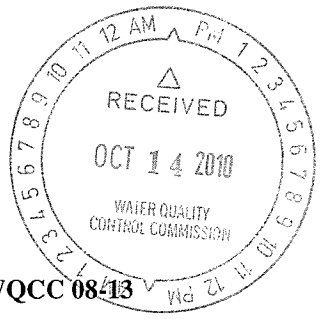


STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE PETITION TO AMEND 20.6.4 NMAC - STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS, THE TRIENNIAL REVIEW

WQCC 08-13

ORDER AND STATEMENT OF REASONS FOR AMENDMENT OF STANDARDS

I. INTRODUCTION

A. Clean Water Act

1. The federal Clean Water Act (CWA), 42 U.S.C. Section 1251(a), states its objective as the restoration and maintenance of the chemical, physical and biological integrity of the Nation's waters.
2. The CWA achieves this objective by ensuring "wherever attainable, water quality which provides for the protection and propagation of fish, shellfish and wildlife, and provides for recreation in and on the water be achieved."
3. CWA Section 1313(c) establishes the purpose of water quality standards ("WQS" or "standards") as "serv[ing] the purposes of the Clean Water Act." The WQS should fulfill the objectives, goals and policies of the CWA.
4. The Environmental Protection Agency's (EPA's) *Water Quality Standards Handbook* (Handbook) provides more specific guidance. To "serve the purposes of the Clean Water Act", WQS must (a) include provisions for restoring and maintaining chemical, physical, and biological integrity of state waters; (b) wherever attainable, achieve a level of water quality that provides for the protection and propagation of fish, shellfish and wildlife, and recreation in and on the water; and (c) consider the use and value of state waters for public water supplies, propagation of fish and wildlife, recreation, agriculture and industrial purposes, and navigation.
5. WQS serve two important purposes: (a) to "define the goals for a water body, or portion, thereof, by designating the use or uses to be made of the water, by setting criteria necessary to protect the uses"; and (b) to "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 Act" in National Pollutant Discharge Elimination system (NPDES) and Dredge-or-Fill permits.

B. Water Quality Act

6. The New Mexico Water Quality Act (WQA), Section 74-6-3.E, designates the New Mexico Water Quality Control Commission ("WQCC" or "Commission") as the state's water pollution control agency for all purposes of the CWA.

7. The WQA requires the WQCC to take all necessary steps to comply with the CWA and to protect water quality in New Mexico.

8. WQA Section 74-6-4.D provides that the WQCC:

> shall adopt water quality standards for surface and ground water of the state based on credible scientific data and other evidence appropriate under 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. In making standards, the 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.

9. WQA Section 74-6-4.E designates the New Mexico Environment Department (NMED) to provide technical services to the WQCC.

10. As part of this designation, and as specifically provided by the 1998 State of New Mexico Continuing Planning Process (CPP), NMED takes the lead technical role in the triennial review process.

C. Triennial Review Process

11. CWA Section 1313(c)(1) requires New Mexico to hold a public hearing at least once every three years to review applicable water quality standards and, as appropriate, to modify and adopt standards.

12. The states have considerable latitude in developing and tailoring their WQS to achieve state goals and priorities, but the WQS must comply with federal guidelines.

13. After the WQCC holds a hearing, it modifies and adopts the standards based on the hearing record and sends to EPA for review and approval.

14. If the EPA approves the WQS, they become enforceable under federal law.

15. If the EPA does not approve the WQS, in whole or in part, it gives the state an opportunity to correct the problem.
16. If the state cannot or will not correct the problem, then the EPA must promulgate WQS for the state.
17. There have been several instances in the history of New Mexico's WQS that the EPA has disapproved a portion of the standards. In each case, the WQCC has avoided federal promulgation by correcting the problem itself.

D. 2008 Triennial Review

18. NMED implemented a full public participation process for the 2008 triennial review, including public comment periods, public notices and meetings.
19. NMED revised its discussion draft to take into account many of the comments received during the public participation process.
20. NMED filed its petition to amend the standards on December 1, 2008, initiating the 2008 triennial review.
21. The Commission Administrator docketed the petition on December 2, 2008.
22. The Commission's Hearing Officer entered Scheduling and Procedural Orders on April 15, 2009, and the Commission Administrator published public notice for the orders on May 4, 2009.
23. Numerous parties filed petitions to amend the Standards.
24. The Department filed an amended petition on July 6, 2009.
25. The parties filed written testimony and exhibits regarding the various proposed amendments to the Standards.
26. The Commission Administrator published public notice for the hearing in both English and Spanish in several newspapers on or before August 10, 2009.
27. The Department filed a Notice of Compliance with Small Business Regulatory Relief Act on February 27, 2009.
28. The WQCC held the hearing on December 8, 2010, continuing until December 11, 2010.

29. At the hearing, all interested persons were given a reasonable opportunity to submit data, views and arguments orally and in writing, and to examine witnesses testifying at the hearing. In addition to testimony from the parties, oral public was accepted, and 55 written public comments were received.

30. The Commission deliberated over the course of two days in its July 2010 meeting to come to agreement or to a vote of the majority on the following changes to the standards, the basis for which follows each section in summary form. Unless otherwise noted, the Commission approved these changes based on credible scientific data.

31. For a more detailed understanding of the basis for each change and citations to the specific supporting testimony and evidence in the record, this Statement, adopted by the Commission as part of its regular meeting on October 12, 2010, must be read in conjunction with Attachment A to the Hearing Officer's Report, submitted to the Commission prior to its deliberations and discussed at length during its deliberations.

32. What follows are those sections of the Standards which have been amended. Those sections in which the only change would be re-numbering or re-lettering to accommodate amendments made in other sections are not shown.

II. CHANGES TO THE STANDARDS

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.

33. The Commission adopts Department's proposal to reorganize section 7. Alphabetizing the definitions under subsections enhances the readability of the Standards, allows for the insertion or deletion of definitions without renumbering all subsequent definitions, and means the subsection citation for a particular definition will remain consistent over time.

34. The Commission adopts the Department's proposal to add a list of unit abbreviations at the beginning of section 7, for additional clarity.

(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.

35. The Commission adopts the Department's proposal to add new temperature-related definitions (4T3, 6T3 and maximum) in connection with changes made to section 900.H, to improve aquatic life protection and effective criteria implementation.

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

(a) **"cfu/100 mL"** means colony-forming units per 100 milliliters;

36. The Commission adopts the Department's proposal to add this definition and to delete the definition of "cfu" in section 7.K. because "cfu" occurs only as "cfu/100 mL" in the Standards. The new definition explains the abbreviation but does not define the units themselves because the term has the same meaning as in general scientific usage. The Commission adopts the Department's proposal to follow this format for all abbreviations.

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

37. The Commission adopts the Department's proposal to move this abbreviation from section 7.J.

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

38. The Commission adopts the Department's proposal to replace the term "micrograms per liter (µg/L)" and the definition previously found at section 7.MM ("micrograms of solute per liter of solution; equivalent to parts per billion when the specific gravity of the solution = 1.000") because it explains the abbreviation without elaboration and omits "of solute" and "of solution," while retaining the comparative reference to "parts per billion", which is an alternative expression more familiar to some readers.

39. Additionally, the word "equals" replaces the symbol "=" because NMAC rules discourage the use of symbols, and "1.0" replaces "1.000" because the specific gravity need not be measured to a precision of three significant digits.

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

40. The Commission adopts the Department's proposal to add this definition and to express specific conductance criteria in microsiemens per centimeter (µS/cm) instead of micromhos per centimeter (µmhos/cm) because the siemens is the unit of electric

conductance adopted by the International System of Units (SI), the system of modern metric units recognized internationally for science and technology. PL 48 - Exhibit 3.

41. The SI unit is appropriate, and "one µS/cm is equal to one µmho/cm" provides a transition for people familiar with the specific conductance criteria expressed as µmhos/cm.

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

42. The Commission adopts the Department's proposal to add a new definition for this unit because the human health-organism only criterion for methylmercury set forth in section 900.J is expressed in milligrams per kilogram (mg/kg).

43. The phrase "equivalent to parts per million" is appropriate because it is consistent with the definitions of µg/L and mg/L, which reference the equivalent "parts per" expression.

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

44. The Commission adopts the Department's proposal to replace the term "milligrams per liter (mg/L)" and its previous definition in section 7.NN ("milligrams of solute per liter of solution; equivalent to parts per million when specific gravity of the solution = 1.000") because it follows the format of explaining the abbreviation without elaboration and omits "of solute" and "of solution."

45. The word "equals" replaces the symbol "=" because NMAC rules discourage the use of symbols, and "1.0" replaces "1.000" because the specific gravity need not be measured to a precision of three significant digits.

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

46. The Commission adopts the Department's proposal to replace the previous definition in section 7.RR. because the first sentence of the previous definition ("NTU means nephelometric turbidity units based on a standard method using formazin polymer or its equivalent as the standard reference suspension") unnecessarily defines the unit in addition to explaining the abbreviation.

47. The second sentence of the previous definition ("Nephelometric turbidity measurements expressed in units of NTU are numerically identical to the same measurements expressed

in units of FTU (formazin turbidity units)") is unnecessary because the Standards have not expressed turbidity units in FTUs since 1988.

(h) **"pCi/L"** means picocuries per liter.

48. The Commission adopts the Department's proposal to add this definition and delete "pCi" in section 7.VV. because "pCi" occurs only as "pCi/L" in the Standards.

.... [indicates existing definitions unchanged except for re-lettering]

B. Terms beginning with the letter "B".

....

C. Terms beginning with the letter "C".

....

~~**J. "cfs" means cubic feet per second.**~~ [See above, now in 20.6.4.7.A(3)(b).]

~~**K. "cfu" means colony forming units.**~~ [See above, now in 20.6.4.7.A(3)(a).]

....

(5) **"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.

49. The Commission adopts the Department's proposal to add a coolwater aquatic life use because it protects waters with temperature characteristics intermediate between those established for warmwater and coldwater aquatic life uses.

50. The state has waters with aquatic species that fall between the categories of coldwater and warmwater. Coolwater fish in New Mexico include the longnose dace, white sucker, and creek chub. The phrase "may overlap" ensures that the definition includes aquatic life whose physiological tolerance overlaps that of warm and/or cold aquatic life. Coolwater species are expected to predominate as propagating populations in waters with intermediate temperatures, even if the tolerances of some species overlap with cold and/or warmwater species.

51. Historically, the Standards applied both warm and coldwater designations or the marginal coldwater designation to intermediate waters. These strategies do not adequately address coolwater habitats. A coldwater designation applies unattainable criteria and can result in an incorrect listing of the water as impaired. A warmwater designation applies criteria that are not sufficiently protective of coldwater aquatic communities.

52. A marginal coldwater designation is not appropriate. "Marginal coldwater" is defined as "natural intermittent or low flows, or other natural habitat conditions severely limit the ability of the surface water ... to sustain a coldwater aquatic life population ...." If it weren't for the limiting habitat conditions, these waters would support a coldwater community. Even with perennial flow and excellent habitat condition, the coolwater stream will not sustain a propagating coldwater community.

53. A coolwater stream supports a coolwater assemblage, which includes propagating coolwater species, and may also include coldwater or warmwater species at certain times of the year. If a propagating coldwater aquatic life use is attainable on a particular water body, then coldwater is the appropriate designation.

54. The new coolwater subcategory will only be applied to a surface water of the state currently classified as coldwater if justified by a use attainability analysis and adopted by the Commission.

