsection I of 20.6.4.900 NMAC.~~

~~(b) Where the letter "b" is indicated in a cell, the criterion can be referenced in Subsection C of 20.6.4.900 NMAC.~~

~~(c) Criteria are in µg/L unless otherwise indicated.~~

~~(d) Abbreviations are as follows: CAS - chemical abstracts service (see definition for "CAS number" in 20.6.4.7 NMAC); DWS - domestic water supply; Irr - irrigation; LW - livestock watering; WH - wildlife habitat; HH-OO - human health-organism only; C - cancer-causing; P - persistent.~~

~~(e) The criteria are based on analysis of an unfiltered sample unless otherwise indicated. The acute and chronic aquatic life criteria for aluminum are based on analysis of total recoverable aluminum in a sample~~

~~that is filtered to minimize mineral phases as specified by the department. For aluminum, where the pH is 6.5 or less in the receiving water after mixing, the acute and chronic dissolved criteria in the table will apply.~~

~~(f) The criteria listed under human health-organism only (HH-OO) are intended to protect human health when aquatic organisms are consumed from waters containing pollutants. These criteria do not protect the aquatic life itself; rather, they protect the health of humans who ingest fish or other aquatic organisms.~~

~~(g) The dioxin criteria apply to the sum of the dioxin toxicity equivalents expressed as 2,3,7,8-TCDD dioxin.~~

~~(h) The criteria for polychlorinated biphenyls (PCBs) applies to the sum of all congeners, to the sum of all homologs or to the sum of all aroclors.~~]

(~~[2]~~1) **Table of Numeric Criteria:** The following table sets forth the numeric criteria applicable to existing, designated and attainable uses. For metals, criteria represent the total sample fraction unless otherwise specified in the table. Additional criteria that are not compatible with this table are found in Subsections A through I, K and L of this section.

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Aluminum, dissolved	7429-90-5		5,000						
Aluminum, total recoverable	7429-90-5					a	a		
Antimony, dissolved	7440-36-0	6						640	P
Arsenic, dissolved	7440-38-2	10	100	200		340	150	9.0	C,P
Asbestos	1332-21-4	7,000,000 fibers/L							
Barium, dissolved	7440-39-3	2,000							
Beryllium, dissolved	7440-41-7	4							
Boron, dissolved	7440-42-8		750	5,000					
Cadmium, dissolved	7440-43-9	5	10	50		a	a		
Chlorine residual	7782-50-5				11	19	11		
Chromium III, dissolved	16065-83-1					a	a		
Chromium VI, dissolved	18540-29-9					16	11		
Chromium, dissolved	7440-47-3	100	100	1,000					
Cobalt, dissolved	7440-48-4		50	1,000					
Copper, dissolved	7440-50-8	1300	200	500		a	a		
Cyanide, total recoverable	57-12-5	200			5.2	22.0	5.2	140	
Lead, dissolved	7439-92-1	15	5,000	100		a	a		
Manganese, dissolved	7439-96-5					a	a		
Mercury	7439-97-6	2		10	0.77				
Mercury, dissolved	7439-97-6					1.4	0.77		
Methylmercury	22967-92-6							0.3 mg/kg in fish tissue	P
Molybdenum, dissolved	7439-98-7		1,000						
Molybdenum, total recoverable	7439-98-7					7,920	1,895		
Nickel, dissolved	7440-02-0	700				a	a	4,600	P
Nitrate as N		10 mg/L							
Nitrite + Nitrate				132 mg/L					
Selenium, dissolved	7782-49-2	50	b	50				4,200	P
Selenium, total recoverable	7782-49-2				5.0	20.0	5.0		
Silver, dissolved	7440-22-4					a			
Thallium, dissolved	7440-28-0	2						0.47	P
Uranium, dissolved	7440-61-1	30							

