STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

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

STATEMENT OF REASONS AND FINAL ORDER

This matter comes before the New Mexico Water Quality Control Commission ("WQCC" or "Commission") upon a petition filed by the New Mexico Environment Department ("NMED" or "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), commonly referred to as the "Triennial Review."

NMED's Petition to Amend Surface Water Quality Standards ("SWQS") was filed with the Administrator on June 25, 2014. On October 20, 2014, NMED filed an Amended Petition to Revise the SWQS and on September 4, 2015, NMED filed a Notice of Changes to its Petition (together with the originally filed petition, NMED's Petition).

Additionally, in accordance with the Scheduling Order and the Procedural Order issued in this matter on July 10, 2014, on September 30, 2014, Freeport-McMoRan Chino Mines Company ("Chino") filed a petition with the Commission to amend the SWQS. The proposed amendment proposed to add site-specific criteria for copper for certain surface waters located within the Mimbres River Closed Basin (hydrologic unit code HUC8-

13030202) near the towns of Bayard and Hurley, New Mexico and also located within an area known as the Chino Mines Site Smelter Tailings Soil Investigation Unit ("STSIU" waters).

In addition to Chino, Amigos Bravos and Peabody Energy filed petitions. Amigos Bravos, in their September 30, 2014, Proposed Amendments and Statement of Basis, (1) opposed the NMED's proposed addition of 20.6.4.10.F NMAC (temporary standards) and 20.6.4.10.H NMAC (inclusion of temporary standards in NPDES permits); (2) opposed changes to 20.6.4.16 NMAC (eliminating the mandatory public hearing requirement for Piscicide applications that do not require an NPDES permit); (3) proposed changing the "limited aquatic life" designated use to "marginal warmwater aquatic life" in 20.6.4.128 NMAC (ephemeral and intermittent portions of watercourses within Los Alamos National Laboratory); and (4) proposed replacement of the current hardness-based aquatic life criteria for Aluminum in 20.6.4.900 NMAC to the pre-2010 WQCC criteria of 87 µg/1 (chronic) and 750 µg/1 (acute). Peabody Energy in their September 30, 2014 Proposed Revisions to 20.6.4 NMAC, proposed (1) modification of the Selenium criteria for wildlife habitat; and (2) changes to the criteria applicable to certain man-made ponds in 20.6.4.900.J NMAC.

On July 8, 2014, the Commission voted to hold a triennial review of these matters and designated Butch Tongate as the Hearing Officer for the proceeding. On November 25, 2014, the WQCC designated Christopher T. Saucedo as the Hearing Officer for the Triennial Review. On April 16, 2015, the WQCC designated Morris J. Chavez as a substitute Hearing Officer. The hearing on these matters began on October 13, 2015 in

Santa Fe, New Mexico and concluded on October 16, 2015. The public was afforded an adequate opportunity to participate throughout the hearing.

LEGAL AUTHORITY

1. Under the New Mexico Water Quality Act ("WQA"), the WQCC is responsible for adopting water quality standards and for all other purposes of the 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, -6.A.

2. Section 74-6-4.D of the WQA provides that:

> The WQCC shall adopt water quality standards for surface and ground water of the state based on credible scientific data 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.
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> NMSA 1978, § 74-6-4.D.

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[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.

3. 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 criteria necessary to protect the uses." *Id.* The designated uses in New Mexico's Standards, set forth in 20.6.4.900 (A-H) NMAC, are:

- domestic water supply
- livestock watering
- irrigation and irrigation storage
- aquatic life (coldwater, coolwater, warmwater and four other subcategories)
- primary and secondary contact
- fish culture water supply
- wildlife habitat

4. 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]

5. 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.

6. 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 amendments of water quality standards 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.
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> NMSA 1978, § 74-6-4.D.

7. 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."

8. The Standards and federal regulation prohibit the removal of designated

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[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.

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. Accordingly, NMED presented evidence that the designated uses proposed for removal, such as the high quality coldwater aquatic life use on the certain ephemeral segments, are not an existing use.

9. 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. These amendments properly recognize the existing uses for various waters in the Canadian and Pecos River basins, and in the Rio Grande.

10. 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. For these amendments to various New Mexico Waters in the Canadian, Gila, Lower Colorado, Mimbres, Pecos and San Juan Tularosa River basins and the Rio Grande, NMED has completed the required UAA, and the results demonstrate that attaining the current designated use is not feasible. SWQB Exhibits 31, 42, 48, 50 and 65.

DEVELOPMENT OF THE TRIENNIAL REVIEW

11. The Bureau published the announcement of a "Scoping Phase" and the intent to prepare the Triennial Review on April 3, 2013, and invited public input for thirty (30) days to identify issues of concern and to propose revisions for consideration in the standards ending on May 15, 2013. SWQB Exhibits 4, 8. Bureau staff was also available to meet with stakeholder groups, as requested, for informal discussions regarding their issues of concern.

12. A public meeting was held in Farmington, New Mexico on Tuesday, December 17, 2013 to present and discuss the draft Use Attainability Analysis ("UAA") related to the Animas River. SWQB Exhibit 46.

13. On April 1, 2014, the Bureau published a "Public Discussion Draft" of the proposed amendments and invited public comment for thirty (30) days. SWQB Exhibit 7. After receiving requests for an extension of the comment period, the NMED Division Director, via the SWQB, authorized an additional thirty (30) day comment period finally ending May 30, 2014. SWQB Exhibit 9. A public meeting was held at the Silver City Town Hall Annex, Silver City, New Mexico on July 10, 2014, where the Mimbres UAA was distributed. SWQB Exhibit 57. The Bureau petitioned the Commission during its July 8, 2014 regular public meeting to conduct the Triennial Review of New Mexico's Water Quality Standards 20.6.4 NMAC. Along with the petition, the SWQB presented its proposed amendments and narrative explanation, scheduling order and request for hearing. The Commission granted the request for hearing.

14. Legal notice for the hearing was published in the New Mexico Register in both Spanish and English, and in three newspapers of general circulation in the state (Albuquerque Journal, Santa Fe New Mexican, Las Cruces Sun). NMSA 1978, § 74-6-6.C. SWQB Exhibit 11. Notice of the hearing was sent to the Commission's mailing list and the SWQB's mailing list. *Id.* Notice was also published on the SWQB website. SWQB Exhibit 12.

15. A Procedural Order was issued by the WQCC on July 10, 2014. On November 25, 2014 the WQCC designated a hearing officer. On January 30, 2015 the Hearing Officer issued an Order modifying the Scheduling Order. On August 7, 2015 the Hearing Officer issued a Procedural Order, and on September 28, 2015 the final Scheduling Order.

16. NMED met with Amigos Bravos, the U.S. Environmental Protection Agency, San Juan Water Commission, Freeport-McMoRan Chino Mines Company ("Chino Mines"), to resolve issues related to the Department's proposals and proposed amendments. These discussions resulted in significant changes to 20.6.4.10 NMAC (Temporary Standards) and 20.6.4.16 NMAC (Piscicide Proposal). NMED's Notice of Changes to New Mexico Environment Department's Petition (September 4, 2015).

17. NMED, Chino Mines, Amigos Bravos, San Juan, Chevron and USDOE/LANS submitted pre-filed written direct and rebuttal technical testimony. Peabody Energy did not submit written technical testimony. Rather, it withdrew its proposed changes.

After submittal of the pre-filed written testimony, NMED, USDOE, LANS, and Amigos Bravos entered into a stipulation concerning the proposed changes to 20.6.4.128 NMAC. The Joint Stipulation regarding the proposed changes to 20.6.4.128 NMAC was submitted for the record in this proceeding on October 9, 2015. Under the Stipulation, Amigos Bravos agreed to withdraw its proposed changes to 20.6.4.128 NMAC. USDOE and LANS agreed to share any new information, maps or data obtained or developed since completion of the August 2007 "Use Attainability Analysis for Waters Located on Los Alamos National Laboratory as described in Sections 20.6.4.126 and 20.6.4.128 NMAC New Mexico Water Quality Standards July 17, 2005" that would assist in the identification of : (a) which Segment 128 waters are ephemeral and which are intermittent; (b) the existing uses if Segment 128 water, and (c) the presence of macroinvertebrates or shellfish in the Segment 128 water; and (d) any significant change to the chemical, physical, or biological integrity of the Segment 128 waters. NMED agreed to share any new information it had. The parties agreed to meet and confer. If the parties agree on the appropriate level of protection, NMED agreed to petition the Commission to propose changes to 20.6.4.128 NMAC in consultation with other parties. Amigos Bravos, USDOE or LANS may independently choose to petition the WQCC to propose the changes.

A public hearing was held in Santa Fe, New Mexico from October 13, 2015 through October 16, 2015. The WQCC heard technical testimony, including direct and cross examination, from NMED, Chino Mines, Amigos Bravos, San Juan, and Chevron. USDOE/LANS entered an appearance, but did not present technical testimony at the public hearing. Public comment was heard from many interested parties.

18. After the public hearing, in accordance with the Scheduling Order,

NMED, Chino Mines, Amigos Bravos, San Juan, and Chevron submitted closing arguments, proposed reasons, and final proposed changes to the Standards. In its post hearing submittal, Amigos Bravos also withdrew its proposed changes to the Aluminum standards for aquatic life in 20.6.4.900 NMAC.

19. The Commission allowed all interested persons a reasonable opportunity to submit data, views, and arguments, and to examine witnesses. The record containing pleadings, written testimony, exhibits, the hearing transcript, public comments, and hearing officer orders has been submitted to the Commission for review in compiling this Statement of Reasons. The Commission's final proposed changes to the Standards, including edits post public hearing, are included as **Attachment A.**

20. NMED has made four changes post public hearing. An explanation for each of the four changes is contained herein and is summarized here: **Subparagraph 20.6.4.10.F (1)(b):** The Department proposes to remove the first instance of the word "further" in Subparagraph 20.6.4.10.F (1)(b) because it is redundant and use of "degradation" instead of "further degradation" aligns with language already in 20.6.4.8 NMAC; **Paragraph 20.6.4.10.F (2):** The Department proposes to add "or antidegradation requirements under 20.6.4.8 NMAC" as stated in rebuttal testimony presented during the hearings that a temporary water quality standard is subject to the antidegradation review policy already adopted in 20.6.4.8 NMAC; Hrg. Trans. Vol.2, p.192:14-193:15; **Paragraph 20.6.4.10.F (7):** The Department proposes that "appropriate public participation" be replaced with "a public hearing before the commission" to clarify that adopting a temporary standard requires a public hearing; and finally, **Subsection 20.6.4.12.H NMAC:** The term "NPDES" in the Department's proposed Subsection

20.6.4.12.H is replaced with "Clean Water Act" so that a temporary standard is not limited to inclusion in the National Pollutant Discharge Elimination System ("NPDES") permits issued under CWA Section 402, but may also be included in other CWA permits such as for dredge and fill activities issued under CWA Section 404.

21. Based upon the evidence and argument in the record, the following Statement of Reasons sets forth how the Commission considered and weighed the evidence presented and considered legal arguments in this matter with respect to adoption of changes to the New Mexico's Water Quality Standards at 20.6.4 NMAC.

STATEMENT OF REASONS

After a full deliberation the WQCC hereby submits the following Statement of Reasons in support of their decision:

22. The Department has identified certain typographical, grammar, and formatting errors in the Department's Petition of September 4, 2015. These non-substantive changes have been addressed in the Proposed Final Rule submitted by the Department.

23. The Commission finds that these changes proposed by the Parties to typographical, grammar, and formatting errors in the Department's Petition of September 4, 2015 are reflected in the Commission's Final Rule, attached as **Attachment A**.

24. The Commission finds that these changes to typographical, grammar, and formatting errors are undisputed and herby adopts such changes as reflected in the attached Commission's Final Rule.

I. Changes to Definitions in 20.6.4.7 NMAC

25. NMED proposed changes to 20.6.4.7 NMAC, which includes addition of definitions for Most Probable Number ("MPN"), pH, closed basin and irrigation storage. Also, the definition for colony forming units ("cfu") is changed to include a statement that the e-coli results may be reported using a Most Probable Number ("MPN").

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/100 mL" means most probable number per 100 milliliters.

(h) "NTU" means nephelometric turbidity unit;

(i) "pCi/L" means picocuries per liter.

(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.

(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.

(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.

(7) "Commission" means the New Mexico water quality control commission.

(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]

26. Ms. Pintado explained that the definition for cfu is amended to clarify the NMED's support of results based on alternate enumeration methods for the detection of enterococci and E. coli in ambient waters, and in wastewater and sludge as approved by EPA (68 FR 43272, July 21, 2003 and 72 FR 14220, March 26, 2007). This change to the definition was not previously shown as an amendment in the petition, and is included now as a correction. By including the alternate enumeration in the definition for cfu, the Department also clarifies that the approved method may be used in reporting results for the 52 classified segments with segment specific E. coli criteria expressed in colony-forming units ("cfu") per 100 milliliters ("mL") or cfu/100 mL, without adding the language to each segment in the WQS. The abbreviation and units for most probable number ("MPN") is also added to the definitions section of the WQS in 20.6.4.7.A(3)(g) NMAC, to be

consistent with the previous recommendations. The affected Subparagraph numbers are changed accordingly. The Department is also proposing the addition of similar language in 20.6.4.900.D and .E NMAC, to allow for the use of this enumeration method for E. coli. A memo detailing the reasons for the Department's recommendation on the use of alternate enumeration methods is SWQB Exhibit 15. SWQB Exhibit 13.

27. A definition for pH and the unit of measure for pH, standard units, is recommended to be included in 20.6.4.7.A(3)(j) NMAC. The term pH is mentioned throughout the water quality standards, but neither pH nor its unit of measure (su) is defined. The NMED proposed to add a definition for "closed basin" in 20.6.4.7.C(4) NMAC. Surface waters are described in closed basins within 20.6.4.801-806 NMAC, but the term "closed basin" is not defined in the water quality standards. The definition is based on a classification scheme used by the USGS. SWQB Exhibit 13.

28. Most reservoirs classified in the water quality standards include the designated use "irrigation storage" but irrigation storage is not separately defined, so is recommended to be added in 20.6.4.7.I(j)(5) NMAC. SWQB Exhibit 13.

29. The structure change (e.g., renumbering of subparagraphs, etc.) resulting from these proposals is in accordance with the style and format for the New Mexico Administrative Code. SWQB Exhibit 13.

30. Based on the weight of the evidence, the WQCC finds NMED's proposal to change these definitions is well-taken and adopts NMED's proposal to change these definitions.

II. Temporary Standards Proposal - 20.6.4.10.F NMAC

31. NMED proposed a new Subsection 20.6.4.10.F establishing a procedure to petition the WQCC to adopt a temporary water quality criterion.

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 further 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 designated use(s), pollutant(s), or permittee(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 or control technologies .

(3) 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), the permittee(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.

(12) "Temporary standard" means "a time-limited designated use and criterion for a specific pollutant(s) or water quality parameter(s) that reflect the highest attainable condition during the term of the temporary standard."

[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]

32. NMED supported, through the testimony of Ms. Kristine Pintado of the SWQB, that a temporary standard is a time-limited and less stringent water quality criterion for a specific pollutant adopted for a water body for a limited time while the original or underlying criterion for that water body remains in place. This differs from changing the use(s) or criteria for a water body in that a temporary standard maintains the original standards as the goal instead of removing or requiring a use or criterion that represents a lesser goal. *See* Hearing Transcript ("Hrg. Trans.") Vol. 1, 42:10-21.

33. Ms. Pintado testified that the state has adopted a number of tools allowing regulatory flexibilities when it is appropriate to revise criteria, such as provisions for site-specific criteria or uses and refining designated uses. However, when the original water quality goals are suitable and should not be changed, downgrading a use or developing a

site specific criterion is not appropriate and may not be allowable. A legal mechanism is necessary by which a less stringent criterion is applied for a limited time while working to attain the original, underlying criterion. The temporary standards proposals are harmonious with the federal regulations and the Commission's authorities under the WQA. *See* Hrg. Trans. Vol. 1, 42:24-44:11.

34. Ms. Pintado explained that language was added in 20.6.4.12.H NMAC to make it :

> 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 any 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.

Ms. Pintado's prefiled direct testimony and rebuttal testimony support the adoption of this language. SWQB Exhibit 13. SWQB Rebuttal Exhibit 7.

35. The temporary standard is an interim water quality criterion that is only applied for a limited duration while incremental improvements are made to achieve the original water quality standards ("WQS"). Hrg. Trans. Vol. 1, 42:3-16.

36. The temporary standard encourages maintenance of the original criterion as the ultimate goal instead of removing or putting in place a criterion that represents a lesser goal. Hrg. Trans. Vol 1, 42:14-21.

37. The temporary standard may apply to a specified water body, or portion thereof, and to a specified criterion or pollutant. All other applicable WQS will apply (e.g., any other criteria adopted to protect the designated use). A temporary WQS applies to a particular designated use and associated criterion for a specified period as justified by the

petitioner, with requirements as approved by the WQCC and the EPA. SWQB Exhibit 13; Hrg. Trans. Vol 1, 42:22-43:6.

38. In order to ensure polluters work towards meeting the original WQS, the petition for a temporary standard will contain a work plan with controls or other limitations tightening over time, which shows progress towards achieving the original criterion. SWQB Exhibit 13; Hrg. Trans. Vol 1, 46:7-13.

39. The temporary standard is subject to state and federal requirements, subject to hearing and public comment and once adopted by the WQCC will not be effective unless approved by the EPA (40 C.F.R. § 131.21(c)). SWQB Exhibit 13; Hrg. Trans. Vol 1, 46:14-24.

40. The State's WQS (20.6.4 NMAC) and the federal regulations (40 C.F.R. §§ 14 131.6(a), (c), 131.10, and 131.11) require designation of beneficial uses and criteria to support those uses be specified for a water body. Therefore, the temporary standard must identify the criterion to be in place for the term of the temporary standard. SWQB Exhibit 13. SWQB Rebuttal Exhibit 7.

41. Ms. Pintado explained that because temporary standards are changes to the WQS, they are subject to review at least every three years or during the next Triennial Review and if there is any new information indicating that the modified 101(a) use is attainable for water bodies in which a temporary downgrade has been approved (if the temporary standard does not retain a Section 101(a) use), then the temporary standard should be revised accordingly (40 C.F.R. § 131.20(a)). Hrg. Trans. Vol. 1, 46:2-24.

42. Ms. Pintado responded to questions of the Commission concerning what would happen if the subsequent Triennial Review of the temporary standard indicates that

a more stringent criterion is attainable, by stating that then the temporary standard and WQS should be revised accordingly. If, however, it is demonstrated to the WQCC during the Triennial Review that the original WQS remains unattainable, and the WQCC determines that additional time is warranted, then the necessary revisions should be made to the temporary standard, and resubmitted to EPA for review. SWQB Exhibit 13. Hrg. Trans. Vol. 1, 46:2-48:5; Hrg. Trans. Vol 2, 195:8-197:15.

43. Ms. Pintado testified that to be enforceable, the temporary standard and requirements may also be placed into a NPDES discharge permit by the EPA and NMED's proposal includes the addition of a new subsection 20.6.4.12.H NMAC to allow the EPA to incorporate and enforce the temporary standard into the permit. SWQB Exhibit 13; SJWC D-4; Hrg. Trans. Vol. 1, 46:2-48:5; Hrg. Trans. Vol. 2, 196:1-197:19.

44. Ms. Pintado clarified for the Commission that any temporary standard is reviewed during the Triennial Review, and that for any temporary standard that extends beyond five years, EPA requires a reevaluation to ensure that the timeframe is justified. Hrg. Trans. Vol 2, 206:3-18.

45. The need for a temporary standard is apparent in the state's application of the general narrative nutrient criteria in 20.6.4.13.E NMAC, considering that aquatic ecosystems are very sensitive to nutrient pollutant levels, which when exceeded can result in excessive algae growth, impairments for dissolved oxygen, toxic algae blooms and loss of aquatic life. The control and removal of nutrients in wastewater to protect such levels requires the most advanced treatment currently available, and in some cases is beyond the capabilities of currently known technology. SWQB Exhibits 13, 17, 18.

46. Other regulatory alternatives for flexibility within the context of the water quality standards, such as compliance schedules allowed under 20.6.4.12.G NMAC, have been evaluated for such scenarios and a provision in the WQS that allows for adoption of a temporary standard is the most appropriate course of action for these types of situations. Hrg. Trans. Vol. 1, 50:12-51:6.

47. An approach is needed that allows for incremental progress as pollution control technologies improve in effectiveness, become more available and are less costly. The NMED has proposed allowing an applicant to propose an interim or temporary standard for a water body that satisfies the accountability necessary for such flexibility, and demonstrates progress to improve overall water quality. SWQB Exhibit 13. Hrg. Trans. Vol. 1, 50:12-51:6.

48. NMED has amended its proposal in F(7) to expressly provide that the public process include a public hearing before the Commission. As outlined in proposed 20.6.4.10.F NMAC, a petition for a temporary standard must satisfy the WQCC's public notice, hearing and appellate procedures before adoption. The EPA must approve the state's adoption of the temporary standard before it can be implemented. Once approved and implemented, the temporary standard is subject to review at least every three years and progress must be demonstrated. If sufficient progress is not shown, the temporary standard may be revoked or additional requirements added by the WQCC. Finally, a temporary standard is enforceable as included in a permit issued by the EPA. SWQB Exhibit 13. Hrg. Trans. Vol. 1, 47:22-48:5.

49. Prior to filing direct testimony NMED added language to the proposed rule to address suggestions by the San Juan Water Commission. Hrg. Trans. Vol. 1, 49:1-51:6.

50. After initially opposing the proposed temporary standard language, the San Juan Water Commission at hearing supported NMED's proposed language on Temporary Standards. Hrg. Trans. Vol. 2, 417:20-418:11. Hrg. Trans. Vol. 3, 446:4-6.

51. Although Amigos Bravos prefers the EPA's variance language instead of the temporary standard language proposed by NMED, at hearing Amigos Bravos testified they understood that there is significant interest in the temporary standards provision in New Mexico, thus their only intent was to provide recommendations about how the provision be structured. Hrg. Trans. Vol 3, 640:17-20.

52. Ms. Pintado clarified, under cross-examination, that a temporary standard does not change any permit condition, antidegradation policy, or permit review requirements. Hrg. Trans. Vol. 1, 127:24-128:5.

53. Based on the weight of the evidence, the Commission finds NMED's proposal to amend the Water Quality Standards adding a procedure to petition the Commission to adopt a temporary water quality criterion is well-taken and agrees with amendments to NMED's proposal to adopt the procedures for adopting temporary standards in new subsections 20.6.4.10.F and 20.6.4.12.H NMAC.

III. Piscicide Proposal - 20.6.4.16 NMAC

54. NMED proposed changes to the legal framework within which piscicides may be used in water bodies.

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]

55. NMED worked with the New Mexico Department of Game and Fish ("NMDGF") to propose the updates to 20.6.4.16 NMAC. The updates were necessary because the NPDES permit process created a redundancy by requiring a federal review of piscicide use in addition to the requirements of 20.6.4.16 NMAC and because the WQCC did not have the discretion of holding either a public meeting or public hearing for those applications not covered under the federal permit. SWQB Exhibits 13, 29.