....

D. Terms beginning with the letter "D".

....

[~~T.~~](4) **"Designated use"** means a use specified in [~~Sections 20.6.4.101~~] 20.6.4.97 through 20.6.4.899 NMAC for a surface water of the state whether or not it is being attained.

55. The Commission adopts the Department's proposal to change the reference from section 101 to include sections 97-99 because designated uses are specified in these sections. These sections were adopted during the last triennial review to assign designated uses and criteria to unclassified ephemeral, intermittent and perennial waters. The same expanded reference is adopted in sections 11.B, 11.E and 13.I.

56. The Commission adopts the Department's proposal to delete the word "sections" to comply with NMAC style recommendations.

[~~U.~~](5) **"Dissolved"** [~~means~~] refers to the fraction of a constituent of a water sample that [~~will~~] passes through a 0.45-micrometer pore-size [~~membrane~~] filter [~~under a pressure differential not exceeding one atmosphere~~]. The "dissolved" fraction is also termed "filterable residue."

57. The Commission adopts the Department's proposal to correct the grammatical problem that an adjective "dissolved" is defined with a noun "constituent" by replacing the phrase "dissolved means a constituent ..." with "dissolved refers to a constituent ...." because

the future tense "will pass" implies that the definition applies only before filtration of the sample. The present tense "passes" is more precise.

58. The type of 0.45 μm filter and the pressure differential under which filtration occurs are matters of sampling procedure and should not be detailed in the Standards. Section 14.A cites references that describe the appropriate sampling and analytical techniques.

....

E. Terms beginning with the letter "E".

[~~W.~~](1) [**~~"Escherichia coli" or~~] "E. coli"** means [~~a bacterial species that inhabits the intestinal tract of humans and other warm blooded animals, the presence of which indicates the potential presence of pathogenic microorganisms capable of producing disease~~] the bacteria Escherichia coli.

59. The Commission adopts the Department's proposal to identify the meaning of the abbreviation "E. coli." because the genus and species names are adequate to identify the bacteria.

[~~X.~~](2) "Ephemeral" when used to describe a surface water of the state means [~~a~~] the water body [~~that flows~~] contains water briefly only in direct response to precipitation [~~or snowmelt in the immediate locality~~]; its bed is always above the water table of the adjacent region.

60. The Commission adopts the Department's proposal to change "flows" to "contains water", add the modifier "briefly", and strike the phrases "or snowmelt" and "in the immediate locality" because the definition applies to lakes, emphasizes the difference between ephemeral and intermittent waters, recognizes that snowmelt is included in the term precipitation, and acknowledges that some ephemeral streams flow in response to upstream precipitation.

61. The Commission does not adopt the proposal from Dairy Producers of New Mexico (DPNM) of a different definition of "ephemeral" taken from the U.S. Geological Survey's (USGS) Glossary of Water Terms for New Mexico, for lack of evidentiary support, and because the Department's proposal is more inclusive of New Mexico's ephemeral waters and therefore more appropriate.

....

F. Terms beginning with the letter "F".

[~~Z. "Fecal coliform bacteria"~~ ~~means the portion of the coliform group of bacteria present in the gut or the feces of warmblooded animals. It generally includes organisms capable of producing gas from lactose broth in a suitable culture medium within 24 hours at 44.5 ± 0.2°C.~~]

62. The Commission adopts the Department's proposal to strike this definition because the term "fecal coliform bacteria" is no longer used in the Standards.

....

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

H. Terms beginning with the letter "H".

[~~CC.~~] (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.

63. The Commission adopts a new definition for a new term that is used in Section 900.J(1)(f) but not defined. The term refers to criteria based on EPA's recommended human health criteria for the consumption of organisms only.

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.

64. The Commission adopts the Department's proposal to add a definition for this designated use because the proposed definition covers direct uses of water by a wide range of industrial facilities, e.g., manufacturing, power generation, mining, etc.

65. It excludes industrial water uses supplied by a public water system because such uses are protected by the proposed public water supply use. The definition also excludes agricultural uses because irrigation is a separate designated use with associated criteria.

66. The definition includes the storage of water because the required water quality is the same whether the water is stored or used immediately. Therefore, industrial water supply storage will be deleted as a separate designated use.

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

67. The Commission adopts the Department's proposed revised language to emphasize key differences between ephemeral and intermittent waters.

68. An "ephemeral" water flows or contains water "briefly" and does not receive significant ground water inputs because the regional water table remains below the bed of the water body. An "intermittent" water typically flows or contains water seasonally, and the presence of water is sustained beyond a particular precipitation event.

69. The Commission does not adopt DPNM's proposed definition taken from the USGS's Glossary of Water Terms for New Mexico for lack of evidentiary support and because NMED's proposed definition is more inclusive.

....

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

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

L. Terms beginning with the letter "L".

....

M. Terms beginning with the letter "M".

[~~KK.~~](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 [~~maximum~~] temperature in the surface water of the state may exceed 25°C (77°F).

70. The Commission adopts the Department's proposal to delete "maximum" from the definition because historical data are derived from periodic grab samples and do not represent the "maximum temperature" that can now be ascertained from hourly thermograph data.

....

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

71. The Commission adopts the Department's proposal to introduce three new temperature-related definitions (4T3, 6T3 and maximum) in connection with changes to section 900.H to improve aquatic life protection and effective criteria implementation.

~~**[MM. "Micrograms per liter (µg/L)"** means micrograms of solute per liter of solution; equivalent to parts per billion when the specific gravity of the solution = 1.000.~~]

~~[NN. "Milligrams per liter (mg/L)" means milligrams of solute per liter of solution; equivalent to parts per million when the specific gravity of the solution = 1.000.]~~

[These abbreviations are defined in section 7.A, above.]

....

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.

72. The Commission adopts the Department's proposed definition to complement the new provisions in section 10.D and E regarding site-specific criteria based on natural background.

73. Emphasis on non-anthropogenic sources is consistent with EPA's policy memorandum "Establishing Site Specific Aquatic Life Criteria Equal to Natural Background." The memorandum states that "[n]atural background is defined as background concentration due only to non-anthropogenic sources, i.e., non-manmade sources."

74. The second sentence of the definition should dispel common misconceptions about what qualifies as "natural." A wildfire may be a natural event, but if human activity has removed the riparian vegetation, the sediment load delivered to the stream as a result of a fire will be higher than natural background.

75. An elevated pollutant load that is irreversible due to past practices, urbanization, or climate change is not natural background. Synthetic chemicals such as PCBs that do not exist naturally never have a natural background component.

....

~~[RR. "NTU" means nephelometric turbidity units based on a standard method using formazin polymer or its equivalent as the standard reference suspension. Nephelometric turbidity measurements expressed in units of NTU are numerically identical to the same measurements expressed in units of FTU (formazin turbidity units).]~~

[This definition was moved to section 7.A., see above.]

O. Terms beginning with the letter "O".

....

P. Terms beginning with the letter "P".

....

[~~UU.~~](2) **"Perennial"** when used to describe a surface water of the state means the water body typically contains water [~~continuously~~] throughout the year [~~in all years; its upper surface, generally, is lower than the water table of the region adjoining the stream~~] and rarely experiences dry periods.

76. The Commission adopts, with a minor modification ("and rarely experiences dry periods"), the Department's proposal to clarify the difference between an intermittent and perennial water.

77. The revised definition clarifies that waters are perennial if they experience dry periods so infrequently that the attainable uses are not affected. An intermittent water usually goes dry for some portion of the year while a perennial water usually does not, even though it may be affected by periods of drought or other temporary conditions. The revised definition ensures that a perennial water is not prematurely removed from a classified perennial segment.

78. The revised definition also corrects a gap between water types. The current definition of "intermittent" applies to streams that contain water "only at certain times of the year", while the current definition of "perennial" applies to streams that contain water "continuously throughout the year in all years". Consequently, a stream that usually flows year-round but infrequently goes dry is excluded from both definitions. The revised definition remedies this problem. The Department provided examples of streams that have dried up for a few days, but that should be considered perennial because no-flow events are rare. According to gauging records, in most years these streams flow continuously, but in some years they have dried up for a few days. For instance, the Vermejo River experienced periods of zero flow twice in 12 years (1.2% of days). Cieneguilla Creek experienced even shorter periods of zero flow in a 39-year record (0.45% of days). The Canadian River experienced periods of zero flow in 10 of 40 years (2.32% of days). Notwithstanding the USGS definition in the Glossary of Water Terms, USGS topographical maps show these streams as perennial. Like the Department's proposal, the USGS definition in the Draft Standards for National Hydrography Dataset does not insist on a rigid application of "flows continuously" but contains an exception for drought.

79. In considering hydrologic definitions in a set of water quality standards, it is important to remember the connection with use attainability. An intermittent stream usually goes dry for some portion of the year. If it flows continuously one year, however, that does not mean it is perennial or that it will sustain the same aquatic life community as a perennial water. Conversely, a perennial water usually flows continuously. If the water goes dry for a few days in one year, that does not mean it is intermittent or will not be able to support a perennial aquatic life community in subsequent years. The definition focuses on the overall nature of the water, not its behavior in a particular year.

80. Finally, the Department's proposal deletes the reference to the relative position of the water table because it is not critical to the definition and may not be accurate for some waters. The key characteristic should be the presence of water in the water body, not the location of the water table.

81. The Commission does not adopt DPNM's proposal to use the USGS definition, which refers to "a stream that flows continuously," for lack of evidence in the record and because it is not sufficiently inclusive.

82. The Commission does not adopt Freeport-McMoRan New Mexico Operations' proposal that the WQCC retain the existing definition of "perennial" surface waters; with the modification to the Department's proposal, the parameters distinguishing "intermittent" from "perennial" surface waters are sufficiently clear.

83. The Commission does not adopt Amigos Bravos' proposal requiring the Department to consider the historical condition of a water for lack of evidence in the record and because that requirement would be impossible to implement in most cases when the Department does not have stream gauge data to determine the historical condition of water ways.

84. The decision not to adopt Amigos Bravos' definition does not leave New Mexico waters without protection. Federal regulations and New Mexico's Standards already prevent the degradation of water quality by protecting existing uses. EPA regulations define existing uses as "those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards." 40 CFR 131.3(c). Even

if an existing use is no longer being attained due to irremediable conditions such as urbanization, the existing use cannot be removed unless a use requiring more stringent criteria has been adopted. 40 CFR 131.10.h(1). This requirement protects against degradation, establishes a historical point of reference, and provides a restoration goal.

~~[VV. **"Picocurie (pCi)"** means a measure of radioactivity equal to the quantity of a radioactive substance in which the rate of disintegrations is 2.22 per minute.~~]

[See the abbreviation "pCi/L" in section 7.A, above.]

....

(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.

85. The Commission adopts the Department's proposal to replace the terms "municipal water supply" and "municipal water supply storage" with the term "public water supply" because the definition applies to all regulated public water systems, rather than only to municipalities.

86. New Mexico Drinking Water Regulations define "public water system" as "a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if the system has at least fifteen service connections or regularly serves an average of twenty-five individuals daily at least sixty days out of the year."

87. Many public water systems are not operated by municipalities, but all must provide finished water that meets the maximum contaminant levels specified in the Drinking Water Regulations.

88. The term "municipal water supply storage" is not needed because the same water quality is required regardless whether the water is diverted or stored to supply a public water system.