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Vanadium, dissolved	7440-62-2		100	100					
Zinc, dissolved	7440-66-6	10,500	2,000	25,000		a	a	26,000	P
Adjusted gross alpha		15 pCi/L		15 pCi/L					
Radium 226 + Radium 228		5 pCi/L		30.0 pCi/L					
Strontium 90		8 pCi/L							
Tritium		20,000 pCi/L		20,000 pCi/L					
Acenaphthene	83-32-9	2,100						990	
Acrolein	107-02-8	18						9	
Acrylonitrile	107-13-1	0.65						2.5	C
Aldrin	309-00-2	0.021				3.0		0.00050	C,P
Anthracene	120-12-7	10,500						40,000	
Benzene	71-43-2	5						510	C
Benzidine	92-87-5	0.0015						0.0020	C
Benzoaanthracene	56-55-3	0.048						0.18	C
Benzoapyrene	50-32-8	0.2						0.18	C,P
Benzo(b)fluoranthene	205-99-2	0.048						0.18	C
Benzo(k)fluoranthene	207-08-9	0.048						0.18	C
alpha-BHC	319-84-6	0.056						0.049	C
beta-BHC	319-85-7	0.091						0.17	C
Gamma-BHC (Lindane)	58-89-9	0.20				0.95		1.8	
Bis(2-chloroethyl) ether	111-44-4	0.30						5.3	C
Bis(2-chloroisopropyl) ether	108-60-1	1,400						65,000	
Bis(2-ethylhexyl) phthalate	117-81-7	6						22	C
Bromoform	75-25-2	44						1,400	C
Butylbenzyl phthalate	85-68-7	7,000						1,900	
Carbon tetrachloride	56-23-5	5						16	C
Chlordane	57-74-9	2				2.4	0.0043	0.0081	C,P
Chlorobenzene	108-90-7	100						1,600	
Chlorodibromomethane	124-48-1	4.2						130	C
Chloroform	67-66-3	57						4,700	C
2-Chloronaphthalene	91-58-7	2,800						1,600	
2-Chlorophenol	95-57-8	175						150	
Chrysene	218-01-9	0.048						0.18	C
Diazinon	333-41-5					0.17	0.17		
4,4'-DDT and derivatives		1.0			0.001	1.1	0.001	0.0022	C,P
Dibenzo(a,h)anthracene	53-70-3	0.048						0.18	C
Dibutyl phthalate	84-74-2	3,500						4,500	
1,2-Dichlorobenzene	95-50-1	600						1,300	
1,3-Dichlorobenzene	541-73-1	469						960	
1,4-Dichlorobenzene	106-46-7	75						190	
3,3'-Dichlorobenzidine	91-94-1	0.78						0.28	C
Dichlorobromomethane	75-27-4	5.6						170	C
1,2-Dichloroethane	107-06-2	5						370	C
1,1-Dichloroethylene	75-35-4	7						7,100	C
2,4-Dichlorophenol	120-83-2	105						290	
1,2-Dichloropropane	78-87-5	5.0						150	C
1,3-Dichloropropene	542-75-6	3.5						210	C

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Dieldrin	60-57-1	0.022				0.24	0.056	0.00054	C,P
Diethyl phthalate	84-66-2	28,000						44,000	
Dimethyl phthalate	131-11-3	350,000						1,100,000	
2,4-Dimethylphenol	105-67-9	700						850	
2,4-Dinitrophenol	51-28-5	70						5,300	
2,4-Dinitrotoluene	121-14-2	1.1						34	C
Dioxin		3.0E-05						5.1E-08	C,P
1,2-Diphenylhydrazine	122-66-7	0.44						2.0	C
alpha-Endosulfan	959-98-8	62				0.22	0.056	89	
beta-Endosulfan	33213-65-9	62				0.22	0.056	89	
Endosulfan sulfate	1031-07-8	62						89	
Endrin	72-20-8	2				0.086	0.036	0.060	
Endrin aldehyde	7421-93-4	10.5						0.30	
Ethylbenzene	100-41-4	700						2,100	
Fluoranthene	206-44-0	1,400						140	
Fluorene	86-73-7	1,400						5,300	
Heptachlor	76-44-8	0.40				0.52	0.0038	0.00079	C
Heptachlor epoxide	1024-57-3	0.20				0.52	0.0038	0.00039	C
Hexachlorobenzene	118-74-1	1						0.0029	C,P
Hexachlorobutadiene	87-68-3	4.5						180	C
Hexachlorocyclopen-tadiene	77-47-4	50						1,100	
Hexachloroethane	67-72-1	25						33	C
Ideno(1,2,3-cd)pyrene	193-39-5	0.048						0.18	C
Isophorone	78-59-1	368						9,600	C
Methyl bromide	74-83-9	49						1,500	
2-Methyl-4,6-dinitrophenol	534-52-1	14						280	
Methylene chloride	75-09-2	5						5,900	C
Nitrobenzene	98-95-3	18						690	
N-Nitrosodimethylamine	62-75-9	0.0069						30	C
N-Nitrosodi-n-propylamine	621-64-7	0.050						5.1	C
N-Nitrosodiphenylamine	86-30-6	71						60	C
Nonylphenol	84852-15-3					28	6.6		
Polychlorinated Byphenyls (PCBs)	1336-36-3	0.50			0.014	2	0.014	0.00064	C,P
Pentachlorophenol	87-86-5	1.0				19	15	30	C
Phenol	108-95-2	10,500						860,000	
Pyrene	129-00-0	1,050						4,000	
1,1,2,2-Tetrachloroethane	79-34-5	1.8						40	C
Tetrachloroethylene	127-18-4	5						33	C,P
Toluene	108-88-3	1,000						15,000	
Toxaphene	8001-35-2	3				0.73	0.0002	0.0028	C
1,2-Trans-dichloroethylene	156-60-5	100						10,000	
1,2,4-Trichlorobenzene	120-82-1	70						70	
1,1,1-Trichloroethane	71-55-6	200							
1,1,2-Trichloroethane	79-00-5	5						160	C
Trichloroethylene	79-01-6	5						300	C
2,4,6-Trichlorophenol	88-06-2	32						24	C
Vinyl chloride	75-01-4	2						24	C