56. NMED supported through evidence in the filing of direct testimony the history of the piscicide rule. The piscicide application provision currently under 20.6.4.16 NMAC was first developed during the 1998-99 State of New Mexico Triennial Review to allow the application of piscicides for species management and restoration, such as conducted by NMDGF, and proposed as a modification to the general standards for toxic pollutants. The language was adopted by the WQCC, and submitted for federal review under the CWA Section 303(c). SWQB Exhibit 27, p. 4.

57. During the 2003-05 Triennial Review the language was revised to streamline processes and eliminate the need for multiple hearings for application of a single chemical. The provision was applicable to all planned uses and required mandatory reviews, public notices, a WQCC hearing and approval. The provision was also moved into a new section under 20.6.4.16 NMAC, for the planned use of a piscicide. The language in the water quality standards has been unchanged since that time. SWQB Exhibit 13.

58. In January 2009, a federal court ruling determined that certain pesticide applications, including piscicides, were subject to the EPA's NPDES permit regulations. The EPA subsequently issued a new nationwide Pesticide General Permit ("PGP") rule to cover pesticide applications in states including piscicide application activities such as those conducted by the NMDGF. The Federal Register notice containing the final PGP rule can be found in SWQB Exhibit 28. *See* SWQB Exhibit 30.

59. As proposed at hearing, if the planned use of a piscicide is covered under a NPDES permit, the proposed piscicide use would require no additional WQCC review, but will require post-treatment assessment monitoring and additional public notice to local entities. If the NPDES permit coverage is not available (e.g., Congress acts on proposed legislation to remove the NPDES requirement for pesticides), then the WQCC will review the project. In this case, whether a hearing is held to review the project is discretionary, rather than a mandate. SWQB Exhibit 13.

60. Mr. Kirk Patten, on behalf of the New Mexico Department of Game and Fish, testified in full support of the changes to the piscicide rule as proposed by the Department. Hrg. Trans. Vol. 1, 72:9-14. *See* SWQB Exhibit 29.

61. NMED worked with Amigos Bravos in advance of its proposed rule submitted on September 4, 2015 and on the day of the hearing Amigos Bravos withdrew its objection and proposed changes to NMED's proposal. *See* Amigos Bravos Notice of Withdrawal of Objection Regarding Piscicide Issues, Supplemental Proposed Changes and Exhibit Concerning Temporary Standards; and Supplemental Exhibits Pertinent to Aluminum Criteria.

62. Based on the weight of the evidence, the Commission finds NMED's proposal to amend the Water Quality Standards regarding the use of piscicides is well-taken and agrees with NMED's proposal to modify the process contained in the WQS regarding the use of piscicides.

IV. Ephemeral Waters - 20.6.4.97 NMAC

63. NMED proposed that the term "unclassified" be removed from Section 97.

64. NMED proposed a total of 29 streams in the Canadian, Little Colorado, Pecos, San Juan and Rio Grande river basins, and in the Mimbres and Tularosa closed basins, be determined as ephemeral under 20.6.4.97.C NMAC, pursuant to 20.6.4.15.C and .D NMAC, with the attainable uses designated as limited aquatic life use and secondary contact. SWQB Exhibits 13, 31, 39, 42, 46, 48. Hrg.Trans. Vol. 1, 51:7-63:7.

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 are subject to the designated uses and criteria as specified in this section. Ephemeral waters classified in 20.6.4.101-899 NMAC are subject to the designated uses and criteria as specified in those sections.

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.;

(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;

[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.~~]

V. Twenty Ephemeral Stream Segments

65. NMED proposed that twenty (20) stream segments associated with thirteen (13) NPDES permitted facilities located throughout New Mexico should be re-classified under Section 20.6.4.97 NMAC as ephemeral waters, specifically in 20.6.4.97.C(1) NMAC, 20.6.4.97.C(2)(a) NMAC, 20.6.4.97.C(3) NMAC, 20.6.4.97.C(4) and 20.6.4.97.C(5) NMAC, with the attainable uses designated as limited aquatic life use and secondary contact. For the limited aquatic life use, the acute aquatic life criteria of 20.6.4.900.I and .J NMAC apply. These designated uses and criteria are appropriate based on the hydrology and will not under or over protect the twenty ephemeral stream segments. SWQB Exhibits 39, 42.

66. The CWA Section 101(a)(2) and 20.6.4.6 NMAC state that, wherever attainable, water quality shall provide for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the water. Together with the federal regulation under 40 C.F.R. § 131.10(j), these regulations effectively establish the "rebuttable presumption" that designated CWA Section 101(a)(2) uses are attainable unless demonstrated otherwise under the provisions of 20.6.4.15 NMAC and 40 C.F.R. § 131.10(g). SWQB Exhibit 1. SWQB Rebuttal Exhibit 1. Hrg. Trans. Vol. 1, 30:9-32:5.

67. In accordance with the state water quality standards under 20.6.4.15.A NMAC and the federal regulations under 40 C.F.R. § 131.10(j), to remove a Section 101(a)(2) designated use requires a UAA analysis. According to 40 C.F.R. § 131.10(g), the State may remove a designated use that is not an existing use, as defined in 20.6.4.7.E (3) NMAC and in 40 CFR § 131.3. The State may also establish subcategories of a use if the state can demonstrate that attaining the designated use is not feasible because one or more

factors in 40 CFR § 131.10(g) (1) – (6). Specific to this proposal is 40 C.F.R. § 131.10(g) (2) in which the "natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met." SWQB Exhibit 13, 39, 46.

68. Mr. Kougioulis' testimony explained that in accordance with the state water quality standards under 20.6.4.15.A NMAC and the federal regulations under 40 CFR § 131.10(j), to remove a CWA § 101(a)(2) designated use, or to adopt a subcategory of a CWA § 101(a)(2) use requiring less stringent criteria requires a UAA analysis. Further he explained the basis for and application of the hydrology protocol to a UAA. Hrg. Trans. Vol. 1, 59:6- 61:15; SWQB Exhibits 39, 42-45.

69. The NMED applied the HP and conducted a UAA to determine the most protective attainable aquatic life and contact uses for twenty stream segments associated with the thirteen (13) NPDES permitted facilities located throughout New Mexico. Originally, eighteen stream segments were delineated but due to the stream length and geographic features of the Mulatto Canyon stream segment, further delineation was necessary resulting in two additional stream segments, ultimately increasing the total proposed ephemeral stream segments from eighteen to twenty. SWQB Exhibits 39, 41. Hrg. Trans. Vol. 1, 62:8-15.

70. The HP UAA concluded that the assessed stream segments are naturally ephemeral, and that the designated uses applicable to 20.6.4.97 NMAC are the appropriate and attainable uses. Attainment of the CWA §101(a)(2) uses for these ephemeral waters is not feasible due to the factors identified in 40 CFR §131.10(g)(2): natural, ephemeral,

intermittent, or low flow conditions or water levels prevent the attainment of the use. SWQB Exhibit 39. Hrg. Trans. Vol. 1, 62:8-15.

71. Mr. Kougioulis testified in support of NMEDs proposal that the 20 stream segments associated with the 13 NPDES-permitted facilities be listed as ephemeral. Hrg. Trans. Vol. 1, 62:8-15.

72. No party opposed the change in designation for the 20 stream segments to be listed as ephemeral.

73. Based on the weight of the evidence, the WQCC agrees with NMED's proposal to include the 20 segments listed as ephemeral and adopts the 20 stream segments as ephemeral.

74. Based on the weight of the evidence, the Commission finds NMED's proposal to re-classify these twenty stream segments associated with thirteen NPDES permitted facilities located throughout New Mexico is well-taken and agrees with NMED's proposal.

VI. Five Chino Mines Drainages as Ephemeral

75. The CWA section 101(a)(2) and section 20.6.4.6 NMAC require that, wherever attainable, water quality must provide for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water. Federal regulations also require protection for attainable" uses, where an "attainable" use is one that is feasible to achieve through practical measures. 40 C.F.R. § 131.10. The EPA interprets federal regulations as establishing a "rebuttable presumption" that fishable/swimmable uses are attainable in all waters unless a Use Attainability Analysis, or UAA, demonstrates otherwise. Specifically, according to established EPA interpretation, 40 C.F.R. 131.2

requires states to adopt standards that serve the purposes of the Clean Water Act, and, where attainable, these standards must support the fishable/swimmable goals. Hrg. Trans. Vol. 1, 30:14-30:18. *See also generally* 40 CFR 131.2. Consequently, in order to remove any fishable/swimmable designation, this Commission must have evidence, through a valid UAA, that the fishable/swimmable uses are not attainable and less stringent uses are scientifically supported. Hrg. Trans. Vol. 1, 30:1-30:5.

76. Revisions of section 20.6.4.15 NMAC, adopted by the Commission in 2009, clarified that UAAs are necessary in order to remove a Section 101(a)(2) designated use, and developed a specific process known as the Hydrology Protocol, or HP, for conducting UAAs in this state. These amendments were approved and adopted by the Commission effective December 1, 2010 and approved by the EPA on April 12, 2011. The process for implementing the HP was approved as an appendix to the SWQB's Water Quality Management Plan/Continuing Planning Process on May 10, 2011, and by the EPA on December 23, 2011.

77. Utilizing the HP process, Chino Mines conducted a UAA pursuant to 20.6.4.15.C and .D NMAC. This UAA was performed to determine the attainable water quality standards for unclassified streams in five subwatersheds located south of the Chino Open Pit Mine and east of the City of Bayard in Grant County, New Mexico, specifically as proposed in 20.6.4.97.C(6)(b)(ii)-(vi) NMAC. A map of the five subwatersheds showing the streams proposed for reclassification as ephemeral, evaluation sites and other features are included in Figure 4 of the UAA report in SWQB Exhibit 31. SWQB Exhibit 13. Hrg. Trans. Vol. 1, 51:7-53:9.

78. These five subwatersheds are located within the Smelter/Tailings Soil Investigation Unit ("STSIU") which is under a 1994 Administrative Order on Consent ("AOC") between the NMED and Chino Mines. Impacts to the STSIU from historical releases during mining operations (tailings and air emissions) are being addressed under the AOC and in some areas, through reclamation. Under the AOC, pre-Feasibility Study ("FS") Remedial Action Criteria ("RAC") for surface waters in the STSIU cite the WQS 16 in 20.6.4 NMAC, including all tools and approaches provided by the code, as applicable for the purpose of remedial actions for the Chino Mines investigation area. SWQB Exhibit 13.

79. The HP results and the draft UAA was published for a 30 day review period from January 15, 2013 through February 14, 2014. The UAA report was revised based on public comments received during this period and the final UAA report was published on October 2014. Hrg. Trans. Vol. 1, 52. In accordance with section 20.6.4.15.D NMAC, the report, along with all comments and the SWQB's response to comments was submitted to the EPA for technical approval on June 28, 2013. Chino subsequently revised its report to address concerns received by the EPA, and the revised report was provided to NMED for review on October 23, 2014. Chino also submitted an additional response to comments document that addresses issues raised by the EPA about reclamation activities that are outside the scope of the HP application. SWQB EX. 36. Ms. Pintado's testimony specifies that NMED has reviewed both the revised report and response to comments and has concluded that these documents provide "sufficient clarification and information to address the EPA's concerns." SWQB EX. 13 at 46.

80. Ms. Pintado also testified that Chino complied with all applicable procedures in regard to the implementation of the Hydrology Protocol. SWQB EX. 13 at 41-43. As a result, the SWQB concluded that Chino's UAA report and HP results "demonstrated that the attainable uses for these streams were documented in accordance with the HP, that the streams are naturally ephemeral and should be subject to designated uses and criteria in § 20.6.4.97 NMAC." SWQB EX. 13 at 43-44. The SWQB also determined that "[a]ttainment of the CWA Section 101(a)(2) uses for these ephemeral waters is not feasible due to the factor identified in 40 C.F.R. § 131.10(g)(2): 'Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use..." SWQB EX. 13 at 44.Ms. Pintado supported the UAA conclusion that the assessed stream segments are naturally ephemeral, and that the designated uses and criteria applicable to 20.6.4.97 NMAC are the appropriate and attainable uses. Therefore, the NMED recommended the WQCC's approval of the revised UAA report and proposed amendments to include the five drainages as ephemeral under 20.6.4.97 NMAC. Further, if adopted into the Water Quality Standards under 20.6.4.97 NMAC, the NMED testified that it will submit supporting documentation to the EPA for final approval under Section 303(c) of the CWA. SWQB Exhibit 13. Hrg. Trans. Vol. 1, 53:3-6.

81. NMED's petition of the HP for STSIU waters during the hearing process was unopposed.

82. Freeport-McMoRan testified in support of the UAA. *See* Hrg. Trans. Vol. 2, 305:22-357:24.

83. During WQCC deliberations on August 9, 2016, the Commission raised the topics of redundancy and inconsistency concerning the Chino Mines ephemeral

waters proposed by the Department in Section 97, and the same ephemeral waters in Freeport McMoRan's proposal for Section 809. The Commission emphasized that it is not inappropriate to adopt the Chino Mines ephemeral waters in both sections. However, the Commission also noted that since descriptions for the same waters in the different sections do not exactly match, such action is not only duplicative, it creates problems for enforcement. The Commission directed the Hearing Officer to check with both parties for clarification on changes proposed by the Department and Freeport McMoRan for these sections, assuming both proposals are adopted. See Delib. Trans. Vol. 1, 331:8-336:22; 353:10-362:12; 366:14-368:9; 369:24-370:12; 370:13-377:1.

After clarifying with the Hearing Officer and reviewing the record, both parties agreed it appropriate to strike the list of Chino Mines ephemeral waters in the Department's proposal under Section 97 and incorporate them into Section 809 as shown in Attachment A of the Department's Closing Arguments and Proposed Final Rule (see p. 12). To further address consistency, both parties agreed the following changes to Section 97 should be considered:

> "**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 are subject to the designated uses and criteria as specified in this section. Ephemeral waters classified in 20.6.4.101-899 NMAC are subject to the designated uses and criteria as specified in those sections.

Both parties clarified that descriptions in Sections 808 and 809 in the Department's Attachment A are most appropriate, with the correction of a typographical error by deleting the word "marginal" in Section 808 (Attachment A, p. 11).

Based on the weight of the evidence, the Commission finds NMED's proposal to amend the Water Quality Standards regarding the reclassification of these five stream segments in the Mimbres River closed basin as ephemeral is well-taken and adopts NMED's proposal to include the five drainages as ephemeral, and incorporate them into Section 809 as shown in Attachment A. As such, the Commission requests the SWQB to submit supporting documentation to EPA for final approval under Section 303(c) of the CWA.

VII. Four Ephemeral Stream Segments in the Pecos River Basin, Tularosa Valley Closed Basin and Mimbres Closed Basin.

84. NMED proposed that four streams in the Pecos River basin, in the Tularosa Valley closed basin and the Mimbres closed basin be determined as ephemeral under 20.6.4.97.C(2)(b) NMAC, 20.6.4.97.C(2)(c) NMAC, 20.6.4.97.C(6)(a) NMAC and C(6)(a) and 20.6.4.97.C(b)(i) NMAC.

85. The basis for the proposed change to list four streams determined as ephemeral under 20.6.4.97 NMAC is the Hydrology Protocol ("HP")-based UAA in SWQB Exhibit 48.

86. The SWQB conducted an HP-based UAA for six streams historically observed as possibly ephemeral: Aqua Chiquita Creek from the Rio Peñasco to McEwan Canyon, Grindstone Canyon above Grindstone Reservoir, San Andres Canyon, San Vicente Arroyo from the Mimbres River to Maudes Canyon, Scott Able Canyon and the Sacramento River below Scott Able Canyon. The UAA in SWQB Exhibit 48 provides a

list of these waters in Table 1, and a location map in Figure 1. Results of each evaluated reach are documented in Appendices A-F of the UAA in SWQB Exhibit 48; signed field evaluation cover sheets are in SWQB Exhibit 49. Hrg. Trns. Vol. 1, 56:4-58:23.

87. Mr. Kougioulis testified in support of the conclusions reached by Ms. Deborah Sarabia that the four stream segments in the Pecos River basin and in the Tularosa and Mimbres closed basins included in Bureau Exhibit 46, Proposal A, are ephemeral. Hrg. Trans. Vol. 1, 62:16-63:4.

88. No party opposed the change to ephemeral for the four stream segments in the Pecos River basin and in the Tularosa and Mimbres closed basins included in Bureau Exhibit 46, Proposal A.

89. Based on the weight of the evidence, the Commission finds NMED's proposal to amend the Water Quality Standards regarding the reclassification of these four stream segments in the Pecos River basin, in the Tularosa Valley closed basin and the Mimbres River closed basin as ephemeral is well-taken and should be adopted as proposed.

VIII. Intermittent Waters in 20.6.4.98 NMAC and Perennial Waters in 20.6.4.99 NMAC

90. NMED proposed removal of the term "unclassified" in 20.6.4.98 NMAC[3] and 20.6.4.99 NMAC[4]. The term "surface" is added to be consistent with the term "surface water(s) of the state" which is defined 20.6.4.7.S NMAC. In previous Triennial Reviews

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[3] 20.6.4.98 NMAC 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 20.6.4 101-899.

[4] 20.6.4.99 NMAC PERENNIAL WATERS – All perennial [~~unclassified~~] surface waters of the state except those classified in 20.6.4.101-899.

and interim revisions, the NMED has clarified the presumption of CWA Section 101(a)(2) uses for all surface water of the state, including those not classified or specifically described in segments under 20.6.4.101 through .899 NMAC. SWQB Exhibit 13.

IX. Changes to 20.6.4.101 to .317 NMAC

91. The Department proposed changes in certain sections of 20.6.4.101 through .317 NMAC to correct minor grammatical errors, add hydrologic terms in descriptions, note a name change for Kewa Pueblo, recognize the Southern Ute Indian Tribe boundary and because it is an existing use, add public water supply as a designated use to Springer Lake. SWQB Exhibit 13.

92. The Department also sought to upgrade nine segments from secondary to primary contact recreation uses and criteria. However, the Commission has decided to reject the Departments proposed changes and instead adopt the arguments raised by the San Juan Water Commission in opposition of the Departments proposed changes, and retain secondary contact for the nine segments.

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 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 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 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 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 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 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 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 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 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]

93. The proposed minor changes to the segment descriptions in 20.6.4.101 and .102 NMAC would replace the word "below" with the words "downstream of" to be consistent with terms more commonly applied to stream terminology, and also used in the other segment descriptions throughout the water quality standards. SWQB Exhibit 13.

94. In 2009, the Pueblo formerly known as Santa Domingo officially changed

its name to Kewa Pueblo; therefore, this change is proposed to be incorporated into the segment description for Section 20.6.4.110 NMAC. SWQB Exhibit 13.

95. The Department proposes replacing the word "below" with the hydrologic term "downstream of" in the segment description for 20.6.4.116 NMAC.

96. The changes to language in the segment description for Section 20.6.4.124 NMAC is proposed to more accurately describe the reach in hydrologic terms from the downstream confluence upstream to its headwaters.

97. The word "below" is replaced with the hydrologic term "downstream of" in the segment description for 20.6.4.206 NMAC.

98. The appropriate segments are assigned to Lake Alice and Lake Maloya, correcting a grammatical error in the note for 20.6.4.305 NMAC. SWQB Exhibit 13.

99. Springer Lake in 20.6.4.317 NMAC is a public water supply for Colfax County (Water System Number NM3526604); therefore, this designated use is an existing use that is proposed be added to the water body segment description. SWQB Exhibit 13.

100. The upgrade from secondary contact to primary contact suggested by the Department in Sections 20.6.4.103, .116, .124, .204, .206, .207, .213, .219, and .308 is rejected by the Commission. The Commission instead accepts the reasoning proposed by the San Juan Water Commission to maintain secondary contact for the nine enumerated segments.

101. The Department has not presented sufficient technical information to support its proposal to upgrade the nine segments to primary contact. Charles Nylander, Direct Technical Testimony p. 25

102. Adopting more stringent water quality standards absent information and

data proving use is attainable is unadvised. Federal regulations require new and substantive information to upgrade a designated use, which the Department has failed to provide. *Id.* at 22.

103. Upgrading the nine segments to primary contact would burden the State of New Mexico with unwarranted transactional costs. *Id.* at 23.

104. Maintaining secondary contact for the nine segments is in compliance with CWA Section 101(a)(2). *Id.* at 23.

105. Therefore, the nine segments will retain their secondary contact use designations. Based on the weight of the evidence, the Commission finds San Juan Water Commission's proposal to maintain secondary contact uses in certain segments is well taken, and therefore accepted.

X. Aquatic Life Uses in the Animas River - 20.6.4.403 and 20.6.4.404 NMAC

106. NMED proposed to change the designated aquatic life uses for the Animas River in New Mexico to coolwater. The proposed changes for the Animas River are supported by a UAA prepared by the NMED. SWQB Exhibits 50-56.

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]

107. The Animas River in New Mexico is currently classified in water quality standards segments 20.6.4.403 and 20.6.4.404 NMAC. Segment 403 contains the lower Animas River from the confluence with the San Juan River upstream to Estes Arroyo in the city of Aztec. This segment currently has two designated aquatic life uses, marginal coldwater and warmwater. Segment 404 contains the upper Animas River from Estes Arroyo upstream to the Southern Ute tribal boundary at the New Mexico state line. This segment has the coldwater designated aquatic life use. Each segment consists of a single assessment unit (AU). A map of the Animas River watershed is provided in Figure 1 of the UAA (SWQB Exhibit 52). SWQB Exhibit 46. Hrg. Trans. Vol. 1, 67:11-68:22.

108. Both of the Animas River AUs are impaired for temperature. A total maximum daily load ("TMDL") study was prepared for the lower Animas River AU to address the temperature impairment. However, the designated coldwater aquatic life use for the upper Animas River AU was considered by NMED as unattainable due to natural conditions, therefore NMED conducted a UAA to determine the appropriate attainable aquatic life use. The UAA demonstrated that coolwater aquatic life is the most protective attainable aquatic life use for the both segments of the Animas River in New Mexico. The coldwater and marginal coldwater aquatic life uses in both segments were determined to be not attainable because of the natural water temperatures resulting from ambient air temperatures. SWQB Exhibit 46. Hrg. Trans. Vol. 1, 67:11-68:22.

109. Dr. Dail explained how the UAA demonstrates that the natural characteristics of the Animas River in New Mexico support aquatic life habitat that is

intermediate between coldwater and warmwater. The UAA concludes that coolwater is the most protective aquatic life use attainable for the lower Animas River (from the confluence with the San Juan River upstream to Estes Arroyo) and that coolwater with a segment-specific maximum temperature criterion of 29°C is the most protective aquatic life use attainable for the upper Animas River (Estes Arroyo to the Southern Ute tribal boundary). The lower Animas River has two designated aquatic life uses: marginal coldwater and warmwater. Although both marginal coldwater and coolwater have a maximum temperature criterion of 29°C, these uses describe different habitats. Marginal coldwater refers to habitat that would be coldwater were it not otherwise limited by certain conditions. Coolwater describes habitat that is naturally intermediate between cold and warm. SWQB Exhibit 46. Hrg. Trans. Vol. 1, 67:11-68:22.