89. The Department found numerous discrepancies in comparing the waters previously designated for municipal supply with the Drinking Water Bureau's list of active public water systems relying on surface water. Therefore, the Department proposes to add the

public water supply use to several segments that were not previously designated for municipal water supply, to restrict the designation to the specific source waters within those segments, and to remove the designation from one segment entirely. In particular, it should be noted that the Rio Grande diversion at Buckman in Segment 114 is listed although still under construction, while Ute Reservoir is listed because it is identified in long-term plans as a municipal water supply for eastern New Mexico counties, even though there is no active public water system in place.

90. The source waters for some of the public water systems listed in Exhibit 8 are classified by the Drinking Water Bureau as "ground water under the direct influence of surface water." These public water systems are susceptible to contaminants in surface water and therefore are subject to the same treatment and monitoring requirements as systems that rely on surface water. It is appropriate to protect the influencing surface waters by designating them for the public water supply use.

91. With this new definition in place, the Standards account for all drinking water sources. The new public water supply use covers public systems which are subject to treatment requirements, while the domestic water supply use covers non-public water supplies which may not provide treatment except for disinfection.

92. The Standards currently rely on the general and numeric criteria established for other uses to protect the municipal supply use. See section 900.A. No additional criteria have been proposed, except for segment-specific criteria for the Rio Grande in segment 114. Determining appropriate numeric criteria to protect the public water supply use is not a straightforward matter because public water systems are required to provide treatment, if needed, in order to comply with the Drinking Water Regulations. Nonetheless, it may be prudent to establish ambient water quality criteria as a preventative approach that could reduce treatment costs. The Department has indicated that it would commence a stakeholder discussion to explore this issue after the triennial review.

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

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

S. Terms beginning with the letter "S".

....

[~~AAA.~~](2) **"Segment"** means a classified [~~surface~~] 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.

93. The Commission adopts the Department's proposed defined term, "classified water of the state," to replace an undefined term, "classified surface water of the state."

[~~BBB.~~](3) "**Specific conductance**" [~~means conductivity adjusted to 25°C~~] is a measure of the ability of a water solution to conduct an electrical current.

94. The Commission adopts the Department's proposal to correct the previous definition. Specific conductance is not the same as conductivity; it is a measure of conductivity. The revision is based on the definition presented in the USGS Glossary of Terms and Units of Measurement; see http://ga.water.usgs.gov/nawqa/glossary.html.

....

T. Terms beginning with the letter "T".

....

[~~**FFF. "Technology-based limitations"** means the application of technology based effluent limitations as required under Section 301(b) of the federal Clean Water Act.~~]

95. The Commission adopts the Department's proposal to delete this definition because the term is not used in the Standards.

[~~**GGG. "Total"** means a constituent of a water sample that is analytically determined without filtration.~~]

96. The Commission adopts the Department's proposal to delete this definition because the definition does not apply to all uses of "total" in the Standards.

97. The definition is no longer necessary because when this meaning is intended, the Standards will state that an unfiltered sample must be analyzed.

[~~**HHH. "Total PCBs"** means the sum of all homolog, all isomer, all congener or all aroclor analyses.~~]

98. The Commission adopts the Department's proposal to delete this definition because it was not intended to define total PCBs, but rather to indicate the type of analyses to which the criteria apply.

99. The term is used only in the criteria table in section 900.J, which is being amended to add a paragraph of notes that includes this information.

....

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

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

W. Terms beginning with the letter "W".

....

~~[OOO. "Water quality-based controls" means effluent limitations, as provided under Section 301(b)(1)(C) of the federal Clean Water Act, that are developed and imposed on point source dischargers in order to protect and maintain applicable water quality standards. These controls are more stringent than the technology-based effluent limitations required under other paragraphs of Section 301(b).]~~

100. The Commission adopts the Department's proposal to delete this definition because the term is not used in the Standards.

....

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, 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.

[This introductory language is unchanged.]

101. The Commission does not adopt DPNM's proposal to limit the antidegradation policy to new or increased discharges because it is contrary to EPA's regulations.

102. State antidegradation policy and implementation procedures must be consistent with 40 CFR 131.12 (Antidegradation Policy), which require the states to "assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control."

20.6.4.9 OUTSTANDING NATIONAL RESOURCE WATERS:

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

103. The Commission adopts the Department's proposal to replace "classify" with "designate" to ensure consistency throughout the Standards.

(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;

104. The Commission adopts the Department's proposal to insert a missing word.

(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 [~~gold-medal~~] special trout [~~fishery~~] 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

105. The Commission adopts the Department's proposal to change the term for trout waters because it reflects the terminology used in New Mexico.

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

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

106. The Commission adopts the Department's proposal to replace "recreational" with "contact" because primary and secondary contact uses are defined terms, but recreational use is not.

107. The Commission also adopts the Department's proposal to replace "human health uses" with "human health-organism only criteria" because the new term more clearly describes the intended criteria, and "human health" is not a designated use. The change is

consistent with the Department's proposed change from "human health" to "human health-organism only" for the reasons given in section 900.J.

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;

108. The Commission adopts the Department's proposal to add Powderhouse Creek to the list of waters included within the Valle Vidal ONRW designation because the designation applies to all waters within the Valle Vidal special management area, and Powderhouse Creek was erroneously omitted from the designation, notwithstanding its inclusion in the public notice of the petition.

109. This correction is in no way intended to establish a policy by the Commission for future ONRW petitions or oversights in designation.

(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.

[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]

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; or

(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;

(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.

110. The Commission adopts the Department's proposed process and methodology for site-specific criteria to establish useful guidelines for deriving and adopting criteria based on site-specific conditions. The EPA's regulations (40 CFR Part 131) allow the states to adopt criteria that vary from the national criteria recommended by EPA under CWA section 304(a). EPA guidance notes that "[a] site-specific criterion is intended to come closer than the national criteria on providing the intended level of protection ... by taking into account the biological and/or chemical conditions ... at the site."

111. Paragraph (1) identifies some of the EPA-sanctioned site-specific conditions that could result in revised criteria, including natural background.

112. Paragraph (2) ensures that site-specific criteria protect the designated use. EPA guidance specifies that the derivation of site-specific criteria "does not change the intended level of protection". Paragraph (2) also clarifies that the human health-organism only criteria are intended to protect human health when fish or shellfish are consumed from waters containing pollutants, rather than the aquatic life uses.

113. Paragraph (3) establishes the process for proposing site-specific criteria to the Commission. In particular, it requires the petitioner to solicit and respond to comments and concerns from stakeholders and the general public in the affected area.

114. Paragraph (4) identifies EPA-approved and scientifically defensible procedures for developing site-specific criteria, including the Recalculation Procedure, Water-Effect Ratio Procedure and Resident Species Procedure, EPA's Human Health Method and the Biotic Ligand Model used by EPA to develop the freshwater copper criteria. The final procedure involves the determination of natural background. A petitioner may use a method not identified in this paragraph, but bears a higher burden to demonstrate scientific defensibility.

115. Freeport-McMoRan withdrew its proposed changes to NMAC 20.6.4.10(D) and endorsed the language set forth by NMED based on NMED's assurances that the WQCC could consider net ecological benefit concepts in establishing site-specific standards under NMED's proposed NMAC 20.6.4.10(D)(1)(e). Site-specific standard provisions are a common, EPA-approved component of state water quality standards and an essential tool to develop achievable surface water quality criteria. PL 53 at 28-29; PL 88 at 24. NMED's proposed site-specific standard provision would enhance the regulation of surface waters in New Mexico by making standards realistically achievable because they would be tailored to site-specific conditions. The WQA specifically contemplates the WQCC's authority to vary from unnecessary stringent or unworkable requirements and to consider "site-specific factors." See NMSA 74-6-4(H) and (K).

116. LANS/DOE also supported NMED's proposal to adopt site-specific numeric criteria in Sections 10.D and 10.E, because local physical, chemical, or hydrological factors control the biological availability or toxicity of many pollutants. The sensitivity of resident aquatic organisms to a pollutant in a particular water body can differ from the sensitivity of the species used to derive the generic numeric water quality criteria intended to protect aquatic life listed in 20.6.4.900.H, I, and J NMAC. In addition, resident aquatic organisms that occur in New Mexico surface waters often represent a narrower mix of species than those in the dataset used by USEPA to derive numeric water quality criteria intended to protect aquatic life. Finally, while the natural background concentration of a pollutant may exceed the numeric water quality criteria for aquatic life protection, the local resident populations may have acclimated or otherwise adapted to the higher natural background levels. Recognition of these factors is needed to allow flexibility in adjusting certain generic numeric criteria so that the intended levels of protection are achieved for aquatic life populations. Site-specific standards are needed because New Mexico's surface water quality standards, which are developed without taking site-specific factual circumstances into account, may be under- or over-protective.

117. The Commission does not adopt LANS/DOE's additional proposal in section D(2) because there are already mechanisms to address the concerns raised by LANS/DOE.

118. Like the existing provisions in sections 11 (Exceptions) and 13 (General Criteria), the LANS/DOE proposal cannot be implemented until natural background has been established.

119. The LANS/DOE proposal does not satisfy EPA's expectation that natural background must be documented in the Standards as revised criteria. The Department's proposals in section 10.D and E address these deficiencies by setting forth the requirements for establishing natural background and petitioning for site-specific criteria. The Commission adopts this approach not only because it is consistent with EPA policy, but also because it fulfills the WQA section 74-6-4.D obligation to adopt water quality standards that

include "the designated uses of the waters and the water quality criteria necessary to protect such uses."

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.

[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, XX-XX-XX]

120. The Commission adopts the Department's proposed new provision for the adoption of site-specific criteria based on natural background because, in conjunction with the new language in section 10.D, it provides another tool for protecting water quality. Several parties, as well as the EPA, have asked the Commission to adopt such a provision.

121. The provision allows site-specific criteria for all uses so long as the new criteria protect the designated use and do not modify human health related criteria. This approach is consistent with EPA's policy for setting criteria equal to natural background.

122. The provision itself provides the explanation for why natural background is protective of wildlife habitat and aquatic life uses. For other uses, such protection must be demonstrated. For example, criteria based on natural background may support the irrigation use depending on water management practices and crop needs, as well as the public water supply use if the water treatment system will protect public health. On the other hand, criteria exceeding the values for domestic water supply, recreation or human health-organism only will not protect human health.

123. EPA has established its expectations for site-specific criteria based on natural background in the context of aquatic life criteria:

> States and Tribes may establish site specific numeric aquatic life water quality criteria by setting the criteria value equal to natural background. Natural background is defined as background concentration due only to non-anthropogenic sources, i.e., non-manmade sources. In setting criteria equal to

natural background the State or Tribe should, at a minimum, include in their water quality standards:

> (1) a definition of natural background consistent with the above;
> (2) a provision that site specific criteria may be set equal to natural background;
> (3) a procedure for determining natural background, or alternatively, a reference in their water quality standards to another document describing the binding procedure that will be used.

124. The Department's proposed definition for "natural background" in section 7 meets the first requirement. The introduction to this new provision meets the second requirement, and Paragraphs (1) - (4) meet the third requirement.

125. The provision also provides the methodology referenced in paragraph (4) of proposed section 10.D pertaining to site-specific criteria, and can be used for determining natural background in other contexts, such as a use attainability analysis (UAA). 40 CFR 131.10(g)(1) ("naturally occurring pollutant concentrations prevent the attainment of the use"). A determination of natural background is not a casual undertaking. New Mexico has many remote locations, but the entire state has been affected by human activity. It is not sufficient to demonstrate that a pollutant has a natural source, but rather that natural contributions must be differentiated from human contributions.