(12) Notes applicable to the table of numeric criteria in Paragraph (~~2~~1) of this subsection.

(a) Where the letter "a" is indicated in a cell, the criterion is hardness-based and can be referenced in Subsection I of 20.6.4.900 NMAC.

(b) Where the letter "b" is indicated in a cell, the criterion can be referenced in Subsection C of 20.6.4.900 NMAC.

(c) Criteria are in µg/L unless otherwise indicated.

(d) Abbreviations are as follows: CAS - chemical abstracts service (see definition for "CAS number" in 20.6.4.7 NMAC); DWS - domestic water supply; Irr/Irr Storage- irrigation or irrigation storage; LW - livestock watering; WH - wildlife habitat; HH-OO - human health-organism only; C - cancer-causing; P - persistent.

(e) The criteria are based on analysis of an unfiltered sample unless otherwise indicated. The acute and chronic aquatic life criteria for aluminum are based on analysis of total recoverable aluminum in a sample that is filtered to minimize mineral phases as specified by the department.

(f) The criteria listed under human health-organism only (HH-OO) are intended to protect human health when aquatic organisms are consumed from waters containing pollutants. These criteria do not protect the aquatic life itself; rather, they protect the health of humans who ingest fish or other aquatic organisms.

(g) The dioxin criteria apply to the sum of the dioxin toxicity equivalents expressed as 2,3,7,8-TCDD dioxin.

(h) The criteria for polychlorinated biphenyls (PCBs) applies to the sum of all congeners, to the sum of all homologs or to the sum of all aroclors.

20.6.4.900.K of NMAC - no changes proposed.

L. Chronic aquatic life criteria for total ammonia are dependent on pH, temperature and whether fish in early life stages are present or absent. The criteria are based on analysis of unfiltered samples and are calculated according to the equations in Paragraphs (1) and (2) of this subsection. For temperatures from below 0 to 14°C, the criteria for [0]14°C apply; for temperatures above 30°C, the criteria for 30°C apply. For pH values below 6.5, the criteria for 6.5 apply; for pH values above 9.0, the criteria for 9.0 apply.

(1) Chronic aquatic life criteria for total ammonia when fish early life stages are present.

(a) The equation to calculate chronic criteria in mg/L as N is:

$((0.0577/(1 + 10^{7.688-pH})) + (2.487/(1 + 10^{pH-7.688}))) \times MIN\ (2.85, 1.45 \times 10^{0.028 \times (25-T)})$