110. Dr. Dail supported the Department's findings that the coldwater and marginal coldwater aquatic life uses are not attainable and based on the existing aquatic life described in the UAA, coolwater is the best description of the attainable use for segments 403 and 404. SWQB Exhibit 20, 46.

111. Based on the evidence in the record, , the WQCC finds NMED's proposal to change the designated aquatic life uses for the Animas River in New Mexico to coolwater is well-taken and adopts NMED's proposal to change the aquatic life uses in the Animas River in segments 20.6.4.403 and 20.6.4.404 NMAC.

XI. Changes to Segment Descriptions - 20.6.4.502 and 20.6.4.503 NMAC

112. NMED proposed editorial changes for use of the correct hydrologic terms in the descriptions for segments in 20.6.4.502 and 503 NMAC of the Gila River Basin, and changes to correctly identify and describe a river segment within Segment 503. The

correction to Segment 503 also results in a change to the segment-specific standard for specific conductance ("SC"). Hrg. Trans. Vol. 1, 66:1- 67:9; SWQB Exhibits 57, 59, 60.

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]

113. The first proposed changes to the segment descriptions in 20.6.4.502 and 503 NMAC are to replace the words 'above' and 'below' with the hydrological terms 'upstream of' and 'downstream of', respectively. This includes replacing the word 'below' in 20.6.4.503.B NMAC. The second change is to Subsection B of 20.6.4.503 NMAC and associated specific conductance ("SC") criteria. A perennial reach of the West Fork Gila River is misidentified in Subsection B. Correcting this error changes the assignment of the current SC criteria in this segment. Therefore, the SC assigned to tributaries of water bodies in this segment was also evaluated. SWQB Exhibit 57. Hrg. Trans. Vol. 1, 66:10-67:9.

114. The segment in 20.6.4.503 NMAC ("Segment 503") in the Gila River Basin is currently assigned the high quality coldwater aquatic life use with segment-specific SC criteria of 300µS/cm applied to "the main stem of the Gila river above Gila hot springs."

The SC criteria of 400 µS/cm is applied to all other reaches, yet according to the USGS map, the water body designated as "the main stem Gila river above Gila hot springs" which is above the confluence of the West Fork and East Fork Gila is the West Fork Gila River. SWQB Exhibit 57. Hrg. Trans. Vol. 1, 66:10-67:9.

115. In correcting this error the NMED evaluated whether to apply one SC criteria to the West Fork Gila, or two different SC criteria, one upstream and one downstream of the influence of the Gila Hot Springs, as is currently in Segment 503. In the WQS, SC limits are assigned to the high quality cold water aquatic life use ("HQCW") and these limits are segment-specific depending on the natural background in the particular surface water. Due to the different specific conductance criteria, NMED investigated the water quality data to see if the lower specific conductance associated with the west fork of the Gila could meet the most stringent specific conductance criteria and then apply that to the entire length of the West Fork Gila. SWQB Exhibit 57. Hrg. Trans. Vol. 1, 66:10-67:9.

116. Dr. Dail explained that to be consistent with USGS maps and local geographic knowledge; the segment description should be revised as presented in the proposal for 20.6.4.502 and .503 NMAC. SWQB Exhibits 57, 59-64; Hrg. Trans. Vol. 1, 66:10-67:9; Based on the evidence, the WQCC finds NMED's proposal to change these terms is well-taken and adopts NMED's proposal to change the segment descriptions in 20.6.4.502 and 503 NMAC.

XII. Mimbres River Segment Re-designation - 20.6.4.803, 20.6.4.804 and 20.6.4.807 NMAC

117. NMED proposed to re-designate certain segments of the Mimbres River due to the current designated Aquatic Life Use being unattainable for the entire reach. Hrg. Trans. Vol. 1, 68:2- 22.

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]

118. The Department conducted a UAA for the Mimbres River, which concludes that the designated aquatic life use ("ALU") is not attainable for the entire reach, and recommends a segment from Cooney Canyon to the headwaters of the Mimbres River, including all perennial tributaries from the 23d ecoregion (Subalpine Forests), should remain designated as High Quality Coldwater ALU. A new segment extending from Allie Canyon to Cooney canyon (the "Middle Mimbres") should be re-designated as Coldwater ALU, and a segment from Allie Canyon to the mouth of the Mimbres should be re-designated as Coolwater ALU

with a segment-specific temperature criterion of 30°C (SWQB Exhibit 65, Figure 5). While survey year 2009 exhibited a lower flow as compared to the 30 year mean, interannual variation in flows, both the 2003 and 2009 temperature dataset suggest that the 29°C criteria associated with coolwater ALU will not be attainable and a segment-specific criteria of 30°C is more appropriate. SWQB Exhibit 57. Hrg. Trns. Vol. 1, 68:2-22.

119. Dr. Dail testified that since his direct testimony had been pre-filed EPA Region 6 had provided NMED with a technical approval letter for the Mimbres UAA finding it to be sound and complete as of May of 2015. Hrg. Trans. Vol. 1, 70:17- 71:3.

120. Dr. Dail supported the Department's proposed changes to Segments 803 and 804. Hrg. Trans. Vol. 1, 71:4-10.

121. Based on the weight of the evidence, the WQCC finds NMED's proposal to re-designate segments in the Mimbres River is well-taken and the WQCC adopts NMED's proposal to change the designated aquatic life uses in certain segments of the Mimbres River.

XIII. Changes to 20.6.4.900 and .901 NMAC

122. NMED proposed changes to 20.6.4.900 and .901 NMAC in order to correct minor grammatical errors, add clarity, remove redundancy and update the WQS references. They are also necessary to reflect the application of the aluminum criteria by the EPA.

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

Hardness as $CaCO_3$, dissolved (mg/L)		Al	Cd	Cr III	Cu	Pb	Mn	Ni	Ag	Zn
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		

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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							
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	

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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
Benzo(a)anthracene	56-55-3	0.048						0.18	C
Benzo(a)pyrene	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	

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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
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

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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		

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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 (21) 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

pH	Temperature (°C)										
	[~~0 and below~~]	14 and below	15	16	18	20	22	24	26	28	30 and above
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
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.

Subsections I – L of 20.6.4.901 NMAC – No changes proposed.

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]

123. NMED proposed the correction of a minor typographical error that requires inserting a space between the word "Culture" and the word "and" in the heading of 20.6.4.900(A) NMAC. SWQB Exhibit 13.

124. The WQS are revised to reflect the use of updated and more-cost effective and time efficient methods for monitoring, assessment and reporting bacteria as specified in 20.6.4.900.D and .E NMAC. The use of methods in which counts are expressed as MPN/100 mL was approved by EPA for testing ambient waters in 2003[5] and for wastewater and sewage sludge in 2007[6]. The NMED is currently using an approved EPA method for sampling and analyzing bacteria levels in ambient water and which reports results in MPN/100 mL and the currently recommended EPA recreational or bacteria criteria for E. coli allows for the use of results reported in MPN/100 mL. This also relates to changes in 20.6.4.7 NMAC. SWQB Exhibits 13, 37.

125. The dissolved oxygen criteria in 20.6.4.900.H (3), (5) and (6) NMAC are revised only to show decimal places (to the hundredths place) to be consistent with

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[5] *U.S. Federal Register* - 40 CFR Part 136 Vol. 68, No. 139; July 21, 2003.

[6] *U.S. Federal Register* - 40 CFR Parts 136 and 503, Vol. 72, No. 157; March 26, 2007.

dissolved oxygen criteria for the other aquatic life designated uses in the WQS. SWQB Exhibit 13.

126. In 20.6.4.900.I (1) and (2) NMAC, to resolve inconsistencies in EPA's recommendations, for federal actions in waters with a pH less than 6.5, the EPA will implement the aluminum criteria for CWA purposes. SWQB Exhibit 13. Hrg. Trans. Vol. 1, 22:13-14; 144:1-152:16; Vol. 2, 269:22-274:13; Vol. 4, 811:6-23.

127. The table of calculated values for acute and chronic hardness-based criteria in 20.6.4.900.I (3) NMAC is revised to add the subscript "3" to the chemical nomenclature for hardness (in first column on the left), and to include the missing calculated values for the metals Cd, Cr III, Cu, Pb, Mn, Ni, Ag and Zn at hardness of 220 mg/L $CaCO_3$. Also, in accordance with 20.6.4.900.I NMAC, the hardness equations for aluminum are only valid up to dissolved hardness (as mg $CaCO_3$/L) of 220 mg/L. Therefore, the calculated values for aluminum criteria at dissolved hardness above 220 mg/L are deleted from the table. SWQB Exhibit 13. Hrg. Trans. Vol. 2, 274:14-276:5.

128. The explanatory notes in 20.6.4.900.J (1) NMAC and the table in 20.6.4.900.J (2) NMAC are transposed so the table precedes the explanatory notes, and the subparagraphs are renumbered accordingly. It is less distracting to readers if long explanatory notes come after the table that the notes refer to. Language is added to the renumbered 20.6.4.900.J (1) NMAC to clarify that criteria for metals listed in the table are based on the total sample fraction unless otherwise specified (e.g., dissolved). To be consistent with the new definition for "Irrigation Storage" proposed in Section 7, 20.6.4.7.I (5) NMAC, the irrigation storage designated use ("Irr Storage") is added to the table column headings in the Table of Numeric Criteria. The final change to this table corrects a

typographical error with the addition of a hyphen to the Chemical Abstracts Service ("CAS") registry number for the pollutant Bis(2-ethylhexyl) phthalate. SWQB Exhibit 13.

129. The first column in both tables of Subparagraphs 20.6.4.900.L (1) (b) and (2 (b) repeat the same calculated values, which is not necessary. Therefore, column heading for the adjacent column in each table is changed to include the values resulting from temperature calculations in both columns, so the first column should be deleted. SWQB Exhibit 13.

130. The reference in 20.6.4.901.H NMAC is updated to reflect the date of the most recent version of the Colorado River Basin Salinity Control Forum Review Report ("Report"), which was approved in October, 2014. The Report is updated on a triennial basis and the current Report does not recommended any changes to the implementation of water quality standards for salinity in 20.6.4.54 NMAC. SWQB Exhibit 13.

131. Based on the weight of the evidence, the WQCC finds NMED's proposal to correct minor grammatical errors, add clarity, remove redundancy and update the WQS references, and to reflect the application of the aluminum criteria by the EPA in 20.6.4.900 and .901 NMAC are well-taken and adopts NMED's proposal to change these definitions.

XIV. Chino's Petition in accordance with 20.6.4.10(D) NMAC to add site-specific criteria for copper for certain surface waters located within the Mimbres Closed River Basin within the Chino Mines Smelter Tailings and Soil Investigation Unit ("STSIU").

132. Pursuant to 20.6.4.10(D) NMAC, Chino's Petition requests adoption of site-specific criteria for copper for certain surface waters located within the Mimbres Closed River Basin within the Chino Mines Smelter Tailings and Soil Investigation Unit ("STSIU") as follows:

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: warmwater 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: 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]

133. Chino's petition for site-specific aquatic life criteria for copper is proposed to apply only to certain surface waters located in the Mimbres River Closed Basin and also within an area known as the Chino Mines Site STSIU as described above and as

shown on the map attached to Chino's Petition and adopted into the record as CHINO EX. A.

134. The portions of the waters identified in Chino's Petition are located within an area known as the Chino STSIU and are the subject of investigation under an Administrative Order on Consent between Chino and the New Mexico Environment Department ("NMED") dated December 23, 1994 ("AOC").[7] CHINO EX. B. The investigation identified elevated copper in soils as the primary contaminant of concern in this area, some of which may be from a combination of historic smelter emissions and blowing copper mill tailings. Hrg. Trans. Vol. 2, 306. Surface-water sampling conducted as part of the investigation indicated exceedances of the current hardness-based aquatic life criteria for copper in drainages located in this area. Under the AOC, NMED has conducted an ecological risk assessment with respect to copper in the soils and has issued "pre-Feasibility Study Remedial Action Criteria" ("pre-FS RAC") with respect to the soils and surface waters, including potential impacts on aquatic life in the ephemeral and non-ephemeral surface waters. CHINO EX. B. The pre-FS RAC for surface waters requires compliance with the State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 NMAC, for risk to aquatic life in the drainages of the STSIU including all approaches and tools listed in the Code which provide options for site-specific application. CHINO EX. B.

135. The STSIU site has mountainous terrain, especially in the northeastern quadrant where the majority of the sampling took place. The drainages are numerous, small, and ephemeral as they have mainly flashy flow in response to monsoonal moisture during the July to September monsoonal season. There are also some isolated bedrock pools. Hrg. Trans. Vol. 2, 347:1-347:10.

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[7] Chino clarifies that the waters subject to its Petition have not been the subject of a determination that they constitute "waters of the United States." The Commission at this time does not take a position with respect to such clarification.

136. In connection with the AOC investigation, Chino proposed to evaluate potential site-specific criteria for copper for surface waters in the STSIU. All of the surface waters which are the subject of Chino's petition are "unclassified" waters subject to use designations under sections 20.6.4.97, .98 or .99 NMAC. Those waters subject to section 20.6.4.98 NMAC (intermittent waters) will have the relevant designated use of "marginal warmwater aquatic life", and those waters subject to section 20.6.4.99 NMAC (perennial waters) will have the relevant designated use of "warmwater aquatic life." Some of the waters to which the site-specific copper criteria adjustment proposed in Chino's petition would apply are proposed to be treated as "ephemeral" under SWQB's proposed amendments to section 20.6.4.97 NMAC, as set forth in more detail herein. If the Commission adopts SWQB's proposed amendments to section 20.6.4.97 NMAC, then the waters covered by that amendment will have the designated use of "limited aquatic life." The applicable use designations under sections 20.6.4.97, .98 and .99 NMAC are not affected by Chino's petition. The proposed site-specific WER adjustment, however, is intended to apply regardless of the particular aquatic life use designation under sections 20.6.4.97, .98 or .99 NMAC.

137. Chino's Petition, as stated in its NOI and at the hearing, contains two versions of proposed rule language, adopted into the record as CHINO Exhibit H and CHINO EX. I. Hrg. Trans. Vol. 2, 400:24-400:25. Chino provided two options in order to provide NMED with greater flexibility in selecting preferred rule language. Pursuant to discussions and agreement with NMED, Chino conditionally accepted NMED's preferred language in CHINO EX. I. The reason for Chino's *conditional* approval of the language in

CHINO EX. I is that CHINO EX. I tracks the approval of the HP in NMED's petition, which is dependent on Commission approval of the HP.

138. As stated herein, the Commission adopts the HP for the STSIU waters as proposed in NMED's petition for section 20.6.4.97, and thus changes to CHINO EX. I are not necessary prior to adoption of Chino's Petition. Hrg. Trans. Vol. 2, 300-301.

139. In response to objections by Amigos Bravos regarding the sufficiency of inclusion in Chino's Petition of its public participation process, Chino provided surrebuttal evidence and testimony bregarding the sufficiency of the public participation criteria for the adoption of site-specific toxicity criteria for copper in the STSIU.

140. Dr. Dail expressly testified that Chino's petition was sufficient and, additionally, that Chino's community involvement process was also sufficient. Hrg. Trans. Vol.2, 316-338. NMED Rebuttal EX. 14.

141. The Commission finds that Chino's pre-petition public involvement actions, Chino's testimony and documentation in the record regarding its efforts to include the public regarding its Petition, and NMED's testimony regarding the sufficiency of Chino's Petition are sufficient to meet the requirements of 20.6.4.10D(3)(c) NMAC.

142. In support of its petition, Chino presented two technical witnesses, Mr. Barry Fulton and Dr. Joseph Meyer. CHINO EX. E, G. Hrg. Trans. Vol.2, Tr. 401. Dr. Joseph Meyer and Mr. Fulton were directly responsible for both performing the toxicity study on STSIU waters and developing the formula for copper toxicity used in CHINO EX. I in accordance with EPA guidance on the development of site-specific criteria. CHINO EX. E, I.

143. During the scientific investigation, the STSIU study area was divided into nine sub-watersheds that provided a wide range of water chemistries, including everything from low water hardness to high water hardness, low alkalinity to high alkalinity, and low dissolved organic carbon to high dissolved organic carbon concentrations. Hrg. Trans. Vol.2, 347:11-347:17. The work plan for the toxicity study was submitted for comment to NMED and the EPA Region 6 in 2011; subsequently, field sampling and laboratory testing was conducted by Dr. Meyer and Mr. Fulton. Hrg. Trans. Vol.2, 307:23-307:25. The objective of the study was to develop site-specific copper toxicity criteria for STSIU surface waters based on the concept of bioavailability, consistent with EPA guidelines. Hrg. Trans. Vol.2, 307:18-307:21. The study used 12 sampling locations that were mostly ephemeral flow drainages primarily in the northeastern quadrant of the site. Hrg. Trans. Vol.2, 307:22-307:25. The reason why water sampling could not have taken place in the lower elevation southern quadrants was due to the fact that Dr. Meyer and Mr. Fulton were unable to locate any water flowing in that area during the study period. Hrg. Trans. Vol.2,348:1-348:2. Dr. Meyer and Mr. Fulton collected the water where it could be found during the monsoonal season, which attests to the flashy nature of the flow within the STSIU area. Hrg. Trans. Vol.2, 348:3-348:5.

144. The scientific study performed by Dr. Meyer and Mr. Fulton support the adoption of site-specific copper toxicity criteria for the STSIU. The scientific model resulting from the study, which is represented in Chino's CHINO EX. I, works at any time of the year with any water chemistry in the STSIU and with any range of aquatic organisms that may be found in the STSIU; the model is not limited in usefulness to the time the samples were originally collected. Hrg. Trans. Vol.2, 348:15-348:20. The toxicity study calculated an effect ratio, which is a concept that compares metal toxicity in purely

hardness-based laboratory water with site water containing dissolved organic carbon and other water chemistry parameters not present in laboratory water. Hrg. Trans. Vol.2, 348-49.

145. In the study, samples were collected in August and September of 2011, and then laboratory waters were analyzed side by side with the site waters. Specifically, the toxicity portion of the study measured comparative mortality of aquatic organisms that resulted from exposure to copper in site and laboratory water. The study had two rounds of sampling. In the first sampling round, water was collected from all 12 sites, while in the second round, which occurred later in the monsoonal period, water was collected from 6 sites — a subset of the original 12. The samples were split between an analytical chemistry lab and the toxicity analysis so that the toxicity results could be linked to water chemistry. Hrg. Trans. Vol.2, 348:6-348:15.

146. Per EPA guidelines for such studies, two aquatic species, an aquatic invertebrate and a fish, were exposed to varying copper concentrations in both site water and laboratory water. Although these particular species are not necessarily found in the STSIU, the species are sensitive to water toxicity, and the EPA considers them a good generic substitute for the sensitivity of organisms that may live in the field. Hrg. Trans. Vol.2, 349:13-349:18.

147. The results of the toxicity study suggest sufficient support exists for the proposition that certain chemical properties in the site waters — including, without limitation, the dissolved organic carbon, or DOC — have a protective effect on aquatic life that reduces the toxicity of the site waters as compared to laboratory waters, which track hardness alone. The STSIU toxicity study found sufficient differences in toxicity to

support site-specific criteria proposed by Chino in CHINO EX. I. Hrg. Trans. Vol.2, 351-54.

148. The current water quality criteria in New Mexico are based on hardness alone; however, according to the STSIU study, hardness alone is not a sufficiently accurate predictor of toxicity because it does not take into account alkalinity and dissolved organic carbon, or DOC. Hrg. Trans. Vol.2, 345, 351-54. A model that does take into account DOC and alkalinity in addition to hardness, which form the basis of Chino's proposal in CHINO EX. I, would be a far more accurate predictor of toxicity. Hrg. Trans. Vol.2, 351-54. Moreover, when site-specific criteria are derived in accordance with the process used in the STSIU scientific study, the intended level of protection for aquatic life is not diminished, which is in accordance with the EPA Water Quality Standards Handbook. Hrg. Trans. Vol.2, 244:1-244:5. Therefore, Chino's proposal in CHINO EX. I meets EPA Guidelines for development of site-specific toxicity criteria, and its adoption will not result in diminished protection for aquatic organisms. Hrg. Trans. Vol.2, 244:1-244:5; 351-54.

149. The Commission may adopt site-specific numeric criteria applicable to all or a part of a surface water of the state based upon relevant site-specific conditions under 20.6.4.10(D)(1) NMAC. The relevant site-specific conditions include "physical or chemical characteristics at a site such as pH or hardness alter the biological availability and/or toxicity of the chemical." § 20.6.4.10(D)(1)(b) NMAC. Site-specific criteria must fully protect the designated use to which they apply. § 20.6.4.10(D)(2) NMAC. A derivation of site-specific criteria shall rely on a scientifically defensible method, such as one of those listed in section 20.6.4.10(D)(4)(a)-(e) NMAC.

150. Under the relevant criteria specified in section 20.6.4.900 NMAC, numerical aquatic life criteria for copper are derived using a formula that considers the hardness of the water. However, according to the uncontroverted technical testimony of Chino's expert witnesses, a variety of other physical and non-hardness chemical characteristics of the water and the metal can influence metal bioavailability and toxicity to aquatic organisms. These parameters include suspended and dissolved solids, pH, alkalinity, organic carbon compounds, ionic strength and other characteristics, which can have equal or greater effects on copper toxicity than hardness alone. *See, e.g.,* U.S. EPA Water Quality Standards Handbook, EPA-823-B-94-005a, 2nd ed., August 1994. The formula proposed in Chino's CHINO EX. I includes such factors and, therefore, it represents the more predictive and accurate toxicity equation.

151. The live testimony of Dr. Meyer and Mr. Fulton, together with their pre-submitted written direct testimony, the Revised Site-Specific Copper Toxicity Report, CHINO EX. B; and the peer-reviewed article, CHINO EX. C, constitute substantial evidence in support of adoption of Chino's proposal as outlined in CHINO EX. I. Dr. Dail expressly testified that Chino's petition was sufficient. Tr. 316-338. *See also* NMED Rebuttal EX. 14. No substantial evidence exists in the record to deny Chino's proposal, which is based on sound scientific principles. Based on the weight of the evidence, the Commission finds Chino's proposal requesting adoption of site-specific criteria for copper for certain surface waters located within the Mimbres Closed River Basin within the Chino Mines Smelter Tailings and Soil Investigation Unit is well-taken. Therefore, the Commission finds that the record fully supports the adoption of CHINO EX. I of Chino's Petition.

FINAL ORDER

Having considered the administrative record in its entirety, public testimony, and all technical testimony presented; and being otherwise fully advised regarding this matter; by an affirmative vote of 8 to 0, the proposed amendments to the Standards were approved by the WQCC. Title 20, Chapter 6, Part 4 of the New Mexico Administrative Code (20.6.4 NMAC) are to be amended as indicated in Attachment A, with any appropriate corrections of formatting or other changes necessary to file these regulations with the New Mexico State Records Center. The regulatory change as described in this Order is hereby adopted, to be effective 30 days after filing with the State Records Center.