126. The Commission does not adopt DPNM's proposal to allow criteria to be set at existing concentrations because the existing concentration may include both human caused and natural pollutant loads, so the proposal would sanction existing levels of pollution in violation of the CWA.

127. By referencing the highest existing level, the provision would allow sources to push the criterion higher by discharging more pollution. Such an approach would violate both the CWA (40 CFR 131.11(a), "States must adopt those water quality criteria that protect the designated use"), and the WQA (section 74-6-4.C, "Standards shall include ... the designated uses of the waters and the water quality criteria necessary to protect such uses").

128. Setting the criterion at the highest natural background concentration is not appropriate either; such a rigid approach would not account for the variability associated with many naturally occurring pollutants.

20.6.4.11 APPLICABILITY OF WATER QUALITY STANDARDS:

A. [~~**Waters Created by Discharge:** When a discharge to an otherwise ephemeral or intermittent, non-classified surface water of the state causes a water to enter a surface water of the state with criteria that are more restrictive than the criteria listed in 20.6.4.97 or 20.6.4.98 NMAC, the more restrictive criteria shall apply at the point such a water enters the surface water of the state with the more restrictive criteria. If discharge to such otherwise ephemeral or intermittent, non-classified waters of the state ceases or is diverted elsewhere the criteria listed in 20.6.4.97 or 20.6.4.98 NMAC shall apply.~~] **RESERVED.**

129. The Commission adopts the Department's proposed deletion of this subsection because the subsection is no longer needed.

130. A discharge to an unclassified water under sections 97-99 must be treated the same as a discharge to a classified water. Water quality criteria applicable to the receiving water and downstream waters must be protected. This principle holds for both perennial and nonperennial waters.

131. Prior to the adoption of sections 97-99, this subsection protected an effluent discharge into an otherwise ephemeral unclassified stream for livestock watering and wildlife habitat uses only, unless the effluent reached a classified water downstream, in which case the more stringent criteria applied at the point the effluent entered the classified water.

132. With the adoption of sections 97-99 for unclassified waters, all surface waters of the state have designated uses that include, at a minimum, livestock watering, wildlife habitat, aquatic life and recreation uses. Accordingly, there is no longer any reason to specifically protect unclassified nonperennial waters.

133. EPA supports the deletion of this subsection. EPA noted its concern "that although the uses associated with 20.6.4.97 or 20.6.4.98 NMAC may apply, the associated uses and criteria may not be adequate when flow is augmented by a discharge. Although more protective uses may not be attainable throughout the entire length of an ephemeral or intermittent segment, augmented flow may enable a portion of those receiving waters that

do support a broader range of uses than outlined in 20.6.4.97 or 20.6.4.98 NMAC. 40 CFR 131.10(g)(2) anticipates that, where a discharge to a low flow waterbody is sufficient to establish or sustain an aquatic life use, that use is to be protected." If a discharge changes the hydrology of a stream from ephemeral to perennial and thereby supports a "higher" aquatic life use, that use must be protected for as long as the discharge continues.

134. The Commission does not adopt DPNM's proposal to add a statement that dischargers are not obligated to continue discharges after they cease operation because repeating known propositions in the Standards is not necessary. Neither the Commission nor EPA has the authority to require that a discharge be continued.

B. Critical Low Flow: [~~The numeric standards set under Subsection F of 20.6.4.13 NMAC, 20.6.4.101 through 20.6.4.899 NMAC and 20.6.4.900 NMAC may not be attainable when streamflow is less than the critical low flow, but narrative criteria in 20.6.4.13 NMAC will continue to apply.~~] 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~~] 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~~]. 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 N_0 = number of zero flow values

(2) [~~for~~] 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 numeric values~~] low flow may be determined on an annual, a seasonal or a monthly basis, as appropriate, after due consideration of site-specific conditions.

135. The Commission adopts the Department's proposal to delete the ambiguous statement that numeric criteria "may not be attainable" when streamflow is less than the critical low flow because it clarifies a statement that some stakeholders have misinterpreted to mean that the criteria do not apply below the low flow, for example, for purposes of assessment.

136. The new language clarifies that the critical low flow is used in the calculation of effluent limitations in discharge permits. Because streamflow at a particular location varies, and because New Mexico allows a mixing zone for certain criteria, some flow level must be assumed to calculate an allowable concentration of pollutants in the effluent stream.

137. This provision requires the use of the critical low flow in that calculation. It does not exempt streams from water quality protection when the flow falls below a certain level. Similarly it does not require the Department to disregard data collected during low flows when assessing streams.

138. The Commission adopts the Department's proposal to replace the reference to "20.6.4.101" with "20.6.4.97" to correct an omission in the previous triennial review. Sections 97-99 were adopted in 2005 and include designated uses and numeric criteria.

139. The Commission adopts the Department's proposal to replace "human health" with "human health-organism only" for the reasons explained in section 900.J.

140. The Commission adopts the Department's proposed other changes in paragraphs (1) and (2) to enhance readability of the restructured paragraphs.

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, [~~20.6.4.101~~] 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 [~~publicly owned~~] lakes, reservoirs, or playas; these effluents shall meet all applicable criteria set under Subsection F of 20.6.4.13 NMAC, [~~20.6.4.101~~] 20.6.4.97 through 20.6.4.899 NMAC and 20.6.4.900 NMAC at the point of discharge.

(2) The acute [~~numeric~~] aquatic life criteria, as set out in [~~Paragraph (1) of~~] 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, [~~20.6.4.101~~] 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.

141. The Commission adopts the Department's proposal to change the reference from section 101 to section 97 for the reasons given in section 11.B.

142. The Commission adopts the Department's proposal to remove the term "publicly owned" in paragraph (1) because the Standards apply to all surface waters of the state as set forth in section 2.

143. The Commission adopts the Department's correction of the references to the acute aquatic life criteria in paragraph (2) for consistency with section 900.

144. The Commission adopts the Department's suggestion to remove the comma following "20.6.4.900 NMAC" in paragraph (5) because the comma is not grammatically correct.

145. The Commission does not adopt Amigos Bravos' proposal to either eliminate or restrict the scope of mixing zones.

146. Mixing zones are expressly allowed by 40 CFR 131.13, and New Mexico's mixing zone provisions in the Standards have been approved by EPA.

147. New Mexico's mixing zone provisions are already protective. Mixing zones are not allowed in lakes, reservoirs or playas, are not allowed for the general criteria in sections 13.A, B, C, D, E, G, H or J, and are not allowed for the acute aquatic life criteria.

148. New Mexico's provisions protect aquatic life by requiring a continuous zone of passage to allow the migration of aquatic life without inducing chronic effects. These provisions are more restrictive than EPA guidance, which allows the states to establish mixing zones for acute criteria.

149. Mixing zones are commonly relied upon by NPDES permittees throughout the state, who operate under EPA's oversight. EPA has consistently allowed the use of mixing zones in its permits, and eliminating this option would create unworkable inconsistencies between the water quality standards as implemented by the WQCC and NMED and the NPDES program, as implemented by EPA.

150. Elimination of mixing zones is not supported by the record and could cause substantial adverse economic costs as water quality standards would have to be met at the point of discharge.

F. Multiple Uses: When a [~~classified~~] 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 [~~classified~~] water.

151. The Commission strikes the term "classified" because by definition "classified waters of the state" are waters identified in sections 101-899.

152. Livestock watering and wildlife habitat were first explicitly acknowledged as designated uses for unclassified non-perennial waters in the 1995 amendments. Sections 97-99 were added in the 2005 amendments, and assigned additional designated uses and numeric criteria for all unclassified waters. The changes rendered incorrect many references to classified waters. Replacing the defined term "classified water of the state" with the defined term "surface water of the state" addresses this problem.

153. The Commission does not adopt DPNM's proposal to delete "surface" and restore "classified" because the reference to "classified water of the state" is not accurate. This

provision applies to all waters with more than a single designated use, which includes the unclassified waters.

154. The Commission does not adopt DPNM's proposal to add a sentence allowing the Department and EPA to approve criteria because the Commission must approve modified criteria.

G. Human health-organism only criteria in Subsection J of [~~Section~~] 20.6.4.900 NMAC [~~shall~~] 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 [~~shall~~] 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 [~~Section~~] 20.6.4.900 NMAC, [~~shall~~] also apply to all tributaries of waters with a designated, existing or attainable aquatic life use.

155. The Commission adopts the Department's proposal to replace "human health" with "human health-organism only" for the reasons given in section 900.J., and to delete "Section" and "shall" to conform to the NMAC style recommendations.

[~~**H. Aquatic Life:** Aquatic life criteria shall apply to all surface waters of the state containing an aquatic life community. Except when a limited aquatic life use and specific criteria have been designated on a segment specific basis, or when otherwise provided in this part, chronic aquatic life criteria listed in Subsection J of 20.6.4.900 NMAC are applicable to all perennial surface waters of the state, and acute aquatic life criteria listed in Subsection J of 20.6.4.900 NMAC are applicable to all surface waters of the state.~~]

156. The Commission adopts the Department's proposal to delete this subsection because the applicability of aquatic life criteria is established in section 900.H.

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.

157. The Commission adopts the Department's proposal to add this subsection in conjunction with its proposal to amend sections 15 and 97-99 because it reflects the federal requirements articulated by EPA in not approving sections 97-99 for unclassified ephemeral waters in the previous triennial review.

158. The Commission had adopted sections 97-99 to enhance protection for unclassified ephemeral, intermittent, and perennial waters, believing that the designated uses and associated criteria met the section 101(a)(2) goals, and that UAAs were not required.

EPA disagreed, and did not approve the new sections on the ground that UAAs were required because the designated uses and criteria did not meet section 101(a)(2) goals.

159. The new language expressly states the federal presumption regarding section 101(a)(2) uses, as described by EPA after the previous triennial review:

> These statutes [CWA sections 101(a)(2) and 303(c)] require water quality standards to provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water - functions commonly referred to as "fishable/swimmable" uses. EPA's current water quality regulation effectively establishes a rebuttable presumption that "fishable/swimmable" uses are attainable and therefore should apply to a water body unless it can be demonstrated that such uses are not attainable.

160. The presumption would apply only to sections 98 and 99, which have been amended accordingly. Conversely, section 97 has not been amended because the presumption is not appropriate for ephemeral waters. Moving a water from sections 98 or 99 to section 97, however, must be supported by a UAA.

161. Any pond that falls within the waters of the United States must be protected by EPA's rebuttable presumption for fishable/ swimmable uses.

162. The WQA, like the CWA, does not create a rebuttable presumption for swimmable/ fishable uses. The WQA does not even contain language similar to the CWA's goal of fishable/swimmable uses, and therefore does not even "express a preference for [such] designations." Id. Although the WQA, like the CWA, does contain a mandate that the Commission consider a range of factors in adopting standards, this language does not create a presumption for any particular use. NMSA, §74-6-4(D).