(b) Selected values of calculated chronic criteria in mg/L as N:

pH	Temperature (°C)										
	[0 and below]	14 and below	15	16	18	20	22	24	26	28	30 and above
6.5 and below	[6.67]	6.67	6.46	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	[6.57]	6.57	6.36	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	[6.44]	6.44	6.25	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	[6.29]	6.29	6.10	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	[6.12]	6.12	5.93	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	[5.91]	5.91	5.73	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	[5.67]	5.67	5.49	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	[5.39]	5.39	5.22	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	[5.08]	5.08	4.92	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	[4.73]	4.73	4.59	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	[4.36]	4.36	4.23	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	[3.98]	3.98	3.85	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	[3.58]	3.58	3.47	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	[3.18]	3.18	3.09	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	[2.80]	2.80	2.71	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	[2.43]	2.43	2.36	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	[2.10]	2.10	2.03	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	[1.79]	1.79	1.74	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661

pH	Temperature (°C)										
	[θ ~~and below~~]	14 and below	15	16	18	20	22	24	26	28	30 and above
8.3	[~~1.52~~]	1.52	1.48	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	[~~1.29~~]	1.29	1.25	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	[~~1.09~~]	1.09	1.06	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	[~~0.920~~]	0.920	0.892	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	[~~0.778~~]	0.778	0.754	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	[~~0.661~~]	0.661	0.641	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	[~~0.565~~]	0.565	0.548	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0 and above	[~~0.486~~]	0.486	0.471	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

(2) Chronic aquatic life criteria for total ammonia when fish early life stages are absent.

(a) The equation to calculate chronic criteria in mg/L as N is:

$((0.0577/(1 + 10^{7.688-pH})) + (2.487/(1 + 10^{pH-7.688}))) \times 1.45 \times 10^{0.028 \times (25-MAX(T,7))}$

(b) Selected values of calculated chronic criteria in mg/L as N:

pH	Temperature (°C)									
	[~~7 and below~~]	7 and below	8	9	10	11	12	13	14	15 and above
6.5 and below	[~~10.8~~]	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46
6.6	[~~10.7~~]	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36
6.7	[~~10.5~~]	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25
6.8	[~~10.2~~]	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10
6.9	[~~9.93~~]	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93
7.0	[~~9.60~~]	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73
7.1	[~~9.20~~]	9.20	8.63	8.09	7.58	7.11	6.67	6.25	5.86	5.49
7.2	[~~8.75~~]	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22
7.3	[~~8.24~~]	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92
7.4	[~~7.69~~]	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59
7.5	[~~7.09~~]	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23
7.6	[~~6.46~~]	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85
7.7	[~~5.81~~]	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47
7.8	[~~5.17~~]	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09
7.9	[~~4.54~~]	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71
8.0	[~~3.95~~]	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36
8.1	[~~3.41~~]	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03
8.2	[~~2.91~~]	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74
8.3	[~~2.47~~]	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48
8.4	[~~2.09~~]	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25
8.5	[~~1.77~~]	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06
8.6	[~~1.49~~]	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892
8.7	[~~1.26~~]	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754
8.8	[~~1.07~~]	1.07	1.01	0.944	0.855	0.829	0.778	0.729	0.684	0.641
8.9	[~~0.917~~]	0.917	0.860	0.806	0.756	0.709	0.664	0.623	0.584	0.548
9.0 and above	[~~0.790~~]	0.790	0.740	0.694	0.651	0.610	0.572	0.536	0.503	0.471
At 15° C and above, the criterion for fish early life stages absent is the same as the criterion for fish early life stages present (refer to table in Paragraph (1) of this subsection).										

[20.6.4.900 NMAC - Rp 20 NMAC 6.1.3100, 10-12-00; A, 10-11-02; A, 05-23-05; A, 07-17-05; A, 12-01-10; A, XX-XX-XX]

20.6.4.901 PUBLICATION REFERENCES: These documents are intended as guidance and are available for public review during regular business hours at the offices of the surface water quality bureau. Copies of these documents have also been filed with the New Mexico state records center in order to provide greater access to this information.

A. American public health association. 1992. *Standard methods for the examination of water and wastewater, 18th Edition.* Washington, D.C. 1048 p.

Subsections B – G of 20.6.4.901 NMAC – No changes proposed.

H. Colorado river basin salinity control forum. [~~2002~~] 2014. *[~~2002~~]2014 Review, water quality standards for salinity, Colorado river system.* Phoenix, Arizona. 99 p.

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M. United States environmental protection agency. 1984. *Technical support manual: waterbody surveys and assessments for conducting use attainability analyses, volume III: lake systems*. Office of water, regulations and standards, Washington, D.C. 208 p. http://www.epa.gov/OST/library/wqstandards/uaavol123.pdf [20.6.4.901 NMAC - Rp 20 NMAC 6.1.4000, 10-12-00; A, 05-23-05; A, 12-01-10; A, XX-XX-XX]