Larry J. Dominguez

CHAIRMAN – Water Quality Control Commission

Dated: 1-10-17

NOTICE OF PROCEDURE FOR APPELLATE REVIEW

Any aggrieved party may seek appellate review in the Court of Appeals, pursuant to NMSA 1978, §74-6-7 and Rules of Appellate Procedure, 12-601 NMRA. Direct appeals from orders shall be taken by filing a notice of appeal with the appellate court clerk within thirty (30) days from the date of the Order.

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

20.6.4.1 ISSUING AGENCY: Water Quality Control commission.
[20.6.4.1 NMAC - Rp 20 NMAC 6.1.1001, 10-12-00]

20.6.4.2 SCOPE: Except as otherwise provided by statute or regulation of the water quality control commission, this part governs all surface waters of the state of New Mexico, which are subject to the New Mexico Water Quality Act, Sections 74-6-1 through 74-6-17 NMSA 1978.
[20.6.4.2 NMAC - Rp 20 NMAC 6.1.1002, 10-12-00; A, 05-23-05]

20.6.4.3 STATUTORY AUTHORITY: This part is adopted by the water quality control commission pursuant to Subsection C of Section 74-6-4 NMSA 1978.
[20.6.4.3 NMAC - Rp 20 NMAC 6.1.1003, 10-12-00]

20.6.4.4 DURATION: Permanent.
[20.6.4.4 NMAC - Rp 20 NMAC 6.1.1004, 10-12-00]

20.6.4.5 EFFECTIVE DATE: October 12, 2000, unless a later date is indicated in the history note at the end of a section.
[20.6.4.5 NMAC - Rp 20 NMAC 6.1.1005, 10-12-00]

20.6.4.6 OBJECTIVE:

A. The purpose of this part is to establish water quality standards that consist of the designated use or uses of surface waters of the state, the water quality criteria necessary to protect the use or uses and an antidegradation policy.

B. The state of New Mexico is required under the New Mexico Water Quality Act (Subsection C of Section 74-6-4 NMSA 1978) and the federal Clean Water Act, as amended (33 U.S.C. Section 1251 *et seq.*) to adopt water quality standards that protect the public health or welfare, enhance the quality of water and are consistent with and serve the purposes of the New Mexico Water Quality Act and the federal Clean Water Act. It is the objective of the federal Clean Water Act to restore and maintain the chemical, physical and biological integrity of the nation's waters, including those in New Mexico. This part is consistent with Section 101(a)(2) of the federal Clean Water Act, which declares that it is the national goal that wherever attainable, an interim goal of water quality that 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. Agricultural, municipal, domestic and industrial water supply are other essential uses of New Mexico's surface water; however, water contaminants resulting from these activities will not be permitted to lower the quality of surface waters of the state below that required for protection and propagation of fish, shellfish and wildlife and recreation in and on the water, where practicable.

C. Pursuant to Subsection A of Section 74-6-12 NMSA 1978, this part does not grant to the water quality control commission or to any other entity the power to take away or modify property rights in water.
[20.6.4.6 NMAC - Rp 20 NMAC 6.1.1006, 10-12-00; A, 05-23-05]

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 colony forming units (CFU) or the most probable number (MPN), depending on the analytical method used;

(b) "cfs" means cubic feet per second;

(c) **"µg/L"** means micrograms per liter, equivalent to parts per billion when the specific gravity of the solution equals 1.0;

(d) **"µS/cm"** means microsiemens per centimeter; one µS/cm is equal to one µmho/cm;

(e) **"mg/kg"** means milligrams per kilogram, equivalent to parts per million;

(f) **"mg/L"** means milligrams per liter, equivalent to parts per million when the specific gravity of the solution equals 1.0;

(g) **"MPN/100 mL"** means most probable number per 100 milliliters; the results for *E. coli* may be reported as either CFU or MPN, depending on the analytical method used;

(h) **"NTU"** means nephelometric turbidity unit;

(i) **"pCi/L"** means picocuries per liter;

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

(4) **"Acute toxicity"** means toxicity involving a stimulus severe enough to induce a response in 96 hours of exposure or less. Acute toxicity is not always measured in terms of lethality, but may include other toxic effects that occur within a short time period.

(5) **"Adjusted gross alpha"** means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding radon-222 and uranium. Also excluded are source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954.

(6) **"Aquatic life"** means any plant or animal life that uses surface water as primary habitat for at least a portion of its life cycle, but does not include avian or mammalian species.

(7) **"Attainable"** means achievable by the imposition of effluent limits required under sections 301(b) and 306 of the Clean Water Act and implementation of cost-effective and reasonable best management practices for nonpoint source control.

B. Terms beginning with the letter "B".

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

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

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

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

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

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

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.

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.

(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.

(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.

(7) **"Commission"** means the New Mexico water quality control commission.

(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.

D. Terms beginning with the letter "D".

(1) **"DDT and derivatives"** means 4,4'-DDT (CAS number 50293), 4,4'-DDE (CAS number 72559) and 4,4'-DDD (CAS number 72548).

(2) **"Department"** means the New Mexico environment department.

(3) **"Designated use"** means a use specified in 20.6.4.97 through 20.6.4.899 NMAC for a surface water of the state whether or not it is being attained.

(4) **"Dissolved"** refers to the fraction of a constituent of a water sample that passes through a 0.45-micrometer pore-size filter. The "dissolved" fraction is also termed "filterable residue."

(5) **"Domestic water supply"** means a surface water of the state that could be used for drinking or culinary purposes after disinfection.

E. Terms beginning with the letter "E".

(1) **"E. coli"** means the bacteria Escherichia coli.

(2) **"Ephemeral"** when used to describe a surface water of the state means the water body contains water briefly only in direct response to precipitation; its bed is always above the water table of the adjacent region.

(3) **"Existing use"** means 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.

F. Terms beginning with the letter "F".

(1) **"Fish culture"** means production of coldwater or warmwater fishes in a hatchery or rearing station.

(2) **"Fish early life stages"** means the egg and larval stages of development of fish ending when the fish has its full complement of fin rays and loses larval characteristics.

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

H. Terms beginning with the letter "H".

(1) **"High quality coldwater"** in reference to an aquatic life use means a perennial surface water of the state in a minimally disturbed condition with considerable aesthetic value and superior coldwater aquatic life habitat. A surface water of the state to be so categorized must have water quality, stream bed characteristics and other attributes of habitat sufficient to protect and maintain a propagating coldwater aquatic life population.

(2) **"Human health-organism only"** means the health of humans who ingest fish or other aquatic organisms from waters that contain pollutants.

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"** 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]

L. Terms beginning with the letter "L".

(1) **"LC-50"** means the concentration of a substance that is lethal to 50 percent of the test organisms within a defined time period. The length of the time period, which may vary from 24 hours to one week or more, depends on the test method selected to yield the information desired.

(2) **"Limited aquatic life"** as a designated use, means the surface water is capable of supporting only a limited community of aquatic life. This subcategory includes surface waters that support aquatic species selectively adapted to take advantage of naturally occurring rapid environmental changes, ephemeral or intermittent water, high turbidity, fluctuating temperature, low dissolved oxygen content or unique chemical characteristics.

(3) **"Livestock watering"** means the use of a surface water of the state as a supply of water for consumption by livestock.

M. Terms beginning with the letter "M".

(1) **"Marginal coldwater"** in reference to an aquatic life use means that natural intermittent or low flows, or other natural habitat conditions severely limit maintenance of a coldwater aquatic life population or historical data indicate that the temperature in the surface water of the state may exceed 25°C (77°F).

(2) **"Marginal warmwater"** in reference to an aquatic life use means natural intermittent or low flow or other natural habitat conditions severely limit the ability of the surface water of the state to sustain a natural aquatic life population on a continuous annual basis; or historical data indicate that natural water temperature routinely exceeds 32.2°C (90°F).

(3) **"Maximum temperature"** means the instantaneous temperature not to be exceeded at any time.

(4) **"Minimum quantification level"** means the minimum quantification level for a constituent determined by official published documents of the United States environmental protection agency.

N. Terms beginning with the letter "N".

(1) **"Natural background"** means that portion of a pollutant load in a surface water resulting only from non-anthropogenic sources. Natural background does not include impacts resulting from historic or existing human activities.

(2) **"Natural causes"** means those causal agents that would affect water quality and the effect is not caused by human activity but is due to naturally occurring conditions.

(3) **"Nonpoint source"** means any source of pollutants not regulated as a point source that degrades the quality or adversely affects the biological, chemical or physical integrity of surface waters of the state.

O. Terms beginning with the letter "O".

(1) **"Organoleptic"** means the capability to produce a detectable sensory stimulus such as odor or taste.

(2) **"Oversight agency"** means a state or federal agency, such as the United States department of agriculture forest service, that is responsible for land use or water quality management decisions affecting nonpoint source discharges where an outstanding national resource water is located.

P. Terms beginning with the letter "P".

(1) **"Playa"** means a shallow closed basin lake typically found in the high plains and deserts.

(2) **"Perennial"** when used to describe a surface water of the state means the water body typically contains water throughout the year and rarely experiences dry periods.

(3) **"Point source"** means any discernible, confined and discrete conveyance from which pollutants are or may be discharged into a surface water of the state, but does not include return flows from irrigated agriculture.

(4) "**Practicable**" means that which may be done, practiced or accomplished; that which is performable, feasible, possible.

(5) **"Primary contact"** means any recreational or other water use in which there is prolonged and intimate human contact with the water, such as swimming and water skiing, involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard. Primary contact also means any use of surface waters of the state for cultural, religious or ceremonial purposes in which there is intimate human contact with the water, including but not limited to ingestion or immersion, that could pose a significant health hazard.

(6) **"Public water supply"** means the use or storage of water to supply a public water system as defined by New Mexico's Drinking Water Regulations, 20.7.10 NMAC. Water provided by a public water system may need to undergo treatment to achieve drinking water quality.

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

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

S. Terms beginning with the letter "S".

(1) **"Secondary contact"** means any recreational or other water use in which human contact with the water may occur and in which the probability of ingesting appreciable quantities of water is minimal, such as fishing, wading, commercial and recreational boating and any limited seasonal contact.

(2) **"Segment"** means a classified water of the state described in 20.6.4.101 through 20.6.4.899 NMAC. The water within a segment should have the same uses, similar hydrologic characteristics or flow regimes, and natural physical, chemical and biological characteristics and exhibit similar reactions to external stresses, such as the discharge of pollutants.

(3) "**Specific conductance**" is a measure of the ability of a water solution to conduct an electrical current.

(4) **"State"** means the state of New Mexico.

(5) **"Surface water(s) of the state"** means all surface waters situated wholly or partly within or bordering upon the state, including lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, reservoirs or natural ponds. Surface waters of the state also means all tributaries of such waters, including adjacent wetlands, any manmade bodies of water that were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state, and any "waters of the United States" as defined under the Clean Water Act that are not included in the preceding description. Surface waters of the state does not include private waters that do not combine with other surface or subsurface water or any water under tribal regulatory jurisdiction pursuant to Section 518 of the Clean Water Act. Waste treatment systems, including treatment ponds or lagoons designed and actively used to meet requirements of the Clean Water Act (other than cooling ponds as defined in 40 CFR Part 423.11(m) that also meet the criteria of this definition), are not surface waters of the state, unless they were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state.

T. Terms beginning with the letter "T".

(1) **"TDS"** means total dissolved solids, also termed "total filterable residue."

(2) **"Toxic pollutant"** means those pollutants, or combination of pollutants, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring.

(3) "**Tributary**" means a perennial, intermittent or ephemeral waterbody that flows into a larger waterbody, and includes a tributary of a tributary.

(4) **"Turbidity"** is an expression of the optical property in water that causes incident light to be scattered or absorbed rather than transmitted in straight lines.

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

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

W. Terms beginning with the letter "W".

(1) **"Warmwater"** with reference to an aquatic life use means that water temperature and other characteristics are suitable for the support or propagation or both of warmwater aquatic life.

(2) **"Water contaminant"** means any substance that could alter if discharged or spilled the physical, chemical, biological or radiological qualities of water. "Water contaminant" does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, but may include all other radioactive materials, including but not limited to radium and accelerator-produced isotopes.

(3) **"Water pollutant"** means a water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or to unreasonably interfere with the public welfare or the use of property.

(4) **"Wetlands"** means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico. Wetlands that are constructed outside of a surface water of the state for the purpose of providing wastewater treatment and that do not impound a surface water of the state are not included in this definition.

(5) **"Wildlife habitat"** means a surface water of the state used by plants and animals not considered as pathogens, vectors for pathogens or intermediate hosts for pathogens for humans or domesticated livestock and plants.

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 ANTIDEGRADATION POLICY AND IMPLEMENTATION PLAN:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[20.6.4.8 NMAC - Rp 20 NMAC 6.1.1101, 10-12-00; A, 05-23-05; A, 08-01-07; A, 01-14-11]

20.6.4.9 OUTSTANDING NATIONAL RESOURCE WATERS:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(c) Shuree lakes;

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

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

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

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

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

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

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

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

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

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

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

(viii) in the San Pedro Parks wilderness: Agua Sarca, Cañon Madera, Cave

creek, Cecilia Canyon creek, Clear creek (North SPP), Clear creek (South SPP), Corralitos creek, Dove creek, Jose Miguel creek, La Jara creek, Oso creek, Rio Capulin, Rio de las Vacas, Rio Gallina, Rio Puerco de Chama, Rito Anastacio East, Rito Anastacio West, Rito de las Palomas, Rito de las Perchas, Rito de los Pinos, Rito de los Utes, Rito Leche, Rito Redondo, Rito Resumidero, San Gregorio lake;

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

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

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

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

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

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

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

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

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

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

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

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

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

(h) The wetlands designated are identified on the *maps and list of wetlands within United States forest service wilderness areas designated as outstanding national resource waters* published at the New Mexico state library and available on the department's website.

[20.6.4.9 NMAC - Rn, Subsections B, C and D of 20.6.4.8 NMAC, 05-23-05; A, 05-23-05; A, 07-17-05; A, 02-16-06; A, 12-01-10; A, 01-14-11]

20.6.4.10 REVIEW OF STANDARDS; NEED FOR ADDITIONAL STUDIES:

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

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

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

D. Site-specific criteria.

(1) The commission may adopt site-specific numeric criteria applicable to all or part of a surface water of the state based on relevant site-specific conditions such as:

(a) actual species at a site are more or less sensitive than those used in the national criteria data set;

(b) physical or chemical characteristics at a site such as pH or hardness alter the biological availability and/or toxicity of the chemical;

(c) physical, biological or chemical factors alter the bioaccumulation potential of a chemical;

(d) the concentration resulting from natural background exceeds numeric criteria for aquatic life, wildlife habitat or other uses if consistent with Subsection E of 20.6.4.10 NMAC; or

(e) other factors or combination of factors that upon review of the commission may warrant modification of the default criteria, subject to EPA review and approval.

(2) Site-specific criteria must fully protect the designated use to which they apply. In the case of human health-organism only criteria, site-specific criteria must fully protect human health when organisms are consumed from waters containing pollutants.

(3) Any person may petition the commission to adopt site-specific criteria. A petition for the adoption of site-specific criteria shall:

(a) identify the specific waters to which the site-specific criteria would apply;

(b) explain the rationale for proposing the site-specific criteria;

(c) describe the methods used to notify and solicit input from potential stakeholders and from the general public in the affected area, and present and respond to the public input received;

(d) present and justify the derivation of the proposed criteria.

(4) A derivation of site-specific criteria shall rely on a scientifically defensible method, such as one of the following:

(a) the recalculation procedure, the water-effect ratio for metals procedure or the resident species procedure as described in the water quality standards handbook (EPA-823-B-94-005a, 2nd edition, August 1994);

(b) the streamlined water-effect ratio procedure for discharges of copper (EPA-822-R-01-005, March 2001);

(c) the biotic ligand model as described in aquatic life ambient freshwater quality criteria - copper (EPA-822-R-07-001, February 2007);

(d) the methodology for deriving ambient water quality criteria for the protection of human health (EPA-822-B-00-004, October 2000) and associated technical support documents; or

(e) a determination of the natural background of the water body as described in Subsection E of 20.6.4.10 NMAC.

E. Site-specific criteria based on natural background. The commission may adopt site-specific criteria equal to the concentration resulting from natural background where that concentration protects the designated use. The concentration resulting from natural background supports the level of aquatic life and wildlife habitat expected to occur naturally at the site absent any interference by humans. Domestic water supply, primary or secondary contact, or human health-organism only criteria shall not be modified based on natural background. A determination of natural background shall:

(1) consider natural spatial and seasonal to interannual variability as appropriate;

(2) document the presence of natural sources of the pollutant;

(3) document the absence of human sources of the pollutant or quantify the human contribution; and

(4) rely on analytical, statistical or modeling methodologies to quantify the natural background.

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 sections in 40 CFR Part 131, Water Quality Standards; specifically, Section 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) of Subsection F of 20.6.4.10 NMAC;

(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) of Paragraph (1) of Subsection F of 20.6.4.10 NMAC.

(2) A temporary standard shall apply to specific designated use(s), pollutant(s), or permittee(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 or control technologies.

(3) Designated use attainment as reported in the federal Clean Water Act 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), the permittee(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) of Subsection F of 20.6.4.10 NMAC;

(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) of Subsection F of 20.6.4.10 NMAC and submit the work plan to the department for review and comment. The work plan shall identify the factor(s) listed in Subsection 40 CFR 131.10(g) or Subparagraph (a) of Paragraph (1) of Subsection F of 20.6.4.10 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) of Subsection F of 20.6.4.10 NMAC, 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 Subsection F of 20.6.4.10 NMAC for all state purposes, and the federal 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 Sections 20.6.4.97-899 NMAC as appropriate for the surface water affected.

(12) "Temporary standard" means "a time-limited designated use and criterion for a specific pollutant(s) or water quality parameter(s) that reflect the highest attainable condition during the term of the temporary standard."

[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 APPLICABILITY OF WATER QUALITY STANDARDS:

A. [RESERVED]

B. Critical Low Flow: The critical low flow of a stream at a particular site shall be used in developing point source discharge permit requirements to meet numeric criteria set in 20.6.4.97 through 20.6.4.900 NMAC and Subsection F of 20.6.4.13 NMAC.

(1) For human health-organism only criteria, the critical low flow is the harmonic mean flow; "harmonic mean flow" is the number of daily flow measurements divided by the sum of the reciprocals of the flows; that is, it is the reciprocal of the mean of reciprocals. For ephemeral waters the calculation shall be based upon the nonzero flow intervals and modified by including a factor to adjust for the proportion of intervals with zero flow. The equations are as follows:

$$\text{Harmonic Mean} = \frac{n}{\sum 1/Q}$$

where n = number of flow values

and Q = flow value

$$\text{Modified Harmonic Mean} = \left[\frac{\sum_{i=1}^{Nt-N0} \frac{1}{Qi}}{Nt - N0}\right]^{-1} x \left[\frac{Nt - N0}{Nt}\right]$$

where, Qi = nonzero flow

Nt = total number of flow values

and $N0$ = number of zero flow values

(2) For all other narrative and numeric criteria, the critical low flow is the minimum average four consecutive day flow that occurs with a frequency of once in three years (4Q3). The critical low flow may be determined on an annual, a seasonal or a monthly basis, as appropriate, after due consideration of site-specific conditions.

C. Guaranteed Minimum Flow: The commission may allow the use of a contractually guaranteed minimum streamflow in lieu of a critical low flow determined under Subsection B of this section on a case-by-case basis and upon consultation with the interstate stream commission. Should drought, litigation or any other reason interrupt or interfere with minimum flows under a guaranteed minimum flow contract for a period of at least thirty consecutive days, such permission, at the sole discretion of the commission, may then be revoked. Any minimum flow specified under such revoked permission shall be superseded by a critical low flow determined under Subsection B of this section. A public notice of the request for a guaranteed minimum flow shall be published in a newspaper of general circulation by the department at least 30 days prior to scheduled action by the commission. These water quality standards do not grant to the commission or any other entity the power to create, take away or modify property rights in water.

D. Mixing Zones: A limited mixing zone, contiguous to a point source wastewater discharge, may be allowed in any stream receiving such a discharge. Mixing zones serve as regions of initial dilution that allow the

application of a dilution factor in calculations of effluent limitations. Effluent limitations shall be developed that will protect the most sensitive existing, designated or attainable use of the receiving water.

E. Mixing Zone Limitations: Wastewater mixing zones, in which the numeric criteria set under Subsection F of 20.6.4.13 NMAC, 20.6.4.97 through 20.6.4.899 NMAC or 20.6.4.900 NMAC may be exceeded, shall be subject to the following limitations:

(1) Mixing zones are not allowed for discharges to lakes, reservoirs, or playas; these effluents shall meet all applicable criteria set under Subsection F of 20.6.4.13 NMAC, 20.6.4.97 through 20.6.4.899 NMAC and 20.6.4.900 NMAC at the point of discharge.

(2) The acute aquatic life criteria, as set out in Subsection I, Subsection J, and Subsection K of 20.6.4.900 NMAC, shall be attained at the point of discharge for any discharge to a surface water of the state with a designated aquatic life use.

(3) The general criteria set out in Subsections A, B, C, D, E, G, H and J of 20.6.4.13 NMAC, and the provision set out in Subsection D of 20.6.4.14 NMAC are applicable within mixing zones.

(4) The areal extent and concentration isopleths of a particular mixing zone will depend on site-specific conditions including, but not limited to, wastewater flow, receiving water critical low flow, outfall design, channel characteristics and climatic conditions and, if needed, shall be determined on a case-by-case basis. When the physical boundaries or other characteristics of a particular mixing zone must be known, the methods presented in Section 4.4.5, "Ambient-induced mixing," in "Technical support document for water quality-based toxics control" (March 1991, EPA/505/2-90-001) shall be used.

(5) All applicable water quality criteria set under Subsection F of 20.6.4.13 NMAC, 20.6.4.97 through 20.6.4.899 NMAC and 20.6.4.900 NMAC shall be attained at the boundaries of mixing zones. A continuous zone of passage through or around the mixing zone shall be maintained in which the water quality meets all applicable criteria and allows the migration of aquatic life presently common in surface waters of the state with no effect on their populations.

F. Multiple Uses: When a surface water of the state has more than a single designated use, the applicable numeric criteria shall be the most stringent of those established for such water.

G. Human health-organism only criteria in Subsection J of 20.6.4.900 NMAC apply to those waters with a designated, existing or attainable aquatic life use. When limited aquatic life is a designated use, the human health-organism only criteria apply only if adopted on a segment-specific basis. The human health-organism only criteria for persistent toxic pollutants, as identified in Subsection J of 20.6.4.900 NMAC, also apply to all tributaries of waters with a designated, existing or attainable aquatic life use.