163. On the other hand, the Standards do create a rebuttable presumption for the fishable/swimmable uses. Section 15(A)(1) states in part that "[a]ny person who proposes to classify, or reclassify to a designated use with less stringent criteria, a surface water of the state with designated uses that do not include the uses specified in Section 101(a)(2) of the federal Clean Water Act must conduct a use attainability analysis." This provision appears to establish a rebuttable presumption for classified waters. Further, EPA considers unclassified waters in sections 97-99 to be waters of the United States, and therefore subject to the fishable/swimmable uses, until determined otherwise. Taken

together, the Standards create a presumption that can be rebutted upon a showing, in the appropriate forum, that either: the water is classified in sections 101-899, and a UAA demonstrates that the fishable/swimmable uses should be removed; or the water is unclassified in sections 97-99, the water is not a water of the United States, and the water does not have an existing fishable/swimmable 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.
[~~(1) 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 and is subject to 20.6.4.98 NMAC if it is non-perennial or 20.6.4.99 NMAC if it is perennial. However, the commission may include an ephemeral unclassified surface water of the state under 20.6.4.97 NMAC if a use attainability analysis conducted in accordance with 20.6.4.15 NMAC demonstrates that attainment of Clean Water Act Section 101(a)(2) uses is not feasible.~~]

164. The Commission does not adopt DPNM's proposal to delete the reference to CWA presumed uses and the requirement to complete a UAA before placing an ephemeral water under section 97 because omitting this information leads to the false conclusion that ephemeral waters may be included under section 97 without a UAA.

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 [~~division~~] diversion dams except for emergency actions necessary to protect health and safety of the public are not covered by this exception.

165. The Commission adopts the Department's proposal to correct a typographical error.

166. The Commission does not adopt Freeport-McMoRan's proposal to expand the exceptions for numeric criteria for temperature, dissolved solids, sediment, and turbidity established under the proposed 20.6.4.11(I) NMAC because the exemption exceeds the statutory scope in the WQA, which is limited to the reasonable operation of irrigation and flood control facility and because the proposal lacks support in the record.

167. These pollutants are responsible for water quality impairments in New Mexico, and can be controlled in stormwater discharges by BMPs.

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.

[No changes are made in the introductory section, or sections A-B.]

168. The Commission does not adopt Freeport McMoRan's proposal to ensure that sampling methodologies used in connection with enforcement of standards are consistent with those used for purposes of water body assessment, because it is unnecessary; consistency is already ensured by EPA's review of the CWA 305(b)/303(d) Integrated Report.

169. The Commission does not adopt Freeport McMoRan's proposal to add certain requirements for the establishment of chronic criteria violations because it is misplaced; Section 12 concerns enforcement, not the Department's assessment protocols.

170. The Commission does not adopt Amigos Bravos' proposal to change the sampling requirements and the basis for determining human health-organism only criteria exceedances because this section concerns enforcement, not assessment.

171. The Commission does not adopt Freeport McMoRan's proposal imposing evidentiary requirements for water quality violations because it would impose an undue burden and hamper the Commission from enforcing the chronic criteria. Under the WQA, the Commission decides whether the alleged violation is supported by credible evidence, taking into account a number of factors, including the number of samples, when they were collected, and the conditions under which they were collected. The Commission is capable of determining the evidentiary weight to be given to sampling data in an enforcement matter without the unduly restrictive limitations proposed.

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[~~,~~] and L [~~and M~~] of 20.6.4.900 NMAC.

172. The Commission adopts the Department's proposal to revise the references for consistency with the proposed changes to the ammonia criteria in sections 900.K and L.

D. Compliance with [~~water quality criteria for the protection of human health~~] 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.

173. The Commission adopts the Department's proposal to replace "human health" with "human health-organism only" for the reasons given in section 900.J.

E. The commission may establish a numeric water quality [~~standard~~] 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.

174. The Commission adopts the Department's proposal to replace "standard" with "criterion" for accuracy.

175. Water quality standards consist of designated uses, criteria to protect those uses, and an antidegradation policy. Criteria, as defined in section 7, are "elements of state water quality standards, expressed as constituent concentrations, levels or narrative statements, representing a quality of water that supports a use."

[~~**F.** In determining compliance with criteria for chromium an analysis that measures both the trivalent and hexavalent ions shall be used.~~]

176. The Commission adopts the Department's proposal to delete this subsection because the chromium criteria in section 900.I are based on EPA's recommendations for the trivalent ion only.

177. It is not valid to compare analytical results measuring the concentrations of both the trivalent (chromium III) and hexavalent ion (chromium VI) to the chromium III criteria.

[~~G~~]**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 [~~water~~] contaminant is taken.

178. The Commission adopts the Department's proposal to clarify that the hardness is measured in the dissolved form because dissolved calcium and magnesium reduce the toxicity of many metals, as discussed in section 900.I.

179. The Commission adopts the Department's proposal to delete the reference to "water" because the reference is not needed.

[~~**H.** The hardness dependent formulae for metals shall be valid only for hardness values of 0-400 mg/L. For values above 400 mg/L, the value for 400 mg/L shall apply.~~

~~**I.** The total ammonia tables shall be valid only for temperatures of 0 to 30°C and for pH values of 6.5 to 9.0. For temperatures below 0°C, the total ammonia criteria for 0°C shall~~

~~apply; for temperatures above 30°C, the total ammonia criteria for 30°C shall apply. For pH values below 6.5, the total ammonia criteria for 6.5 shall apply; for pH values above 9.0, the total ammonia criteria for 9.0 shall apply.~~]

180. The Commission adopts the Department's proposal to delete subsections H and I because this information belongs in sections 900.I, K, and L.

181. These subsections concern metal criteria dependent on hardness, and ammonia criteria dependent on pH and temperature. In both cases, the dependence factors have ranges.

182. This information is an integral component of the criteria statement and is relevant in every application of these criteria, not only enforcement.

[~~J~~]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).
[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, XX-XX-XX]

183. The Commission adopts the Department's proposal to add "or wasteload allocation" because a wasteload allocation identified in a TMDL may lead to a new permit limitation.

184. A TMDL is developed for an impaired water to ensure that it will attain and maintain water quality standards.

185. Just like the adoption of a new or revised water quality criterion, the approval of a TMDL may result in the imposition of a new water quality based effluent limit in an NPDES permit.

186. The Commission does not adopt Amigos Bravos' alternative proposals with regard to compliance schedules, either that 1) compliance schedules be eliminated from the standards entirely, or 2) they be limited to one year following permit renewal or modification, or three years following adoption of a new standard.

187. Compliance schedules are authorized by the CWA, and the Commission's current provision has been approved by EPA.

188. EPA has interpreted CWA Section 301(b)(1)(c) to mean that permits issued after July 1, 1977 must ensure immediate compliance *unless* a compliance schedule has been established. EPA confirmed this position in its regulations at 40 CFR 122.47, which expressly allow for compliance schedules.

189. Compliance schedules serve a valuable function in water quality management. The process of scoping, engineering, securing funding, and constructing a new or updated wastewater treatment plant cannot be accomplished overnight. Abolishing the option of establishing compliance schedules for newly adopted criteria would inevitably put some local governments and other dischargers in the position of discharging in violation of their permits, even while working in good faith to accomplish the required upgrades.

190. Mandatory deadlines neither account for practical considerations, such as technical and economic feasibility, nor are supported by evidence that compliance schedules have been improperly issued in the past.

191. The current provision already requires the EPA (permit writer) and Department (permit certifier) to impose compliance milestones. There is no advantage in establishing and enforcing unreasonable compliance schedules. Any person who believes a proposed compliance schedule is not reasonable can comment on the draft permit and certification, and seek further review based on the facts.

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. [~~For a toxic pollutant for~~] 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 [~~standard~~] criteria shall be as set out in 20.6.4.900 NMAC. [~~For a toxic pollutant for aquatic life with no chronic standard~~] 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. [~~For a toxic pollutant for aquatic life with no acute criterion~~] 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.

192. The Commission adopts the Department's proposals to replace "human health" with "human health-organism only" for the reasons given in section 900.J; to replace "standard" with "criterion" for the reasons given in section 12.E., and to restructure for clarity.

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 [~~sources~~] causes in sufficient quantity to impair public health or the designated, existing or attainable uses of a surface water of the state.

193. The Commission adopts the Department's proposal to use the term "natural causes" instead of "natural sources" because the substituted term is defined.

I. Temperature: Maximum temperatures for [~~each classified water~~] surface waters of the state have been specified in [~~20.6.4.101~~] 20.6.4.97 through [~~20.6.4.899~~] 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 [~~standards~~] criteria.

194. The Commission adopts the Department's proposal to replace "classified water of the state" with "surface waters of the state" for the reasons explained in section 11.F, to replace "standards" with "criteria" for the reasons given in section 12.E, and to reference sections 97-99 for the reasons in given section 11.B.

195. The Commission adopts the Department's proposal to include a reference to section 900 because the proposed revisions to section 900.H specify maximum temperatures for waters lacking segment-specific temperature 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. [~~Turbidity shall not exceed~~] 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, [~~or~~] nor to increase more than 20 percent when the background turbidity is more than 50 NTU. [~~Background turbidity shall be measured at a point immediately upstream of the turbidity causing activity.~~] However, limited-duration [~~activities necessary to accommodate~~] turbidity increases caused by dredging, construction or other similar activities [~~and that cause the criterion to be exceeded~~] may be [~~authorized~~] allowed provided all practicable turbidity control techniques have been applied and all appropriate permits, certifications and approvals have been obtained.

196. The Commission adopts the Department's proposal to clarify portions of the criterion because it enhances the readability and clarifies the applicability of the subsection. In conducting routine water quality assessment, the Department relies on the first sentence alone. Adding the words "activities or discharges" to the second sentence clarifies that the rest of the subsection, added during the 2003 triennial review, applies only to particular actions that could cause a turbidity increase. Identifying the location of the measuring point and restructuring the second sentence improve readability.

197. The Commission adopts the Department's proposal to change the last sentence for clarification because the Department approves turbidity increases, not the activities, and section 402 certifications are a particular type of approval.

198. The Commission does not adopt DPNM's proposal to exempt permitted discharges from the criterion because turbidity caused by a permitted discharge should be addressed by the permit, not excused from compliance with the criterion.

199. Exempting such discharges from the criterion could prevent the EPA from imposing turbidity limitations in the permit itself. Without examples of a limited-duration activity necessary to accommodate a permitted discharge, the Commission cannot determine the probable effect of the exemption on water quality.

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.

[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]

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.

200. The Commission adopts the Department's proposal to add a narrative biological criterion because it properly addresses the biological integrity objective of CWA section 101(a).

201. New Mexico has adopted chemical and physical criteria protective of designated aquatic life uses for all classified and unclassified waters, but has not established criteria to directly protect the biological integrity of these uses.

202. The proposed criterion describes the desired condition of the aquatic biological community in surface waters of the state. It reflects that surface waters subject to minimal anthropogenic disturbance generally contain unimpaired populations and communities of aquatic organisms and serve as the appropriate goal for biological integrity.

203. Biological measurements of the presence, condition, and numbers of types of fish, insects, algae, plants, and other organisms reflect current conditions as well as temporal changes in water quality, including cumulative effects of successive disturbances and multiple stressors. When used together, chemical-specific criteria, whole-effluent toxicity evaluations, habitat evaluations, and biological criteria complement the relative strengths and weaknesses of each approach in determining whether the designated aquatic life uses are supported.

204. CWA section 304(a)(8) directs EPA to develop and publish information on methods for establishing and measuring water quality criteria for toxic pollutants, including biological monitoring and assessment methods that evaluate "the effects of pollutants on aquatic community components." Section 303(c)(2)(B) requires that, where numeric 304(a) criteria are not available, states must adopt criteria based on biological assessment and monitoring methods.