H. Unclassified Waters of the State: Unclassified waters of the state are those surface waters of the state not identified in 20.6.4.101 through 20.6.4.899 NMAC. An unclassified surface water of the state is presumed to support the uses specified in Section 101(a)(2) of the federal Clean Water Act. As such, it is subject to 20.6.4.98 NMAC if nonperennial or subject to 20.6.4.99 NMAC if perennial. The commission may include an ephemeral unclassified surface water of the state under 20.6.4.97 NMAC only if a use attainability analysis demonstrates pursuant to 20.6.4.15 NMAC that attainment of Section 101(a)(2) uses is not feasible.

I. Exceptions: Numeric criteria for temperature, dissolved solids, dissolved oxygen, sediment or turbidity adopted under the Water Quality Act do not apply when changes in temperature, dissolved solids, dissolved oxygen, sediment or turbidity in a surface water of the state are attributable to:

(1) natural causes (discharges from municipal separate storm sewers are not covered by this exception.); or

(2) the reasonable operation of irrigation and flood control facilities that are not subject to federal or state water pollution control permitting; major reconstruction of storage dams or diversion dams except for emergency actions necessary to protect health and safety of the public are not covered by this exception.

[20.6.4.11 NMAC - Rp 20 NMAC 6.1.1103, 10-12-00; A, 10-11-02; Rn, 20.6.4.10 NMAC, 05-23-05; A, 05-23-05; A, 12-01-10]

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.

B. Compliance with chronic water quality criteria shall be determined from the arithmetic mean of the analytical results of samples collected using applicable protocols. Chronic criteria shall not be exceeded more than once every three years.

C. Compliance with water quality standards for total ammonia shall be determined by performing the biomonitoring procedures set out in Subsections D and E of 20.6.4.14 NMAC, or by attainment of applicable ammonia criteria set out in Subsections K, L and M of 20.6.4.900 NMAC.

D. 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.

E. The commission may establish a numeric water quality criterion at a concentration that is below the minimum quantification level. In such cases, the water quality standard is enforceable at the minimum quantification level.

F. For compliance with hardness-dependent numeric criteria, dissolved hardness (as mg $CaCO_3$/L) shall be determined from a sample taken at the same time that the sample for the contaminant is taken.

G. Compliance Schedules: It shall be the policy of the commission to allow on a case-by-case basis the inclusion of a schedule of compliance in a NPDES permit issued to an existing facility. Such schedule of compliance will be for the purpose of providing a permittee with adequate time to make treatment facility modifications necessary to comply with water quality based permit limitations determined to be necessary to implement new or revised water quality standards or wasteload allocation. Compliance schedules may be included in NPDES permits at the time of permit renewal or modification and shall be written to require compliance at the earliest practicable time. Compliance schedules shall also specify milestone dates so as to measure progress towards final project completion (e.g., design completion, construction start, construction completion, date of compliance).

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 federal Clean Water Act permit as enforceable limits and conditions. The temporary standard and any 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 GENERAL CRITERIA: General criteria are established to sustain and protect existing or attainable uses of surface waters of the state. These general criteria apply to all surface waters of the state at all times, unless a specified criterion is provided elsewhere in this part. Surface waters of the state shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property.

A. Bottom Deposits and Suspended or Settleable Solids:

(1) Surface waters of the state shall be free of water contaminants including fine sediment particles (less than two millimeters in diameter), precipitates or organic or inorganic solids from other than natural causes that have settled to form layers on or fill the interstices of the natural or dominant substrate in quantities that damage or impair the normal growth, function or reproduction of aquatic life or significantly alter the physical or chemical properties of the bottom.

(2) Suspended or settleable solids from other than natural causes shall not be present in surface waters of the state in quantities that damage or impair the normal growth, function or reproduction of aquatic life or adversely affect other designated uses.

B. Floating Solids, Oil and Grease: Surface waters of the state shall be free of oils, scum, grease and other floating materials resulting from other than natural causes that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

C. Color: Color-producing materials resulting from other than natural causes shall not create an aesthetically undesirable condition nor shall color impair the use of the water by desirable aquatic life presently common in surface waters of the state.

D. Organoleptic Quality:

(1) Flavor of Fish: Water contaminants from other than natural causes shall be limited to concentrations that will not impart unpalatable flavor to fish.

(2) Odor and Taste of Water: Water contaminants from other than natural causes shall be limited to concentrations that will not result in offensive odor or taste arising in a surface water of the state or otherwise interfere with the reasonable use of the water.

E. Plant Nutrients: Plant nutrients from other than natural causes shall not be present in concentrations that will produce undesirable aquatic life or result in a dominance of nuisance species in surface waters of the state.

F. Toxic Pollutants:

(1) Except as provided in 20.6.4.16 NMAC, surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms.

(2) Pursuant to this section, the human health-organism only criteria shall be as set out in 20.6.4.900 NMAC. When a human health-organism only criterion is not listed in 20.6.4.900 NMAC, the following provisions shall be applied in accordance with 20.6.4.11, 20.6.4.12 and 20.6.4.14 NMAC.

(a) The human health-organism only criterion shall be the recommended human health criterion for "consumption of organisms only" published by the U.S. environmental protection agency pursuant to Section 304(a) of the federal Clean Water Act. In determining such criterion for a cancer-causing toxic pollutant, a cancer risk of 10^{-5} (one cancer per 100,000 exposed persons) shall be used.

(b) When a numeric criterion for the protection of human health for the consumption of organism only has not been published by the U.S. environmental protection agency, a quantifiable criterion may be derived from data available in the U.S. environmental protection agency's Integrated Risk Information System (IRIS) using the appropriate formula specified in *methodology for deriving ambient water quality criteria for the protection of human health (2000)*, EPA-822-B-00-004.

(3) Pursuant to this section, the chronic aquatic life criteria shall be as set out in 20.6.4.900 NMAC. When a chronic aquatic life criterion is not listed in 20.6.4.900 NMAC, the following provisions shall be applied in sequential order in accordance with 20.6.4.11, 20.6.4.12 and 20.6.4.14 NMAC.

(a) The chronic aquatic life criterion shall be the "freshwater criterion continuous concentration" published by the U.S. environmental protection agency pursuant to Section 304(a) of the federal Clean Water Act;

(b) If the U.S. environmental protection agency has not published a chronic aquatic life criterion, a geometric mean LC-50 value shall be calculated for the particular species, genus or group that is representative of the form of life to be preserved, using the results of toxicological studies published in scientific journals.

(i) The chronic aquatic life criterion for a toxic pollutant that does not bioaccumulate shall be 10 percent of the calculated geometric mean LC-50 value; and

(ii) The chronic aquatic life criterion for a toxic pollutant that does bioaccumulate shall be: the calculated geometric mean LC-50 adjusted by a bioaccumulation factor for the particular species, genus or group representative of the form of life to be preserved, but when such bioaccumulation factor has not been published, the criterion shall be one percent of the calculated geometric mean LC-50 value.

(4) Pursuant to this section, the acute aquatic life criteria shall be as set out in 20.6.4.900 NMAC. When an acute aquatic life criterion is not listed in 20.6.4.900 NMAC, the acute aquatic life criterion shall be the "freshwater criterion maximum concentration" published by the U.S. environmental protection agency pursuant to Section 304(a) of the federal Clean Water Act.

(5) Within 90 days of the issuance of a final NPDES permit containing a numeric criterion selected or calculated pursuant to Paragraph 2, Paragraph 3 or Paragraph 4 of Subsection F of this section, the department shall petition the commission to adopt such criterion into these standards.

G. Radioactivity: The radioactivity of surface waters of the state shall be maintained at the lowest practical level and shall in no case exceed the criteria set forth in the New Mexico Radiation Protection Regulations, 20.3.1 and 20.3.4 NMAC.

H. Pathogens: Surface waters of the state shall be free of pathogens from other than natural causes in sufficient quantity to impair public health or the designated, existing or attainable uses of a surface water of the state.

I. Temperature: Maximum temperatures for surface waters of the state have been specified in 20.6.4.97 through 20.6.4.900 NMAC. However, the introduction of heat by other than natural causes shall not increase the temperature, as measured from above the point of introduction, by more than 2.7°C (5°F) in a stream, or more than 1.7°C (3°F) in a lake or reservoir. In no case will the introduction of heat be permitted when the

maximum temperature specified for the reach would thereby be exceeded. These temperature criteria shall not apply to impoundments constructed offstream for the purpose of heat disposal. High water temperatures caused by unusually high ambient air temperatures are not violations of these criteria.

J. Turbidity: Turbidity attributable to other than natural causes shall not reduce light transmission to the point that the normal growth, function or reproduction of aquatic life is impaired or that will cause substantial visible contrast with the natural appearance of the water. Activities or discharges shall not cause turbidity to increase more than 10 NTU over background turbidity when the background turbidity, measured at a point immediately upstream of the activity, is 50 NTU or less, nor to increase more than 20 percent when the background turbidity is more than 50 NTU. However, limited-duration turbidity increases caused by dredging, construction or other similar activities may be allowed provided all practicable turbidity control techniques have been applied and all appropriate permits, certifications and approvals have been obtained.

K. Total Dissolved Solids (TDS): TDS attributable to other than natural causes shall not damage or impair the normal growth, function or reproduction of animal, plant or aquatic life. TDS shall be measured by either the "calculation method" (sum of constituents) or the filterable residue method. Approved test procedures for these determinations are set forth in 20.6.4.14 NMAC.

L. Dissolved Gases: Surface waters of the state shall be free of nitrogen and other dissolved gases at levels above 110 percent saturation when this supersaturation is attributable to municipal, industrial or other discharges.

M. Biological integrity: Surface waters of the state shall support and maintain a balanced and integrated community of aquatic organisms with species composition, diversity and functional organization comparable to those of natural or minimally impacted water bodies of a similar type and region.

[20.6.4.13 NMAC - Rp 20 NMAC 6.1.1105, 10-12-00; A, 10-11-02; Rn, 20.6.4.12 NMAC, 05-23-05; A, 05-23-05; A, 12-01-10]

20.6.4.14 SAMPLING AND ANALYSIS:

A. Sampling and analytical techniques shall conform with methods described in the following references unless otherwise specified by the commission pursuant to a petition to amend these standards:

(1) "*guidelines establishing test procedures for the analysis of pollutants under the Clean Water Act*," 40 CFR Part 136 or any test procedure approved or accepted by EPA using procedures provided in 40 CFR Parts 136.3(d), 136.4, and 136.5;

(2) *standard methods for the examination of water and wastewater*, latest edition, American public health association;

(3) *methods for chemical analysis of water and waste*, and other methods published by EPA office of research and development or office of water;

(4) *techniques of water resource investigations of the U.S. geological survey*;

(5) *annual book of ASTM standards*: volumes 11.01 and 11.02, water (I) and (II), latest edition, ASTM international;

(6) *federal register*, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations;

(7) *national handbook of recommended methods for water-data acquisition*, latest edition, prepared cooperatively by agencies of the United States government under the sponsorship of the U.S. geological survey; or

(8) *federal register*, latest methods published for monitoring pursuant to the Safe Drinking Water Act regulations.

B. Bacteriological Surveys: The monthly geometric mean shall be used in assessing attainment of criteria when a minimum of five samples is collected in a 30-day period.

C. Sampling Procedures:

(1) Streams: Stream monitoring stations below discharges shall be located a sufficient distance downstream to ensure adequate vertical and lateral mixing.

(2) Lakes: Sampling stations in lakes shall be located at least 250 feet from a discharge.

(3) Lakes: Except for the restriction specified in Paragraph (2) of this subsection, lake sampling stations shall be located at any site where the attainment of a water quality criterion is to be assessed. Water quality measurements taken at intervals in the entire water column at a sampling station shall be averaged for the epilimnion, or in the absence of an epilimnion, for the upper one-third of the water column of the lake to determine attainment of criteria, except that attainment of criteria for toxic pollutants shall be assessed during

periods of complete vertical mixing, e.g., during spring or fall turnover, or by taking depth-integrated composite samples of the water column.

D. Acute toxicity of effluent to aquatic life shall be determined using the procedures specified in U.S. environmental protection agency "methods for measuring the acute toxicity of effluents and receiving waters to freshwater and marine organisms" (5th Ed., 2002, EPA 821-R-02-012), or latest edition thereof if adopted by EPA at 40 CFR Part 136, which is incorporated herein by reference. Acute toxicities of substances shall be determined using at least two species tested in whole effluent and a series of effluent dilutions. Acute toxicity due to discharges shall not occur within the wastewater mixing zone in any surface water of the state with an existing or designated aquatic life use.

E. Chronic toxicity of effluent or ambient surface waters of the state to aquatic life shall be determined using the procedures specified in U.S. environmental protection agency "Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms" (4th Ed., 2002, EPA 821-R-02-013), or latest edition thereof if adopted by EPA at 40 CFR Part 136, which is incorporated herein by reference. Chronic toxicities of substances shall be determined using at least two species tested in ambient surface water or whole effluent and a series of effluent dilutions. Chronic toxicity due to discharges shall not occur at the critical low flow, or any flow greater than the critical low flow, in any surface water of the state with an existing or designated aquatic life use more than once every three years.

[20.6.4.14 NMAC - Rp 20 NMAC 6.1.1106, 10-12-00; Rn, 20.6.4.13 NMAC, 05-23-05 & A, 05-23-05; A, 12-01-10]

20.6.4.15 USE ATTAINABILITY ANALYSIS:

A. A use attainability analysis is a scientific study conducted for the purpose of assessing the factors affecting the attainment of a use. Whenever a use attainability analysis is conducted, it shall be subject to the requirements and limitations set forth in 40 CFR Part 131, Water Quality Standards; specifically, Subsections 131.3(g), 131.10(g), 131.10(h) and 131.10(j) shall be applicable.

(1) The commission may remove a designated use specified in Section 101(a)(2) of the federal Clean Water Act or adopt subcategories of a Section 101(a)(2) use requiring less stringent criteria only if a use attainability analysis demonstrates that attaining the use is not feasible because of a factor listed in 40 CFR 131.10(g). Section 101(a)(2) uses, which refer to the protection and propagation of fish, shellfish and wildlife and recreation in and on the water, are also specified in Subsection B of 20.6.4.6 NMAC.

(2) A designated use cannot be removed if it is an existing use unless a use requiring more stringent criteria is designated.

B. A use attainability analysis shall assess the physical, chemical, biological, economic or other factors affecting the attainment of a use. The analysis shall rely on scientifically defensible methods such as the methods described in the following documents:

(1) *technical support manual: waterbody surveys and assessments for conducting use attainability analyses*, volume I (November 1983) and volume III (November 1984) or latest editions, United States environmental protection agency, office of water, regulations and standards, Washington, D.C., for the evaluation of aquatic life or wildlife uses;

(2) the department's *hydrology protocol*, latest edition, approved by the commission, for identifying ephemeral and intermittent waters; or

(3) *interim economic guidance for water quality standards - workbook*, March 1995, United States environmental protection agency, office of water, Washington, D.C. for evaluating economic impacts.

C. If a use attainability analysis based on the department's *hydrology protocol* (latest edition), approved by the commission, demonstrates to the satisfaction of the department that Section 101(a)(2) uses are not feasible in an ephemeral water body, the department shall post the use attainability analysis on its water quality standards website and notify its interested parties list of a 30-day public comment period. After reviewing any comments received, the department may proceed by submitting the use attainability analysis and response to comments to region 6 EPA for technical approval. If technical approval is granted, the water shall be subject to 20.6.4.97 NMAC. The use attainability analysis, the technical approval, and the applicability of 20.6.4.97 NMAC to the water shall be posted on the department's water quality standards website. The department shall periodically petition the commission to list ephemeral waters under Subsection C of 20.6.4.97 NMAC and to incorporate changes to classified segments as appropriate.

D. Use attainability analysis conducted by an entity other than the department. Any person may submit notice to the department stating the intent to conduct a use attainability analysis. The proponent shall develop a work plan to conduct the use attainability analysis and shall submit the work plan to the department and

region 6 EPA for review and comment. The work plan shall identify the scope of data currently available and the scope of data to be gathered, the factors affecting use attainment that will be analyzed and provisions for public notice and consultation with appropriate state and federal agencies. Upon approval of the work plan by the department, the proponent shall conduct the use attainability analysis in accordance with the approved work plan. The cost of such analysis shall be the responsibility of the proponent. Upon completion of the use attainability analysis, the proponent shall submit the data, findings and conclusions to the department. The department or the proponent may petition the commission to modify the designated use if the conclusions of the analysis support such action.

[20.6.4.15 NMAC - Rp 20 NMAC 6.1.1107, 10-12-00; Rn, 20.6.4.14 NMAC, 05-23-05; A, 05-23-05; A, 07-17-05; A, 12-01-10]

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 Subsection A of 20.6.4.16 NMAC, 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 30 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, 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 20.1.3 NMAC, Adjudicatory Procedures - Water Quality Control Commission. 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.

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."

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.

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 of 20.6.4.16 NMAC.

[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 BASINWIDE PROVISIONS - Special provisions arising from interstate compacts, international treaties or court decrees or that otherwise apply to a basin are contained in 20.6.4.51 through 20.6.4.59 NMAC.

[20.6.4.50 NMAC - N, 05-23-05]

20.6.4.51 [RESERVED]

20.6.4.52 PECOS RIVER BASIN - In order to protect existing and designated uses, it is a goal of the state of New Mexico to prevent increases in TDS in the Pecos river above the following benchmark values, which are expressed as flow-weighted, annual average concentrations, at three USGS gaging stations: at Santa Rosa 500 mg/L; near Artesia 2,700 mg/L; and near Malaga 3,600 mg/L. The benchmark values serve to guide state action. They are adopted pursuant to the New Mexico Water Quality Act, not the Clean Water Act.

[20.6.4.52 NMAC - N, 12-01-10]

20.6.4.53 [RESERVED]

20.6.4.54 COLORADO RIVER BASIN - For the tributaries of the Colorado river system, the state of New Mexico will cooperate with the Colorado river basin states and the federal government to support and implement the salinity policy and program outlined in the most current "review, water quality standards for salinity, Colorado river system" or equivalent report by the Colorado river salinity control forum.

A. Numeric criteria expressed as the flow-weighted annual average concentration for salinity are established at three points in the Colorado river basin as follows: below Hoover dam, 723 mg/L; below Parker dam, 747 mg/L; and at Imperial dam, 879 mg/L.

B. As a part of the program, objectives for New Mexico shall include the elimination of discharges of water containing solids in solution as a result of the use of water to control or convey fly ash from coal-fired electric generators, wherever practicable.

[20.6.4.54 NMAC - Rn, Paragraphs (1) through (3) of Subsection K of 20.6.4.12 NMAC, 05-23-05; A, 05-23-05]

20.6.4.55 - 20.6.4.96 [RESERVED]

20.6.4.97 EPHEMERAL WATERS - Ephemeral 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 are subject to the designated uses and criteria as specified in this section. Ephemeral waters classified in sections 20.6.4.101-899 NMAC are subject to the designated uses and criteria as specified in those sections.

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 U.S. geological survey 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 Albuquerque metropolitan arroyo flood control authority (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;

(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 San Vicente arroyo from the Mimbres river upstream to Maudes canyon.

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

20.6.4.98 INTERMITTENT WATERS: All non-perennial surface waters of the state, except those ephemeral waters included under section 20.6.4.97 NMAC or classified in sections 20.6.4.101-899 NMAC.

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 surface waters of the state except those classified in sections 20.6.4.101-899 NMAC.

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 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 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 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]

20.6.4.104 RIO GRANDE BASIN - Caballo and Elephant Butte 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, 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.

[20.6.4.104 NMAC - Rp 20 NMAC 6.1.2104, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.105 RIO GRANDE BASIN - The main stem of the Rio Grande from the headwaters of Elephant Butte reservoir upstream to Alameda bridge (Corrales bridge), excluding waters on Isleta pueblo.

A. Designated Uses: irrigation, marginal warmwater aquatic life, livestock watering, public water supply, 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) At mean monthly flows above 100 cfs, the monthly average concentration for: TDS 1,500 mg/L or less, sulfate 500 mg/L or less and chloride 250 mg/L or less.

[20.6.4.105 NMAC - Rp 20 NMAC 6.1.2105, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.106 RIO GRANDE BASIN - The main stem of the Rio Grande from Alameda bridge (Corrales bridge) upstream to the Angostura diversion works, excluding waters on Santa Ana pueblo, and intermittent water in the Jemez river below the Jemez pueblo boundary, excluding waters on Santa Ana and Zia pueblos, that enters the main stem of the Rio Grande. Portions of the Rio Grande in this segment are under the joint jurisdiction of the state and Sandia pueblo.

A. Designated Uses: irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact; and public water supply on the Rio Grande.

B. Criteria:

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

(2) At mean monthly flows above 100 cfs, the monthly average concentration for: TDS 1,500 mg/L or less, sulfate 500 mg/L or less and chloride 250 mg/L or less.

[20.6.4.106 NMAC - Rp 20 NMAC 6.1.2105.1, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.107 RIO GRANDE BASIN - The Jemez river from the Jemez pueblo boundary upstream to Soda dam near the town of Jemez Springs and perennial reaches of Vallecito creek.

A. Designated Uses: coldwater aquatic life, primary contact, irrigation, livestock watering and wildlife habitat; and public water supply on Vallecito creek.

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).

[20.6.4.107 NMAC - Rp 20 NMAC 6.1.2105.5, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.108 RIO GRANDE BASIN - Perennial reaches of the Jemez river and all its tributaries above Soda dam near the town of Jemez Springs, except San Gregorio lake and Sulphur creek above its confluence with Redondo creek, and perennial reaches of the Guadalupe river and all its tributaries.

A. Designated Uses: domestic water supply, fish culture, 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 400 µS/cm or less (800 µS/cm or less on Sulphur creek); the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less; and pH within the range of 2.0 to 8.8 on Sulphur creek.

[20.6.4.108 NMAC - Rp 20 NMAC 6.1.2106, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segment are under 20.6.4.124 NMAC. The standards for San Gregorio lake are in 20.6.4.134 NMAC, effective 07-10-12]

20.6.4.109 RIO GRANDE BASIN - Perennial reaches of Bluewater creek excluding Bluewater lake and waters on tribal lands, Rio Moquino upstream of Laguna pueblo, Seboyeta creek, Rio Paguate upstream of Laguna pueblo, the Rio Puerco upstream of the northern boundary of Cuba, and all other perennial reaches of tributaries to the Rio Puerco, including the Rio San Jose in Cibola county from the USGS gaging station at Correo upstream to Horace springs excluding waters on tribal lands.

A. Designated Uses: coldwater aquatic life, domestic water supply, fish culture, irrigation, livestock watering, wildlife habitat and primary contact; and public water supply on La Jara creek.

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: phosphorus (unfiltered sample) 0.1 mg/L or less; the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.109 NMAC - Rp 20 NMAC 6.1.2107, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]

[**NOTE:** The standards for Bluewater lake are in 20.6.4.135 NMAC, effective 07-10-12]

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, 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 RIO GRANDE BASIN - Perennial reaches of Las Huertas creek from the San Felipe pueblo boundary to the headwaters.

A. Designated Uses: 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 criterion applies: temperature 25°C (77°F) or less.

[20.6.4.111 NMAC - Rp 20 NMAC 6.1.2108.5, 10-12-00; A, 7-25-01; A, 05-23-05; A-12-01-10]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segment are under 20.6.4.125 NMAC.]

20.6.4.112 [RESERVED]

[20.6.4.112 NMAC - Rp 20 NMAC 6.1.2109, 10-12-00; A, 05-23-05; Repealed, 12-01-10]

20.6.4.113 RIO GRANDE BASIN - The Santa Fe river and perennial reaches of its tributaries from the Cochiti pueblo boundary upstream to the outfall of the Santa Fe wastewater treatment facility.

A. Designated uses: irrigation, livestock watering, wildlife habitat, primary contact and coolwater aquatic life.

B. Criteria: The use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criterion applies: temperature 30°C (86°F) or less.

[20.6.4.113 NMAC - Rp 20 NMAC 6.1.2110, 10-12-00; A, 10-11-02; A, 05-23-05; A, 12-01-10; A, 02-14-13]

20.6.4.114 RIO GRANDE BASIN - The main stem of the Rio Grande from the Cochiti pueblo boundary upstream to Rio Pueblo de Taos excluding waters on San Ildefonso, Santa Clara and Ohkay Owingeh pueblos, Embudo creek from its mouth on the Rio Grande upstream to the Picuris Pueblo boundary, the Santa Cruz river from the Santa Clara pueblo boundary upstream to the Santa Cruz dam, the Rio Tesuque except waters on the Tesuque and Pojoaque pueblos, and the Pojoaque river from the San Ildefonso pueblo boundary upstream to the Pojoaque pueblo boundary. Some Rio Grande waters in this segment are under the joint jurisdiction of the state and San Ildefonso pueblo.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, primary contact and warmwater aquatic life; and public water supply on the main stem Rio Grande.

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 criteria apply: 6T3 temperature 22°C (71.6°F) and maximum temperature 25°C (78.8°F). In addition, the following criteria based on a 12-month rolling average are applicable to the public water supply use for monitoring and public disclosure purposes only:

Radionuclide	pCi/L
Americium-241	1.9
Cesium-137	6.4
Plutonium-238	1.5
Plutonium-239/240	1.5
Strontium-90	3.5
Tritium	4,000

(2) At mean monthly flows above 100 cfs, the monthly average concentration for: TDS 500 mg/L or less, sulfate 150 mg/L or less and chloride 25 mg/L or less.

[20.6.4.114 NMAC - Rp 20 NMAC 6.1.2111, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.115 RIO GRANDE BASIN - The perennial reaches of Rio Vallecitos and its tributaries except Hopewell lake, and perennial reaches of Rio del Oso and perennial reaches of El Rito creek above the town of El Rito.

A. Designated Uses: domestic water supply, irrigation, high quality coldwater aquatic life, livestock watering, wildlife habitat and primary contact; public water supply on the Rio Vallecitos and El Rito creek.

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.

[20.6.4.115 NMAC - Rp 20 NMAC 6.1.2112, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]

[**NOTE:** The standards for Hopewell lake are in 20.6.4.134 NMAC, effective 07-10-12]

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 downstream of the town of El Rito.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, coldwater aquatic life, warmwater aquatic life 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 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 RIO GRANDE BASIN - Abiquiu reservoir.

A. Designated Uses: irrigation storage, 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 criterion applies: temperature 25°C (77°F) or less.

[20.6.4.117 NMAC - Rp 20 NMAC 6.1.2114, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.118 RIO GRANDE BASIN - The Rio Chama from the headwaters of Abiquiu reservoir upstream to El Vado reservoir and perennial reaches of the Rio Gallina and Rio Puerco de Chama north of state highway 96. Some Rio Chama waters in this segment are under the joint jurisdiction of the state and the Jicarilla Apache tribe.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, coldwater aquatic life, warmwater aquatic life 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: temperature 26°C (78.8°F) or less.

[20.6.4.118 NMAC - Rp 20 NMAC 6.1.2115, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.119 RIO GRANDE BASIN - All perennial reaches of tributaries to the Rio Chama above Abiquiu dam, except Canjilon lakes a, c, e and f and the Rio Gallina and Rio Puerco de Chama north of state highway 96 and excluding waters on Jicarilla Apache reservation, and the main stem of the Rio Chama from the headwaters of El Vado reservoir upstream to the New Mexico-Colorado line. Some Cañones creek and Rio Chama waters in this segment are under the joint jurisdiction of the state and the Jicarilla Apache tribe.

A. Designated Uses: domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact; and public water supply on the Rio Brazos and Rio Chama.

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 500 µS/cm or less (1,000 µS or less for Coyote creek); the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.119 NMAC - Rp 20 NMAC 6.1.2116, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]

[**NOTE:** The standards for Canjilon lakes a, c, e and f are in 20.6.4.134 NMAC, effective 07-10-12]

20.6.4.120 RIO GRANDE BASIN - El Vado and Heron reservoirs.

A. Designated Uses: irrigation storage, livestock watering, wildlife habitat, public water supply, primary contact and coldwater 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.

[20.6.4.120 NMAC - Rp 20 NMAC 6.1.2117, 10-12-00; A. 05-23-05; A, 12-01-10]

20.6.4.121 RIO GRANDE BASIN - Perennial tributaries to the Rio Grande in Bandelier national monument and their headwaters in Sandoval county and all perennial reaches of tributaries to the Rio Grande in Santa Fe county unless included in other segments and excluding waters on tribal lands.

A. Designated uses: domestic water supply, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact; and public water supply on Little Tesuque creek, the Rio en Medio, and the Santa Fe river.

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.

[20.6.4.121 NMAC - Rp 20 NMAC 6.1.2118, 10-12-00; A. 05-23-05; A, 12-01-10; A, 02-14-13]

[NOTE: The segment covered by this section was divided effective 05-23-05. The standards for the additional segments are under 20.6.4.126, 20.6.4.127 and 20.6.4.128 NMAC.]

20.6.4.122 RIO GRANDE BASIN - The main stem of the Rio Grande from Rio Pueblo de Taos upstream to the New Mexico-Colorado line, the Red river from its mouth on the Rio Grande upstream to the mouth of Placer creek, and the Rio Pueblo de Taos from its mouth on the Rio Grande upstream to the mouth of the Rio Grande del Rancho. Some Rio Grande and Rio Pueblo de Taos waters in this segment are under the joint jurisdiction of the state and Taos pueblo.

A. Designated Uses: coldwater aquatic life, fish culture, 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.

[20.6.4.122 NMAC - Rp 20 NMAC 6.1.2119, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.123 RIO GRANDE BASIN - Perennial reaches of the Red river upstream of the mouth of Placer creek, all perennial reaches of tributaries to the Red river, and all other perennial reaches of tributaries to the Rio Grande in Taos and Rio Arriba counties unless included in other segments and excluding waters on Santa Clara, Ohkay Owingeh, Picuris and Taos pueblos.

A. Designated Uses: domestic water supply, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact; and public water supply on the Rio Pueblo and Rio Fernando de Taos.

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 400 µS/cm or less (500 µS/cm or less for the Rio Fernando de Taos); the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less; and phosphorus (unfiltered sample) less than 0.1 mg/L for the Red river.

[20.6.4.123 NMAC - Rp 20 NMAC 6.1.2120, 10-12-00; A, 05-23-05; A, 12-01-10]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segment are under 20.6.4.129 NMAC.]

20.6.4.124 RIO GRANDE BASIN: Perennial reaches of Sulphur creek from its confluence with Redondo creek upstream to its headwaters.

A. Designated Uses: limited aquatic life, wildlife habitat, livestock watering and secondary 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 RIO GRANDE BASIN - Perennial reaches of San Pedro creek from the San Felipe pueblo boundary to the headwaters.

A. Designated Uses: 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 criterion applies: temperature 25°C (77°F) or less.

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

20.6.4.126 RIO GRANDE BASIN - Perennial portions of Cañon de Valle from Los Alamos national laboratory (LANL) stream gage E256 upstream to Burning Ground spring, Sandia canyon from Sigma canyon upstream to LANL NPDES outfall 001, Pajarito canyon from Arroyo de La Delfe upstream into Starmers gulch and Starmers spring and Water canyon from Area-A canyon upstream to State Route 501.

A. Designated Uses: coldwater 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.

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

20.6.4.127 RIO GRANDE BASIN - Perennial portions of Los Alamos canyon upstream from Los Alamos reservoir and Los Alamos reservoir.

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

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

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

20.6.4.128 RIO GRANDE BASIN - Ephemeral and intermittent portions of watercourses within lands managed by U.S. department of energy (DOE) within LANL, including but not limited to: Mortandad canyon, Cañada del Buey, Ancho canyon, Chaquehui canyon, Indio canyon, Fence canyon, Potrillo canyon and portions of Cañon de Valle, Los Alamos canyon, Sandia canyon, Pajarito canyon and Water canyon not

specifically identified in 20.6.4.126 NMAC. (Surface waters within lands scheduled for transfer from DOE to tribal, state or local authorities are specifically excluded.)

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, except that the following segment-specific criteria apply: the acute total ammonia criteria set forth in Subsection K of 20.6.4.900 NMAC (salmonids absent).

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

20.6.4.129 RIO GRANDE BASIN - Perennial reaches of the Rio Hondo.

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 400 µS/cm or less and phosphorus (unfiltered sample) less than 0.1 mg/L.

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

20.6.4.130 RIO GRANDE BASIN - The Rio Puerco from the Rio Grande upstream to Arroyo Chijuilla, excluding the reaches on Isleta, Laguna and Cañoncito Navajo pueblos. Some waters in this segment are under the joint jurisdiction of the state and Isleta, Laguna or Cañoncito Navajo pueblos.

A. Designated Uses: irrigation, 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) At mean monthly flows above 100 cfs, the monthly average concentration for: TDS 1,500 mg/L or less, sulfate 500 mg/L or less and chloride 250 mg/L or less.

[20.6.4.130 NMAC - N, 12-01-10]

20.6.4.131 RIO GRANDE BASIN - The Rio Puerco from the confluence of Arroyo Chijuilla upstream to the northern boundary of Cuba.

A. Designated uses: warmwater 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.

[20.6.4.131 NMAC - N, 12-01-10]

20.6.4.132 RIO GRANDE BASIN - Rio Grande (Klauer) spring

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

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

[20.6.4.132 NMAC - N, 12-01-10]

20.6.4.133 RIO GRANDE BASIN - Bull Creek lake, Cow lake, Elk lake, Goose lake, Heart lake, Hidden lake (Lake Hazel), Horseshoe lake, Horseshoe (Alamitos) lake, Jose Vigil lake, Lost lake, Middle Fork lake, Nambe lake, Nat II lake, Nat IV lake, No Fish lake, Pioneer lake, San Leonardo lake, Santa Fe lake, Serpent lake, South Fork lake, Trampas lakes (east and west) and Williams lake.

A. Designated Uses: high quality coldwater aquatic life, irrigation, domestic water supply, 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 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.

[20.6.4.133 NMAC - N, 07-10-12]

20.6.4.134 RIO GRANDE BASIN - Cabresto lake, Canjilon lakes a, c, e and f, Fawn lakes (east and west), Hopewell lake and San Gregorio lake.

A. Designated Uses: high quality coldwater aquatic life, irrigation, domestic water supply, 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 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.
[20.6.4.134 NMAC - N, 07-10-12]

20.6.4.135 RIO GRANDE BASIN - Bluewater lake.

A. Designated Uses: coldwater aquatic life, irrigation, domestic water supply, 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 criteria apply: phosphorus (unfiltered sample) 0.1 mg/L or less; the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.
[20.6.4.135 NMAC - N, 07-10-12]

20.6.4.136 RIO GRANDE BASIN - The Santa Fe river from the outfall of the Santa Fe wastewater treatment facility to Guadalupe street.

A. Designated uses: limited aquatic life, wildlife habitat, primary contact, livestock watering, and irrigation.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.
[20.6.4.136 NMAC - N, 02-14-13]

20.6.4.137 RIO GRANDE BASIN - The Santa Fe river from Guadalupe street to Nichols reservoir.

A. Designated uses: coolwater aquatic life, wildlife habitat, primary contact, livestock watering, and irrigation.

B. Criteria: the use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses.
[20.6.4.137 NMAC - N, 02-14-13]

20.6.4.138 RIO GRANDE BASIN - Nichols and McClure reservoirs.

A. Designated uses: high quality coldwater aquatic life, wildlife habitat, primary contact, public water supply and irrigation.

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.
[20.6.4.138 NMAC - N, 02-14-13]

20.6.4.139 RIO GRANDE BASIN - Perennial reaches of Galisteo creek and perennial reaches of its tributaries from Kewa pueblo upstream to 2.2 miles upstream of Lamy.

A. Designated uses: coolwater aquatic life, primary contact, irrigation, livestock watering, domestic water supply and wildlife habitat; and public water supply on Cerrillos reservoir.

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.
[20.6.4.139 NMAC - N, 02-14-13]

20.6.4.140 - 20.6.4.200 [RESERVED]

20.6.4.201 PECOS RIVER BASIN - The main stem of the Pecos river from the New Mexico-Texas line upstream to the mouth of the Black river (near Loving).

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

B. Criteria:

(l) 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: dissolved boron for irrigation use 2,000 µg/L or less.

(2) At all flows above 50 cfs: TDS 20,000 mg/L or less, sulfate 3,000 mg/L or less and chloride 10,000 mg/L or less.

[20.6.4.201 NMAC - Rp 20 NMAC 6.1.2201, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.202 PECOS RIVER BASIN - The main stem of the Pecos river from the mouth of the Black river upstream to lower Tansil dam, including perennial reaches of the Black river, the Delaware river and Blue spring.

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

B. **Criteria:**

(l) 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 all flows above 50 cfs: TDS 8,500 mg/L or less, sulfate 2,500 mg/L or less and chloride 3,500 mg/L or less.

C. **Remarks:** diversion for irrigation frequently limits summer flow in this reach of the main stem Pecos river to that contributed by springs along the watercourse.

[20.6.4.202 NMAC - Rp 20 NMAC 6.1.2202, 10-12-00; A, 05-23-05; A, 12-01-10]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for Lower Tansil Lake and Lake Carlsbad are under 20.6.4.218 NMAC.]

20.6.4.203 PECOS RIVER BASIN - The main stem of the Pecos river from the headwaters of Lake Carlsbad upstream to Avalon dam.

A. **Designated Uses:** industrial water supply, 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: temperature 34°C (93.2°F) or less; the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.203 NMAC - Rp 20 NMAC 6.1.2203, 10-12-00; A, 05-23-05; A, 12-01-10]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for Lower Tansil Lake and Lake Carlsbad are under 20.6.4.218 and for Avalon Reservoir are under 20.6.4.219 NMAC.]

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 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]

[**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 downstream of Bonney canyon and perennial reaches of the Rio Felix.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, secondary 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 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]

20.6.4.208 PECOS RIVER BASIN - Perennial reaches of the Rio Peñasco and its tributaries above state highway 24 near Dunken, perennial reaches of the Rio Bonito downstream from state highway 48 (near Angus), the Rio Ruidoso downstream of the U.S. highway 70 bridge near Seeping Springs lakes, perennial reaches of the Rio Hondo upstream from Bonney canyon and perennial reaches of Agua Chiquita.

A. Designated Uses: fish culture, irrigation, livestock watering, wildlife habitat, coldwater aquatic life 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: temperature 30°C (86°F) or less, and phosphorus (unfiltered sample) less than 0.1 mg/L.

[20.6.4.208 NMAC - Rp 20 NMAC 6.1.2208, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.209 PECOS RIVER BASIN - Perennial reaches of Eagle creek upstream of Alto dam to the Mescalero Apache boundary, perennial reaches of the Rio Bonito and its tributaries upstream of state highway 48 (near Angus) excluding Bonito lake, and perennial reaches of the Rio Ruidoso and its tributaries upstream of the U.S. highway 70 bridge near Seeping Springs lakes, above and below the Mescalero Apache boundary.

A. Designated Uses: domestic water supply, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat, public 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 criteria apply: specific conductance 600 µS/cm or less in Eagle creek, 1,100 µS/cm or less in Bonito creek and 1,500 µS/cm or less in the Rio Ruidoso; phosphorus (unfiltered sample) less than 0.1 mg/L; the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.209 NMAC - Rp 20 NMAC 6.1.2209, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]

[**NOTE:** The standards for Bonito lake are in 20.6.4.223 NMAC, effective 07-10-12]

20.6.4.210 PECOS RIVER BASIN - Sumner 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, 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.

[20.6.4.210 NMAC - Rp 20 NMAC 6.1.2210, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.211 PECOS RIVER BASIN - The main stem of the Pecos river from the headwaters of Sumner reservoir upstream to Tecolote creek excluding Santa Rosa reservoir.

A. **Designated Uses:** fish culture, 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) At all flows above 50 cfs: TDS 3,000 mg/L or less, sulfate 2,000 mg/L or less and chloride 400 mg/L or less.

[20.6.4.211 NMAC - Rp 20 NMAC 6.1.2211, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]
[**NOTE:** The standards for Santa Rosa reservoir are in 20.6.4.225 NMAC, effective 07-10-12]

20.6.4.212 PECOS RIVER BASIN - Perennial tributaries to the main stem of the Pecos river from the headwaters of Sumner reservoir upstream to Santa Rosa dam.

A. **Designated Uses:** irrigation, 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 criterion applies: temperature 25°C (77°F) or less.

[20.6.4.212 NMAC - Rp 20 NMAC 6.1.2211.1, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.213 PECOS RIVER BASIN - McAllister lake.

A. **Designated Uses:** coldwater aquatic life, secondary 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]

20.6.4.214 PECOS RIVER BASIN - Storrie lake.

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

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.

[20.6.4.214 NMAC - Rp 20 NMAC 6.1.2211.5, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.215 PECOS RIVER BASIN - Perennial reaches of the Gallinas river and all its tributaries above the diversion for the Las Vegas municipal reservoir and perennial reaches of Tecolote creek and its perennial tributaries.

A. **Designated Uses:** domestic water supply, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat, industrial water supply and primary contact; and public water supply on the Gallinas river.

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 (450 µS/cm or less in Wright Canyon creek); the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.215 NMAC - Rp 20 NMAC 6.1.2212, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.216 PECOS RIVER BASIN - The main stem of the Pecos river from Tecolote creek upstream to Cañon de Manzanita.

A. **Designated Uses:** irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life 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 30°C (86°F) or less.

(2) At all flows above 10 cfs: TDS 250 mg/L or less, sulfate 25 mg/L or less and chloride 5 mg/L or less.

[20.6.4.216 NMAC - Rp 20 NMAC 6.1.2213, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.217 PECOS RIVER BASIN - Perennial reaches of Cow creek and all perennial reaches of its tributaries and the main stem of the Pecos river from Cañon de Manzanita upstream to its headwaters, including perennial reaches of all tributaries thereto except lakes identified in 20.6.4.222 NMAC.

A. Designated Uses: domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact; and public water supply on the main stem of the Pecos river.

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.

[20.6.4.217 NMAC - Rp 20 NMAC 6.1.2214, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segments are under 20.6.4.220 and 20.6.4.221 NMAC.]

20.6.4.218 PECOS RIVER BASIN - Lower Tansil lake and Lake Carlsbad.

A. Designated Uses: industrial water supply, 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 criterion applies: temperature 34°C (93.2°F) or less.

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

20.6.4.219 PECOS RIVER BASIN - Avalon reservoir.

A. Designated Uses: irrigation storage, livestock watering, wildlife habitat, secondary 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]

20.6.4.220 PECOS RIVER BASIN - Perennial reaches of the Gallinas river and its tributaries from its mouth upstream to the diversion for the Las Vegas municipal reservoir, except Pecos Arroyo.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life 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: temperature 30°C (86°F) or less.

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

20.6.4.221 PECOS RIVER BASIN - Pecos Arroyo.

A. Designated Uses: livestock watering, wildlife habitat, warmwater aquatic life 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 206 cfu/100 mL, single sample 940 cfu/100 mL.

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

20.6.4.222 PECOS RIVER BASIN - Johnson lake, Katherine lake, Lost Bear lake, Pecos Baldy lake, Spirit lake, Stewart lake and Truchas lakes (north and south).

A. Designated Uses: high quality coldwater aquatic life, irrigation, domestic water supply, 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 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.

[20.6.4.222 NMAC - N, 07-10-12]

20.6.4.223 PECOS RIVER BASIN - Bonito lake.

A. Designated Uses: high quality coldwater aquatic life, irrigation, domestic water supply, primary contact, livestock watering, 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 except that the following segment-specific criteria apply: specific conductance 1100 µS/cm or less; phosphorus (unfiltered sample) less than 0.1 mg/L; the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.
[20.6.4.223 NMAC - N, 07-10-12]

20.6.4.224 PECOS RIVER BASIN - Monastery lake.

A. Designated Uses: coolwater aquatic life, 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 206 cfu/100 mL or less, single sample 940 cfu/100 mL or less.
[20.6.4.224 NMAC - N, 07-10-12]

20.6.4.225 PECOS RIVER BASIN - Santa Rosa reservoir.

A. Designated Uses: coolwater aquatic life, irrigation, 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.
[20.6.4.225 NMAC - N, 07-10-12]

20.6.4.226 PECOS RIVER BASIN - Perch lake.

A. Designated Uses: coolwater aquatic life, 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.
[20.6.4.226 NMAC - N, 07-10-12]

20.6.4.227 PECOS RIVER BASIN - Lea lake.

A. Designated Uses: warmwater aquatic life, primary contact 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.
[20.6.4.227 NMAC - N, 07-10-12]

20.6.4.228 PECOS RIVER BASIN - Cottonwood lake and Devil's Inkwell.

A. Designated Uses: coolwater aquatic life, primary contact 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 206 cfu/100 mL or less, single sample 940 cfu/100 mL or less.
[20.6.4.228 NMAC - N, 07-10-12]

20.6.4.229 PECOS RIVER BASIN - Mirror lake.

A. Designated Uses: warmwater aquatic life, primary contact 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 206 cfu/100 mL or less, single sample 940 cfu/100 mL or less.
[20.6.4.229 NMAC - N, 07-10-12]

20.6.4.230 - 20.6.4.300 [RESERVED]

20.6.4.301 CANADIAN RIVER BASIN - The main stem of the Canadian river from the New Mexico-Texas line upstream to Ute dam, and any flow that enters the main stem from Revuelto creek.

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 6,500 mg/L or less at flows above 25 cfs.

[20.6.4.301 NMAC - Rp 20 NMAC 6.1.2301, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.302 CANADIAN RIVER BASIN - Ute reservoir.

A. Designated Uses: livestock watering, wildlife habitat, public water supply, industrial water supply, 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.

[20.6.4.302 NMAC - Rp 20 NMAC 6.1.2302, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.303 CANADIAN RIVER BASIN - The main stem of the Canadian river from the headwaters of Ute reservoir upstream to Conchas dam, the perennial reaches of Pajarito and Ute creeks and their perennial tributaries.

A. Designated Uses: irrigation, marginal warmwater 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.

[20.6.4.303 NMAC - Rp 20 NMAC 6.1.2303, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.304 CANADIAN RIVER BASIN - Conchas reservoir.