205. Since its 1990 publication of Biological Criteria: National Program Guidance for Surface Waters, EPA has published several guidance and policy documents related to bioassessment and biocriteria. The development of biocriteria, as well as nutrient criteria, remains an EPA priority for improving the nation's water quality framework.

206. The Commission does not adopt DPNM's proposal that biocriteria should not be more stringent than criteria established by the USFWS for NPDES permits in New Mexico for lack of evidentiary support and because the USFWS has not established any such biocriteria.

207. A water quality criterion is the part of a water quality standard which represents a quality of water that protects a particular use. Permit conditions are a means to ensure that the water quality standard is achieved. NPDES permits in New Mexico do not contain any biocriteria. The general NPDES permit for Concentrated Animal Feeding Operations does contain requirements to implement best management practices, but such practices are designed for the limited purpose of protecting endangered species and critical habitat, not the overall biological integrity of aquatic communities.

208. The Commission does not adopt Freeport-McMoRan's proposed revision to NMAC 20.6.4.13(M) relating to the protection of biological integrity, because the proposal is more appropriately directed to the biennial review of the Department's Assessment Protocol, and the Commission will not limit the biological integrity criterion to surface waters which are "wadeable and perennial" because there is no scientific justification to exclude other waters. There is no scientific or regulatory basis to limit the criterion to a subset of perennial waters. The biological integrity of other perennial waters, as well as nonperennial waters, require protection. The health of aquatic communities throughout a watershed - from small headwater streams to large rivers - is inextricably linked.

209. The Commission does not adopt Freeport McMoRan's proposal relating to a specific method for determining compliance with the proposed criterion because the other narrative criteria do not specify the method for determining compliance, and Freeport McMoRan provides no compelling justification for treating this criterion differently. The last sentence proposed is unnecessary, as the Department already must conduct its activities in accordance with applicable law; and the phrase "generally accepted" is vague and provides no meaningful guidance for implementing the sentence.

210. The Commission does not adopt LANS/DOE' proposal for M--"Natural Background Conditions as Criteria" for the same reasons it rejected proposed changes to Sections 10.D(4) and 10.E.

211. The Commission does not adopt Amigos Bravos' proposal that waters not attaining designated uses due to inadequate flow be identified as impaired and subject to remedial actions because it is unnecessary and unworkable, not supported by substantial evidence nor within the Commission's authority.

212. The Department already identifies waters that do not support aquatic life uses due to low-flow conditions in the 2008/2010 CWA 303(d)/305(b) Integrated Report.

213. The Commission cannot require remedial actions regarding water quantity; in particular, it lacks the statutory authority to modify water rights.

214. The Commission already has adopted other criteria addressing flow, including the definitions of "ephemeral," "intermittent" and "perennial" streams and associated criteria and designated uses. The criterion proposed by Amigos Bravos is indefinite, fails to provide specifics as to its application or enforcement, and would put the Commission in the impossible position of having to determine the "appropriate adequate flow for each use"—a highly variable and site-specific exercise.

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 [~~standard~~] 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.

215. The Commission adopts the Department's proposal to replace "standard" with "criterion" for the reasons given in section 12.E.

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 use.

216. The Commission adopts the Department's proposal to correct the name of the document cited.

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]

20.6.4.15 USE ATTAINABILITY ANALYSIS:

A. A use attainability analysis is a scientific study [~~that shall be~~] conducted [~~only~~] 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.

217. The Commission adopts the Department's proposal to change the first sentence to describe a UAA rather than restrict when a UAA may be conducted to more accurately reflect the intent of the section.

218. The federal regulations cited in the last clause concern the removal or non-designation of section 101(a)(2) "fishable/swimmable" uses; this section has the same focus. To remove or exclude a section 101(a)(2) use from a particular water body, a UAA must demonstrate that the use is not attainable.

219. This demonstration is not required for other types of changes to the Standards, e.g., removing designated uses such as irrigation or industrial water supply, retaining a use with less stringent criteria, or adjusting the criteria associated with uses in Section 900. While these other types of changes must be justified, they are not subject to the UAA requirement of this section.

220. The Commission does not adopt Amigos Bravos' proposal to add references to sections 131.20(a) and (c) in Section A because it is not supported by substantial evidence in the record and would place a considerable burden on NMED. Section 131.20(a) requires a triennial review of the water quality standards, including a review of new information pertaining to water bodies whose designated uses do not include section 101(a)(2) uses. It neither requires a UAA nor sets UAA requirements. Section 131.20(c) requires States to submit the results of the triennial review to EPA, but does not set any requirements relating to conducting a UAA. If any person or entity wishes to conduct a re-examination and revise a UAA, they are free to do so under existing regulations.

(1) [~~Any person who proposes to classify, or reclassify to a designated use with less stringent criteria, a surface water of the state with designated uses that do not include the uses specified in Section 101(a)(2) of the federal Clean Water Act must conduct~~] 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.

221. The Commission adopts the Department's proposal to clarify when a UAA is required and what it must demonstrate because it clarifies the two scenarios that require a UAA

for a particular water body: (1) removing a section 101(a)(2) use; and (2) adopting subcategories of a section 101(a)(2) use with less stringent criteria. 40 CFR 131.10(j) states, in essence, that section 101(a)(2) uses cannot be removed or omitted unless they are unattainable, and the UAA is the tool to demonstrate that a use is unattainable.

222. In New Mexico, primary contact and all aquatic life use subcategories except limited aquatic life constitute section 101(a)(2) uses.

223. The Commission adopts the Department's proposal to add the phrase "which refer to the protection and propagation of fish, shellfish and wildlife and recreation in and on the water" to enhance readability for readers not familiar with section 101(a)(2) uses.

224. The Commission adopts the Department's proposal to clarify the Commission's responsibility in the UAA process because it identifies the Commission as the entity authorized to change a designated use, rather than the person making a proposal. This language also parallels 40 CFR 131.10.

225. The Commission adopts the Department's proposal to remove the reference to the undefined term "classify" because the UAA requirement applies to all surface waters of the state, both classified and unclassified.

226. "Classified water of the state" is a defined term in section 7 which refers to the waters identified in sections 101-899. Designated uses and criteria also apply to the unclassified waters identified in sections 97-99.

227. The Commission adopts the Department's proposal to clarify the factors which must be established in a UAA to prove that a use is not feasible because section 15 should provide clear direction on this point. The EPA identifies the referenced factors in 40 CFR 131.10(g).

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

228. The Commission adopts the Department's proposal to add the phrase "unless a use requiring more stringent criteria is designated" because the federal regulations at 40 CFR 131.10(h) allows this exception.

229. For example, it is appropriate to remove "fish culture" as a designated use when a hatchery is no longer operating because no criteria are specifically applied to the fish culture use. The use can be removed so long as an aquatic life use is designated, because the criteria applicable to aquatic life uses are more stringent than the criteria applicable to the fish culture use.

[~~**(3)** A use attainability analysis or an equivalent study approved by the department and the regional administrator must be conducted to remove any non-existing designated use from any classified waters of the state.~~]

230. The Commission adopts the Department's proposal to delete this paragraph as no longer necessary. Paragraph (1) already specifies when a UAA is needed, paragraph (2) prohibits the removal of existing uses, and revised subsection C (formerly subsection E) requires input from the Department and EPA when a UAA is conducted by another party.

231. The Commission does not adopt Amigos Bravos' proposal for section (3) because Amigos Bravos proposes to restate a portion of 40 CFR 131.20(a) in the Standards, which is unnecessary and misplaced. The Department reviews these waters during the triennial review when it solicits comments and proposals on the entirety of 20.6.4 NMAC, as required by federal law.

232. Moreover, the proposal concerns only review of additional information, not the preparation of a new UAA. If such a provision were added to the Standards, it should be placed in section 10(A), which governs the triennial review process.

B. [~~Physical, chemical and biological evaluations of surface waters of the state other than lakes and reservoirs for purposes of use attainability analyses or equivalent studies shall be conducted according to the procedures outlined in the "technical support manual: waterbody surveys and assessments for conducting use attainability analyses," United States environmental protection agency, office of water, regulations and standards, Washington, D.C., November 1983, or latest edition thereof, which is incorporated herein by reference, or an alternative equivalent study methodology approved by the department.~~

~~**C.** Physical, chemical and biological evaluations of lakes and reservoirs for purposes of use attainability analyses or equivalent studies shall be conducted according to the procedures outlined in the "technical support manual: waterbody surveys and assessments for conducting use attainability analyses, volume III: lake systems," United States environmental protection agency, office of water, regulations and standards, Washington, D.C., November 1984, or latest edition thereof, which is incorporated herein by reference, or an alternative equivalent study methodology approved by the department.~~

~~**D.** A use attainability analysis or equivalent study should include:~~

~~**(1)** identification of existing uses of the surface water of the state to be reviewed that have existed since 1975;~~

~~(2) an evaluation of the best water quality attained in the surface water of the state to be reviewed that has existed since 1975;~~

~~(3) an analysis of appropriate factors demonstrating that attaining the designated use is not feasible because of the condition listed in 40 CFR Part 131.10(g);~~

~~(4) a physical evaluation of the surface water of the state to be reviewed to identify factors that impair attainment of designated uses and to determine which designated uses are feasible to attain in such surface water of the state;~~

~~(5) an evaluation of the water chemistry of the surface water of the state to be reviewed to identify chemical constituents that impair the designated uses that are feasible to attain in such water; and~~

~~(6) an evaluation of the aquatic and terrestrial biota utilizing the surface water of the state to determine resident species and which species could potentially exist in such water if physical and chemical factors impairing a designated use are corrected.~~] 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.

233. The Commission adopts the Department's proposal to redraft subsections B, C and D to provide simpler and more accurate guidance.

234. A UAA must assess the factors affecting the attainment of a use. Because those factors vary by situation, the deleted sections would be appropriate for only some UAAs. For example, subsection D required that every UAA contain an evaluation of the best water quality attained in the water body, even though that information may not be relevant for determining whether an ephemeral stream will support fish populations. Subsections B and C referenced EPA's Technical Support Manuals which may be used to evaluate aquatic life uses, but are not applicable to recreational and other uses.

235. The revised language replaces these specific references with a general requirement that the methods must be scientifically defensible. The identified methods are illustrative only. This approach allows flexibility without compromising quality.

236. The identified methods include the Department's Hydrology Protocol. The Department will develop the protocol as a tool to distinguish between different types of waters, using a combination of hydrological, geomorphic, and biological characteristics.

237. The protocol will include a numerical rating system to produce an objective, practical scoring mechanism for determining stream hydrology. If field characteristics are not sufficient to make this determination, the Department will incorporate other information, such as long-term flow data and observations by local stakeholders and professionals.

238. The Department will present the protocol to the Commission for its consideration and approval in a separate process.

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.

239. The Commission adopts the Department's proposed process for authorizing the application of section 97 to ephemeral waters between rulemaking proceedings to provide for an expedited application of the Commission-approved section 97 uses and criteria, include adequate safeguards to prevent the inappropriate downgrading of a water, and meet EPA's requirements.

240. The process is similar to section 13.F, which establishes a process for deriving and implementing criteria for toxic pollutants not identified in the Standards.

241. UAAs must be complete and thorough. Most UAAs for ephemeral waters are expected to be straightforward; the process will expeditiously apply the appropriate criteria, avoiding inappropriate impairment listings on the CWA 303(d)/305(b) List of Assessed Waters and undue requirements on dischargers.