A. Designated Uses: irrigation storage, livestock watering, wildlife habitat, public water supply, 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.

[20.6.4.304 NMAC - Rp 20 NMAC 6.1.2304, 10-12-00; A, 05-23-05; A, 12-01-10]

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]

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

20.6.4.306 CANADIAN RIVER BASIN - The Cimarron river downstream from state highway 21 in Cimarron to the Canadian river and all perennial reaches of tributaries to the Cimarron river downstream from state highway 21 in Cimarron.

A. Designated Uses: irrigation, warmwater aquatic life, livestock watering, wildlife habitat and primary contact; and public water supply on Cimarroncito creek.

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.

[20.6.4.306 NMAC - Rp 20 NMAC 6.1.2305.1, 10-12-00; A, 7-19-01; A, 05-23-05; A, 12-01-10]

20.6.4.307 CANADIAN RIVER BASIN - Perennial reaches of the Mora river from the USGS gaging station near Shoemaker upstream to the state highway 434 bridge in Mora, all perennial reaches of tributaries to the Mora river downstream from the USGS gaging station at La Cueva in San Miguel and Mora counties except lakes identified in 20.6.4.313 NMAC, perennial reaches of Ocate creek and its tributaries downstream of Ocate, and perennial reaches of Rayado creek downstream of Miami lake diversion in Colfax county.

A. Designated Uses: marginal coldwater aquatic life, warmwater aquatic life, primary contact, irrigation, 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.

[20.6.4.307 NMAC - Rp 20 NMAC 6.1.2305.3, 10-12-00; A, 05-23-05; A, 12-01-10; A, 07-10-12]

20.6.4.308 CANADIAN RIVER BASIN - Charette lakes.

A. Designated Uses: coldwater aquatic life, warmwater aquatic life, secondary 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]

20.6.4.309 CANADIAN RIVER BASIN - The Mora river and perennial reaches of its tributaries upstream from the state highway 434 bridge in Mora except lakes identified in 20.6.4.313 NMAC, all perennial reaches of tributaries to the Mora river upstream from the USGS gaging station at La Cueva, perennial reaches of Coyote creek and its tributaries, the Cimarron river and its perennial tributaries above state highway 21 in Cimarron except Eagle Nest lake, all perennial reaches of tributaries to the Cimarron river north and northwest of highway 64 except north and south Shuree ponds, perennial reaches of Rayado creek and its tributaries above Miami lake diversion, Ocate creek and perennial reaches of its tributaries upstream of Ocate, perennial reaches of the Vermejo river upstream from Rail canyon and all other perennial reaches of tributaries to the Canadian river northwest and north of U.S. highway 64 in Colfax county unless included in other segments.

A. Designated Uses: domestic water supply, irrigation, high quality coldwater aquatic life, livestock watering, wildlife habitat, and primary contact; and public water supply on the Cimarron river upstream from Cimarron and on perennial reaches of Rayado creek and its tributaries.

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 500 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.

[20.6.4.309 NMAC - Rp 20 NMAC 6.1.2306, 10-12-00; A, 7-19-01; A, 05-23-05; A, 12-01-10; A, 07-10-12]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segment are under 20.6.4.310 NMAC. The standards for Shuree ponds are in 20.6.4.314 NMAC and the standards for Eagle Nest lake are in 20.6.4.315 NMAC, effective 07-10-12]

20.6.4.310 CANADIAN RIVER BASIN - Perennial reaches of Corrumpa creek.

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

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 criteria apply: temperature 25°C (77°F) or less; the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

(2) TDS 1,200 mg/L or less, sulfate 600 mg/L or less, chloride 40 mg/L or less.

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

20.6.4.311 Lake Alice.

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

[20.6.4.311 NMAC - N, 12-01-10]

20.6.4.312 Lake Maloya.

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

[20.6.4.312 NMAC - N, 12-01-10]

20.6.4.313 CANADIAN RIVER BASIN - Encantada lake, Maestas lake, Middle Fork lake of Rio de la Casa, North Fork lake of Rio de la Casa and Pacheco lake.

A. Designated Uses: high quality coldwater aquatic life, irrigation, domestic water supply, 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 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.

[20.6.4.313 NMAC - N, 07-10-12]

20.6.4.314 CANADIAN RIVER BASIN - Shuree ponds (north and south).

A. Designated Uses: high quality coldwater aquatic life, irrigation, domestic water supply, 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 criteria apply: specific conductance 500 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.

[20.6.4.314 NMAC - N, 07-10-12]

20.6.4.315 CANADIAN RIVER BASIN - Eagle Nest lake.

A. Designated Uses: high quality coldwater aquatic life, irrigation, domestic water supply, primary contact, livestock watering, 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 except that the following segment-specific criteria apply: specific conductance 500 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.

[20.6.4.315 NMAC - N, 07-10-12]

20.6.4.316 CANADIAN RIVER BASIN - Clayton lake.

A. Designated Uses: coolwater aquatic life, 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 206 cfu/100 mL or less, single sample 940 cfu/100 mL or less.

[20.6.4.316 NMAC - N, 07-10-12]

20.6.4.317 CANADIAN RIVER BASIN: Springer lake.

A. Designated Uses: coolwater aquatic life, irrigation, primary contact, livestock watering, 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 - 20.6.4.400 [RESERVED]

20.6.4.401 SAN JUAN RIVER BASIN - The main stem of the San Juan river from the Navajo Nation boundary at the Hogback upstream to its confluence with the Animas river. Some waters in this segment are under the joint jurisdiction of the state and the Navajo Nation.

A. Designated Uses: public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, primary contact, marginal 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 criterion applies: temperature 32.2°C (90°F) or less.

[20.6.4.401 NMAC - Rp 20 NMAC 6.1.2401, 10-12-00; A, 05-23-05; A, 12-01-10]
[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segment are under 20.6.4.408 NMAC.]

20.6.4.402 SAN JUAN RIVER BASIN - La Plata river from its confluence with the San Juan river upstream to the New Mexico-Colorado line.

A. Designated Uses: irrigation, marginal warmwater aquatic life, marginal 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 criterion applies: temperature 32.2°C (90°F) or less.

[20.6.4.402 NMAC - Rp 20 NMAC 6.1.2402, 10-12-00; A, 05-23-05; A, 12-01-10]

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, coolwater aquatic life, 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: 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 Southern Ute Indian tribal boundary.

A. Designated uses: 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.l 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 SAN JUAN RIVER BASIN - The main stem of the San Juan river from Canyon Largo upstream to the Navajo dam.

A. Designated Uses: high quality coldwater 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 criteria apply: specific conductance 400 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.

[20.6.4.405 NMAC - Rp 20 NMAC 6.1.2405, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.406 SAN JUAN RIVER BASIN - Navajo reservoir in New Mexico.

A. Designated Uses: coldwater aquatic life, warmwater aquatic life, irrigation storage, 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 criteria apply: phosphorus (unfiltered sample) 0.1 mg/L or less; the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.406 NMAC - Rp 20 NMAC 6.1.2406, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.407 SAN JUAN RIVER BASIN - Perennial reaches of the Navajo river from the Jicarilla Apache reservation boundary to the Colorado border and perennial reaches of Los Pinos river in New Mexico.

A. Designated Uses: coldwater aquatic life, irrigation, livestock watering, public water supply, 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: phosphorus (unfiltered sample) 0.1 mg/L

or less; the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.
[20.6.4.407 NMAC - Rp 20 NMAC 6.1.2407, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.408 SAN JUAN RIVER BASIN - The main stem of the San Juan river from its confluence with the Animas river upstream to its confluence with Canyon Largo.

A. Designated Uses: public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, primary contact, marginal 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 criterion applies: temperature 32.2°C (90°F) or less.
[20.6.4.408 NMAC - N, 05-23-05; A, 12-01-10]

20.6.4.409 SAN JUAN RIVER BASIN - Lake Farmington.

A. Designated Uses: public water supply, wildlife habitat, livestock watering, 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 criterion applies: temperature 25°C (77°F) or less.
[20.6.4.409 NMAC - N, 12-01-10]

20.6.4.410 SAN JUAN RIVER BASIN - Jackson lake.

A. Designated Uses: coolwater aquatic life, irrigation, 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 206 cfu/100 mL or less, single sample 940 cfu/100 mL or less.
[20.6.4.410 NMAC - N, 07-10-12]

20.6.4.411 - 20.6.4.450: [RESERVED]

20.6.4.451 LITTLE COLORADO RIVER BASIN - The Rio Nutria upstream of the Zuni pueblo boundary, Tampico draw, Agua Remora, Tampico springs.

A. Designated Uses: coolwater 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.
[20.6.4.451 NMAC - N, 12-01-10]

20.6.4.452 LITTLE COLORADO RIVER BASIN - Ramah lake.

A. Designated Uses: coldwater aquatic life, warmwater 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 criterion applies: temperature 25°C (77°F) or less.
[20.6.4.452 NMAC - N, 12-01-10]

20.6.4.453 LITTLE COLORADO RIVER BASIN - Quemado lake.

A. Designated Uses: coolwater aquatic life, 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.
[20.6.4.453 NMAC - N, 07-10-12]

20.6.4.454 - 20.6.4.500 [RESERVED]

20.6.4.501 GILA RIVER BASIN - The main stem of the Gila river from the New Mexico-Arizona line upstream to Redrock canyon and perennial reaches of streams in Hidalgo county.

A. Designated Uses: irrigation, marginal warmwater 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.
[20.6.4.501 NMAC - Rp 20 NMAC 6.1.2501, 10-12-00; A, 05-23-05; A, 12-01-10]

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 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; A, XX-XX-XX]

20.6.4.503 GILA RIVER BASIN - All perennial tributaries to the Gila river 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; 32.2°C (90°F) or less in the east fork of the Gila river and Sapillo creek 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 GILA RIVER BASIN - Wall lake, Lake Roberts and Snow lake.

A. Designated Uses: 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 criterion applies: specific conductance 300 µS/cm or less.
[20.6.4.504 NMAC - Rp 20 NMAC 6.1.2504, 10-12-00; A, 05-23-05; A, 12-01-10]
[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segment are under 20.6.4.806 NMAC.]

20.6.4.505 GILA RIVER BASIN - Bill Evans lake.

A. Designated Uses: coolwater aquatic life, 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.
[20.6.4.505 NMAC - N, 07-10-12]

20.6.4.506 - 20.6.4.600 [RESERVED]

20.6.4.601 SAN FRANCISCO RIVER BASIN - The main stem of the San Francisco river from the New Mexico-Arizona line upstream to state highway 12 at Reserve and perennial reaches of Mule creek.

A. Designated Uses: irrigation, marginal warmwater and marginal 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.
[20.6.4.601 NMAC - Rp 20 NMAC 6.1.2601, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.602 SAN FRANCISCO RIVER BASIN - The main stem of the San Francisco river from state highway 12 at Reserve upstream to the New Mexico-Arizona line.

A. Designated Uses: 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 criterion applies: temperature 25°C (77°F) or less.
[20.6.4.602 NMAC - Rp 20 NMAC 6.1.2602, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.603 SAN FRANCISCO RIVER BASIN - All perennial reaches of tributaries to the San Francisco river above the confluence of Whitewater creek and including Whitewater creek.

A. Designated Uses: domestic water supply, fish culture, 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 400 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; and temperature 25°C (77°F) or less in Tularosa creek.

[20.6.4.603 NMAC - Rp 20 NMAC 6.1.2603, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.604 - 20.6.4.700 [RESERVED]

20.6.4.701 DRY CIMARRON RIVER - Perennial portions of the Dry Cimarron river above Oak creek and perennial reaches of Oak creek.

A. Designated Uses: coldwater aquatic life, irrigation, 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 criteria apply: temperature 25°C (77°F) or less, the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

(2) TDS 1,200 mg/L or less, sulfate 600 mg/L or less and chloride 40 mg/L or less.

[20.6.4.701 NMAC - Rp 20 NMAC 6.1.2701, 10-12-00; A, 05-23-05 A, 12-01-10]

[**NOTE:** The segment covered by this section was divided effective 05-23-05. The standards for the additional segment are under 20.6.4.702 NMAC.]

20.6.4.702 DRY CIMARRON RIVER - Perennial portions of the Dry Cimarron river below Oak creek, and perennial portions of Long canyon and Carrizozo creeks.

A. Designated Uses: coolwater aquatic life, irrigation, 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 criteria apply: the monthly geometric mean of *E. coli* bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

(2) TDS 1,200 mg/L or less, sulfate 600 mg/L or less and chloride 40 mg/L or less.

[20.6.4.702 NMAC - N, 05-23-05; A, 12-01-10; A, 07-10-12]

20.6.4.703 - 20.6.4.800 [RESERVED]

20.6.4.801 CLOSED BASINS - Rio Tularosa east of the old U.S. highway 70 bridge crossing east of Tularosa and all perennial tributaries to the Tularosa basin except Three Rivers and excluding waters on the Mescalero tribal lands.

A. Designated Uses: coldwater aquatic life, irrigation, livestock watering, wildlife habitat, public 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 criteria apply: the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[20.6.4.801 NMAC - Rp 20 NMAC 6.1.2801, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.802 CLOSED BASINS - Perennial reaches of Three Rivers.

A. Designated Uses: irrigation, domestic water supply, high quality coldwater aquatic life, 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 criteria apply: specific conductance 500 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.

[20.6.4.802 NMAC - Rp 20 NMAC 6.1.2802, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.803 CLOSED BASINS: Perennial reaches of the Mimbres river downstream of the confluence with Allie canyon and all perennial reaches of tributaries thereto.

A. Designated uses: 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 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, 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: 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.]

20.6.4.805 CLOSED BASINS - Perennial reaches of the Sacramento river (Sacramento-Salt Flat closed basin) and all perennial tributaries thereto.

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

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

[20.6.4.805 NMAC - Rp 20 NMAC 6.1.2805, 10-12-00; A, 05-23-05; A, 12-01-10]

20.6.4.806 CLOSED BASINS - Bear canyon reservoir.

A. Designated Uses: 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 criterion applies: specific conductance 300 µS/cm or less.

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

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 - N, XX-XX-XX]

20.6.4.808 CLOSED BASINS: Perennial and intermittent watercourses within Smelter Tailing Soils Investigation Unit lands at the Chino mines company, excluding those ephemeral waters listed in 20.6.4.809 NMAC 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: Warmwater 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: the acute and chronic aquatic life criteria for copper set forth in Subsection I of 20.6.4.900 NMAC 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, dissolved organic carbon (DOC) is 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.
[20.6.4.808 NMAC - N, XX-XX-XX]

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 20.6.4.900NMAC 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, dissolved organic carbon (DOC) is 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 NMAC - N, XX-XX-XX]

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.

B. Domestic Water Supply: Surface waters of the state designated for use as domestic water supplies shall not contain substances in concentrations that create a lifetime cancer risk of more than one cancer per 100,000 exposed persons. Those criteria listed under domestic water supply in Subsection J of this section apply to this use.

C. Irrigation and Irrigation Storage: the following numeric criteria and those criteria listed under irrigation in Subsection J of this section apply to this use:

(1)	dissolved selenium	0.13 mg/L
(2)	dissolved selenium in presence of >500 mg/L SO_4	0.25 mg/L.

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 colony forming units (CFU) 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 colony forming units (CFU) or the most probable number (MPN), depending on the analytical method used.

F. Livestock Watering: the criteria listed in Subsection J of this section for livestock watering apply to this use.

G. Wildlife Habitat: Wildlife habitat shall be free from any substances at concentrations that are toxic to or will adversely affect plants and animals that use these environments for feeding, drinking, habitat or propagation; can bioaccumulate; or might impair the community of animals in a watershed or the ecological integrity of surface waters of the state. The numeric criteria listed in Subsection J for wildlife habitat apply to this use.

H. Aquatic Life: Surface waters of the state with a designated, existing or attainable use of aquatic life shall be free from any substances at concentrations that can impair the community of plants and animals in or the ecological integrity of surface waters of the state. Except as provided in Paragraph (7) of this subsection, the acute and chronic aquatic life criteria set out in Subsections I, J, K and L of this section and the human health-organism only criteria set out in Subsection J of this section are applicable to all aquatic life use subcategories. In addition, the specific criteria for aquatic life subcategories in the following paragraphs apply to waters classified under the respective designations.

(1) High Quality Coldwater: dissolved oxygen 6.0 mg/L or more, 4T3 temperature 20°C (68°F), maximum temperature 23°C (73°F), pH within the range of 6.6 to 8.8 and specific conductance a segment-specific limit between 300 µS/cm and 1,500 µS/cm depending on the natural background in the particular surface water of the state (the intent of this criterion is to prevent excessive increases in dissolved solids which would result in changes in community structure). Where a single segment-specific temperature criterion is indicated in 20.6.4.101-899 NMAC, it is the maximum temperature and no 4T3 temperature applies.

(2) Coldwater: dissolved oxygen 6.0 mg/L or more, 6T3 temperature 20°C (68°F), maximum temperature 24°C (75°F) and pH within the range of 6.6 to 8.8. 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.

(3) Marginal Coldwater: dissolved oxygen 6 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 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 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_C	b_C	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

Hardness as $CaCO_3$, dissolved (mg/L)		Al	Cd	Cr III	Cu	Pb	Mn	Ni	Ag	Zn
	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		4.21	1,400	38	210	4,305	1190	21	435
	Chronic		1.00	180	23	8	2,379	130		329
400 and above	Acute		5.38	1,770	50	280	4,738	1510	35	564
	Chronic		1.22	230	29	11	2,618	170		428

J. Use-Specific Numeric criteria.

(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		

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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							
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
Benzo(a)anthracene	56-55-3	0.048						0.18	C
Benzo(a)pyrene	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

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Bis(2-chloroisopropyl) ether	108-60-1	1,400						65,000	
Bis(2-ethylhexyl) phthalate	117817	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
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	

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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 Biphenyls (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

(2) Notes applicable to the table of numeric criteria in Paragraph (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) apply to the sum of all congeners, to the sum of all homologs or to the sum of all aroclors.

K. Acute aquatic life criteria for total ammonia are dependent on pH and the presence or absence of salmonids. The criteria in mg/L as N based on analysis of unfiltered samples are as follows:

pH	Where Salmonids Present	Where Salmonids Absent
6.5 and below	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.1	42.0
6.9	26.2	39.1
7.0	24.1	36.1
7.1	22.0	32.8
7.2	19.7	29.5
7.3	17.5	26.2
7.4	15.4	23.0
7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.65	14.4
7.8	8.11	12.1
7.9	6.77	10.1
8.0	5.62	8.40
8.1	4.64	6.95
8.2	3.83	5.72
8.3	3.15	4.71
8.4	2.59	3.88
8.5	2.14	3.20
8.6	1.77	2.65
8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0 and above	0.885	1.32

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 below 0 to 14°C, the criteria for 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)									
	14 and below	15	16	18	20	22	24	26	28	30 and above
6.5 and below	6.67	6.46	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.36	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.25	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37

pH	Temperature (°C)									
	14 and below	15	16	18	20	22	24	26	28	30 and above
6.8	6.29	6.10	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	5.93	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.73	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.49	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.22	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	4.92	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.59	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.23	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.85	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.47	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.09	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.71	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.36	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.03	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.74	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.48	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.25	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.06	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.892	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.754	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.641	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	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	0.471	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	8	9	10	11	12	13	14	15 and above
6.5 and below	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46
6.6	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36
6.7	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25
6.8	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10
6.9	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93
7.0	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73
7.1	9.20	8.63	8.09	7.58	7.11	6.67	6.25	5.86	5.49
7.2	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22
7.3	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92
7.4	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59
7.5	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23
7.6	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85
7.7	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47
7.8	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09
7.9	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71

pH	Temperature (°C)								
	7 and below	8	9	10	11	12	13	14	15 and above
8.0	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36
8.1	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03
8.2	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74
8.3	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48
8.4	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25
8.5	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06
8.6	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892
8.7	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754
8.8	1.07	1.01	0.944	0.855	0.829	0.778	0.729	0.684	0.641
8.9	0.917	0.860	0.806	0.756	0.709	0.664	0.623	0.584	0.548
9.0 and above	0.790	0.740	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]

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.

B. American public health association. 1995. *Standard methods for the examination of water and wastewater, 19th Edition.* Washington, D.C. 1090 p.

C. American public health association. 1998. *Standard methods for the examination of water and wastewater, 20th Edition.* Washington, D.C. 1112 p.

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F. United States environmental protection agency. 1974. *Methods for chemical analysis of water and wastes.* National environmental research center, Cincinnati, Ohio. (EPA-625-/6-74-003). 298 p.

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

I. United States environmental protection agency. 2002. *Methods for measuring the acute toxicity of effluents and receiving waters to freshwater and marine organisms.* Office of research and development, Washington, D.C. (5th Ed., EPA 821-R-02-012). 293 p. http://www.epa.gov/ostWET/disk2/atx.pdf

J. United States environmental protection agency. 2002. *Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms.* Environmental monitoring systems laboratory, Cincinnati, Ohio. ([4th Ed., EPA 821-R-02-01). 335 p.

K. Ambient-induced mixing, in United States environmental protection agency. 1991. *Technical support document for water quality-based toxics control.* Office of water, Washington, D.C. (EPA/505/2-90-001). 2 p.

L. United States environmental protection agency. 1983. *Technical support manual: waterbody surveys and assessments for conducting use attainability analyses.* Office of water, regulations and standards, Washington, D.C. 251 p. http://www.epa.gov/OST/library/wqstandards/uaavol123.pdf

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]

HISTORY of 20.6.4 NMAC:
Pre-NMAC History:
Material in the part was derived from that previously filed with the commission of public records - state records center and archives:
WQC 67-1, Water Quality Standards, filed 7-17-67, effective 8-18-67
WQC 67-1, Amendment Nos. 1-6, filed 3-21-68, effective 4-22-68
WQC 67-1, Amendment No. 7, filed 2-27-69, effective 3-30-69
WQC 67-1, Amendment No. 8, filed 7-14-69, effective 8-15-69
WQC 70-1, Water Quality Standards for Intrastate Waters and Tributaries to Interstate Streams, filed July 17, 1970;
WQC 67-1, Amendment Nos. 9 and 10, filed 2-12-71, effective 3-15-71
WQC 67-1, Amendment No. 11, filed 3-4-71, effective 4-5-71
WQC 73-1, New Mexico Water Quality Standards, filed 9-17-73, effective 10-23-73
WQC 73-1, Amendment Nos. 1 and 2, filed 10-3-75, effective 11-4-75
WQC 73-1, Amendment No. 3, filed 1-19-76, effective 2-14-76
WQC 77-2, Amended Water Quality Standards for Interstate and Intrastate Streams in New Mexico, filed 2-24-77, effective 3-11-77
WQC 77-2, Amendment No. 1, filed 3-23-78, effective 4-24-78
WQC 77-2, Amendment No. 2, filed 6-12-79, effective 7-13-79
WQCC 80-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, filed 8-28-80, effective 9-28-80
WQCC 81-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, filed 5-5-81, effective 6-4-81
WQCC 81-1, Amendment No. 1, filed 5-19-82, effective 6-18-82
WQCC 81-1, Amendment No. 2, filed 6-24-82, effective 7-26-82
WQCC 85-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, filed 1-16-85, effective 2-15-85
WQCC 85-1, Amendment No. 1, filed 8-28-87, effective 9-28-87
WQCC 88-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, filed 3-24-88, effective 4-25-88
WQCC 91-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, filed 5-29-91, effective 6-29-91
WQCC 91-1, Amendment No. 1, filed 10-11-91, effective 11-12-91

History of the Repealed Material:
WQC 67-1, Water Quality Standards, - Superseded, 10-23-73
WQC 73-1, New Mexico Water Quality Standards, - Superseded, 3-11-77
WQC 77-2, Amended Water Quality Standards for Interstate and Intrastate Streams in New Mexico, - Superseded, 9-28-80
WQCC 80-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, - Superseded, 6-4-81
WQCC 81-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, - Superseded, 2-15-85
WQCC 85-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, - Superseded, 4-25-88
WQCC 88-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, - Superseded, 6-29-91
WQCC 91-1, Water Quality Standards for Interstate and Intrastate Streams in New Mexico, - Superseded, 1-23-95
20 NMAC 6.1, Standards for Interstate and Intrastate Streams, - Repealed, 2-23-00
20 NMAC 6.1, Standards for Interstate and Intrastate Surface Waters, - Repealed, 10-12-00

This is an amendment to 20.6.4 NMAC, Sections 20.6.4.7, 10, 12, 16, 97-99, 101, 102, 110, 116, 124, 206, 305, 317, 403, 404, .502, 503, 803, 804, 900 and 901; and adding Sections 807-809, effective 02/01/17.

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 colony forming units (CFU) or the most probable number (MPN), depending on the analytical method used;

(b) "cfs" means cubic feet per second;

(c) "µg/L" means micrograms per liter, equivalent to parts per billion when the specific gravity of the solution equals 1.0;

(d) "µS/cm" means microsiemens per centimeter; one µS/cm is equal to one µmho/cm;

(e) "mg/kg" means milligrams per kilogram, equivalent to parts per million;

(f) "mg/L" means milligrams per liter, equivalent to parts per million when the specific gravity of the solution equals 1.0;

(g) "MPN/100 mL" means most probable number per 100 milliliters; the results for *E. coli* may be reported as either CFU or MPN, depending on the analytical method used;

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

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

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

(4) "Acute toxicity" means toxicity involving a stimulus severe enough to induce a response in 96 hours of exposure or less. Acute toxicity is not always measured in terms of lethality, but may include other toxic effects that occur within a short time period.

(5) "Adjusted gross alpha" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding radon-222 and uranium. Also excluded are source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954.

(6) "Aquatic life" means any plant or animal life that uses surface water as primary habitat for at least a portion of its life cycle, but does not include avian or mammalian species.

(7) "Attainable" means achievable by the imposition of effluent limits required under sections 301(b) and 306 of the Clean Water Act and implementation of cost-effective and reasonable best management practices for nonpoint source control.

B. Terms beginning with the letter "B".

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

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

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

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

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

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

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.

D. Terms beginning with the letter "D".

(1) **"DDT and derivatives"** means 4,4'-DDT (CAS number 50293), 4,4'-DDE (CAS number 72559) and 4,4'-DDD (CAS number 72548).

(2) **"Department"** means the New Mexico environment department.

(3) **"Designated use"** means a use specified in 20.6.4.97 through 20.6.4.899 NMAC for a surface water of the state whether or not it is being attained.

(4) **"Dissolved"** refers to the fraction of a constituent of a water sample that passes through a 0.45-micrometer pore-size filter. The "dissolved" fraction is also termed "filterable residue."

(5) **"Domestic water supply"** means a surface water of the state that could be used for drinking or culinary purposes after disinfection.

E. Terms beginning with the letter "E".

(1) **"E. coli"** means the bacteria Escherichia coli.

(2) **"Ephemeral"** when used to describe a surface water of the state means the water body contains water briefly only in direct response to precipitation; its bed is always above the water table of the adjacent region.

(3) **"Existing use"** means 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.

F. Terms beginning with the letter "F".

(1) **"Fish culture"** means production of coldwater or warmwater fishes in a hatchery or rearing station.

(2) **"Fish early life stages"** means the egg and larval stages of development of fish ending when the fish has its full complement of fin rays and loses larval characteristics.

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

H. Terms beginning with the letter "H".

(1) **"High quality coldwater"** in reference to an aquatic life use means a perennial surface water of the state in a minimally disturbed condition with considerable aesthetic value and superior coldwater aquatic life habitat. A surface water of the state to be so categorized must have water quality, stream bed characteristics and other attributes of habitat sufficient to protect and maintain a propagating coldwater aquatic life population.

(2) **"Human health-organism only"** means the health of humans who ingest fish or other aquatic organisms from waters that contain pollutants.

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"** 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]

L. Terms beginning with the letter "L".

(1) **"LC-50"** means the concentration of a substance that is lethal to 50 percent of the test organisms within a defined time period. The length of the time period, which may vary from 24 hours to one week or more, depends on the test method selected to yield the information desired.

(2) **"Limited aquatic life"** as a designated use, means the surface water is capable of supporting only a limited community of aquatic life. This subcategory includes surface waters that support aquatic species selectively adapted to take advantage of naturally occurring rapid environmental changes, ephemeral or intermittent water, high turbidity, fluctuating temperature, low dissolved oxygen content or unique chemical characteristics.

(3) **"Livestock watering"** means the use of a surface water of the state as a supply of water for consumption by livestock.

M. Terms beginning with the letter "M".

(1) **"Marginal coldwater"** in reference to an aquatic life use means that natural intermittent or low flows, or other natural habitat conditions severely limit maintenance of a coldwater aquatic life population or historical data indicate that the temperature in the surface water of the state may exceed 25°C (77°F).

(2) **"Marginal warmwater"** in reference to an aquatic life use means natural intermittent or low flow or other natural habitat conditions severely limit the ability of the surface water of the state to sustain a natural aquatic life population on a continuous annual basis; or historical data indicate that natural water temperature routinely exceeds 32.2°C (90°F).

(3) **"Maximum temperature"** means the instantaneous temperature not to be exceeded at any time.

(4) **"Minimum quantification level"** means the minimum quantification level for a constituent determined by official published documents of the United States environmental protection agency.

N. Terms beginning with the letter "N".

(1) **"Natural background"** means that portion of a pollutant load in a surface water resulting only from non-anthropogenic sources. Natural background does not include impacts resulting from historic or existing human activities.

(2) **"Natural causes"** means those causal agents that would affect water quality and the effect is not caused by human activity but is due to naturally occurring conditions.

(3) **"Nonpoint source"** means any source of pollutants not regulated as a point source that degrades the quality or adversely affects the biological, chemical or physical integrity of surface waters of the state.

O. Terms beginning with the letter "O".

(1) **"Organoleptic"** means the capability to produce a detectable sensory stimulus such as odor or taste.

(2) **"Oversight agency"** means a state or federal agency, such as the United States department of agriculture forest service, that is responsible for land use or water quality management decisions affecting nonpoint source discharges where an outstanding national resource water is located.

P. Terms beginning with the letter "P".

(1) **"Playa"** means a shallow closed basin lake typically found in the high plains and deserts.

(2) **"Perennial"** when used to describe a surface water of the state means the water body typically contains water throughout the year and rarely experiences dry periods.

(3) **"Point source"** means any discernible, confined and discrete conveyance from which pollutants are or may be discharged into a surface water of the state, but does not include return flows from irrigated agriculture.

(4) **"Practicable"** means that which may be done, practiced or accomplished; that which is performable, feasible, possible.

(5) **"Primary contact"** means any recreational or other water use in which there is prolonged and intimate human contact with the water, such as swimming and water skiing, involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard. Primary contact also means any use of surface waters of the state for cultural, religious or ceremonial purposes in which there is intimate human contact with the water, including but not limited to ingestion or immersion, that could pose a significant health hazard.

(6) **"Public water supply"** means the use or storage of water to supply a public water system as defined by New Mexico's Drinking Water Regulations, 20.7.10 NMAC. Water provided by a public water system may need to undergo treatment to achieve drinking water quality.

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

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

S. Terms beginning with the letter "S".

(1) **"Secondary contact"** means any recreational or other water use in which human contact with the water may occur and in which the probability of ingesting appreciable quantities of water is minimal, such as fishing, wading, commercial and recreational boating and any limited seasonal contact.

(2) **"Segment"** means a classified water of the state described in 20.6.4.101 through 20.6.4.899 NMAC. The water within a segment should have the same uses, similar hydrologic characteristics or flow regimes, and natural physical, chemical and biological characteristics and exhibit similar reactions to external stresses, such as the discharge of pollutants.

(3) **"Specific conductance"** is a measure of the ability of a water solution to conduct an electrical current.

(4) **"State"** means the state of New Mexico.

(5) **"Surface water(s) of the state"** means all surface waters situated wholly or partly within or bordering upon the state, including lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, reservoirs or natural ponds. Surface waters of the state also means all tributaries of such waters, including adjacent wetlands, any manmade bodies of water that were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state, and any "waters of the United States" as defined under the Clean Water Act that are not included in the preceding description. Surface waters of the state does not include private waters that do not combine with other surface or subsurface water or any water under tribal regulatory jurisdiction pursuant to Section 518 of the Clean Water Act. Waste treatment systems, including treatment ponds or lagoons designed and actively used to meet requirements of the Clean Water Act (other than cooling ponds as defined in 40 CFR Part 423.11(m) that also meet the criteria of this definition), are not surface waters of the state, unless they were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state.

T. Terms beginning with the letter "T".

(1) **"TDS"** means total dissolved solids, also termed "total filterable residue."

(2) **"Toxic pollutant"** means those pollutants, or combination of pollutants, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring.

(3) **"Tributary"** means a perennial, intermittent or ephemeral waterbody that flows into a larger waterbody, and includes a tributary of a tributary.

(4) **"Turbidity"** is an expression of the optical property in water that causes incident light to be scattered or absorbed rather than transmitted in straight lines.

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

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

W. Terms beginning with the letter "W".

(1) **"Warmwater"** with reference to an aquatic life use means that water temperature and other characteristics are suitable for the support or propagation or both of warmwater aquatic life.

(2) "Water contaminant" means any substance that could alter if discharged or spilled the physical, chemical, biological or radiological qualities of water. "Water contaminant" does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, but may include all other radioactive materials, including but not limited to radium and accelerator-produced isotopes.

(3) "Water pollutant" means a water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or to unreasonably interfere with the public welfare or the use of property.

(4) "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico. Wetlands that are constructed outside of a surface water of the state for the purpose of providing wastewater treatment and that do not impound a surface water of the state are not included in this definition.

(5) "Wildlife habitat" means a surface water of the state used by plants and animals not considered as pathogens, vectors for pathogens or intermediate hosts for pathogens for humans or domesticated livestock and plants.

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]

20.6.4.10 REVIEW OF STANDARDS; NEED FOR ADDITIONAL STUDIES:

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

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

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

D. Site-specific criteria.

(1) The commission may adopt site-specific numeric criteria applicable to all or part of a surface water of the state based on relevant site-specific conditions such as:

(a) actual species at a site are more or less sensitive than those used in the national criteria data set;

(b) physical or chemical characteristics at a site such as pH or hardness alter the biological availability and/or toxicity of the chemical;

(c) physical, biological or chemical factors alter the bioaccumulation potential of a chemical;

(d) the concentration resulting from natural background exceeds numeric criteria for aquatic life, wildlife habitat or other uses if consistent with Subsection E of 20.6.4.10 NMAC; or

(e) other factors or combination of factors that upon review of the commission may warrant modification of the default criteria, subject to EPA review and approval.

(2) Site-specific criteria must fully protect the designated use to which they apply. In the case of human health-organism only criteria, site-specific criteria must fully protect human health when organisms are consumed from waters containing pollutants.

(3) Any person may petition the commission to adopt site-specific criteria. A petition for the adoption of site-specific criteria shall:

(a) identify the specific waters to which the site-specific criteria would apply;

(b) explain the rationale for proposing the site-specific criteria;

(c) describe the methods used to notify and solicit input from potential stakeholders and from the general public in the affected area, and present and respond to the public input received;

(d) present and justify the derivation of the proposed criteria.

(4) A derivation of site-specific criteria shall rely on a scientifically defensible method, such as one of the following:

(a) the recalculation procedure, the water-effect ratio for metals procedure or the resident species procedure as described in the water quality standards handbook (EPA-823-B-94-005a, 2nd edition, August 1994);

(b) the streamlined water-effect ratio procedure for discharges of copper (EPA-822-R-01-005, March 2001);

(c) the biotic ligand model as described in aquatic life ambient freshwater quality criteria - copper (EPA-822-R-07-001, February 2007);

(d) the methodology for deriving ambient water quality criteria for the protection of human health (EPA-822-B-00-004, October 2000) and associated technical support documents; or

(e) a determination of the natural background of the water body as described in Subsection E of 20.6.4.10 NMAC.

E. Site-specific criteria based on natural background. The commission may adopt site-specific criteria equal to the concentration resulting from natural background where that concentration protects the designated use. The concentration resulting from natural background supports the level of aquatic life and wildlife habitat expected to occur naturally at the site absent any interference by humans. Domestic water supply, primary or secondary contact, or human health-organism only criteria shall not be modified based on natural background. A determination of natural background shall:

(1) consider natural spatial and seasonal to interannual variability as appropriate;

(2) document the presence of natural sources of the pollutant;

(3) document the absence of human sources of the pollutant or quantify the human contribution; and

(4) rely on analytical, statistical or modeling methodologies to quantify the natural background.

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 sections in 40 CFR Part 131, Water Quality Standards; specifically, Section 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) of Subsection F of 20.6.4.10 NMAC;

(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) of Paragraph (1) of Subsection F of 20.6.4.10 NMAC.

(2) A temporary standard shall apply to specific designated use(s), pollutant(s), or permittee(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 or control technologies.

(3) Designated use attainment as reported in the federal Clean Water Act 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), the permittees, 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) of Subsection F of 20.6.4.10 NMAC;

(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) of Subsection F of 20.6.4.10 NMAC and submit the work plan to the department for review and comment. The work plan shall identify the factor(s) listed in Subsection 40 CFR 131.10(g) or Subparagraph (a) of Paragraph (1) of Subsection F of 20.6.4.10 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) of Subsection F of 20.6.4.10 NMAC, 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 Subsection F of 20.6.4.10 NMAC for all state purposes, and the federal 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 Sections 20.6.4.97-899 NMAC as appropriate for the surface water affected.

(12) "Temporary standard" means "a time-limited designated use and criterion for a specific pollutant(s) or water quality parameter(s) that reflect the highest attainable condition during the term of the temporary standard."

[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]

20.6.4.12 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.

B. Compliance with chronic water quality criteria shall be determined from the arithmetic mean of the analytical results of samples collected using applicable protocols. Chronic criteria shall not be exceeded more than once every three years.

C. Compliance with water quality standards for total ammonia shall be determined by performing the biomonitoring procedures set out in Subsections D and E of 20.6.4.14 NMAC, or by attainment of applicable ammonia criteria set out in Subsections K, L and M of 20.6.4.900 NMAC.

D. 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.

E. The commission may establish a numeric water quality criterion at a concentration that is below the minimum quantification level. In such cases, the water quality standard is enforceable at the minimum quantification level.

F. For compliance with hardness-dependent numeric criteria, dissolved hardness (as mg $CaCO_3/L$) shall be determined from a sample taken at the same time that the sample for the contaminant is taken.

G. Compliance Schedules: It shall be the policy of the commission to allow on a case-by-case basis the inclusion of a schedule of compliance in a NPDES permit issued to an existing facility. Such schedule of compliance will be for the purpose of providing a permittee with adequate time to make treatment facility modifications necessary to comply with water quality based permit limitations determined to be necessary to implement new or revised water quality standards or wasteload allocation. Compliance schedules may be included in NPDES permits at the time of permit renewal or modification and shall be written to require compliance at the earliest practicable time. Compliance schedules shall also specify milestone dates so as to measure progress towards final project completion (e.g., design completion, construction start, construction completion, date of compliance).

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 federal Clean Water Act permit as enforceable limits and conditions. The temporary standard and any 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]

20.6.4.16 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 Subsection A of 20.6.4.16 NMAC, 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;

[~~(9)~~] (11) post-treatment assessment monitoring protocol; and

[~~(10)~~] (12) any other information required by the commission.

B. Within [~~thirty~~] 30 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.~~] 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 20.1.3 NMAC, Adjudicatory Procedures - Water Quality Control Commission. 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.

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 of 20.6.4.16 NMAC.

[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]

20.6.4.97 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 are subject to the designated uses and criteria as specified in this section. Ephemeral waters classified in sections 20.6.4.101-899 NMAC are subject to the designated uses and criteria as specified in those sections.

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 U.S. geological survey 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 Albuquerque metropolitan arroyo flood control authority (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;

(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 San Vicente arroyo from the Mimbres river upstream to Maudes canyon.

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

20.6.4.98 INTERMITTENT WATERS: All non-perennial [~~unclassified~~] surface waters of the state, except those ephemeral waters included under section 20.6.4.97 NMAC or classified in sections 20.6.4.101-899 NMAC.

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 sections 20.6.4.101-899 NMAC.

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]

20.6.4.101 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]

20.6.4.110 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]

20.6.4.116 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 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]

20.6.4.124 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 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]

20.6.4.206 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 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]

20.6.4.305 CANADIAN 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 Bonney canyon and perennial reaches of the Rio Felix.

A. Designated Uses: irrigation, livestock watering, wildlife habitat, secondary 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]

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

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]

20.6.4.403 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]

20.6.4.502 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; A, XX-XX-XX]

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; [~~for the 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]

20.6.4.803 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 canyon~~] 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, 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.

[20.6.4.804 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 - N, XX-XX-XX]

20.6.4.808 CLOSED BASINS: Perennial and intermittent watercourses within Smelter Tailing Soils Investigation Unit lands at the Chino mines company, excluding those ephemeral waters listed in 20.6.4.809 NMAC 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: Warmwater 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: the acute and chronic aquatic life criteria for copper set forth in Subsection I of 20.6.4.900 NMAC 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, dissolved organic carbon (DOC) is 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.
[20.6.4.808 NMAC - N, XX-XX-XX]

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 20.6.4.900NMAC 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, dissolved organic carbon (DOC) is 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 NMAC - N, XX-XX-XX]

20.6.4.[~~807~~] 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 [~~Cultureand~~] 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.

B. Domestic Water Supply: Surface waters of the state designated for use as domestic water supplies shall not contain substances in concentrations that create a lifetime cancer risk of more than one cancer per 100,000 exposed persons. Those criteria listed under domestic water supply in Subsection J of this section apply to this use.

C. Irrigation and Irrigation Storage: The following numeric criteria and those criteria listed under irrigation in Subsection J of this section apply to this use:

(1)	dissolved selenium	0.13 mg/L
(2)	dissolved selenium in presence of >500 mg/L SO_4	0.25 mg/L.

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 colony forming units (CFU) 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 colony forming units (CFU) or the most probable number (MPN), depending on the analytical method used.

F. Livestock Watering: The criteria listed in Subsection J of this section for livestock watering apply to this use.

G. Wildlife Habitat: Wildlife habitat shall be free from any substances at concentrations that are toxic to or will adversely affect plants and animals that use these environments for feeding, drinking, habitat or propagation; can bioaccumulate; or might impair the community of animals in a watershed or the ecological integrity of surface waters of the state. The numeric criteria listed in Subsection J for wildlife habitat apply to this use.

H. Aquatic Life: Surface waters of the state with a designated, existing or attainable use of aquatic life shall be free from any substances at concentrations that can impair the community of plants and animals in or the ecological integrity of surface waters of the state. Except as provided in Paragraph (7) of this subsection, the acute and chronic aquatic life criteria set out in Subsections I, J, K and L of this section and the human health-organism only criteria set out in Subsection J of this section are applicable to all aquatic life use subcategories. In addition, the specific criteria for aquatic life subcategories in the following paragraphs apply to waters classified under the respective designations.

(1) High Quality Coldwater: dissolved oxygen 6.0 mg/L or more, 4T3 temperature 20°C (68°F), maximum temperature 23°C (73°F), pH within the range of 6.6 to 8.8 and specific conductance a segment-specific limit between 300 µS/cm and 1,500 µS/cm depending on the natural background in the particular surface water of the state (the intent of this criterion is to prevent excessive increases in dissolved solids which would result in changes in community structure). Where a single segment-specific temperature criterion is indicated in 20.6.4.101-899 NMAC, it is the maximum temperature and no 4T3 temperature applies.

(2) Coldwater: dissolved oxygen 6.0 mg/L or more, 6T3 temperature 20°C (68°F), maximum temperature 24°C (75°F) and pH within the range of 6.6 to 8.8. 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.

(3) Marginal Coldwater: Dissolved oxygen [~~6~~] 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~~] 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~~] 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~~] $CaCO_3$, 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.~~

~~(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)~~] **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							
Vanadium, dissolved	7440-62-2		100	100					
Zinc, dissolved	7440-66-6	10,500	2,000	25,000		a	a	26,000	P

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
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~~] Benzo(a)anthracene	56-55-3	0.048						0.18	C
[~~Benzoapyrene~~] Benzo(a)pyrene	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	[~~117817~~] 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

Pollutant	CAS Number	DWS	Irr/Irr Storage	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
1,3-Dichloropropene	542-75-6	3.5						210	C
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~~] Biphenyls (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

(2) Notes applicable to the table of numeric criteria in Paragraph (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) apply to the sum of all congeners, to the sum of all homologs or to the sum of all aroclors.

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°C~~] 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
8.3	[~~1.52~~]	1.52	1.48	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562

pH	Temperature (°C)										
	[~~0 and below~~]	14 and below	15	16	18	20	22	24	26	28	30 and above
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)									
	[~~0 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.

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[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]

CERTIFICATE OF SERVICE

I hereby certify that a copy of the **Statement of Reasons and Final Order** was sent via the stated methods below to the following parties on January 11, 2017:

Hand Delivery and email:

Kathryn S. Becker
John Verheul
Assistant General Counsel
Office of General Counsel
New Mexico Environment Department
1190 South Saint Francis Drive, Suite N-4050
Santa Fe, New Mexico 87505-5469
Phone: 505-383-2063
Email: kathryn.becker@state.nm.us
Email: John.Verheul@state.nm.us
For the New Mexico Environment Department

Via First Class U.S. Mail and email:

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

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

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

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

Timothy A. Dolan
Office of Laboratory Counsel
Los Alamos National Laboratory
Post Office Box 1663, MS A187
Los Alamos, New Mexico 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, New Mexico 87544-2201
Phone: 505-667-4667
Email: Lisa.Cummings@nnsa.doe.gov

Pam Castañeda

Pam Castaneda, Commission Administrator
Water Quality Control Commission
P.O. Box 5469
Santa Fe, NM 87502
Phone: 505-827-2425
Fax: 505-827-2836