242. The Department must periodically petition the Commission to formally list the affected waters in section 97(C) of the Standards. "Periodically" means, at a minimum, during the triennial review. In some cases, the water or portion thereof may have been included in a classified segment, so the petition would seek to amend the classified segment as well, as reflected in the phrase "and to incorporate changes to classified segments as appropriate."

243. The process contains several safeguards against inappropriately downgrading a water. First, the Commission must approve the hydrology protocol. Second, the Department must prepare a UAA. Third, the public may comment on the UAA, and the Department must respond to comments. Fourth, the EPA must grant technical approval of the UAA. Finally, the Commission must agree to list the water in section 97(C).

244. While this process has the potential to be more expeditious than the regular UAA approach, it does not relegate the Commission to a rubber-stamp role. The Commission will retain its full authority under the WQA, and its disapproval of a petition to list a water under section 97(C) would restore the original criteria.

245. The Commission does not adopt Amigos Bravos' proposal to require public notice and to allow for a public comment period in Section C because the Department has already incorporated a public comment period into its section 15.C proposal.

[~~E~~]D. **Use attainability analysis conducted by an entity other than the department.** Any person may submit notice to the department stating [~~that they intend~~] the intent to conduct a use attainability analysis [~~or equivalent study~~]. The proponent shall develop a work plan to conduct the use attainability analysis [~~or equivalent study~~] and shall submit the work plan to the department and [~~the regional~~] region 6 EPA [~~staff~~] for review and comment. The work plan [~~should~~] shall identify the scope of data currently available and [~~proposed~~] the scope of data to be gathered, the factors affecting use attainment that will be analyzed and [~~must contain~~] provisions for public notice and consultation with appropriate state and federal agencies. [~~A copy of the notice and the work plan must be submitted concurrently to the commission.~~] Upon approval of the work plan by the department, the proponent shall conduct the use attainability analysis [~~or equivalent study~~] in accordance with the approved work plan. The cost of such analysis [~~or equivalent study~~] shall be the responsibility of the proponent. Upon completion of the use attainability analysis [~~or equivalent study~~], the proponent shall submit the data, findings and conclusions to the department. [~~and the commission.~~

~~F. If the department determines that the analysis or equivalent study was conducted in accordance with the approved work plan and the findings and conclusions are based upon sound scientific rationale, and demonstrates that it is not feasible to attain the designated use, the~~] The department or the proponent may [~~request~~] petition the commission to [~~initiate rulemaking proceedings to~~] modify the designated use [~~for the surface water of the state that was reviewed~~] if the conclusions of the analysis support such action.

246. The Commission adopts the Department's proposal to add a header to clarify that the subsection pertains to UAAs conducted by an entity other than the Department.

247. The Commission adopts the Department's proposal to delete "or equivalent study" because the term is not necessary. Any study is a UAA if conducted "for the purpose of assessing the factors affecting the attainment of a use" as described in subsection A.

248. The Commission adopts the Department's proposal to delete the requirement to submit the notice of intent or UAA findings to the Commission because the UAA need only be submitted to the Commission when a petition is presented to amend the Standards.

249. The Commission adopts the Department's proposal to combine and simplify subsections E and F because revised subsection A stipulates that a UAA must demonstrate that "attaining the use is not feasible because of a factor listed in 40 CFR 131.10(g)", and revised subsection B requires that the UAA must be based on scientifically defensible methods. These requirements need not be repeated here.

250. NMED's proposal is consistent with the WQA, CWA and with 40 C.F.R. § 131.10, and is a process which is similar to those consistently endorsed and approved by EPA. The WQA broadly authorizes the WQCC to "assign responsibility for administering its regulations to constituent agencies." NMSA 74-6-4(F).

251. This authority to delegate responsibility for administering regulations authorizes the WQCC to assign responsibility to NMED to implement the expedited UAA process under NMAC 20.6.4.15, which is ultimately subject to technical approval by EPA and final approval by the WQCC.

252. NMED's stated that it will work with stakeholders in a separate process to develop an appropriate hydrology protocol and that expedited hydrology protocol-based UAAs will be available on a local, regional, or watershed basis.

253. Requiring a separate UAA for every water body unable to meet fishable/swimmable standards would be a much more burdensome process, for NMED and those individuals who will be depending on these UAAs. Regional and categorical UAAs are permitted by the EPA, as evidenced by the implementation of a regional/state-wide UAA in Arizona.

254. In commenting on the provisions adopted in New Mexico's last triennial review, the EPA "recommend[ed] that New Mexico develop a comprehensive or categorical UAA." (EPA Review of Revisions to New Mexico's Standard's for Interstate and Intrastate Surface Waters, 20.6.4 at 41 (Dec. 29, 2006)).

255. Water quality standards currently permit regional UAAs because the regulations do not specify that a UAA has to be done for one particular water. Including a provision in the regulations that explicitly allows regional or categorical UAAs is consistent with NMED's understanding of the water quality standards.

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, XX-XX-XX]

256. The Commission adopts the Department's proposed benchmark values for salinity in the Pecos River Basin because it provides a valuable tool for tracking a critical water quality characteristic in this important watershed.

257. The lower Pecos River is subject to high salinity concentrations that present challenges for designated uses such as irrigation and public water supply. TDS concentrations vary depending on flow conditions, with higher concentrations at lower flows. The salinity increases as one moves downstream from Santa Rosa. At the USGS gaging station near Artesia, the median and maximum TDS concentrations are 4,785 and 18,000 mg/L. These values far exceed optimum concentrations for irrigation and drinking water. The data illustrate both the general magnitude of the concentrations and their variability. Water managers must take these factors into account when determining how to satisfy demands in the basin.

258. Segments 201, 202, 206, 207, 211 and 216 currently specify TDS criteria ranging from 3,000 to 20,000 mg/L for the Pecos River and some tributaries upstream of Santa Rosa. These criteria apply at flows of 50 cfs or greater. The criteria are consistent with the observed higher concentrations along the river. The expected high concentrations that periodically occur, therefore, do not result in exceedances. However, if significant new saline discharges were proposed in the lower basin, the existing criteria may not be effective in preventing degradation.

259. The Department's proposal in this section does not change the existing federally approved segment-specific criteria, but rather sets a non-regulatory goal of preventing degradation and relies on flow-weighted benchmark values to track progress. Flow-weighted concentrations express the annual salt load relative to flow conditions, and thereby constitute a better measure than a single value for a river with highly variable flows and salinity concentrations.

260. The proposed benchmark values represent the average of the flow-weighted annual averages for the period of record at three USGS gaging stations:

USGS Station	USGS Gaging Station Name	Period of Record	Flow-weighted Annual Average[1] TDS (mg/L)
08383000	Pecos River at Santa Rosa, NM	1959-1992	500
08396500	Pecos River near Artesia, NM	1959-2007	2,700
08406500	Pecos River near Malaga, NM	1959-2005	3,600

[1] Values are rounded to the next 100 mg/L.

261. The Department selected these stations because they provide an even geographic distribution along the river and have a long data record.

262. Setting a non-degradation goal for water quality furthers the state's interest in protecting existing and future economic interests. Although non-regulatory, the benchmark values allow stakeholders to agree in tangible terms on the level of water quality represented by the goal statement. The Department anticipates that the goal statement will focus resources on additional salinity investigations and the development and implementation of salt-reduction initiatives.

263. The benchmark values are proposed pursuant to the WQA, rather than as water quality criteria under the CWA. Accordingly, it is not subject to and will not be submitted to EPA for approval.

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]

264. The Commission does not adopt Freeport McMoRan's proposed new section 56 to exempt from enforcement water quality criteria exceedances resulting from naturally occurring conditions because, like the existing provisions in sections 11 (Exceptions) and 13 (General Criteria), it cannot be implemented until natural background has been established, and because the proposal does not satisfy EPA's expectation that natural background must be documented in the Standards as revised criteria.

265. The Department's proposals in section 10.D and E address these deficiencies by setting forth the requirements for establishing natural background and petitioning for site-specific criteria.

266. The Commission prefers the Department's approach not only because it is consistent with EPA policy, but also because it fulfills the WQA section 74-6-4.D obligation to adopt water quality standards that include "the designated uses of the waters and the water quality criteria necessary to protect such uses."

267. In a case where natural background has been established as or is even suspected of causing an exceedance, the Department and the Commission have enforcement discretion while a site-specific criterion is under consideration.

20.6.4.97 EPHEMERAL WATERS – [~~All ephemeral~~] Ephemeral unclassified [~~surface~~] waters of the state [~~that are not included in a classified water of the state in 20.6.4.101 through 20.6.4.899 NMAC~~] as identified below and additional ephemeral waters as identified on the department's water quality standards website pursuant to Subsection C of 20.6.4.15 NMAC.

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

B. Criteria:

[~~(1)~~]The use-specific criteria in 20.6.4.900 NMAC[~~, with the exception of the chronic criteria for aquatic life,~~] are applicable [~~for~~] to the designated uses [~~listed in Subsection A of this section~~].

[~~(2) The monthly geometric mean of E. coli bacteria shall not exceed 548 cfu/100 mL, no single sample shall exceed 2507 cfu/100 mL (see Subsection B of 20.6.4.14 NMAC).~~]

C. Waters:

268. The Commission adopts the Department's proposal to replace the phrase "surface waters of the state that are not included in a classified water of the state in 20.6.4.101 through 20.6.4.899 NMAC" with "unclassified waters of the state" because this less cumbersome phrase is used in Section 11.H.

269. The Commission adopts the Department's proposal to restructure subsection B to avoid repeating the criteria contained in section 900; see section 101.

270. The Commission adopts the Department's proposal to delete the phrase "with the exception of the chronic criteria for aquatic life" because section 900.H(7), which specifies criteria for the limited aquatic life use, already states, "Chronic aquatic life criteria do not apply unless adopted on a segment-specific basis."

271. The Commission adopts the Department's proposal that all unclassified nonperennial waters are subject to section 98 and are presumed to support section 101(a)(2) uses unless demonstrated otherwise by a UAA to respond properly to EPA's nonapproval of this section as adopted after the last triennial review.

272. In the last triennial review, the Commission believed that the limited aquatic life and secondary contact uses were appropriate for ephemeral waters and satisfied CWA section 101(a)(2) goals. However, in the Record of Decision on the 2005 amendments, EPA stated that these uses do not "serve the purposes of the Act" as defined in CWA sections 101(a)(2) and 303(c), and the state must submit a UAA.

273. The Department considered and rejected the preparation of a categorical UAA applicable to all ephemeral waters. While a categorical UAA was theoretically acceptable, EPA would have required too much field data given the Department's limited resources. A regional or statewide UAA would not be a prudent use of resources. The vast majority of ephemeral waters do not require UAAs because they neither receive regulated discharges nor pose a regulatory issue.

274. UAAs should be targeted to those waters in which there exists a regulatory need, rather than investing limited resources to conduct UAAs for thousands of waters which will never be affected by a regulated activity.

275. The Department proposes a workable and efficient alternative to undertaking a statewide UAA for all ephemeral waters. Section 97 uses and criteria may be applied to an ephemeral water in accordance with the process described in section 15.C. Alternatively, a person may conduct a UAA and petition the Commission through the regular rulemaking process to list a water in section 97.

276. Section 15 of the Standards already allows for local or regional UAAs, but requiring such an approach would not be sound policy.

277. The Commission does not adopt DPNM's proposal to expand section 97 to include all ephemeral waters by striking the reference to "unclassified" for lack of support in the record, and because the proposal would not be approved by EPA without a supporting UAA. The proposal creates confusion because some ephemeral waters are included in classified segments that already have assigned uses and criteria.

20.6.4.98 INTERMITTENT WATERS - All [~~intermittent surface~~] non-perennial unclassified waters of the state [~~that are not included in a classified water of the state in 20.6.4.101 through 20.6.4.899 NMAC~~], except those ephemeral waters included under 20.6.4.97 NMAC.

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

B. Criteria:

[~~(1)~~]The use-specific criteria in 20.6.4.900 NMAC[~~.~~] are applicable to the designated uses, except that the following site-specific criteria apply:

[~~(2) The~~] the monthly geometric mean of E. coli bacteria [~~shall not exceed 548~~] 206 cfu/100 mL or less, [~~no~~] single sample [~~shall exceed 2507~~] 940 cfu/100 mL or less [~~(see Subsection B of 20.6.4.14 NMAC)~~].

278. The Commission adopts the Department's proposal for the same changes as in section 97, and to list the site-specific criteria because these criteria are different than the primary contact criteria specified in section 900.

279. The Commission adopts the Department's proposal to use the term "site-specific" instead of the term "segment-specific" used in sections 101-899 because, although the meaning is the same, this section does not fall under the definition of "segment."

280. The Commission adopts the Department's proposal to change the introductory description of covered waters from intermittent to nonperennial waters to respond to EPA's nonapproval of this section as adopted after the last triennial review. EPA

presumes that all waters are "fishable/swimmable" unless demonstrated otherwise, and therefore, ephemeral waters may be moved to section 97 only after completion of a UAA.

281. The Commission adopts the Department's proposal to change the designated use from aquatic life to marginal warmwater aquatic life to respond to EPA's rejection of the aquatic life use. In the Record of Decision for the 2005 amendments, EPA interpreted the general aquatic life use as a subcategory that did not provide adequate protection.

282. The marginal warmwater use will satisfy the CWA section 101(a)(2) aquatic life goal. Further, the use is appropriate for these waters because the definition refers to intermittent conditions.

283. The Commission adopts the Department's proposal to change the E. coli criteria to provide primary contact protection to respond to EPA's rejection of the previously adopted criteria.

284. In the 2005 amendments, the Commission intended to provide primary contact protection for section 98 waters. Although EPA acknowledged the Commission's intent, EPA explained that it no longer considers risk levels above 1% to be protective of the CWA section 101(a)(2) primary contact use.

285. The Commission's adopted criteria of 548 cfu/100 mL and 2507 cfu/100 mL represented a 1.9% risk level. Therefore, EPA withheld approval on the basis that the state must submit additional information to demonstrate that the criteria protect the primary contact use or a UAA to justify a less protective use.

286. Preparing a categorical UAA to justify secondary contact would be inconsistent with the Commission's intent and the actual conditions in some intermittent waters. Therefore, the revised numeric criteria represent a 1% risk level, which EPA considers protective of primary contact in waters receiving infrequent use.

287. The Commission adopts the Department's proposal to change the contact use designation to primary contact because it is consistent with the assigned criteria.

288. The Commission does not adopt DPNM's proposal to expand section 98 to all intermittent waters and exclude ephemeral waters for lack of support in the record, and

because the proposal would not be approved by EPA without a supporting UAA. Further, the proposal creates confusion because some intermittent waters are included in classified segments that already have assigned uses and criteria.

289. The Commission does not adopt Freeport-McMoRan's proposal to retain only unclassified intermittent waters in section 98 instead of all nonperennial waters because it leaves ephemeral waters without EPA-approved standards.

290. The Commission does not adopt Freeport-McMoRan's proposal to retain the secondary contact use and associated criteria because some intermittent waters with seasonal flow could be suitable for primary contact, and because EPA will not approve a use that does not comply with CWA section 101(a)(2) without a UAA.

20.6.4.99 PERENNIAL WATERS - All perennial [~~surface~~] unclassified waters of the state [~~that are not included in a classified water of the state in 20.6.4.101 through 20.6.4.899 NMAC~~].

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

B. Criteria:

[~~(1) Temperature shall not exceed 34°C (93.2°F).~~] The use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses [~~listed in Subsection A of this section.~~], except that the following site-specific criteria apply:

[~~(2) The~~] the monthly geometric mean of E. coli bacteria [~~shall not exceed 548~~] 206 cfu/100 mL or less, [~~no~~] single sample [~~shall exceed 2507~~] 940 cfu/100 mL or less [~~(see Subsection B of 20.6.4.14 NMAC)~~].

291. The Commission adopts the Department's proposal for the same changes as in section 97.

292. The Commission adopts the Department's proposal to change the designated aquatic life use to warmwater to respond to EPA's nonapproval of this section after the last triennial review. The new use satisfies the CWA section 101(a)(2) aquatic life goal.

293. The Commission adopts the Department's proposal to assign primary contact criteria at a risk level of 1% for the reasons stated above, and the proposal that the contact use designation be changed to primary contact to be consistent with the assigned criteria.

294. The Commission does not adopt DPNM's proposal to strike the reference to "unclassified" for lack of support in the record, and because striking the reference would expand the provisions to all perennial waters, including waters currently included in classified segments.

295. The Commission does not adopt Peabody's proposal to exempt certain man-made ponds and wetlands that are not waters of the United States from the primary and secondary human contact standards because it is overbroad, impractical, and may not protect existing or attainable uses.

296. Virtually every manmade pond and wetland in New Mexico might be "used or intended to be used for livestock watering and/or wildlife habitat purposes." The proposal includes all non-federal waters without requiring a demonstration whether a particular water supports an existing or attainable contact use. Any kind of water feature in an arid environment may attract recreation seekers, especially children.

297. The proposed reference to ponds built for wastewater treatment, stormwater treatment, etc. is overbroad. Many of these waters already qualify as "waste treatment systems" which are exempt from the Standards. It is unnecessary and confusing to identify a second, overlapping exemption. Waters such as those built for "surface water control" and "flood control" are not "waste treatment systems", and almost certainly would be considered waters of the United States because they are typically built in or drain into a water of the United States. Even if such structures were not waters of the United States, they may support a recreation use.

298. The scope and implementation of the provision is vague and uncertain. Whether the pond or wetland is a water of the United States, whether the pond or wetland was "intended" for livestock purposes, and whether primary or secondary contact is an existing or attainable use, are questions that turn on the water's history, location, size, depth, hydrology, ownership, and accessibility. While some man-made ponds and wetlands are small, others are of substantial size. These determinations are better evaluated on a case-by-case basis with public comment and Commission review through the UAA process.

299. The proposal is impractical because it requires a demonstration whether a pond or wetland is a water of the United States, and Peabody does not explain the mechanism for making this determination. The state does not make such determinations. While the

Corps of Engineers and EPA do make such determinations in the case of dredge and fill permits and NPDES permits respectively, no federal agency is on call to make determinations, particularly when no permit is involved. As a result, the exemption would be dependent upon a federal determination that may never occur.

300. The proposal may remove an existing or attainable use. The appropriate mechanism for making this determination is the UAA.

301. MMD and the Commission have different statutory perspectives and obligations. MMD's obligation is to ensure compliance with SMCRA, which requires compliance with water quality requirements. The Commission's obligation is to establish those water quality requirements. Other regulations cited by Peabody do not protect water quality for contact uses that exist or may occur in these waters.

302. Nonetheless, the Commission strongly encourages the Department to work with Peabody and others to develop a narrow, workable proposal for ponds with post-mining land uses that do not include human contact.

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 Percha dam.

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

B. Criteria:

(1) [~~In any single sample: pH: within the range of 6.6 to 9.0 and temperature 34°C (93.2°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 34°C (93.2°F) or less.

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL (see Subsection B of 20.6.4.14 NMAC).~~

~~**(3)**~~**]** 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 [~~chlorides~~] 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, XX-X-XX]

303. The Commission adopts the Department's proposal to change secondary contact to primary contact because the primary contact use is consistent with the proposed criteria. The Standards contain 44 segments that match primary contact criteria with the secondary contact use. The original designations resulted from the Commission's desire to balance its mandate to protect water quality for recreation "in and on the water," as

required by CWA section 101(a)(2), with its concern that some waters may not be suitable for primary contact activities due to unsafe conditions, lack of access, etc. However, EPA policy requires that states protect the primary contact use unless a UAA demonstrates that the use is not attainable.

304. Although New Mexico's practice of establishing primary contact criteria but designating secondary contact provides the required level of protection and is an acceptable approach under EPA's Handbook (Section 2.1.3), the practice confuses the public and obfuscates the Commission's intent. While designating the reach for primary contact may not make these documents completely transparent, it would eliminate a significant source of confusion.

305. The Commission adopts the Department's proposal to restructure subsection B to provide simpler and clearer information to the public, as follows:

Existing	Proposed
B. Criteria: ***(1) In any single sample: pH: within the range of 6.6 to 9.0 and temperature 34°C (93.2°F) or less. The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses listed above in Subsection A of this section.*** ***(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL (see Subsection B of 20.6.4.14 NMAC).***	*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.***

306. In the existing provision, the pH and bacterial criteria duplicate the values found in section 900. Only temperature is different. The provision does not indicate a relationship between the pH, temperature, and E. coli criteria and any particular designated use. Paragraph (1) does not make clear that the temperature criterion of 34°C is intended to supersede the more stringent marginal warmwater aquatic life criterion of 32.2°C in section 900. The revised language clarifies that the applicable criteria in paragraph (1) are use-specific, and that the criteria listed here are exceptions to and apply instead of those found in section 900.

307. The Commission adopts the Department's proposal to delete the phrase "in any single sample" for streams and "at any sampling site" for lakes because these phrases, which refer to sampling procedures, indicate that a sample collected at a lake monitoring station as described in section 14.C is a composite of samples collected at different depths, while a grab sample is sufficient at a stream monitoring station. This type of information is better suited for section 14 or assessment protocols.

308. The Commission adopts the Department's proposal to delete the reference to section 14.B because the other requirements found in section 14 are not cross-referenced throughout the Standards, and the proposal to change "chlorides" to "chloride" to reflect that the ion name is singular.

20.6.4.102 RIO GRANDE BASIN - The main stem of the Rio Grande from one mile below Percha dam upstream to Caballo dam.

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

B. Criteria:

[~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~], except that the following segment-specific criteria apply:

[~~(2) The~~] the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less[~~;~~], single sample 235 cfu/100 mL or less [~~(see Subsection B of 20.6.4.14 NMAC)~~].

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, XX-X-XX]

309. The Commission adopts the Department's proposal to restructure subsection B for the reasons in section 101.

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: [~~fish culture,~~] irrigation, livestock watering, wildlife habitat, marginal coldwater aquatic life, secondary contact and warmwater aquatic life.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less, single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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, XX-X-XX]

310. The Commission adopts the Department's proposal to exclude waters on tribal lands because these waters are not under state jurisdiction. Changing the segment description provides information to the reader but neither results in a substantive change nor affects jurisdictional determinations.

311. The Commission adopts the Department's proposal to remove the fish culture use because the fish hatchery previously located on this segment has closed. According to the USFWS, the Hot Springs Fish Hatchery operated from 1937 until 1965. The property was taken over and closed by the Bureau of Reclamation in September 1965. The fish culture use, therefore, is not an existing use as defined in section 7. Section 900.A states that no numeric criteria apply uniquely to the fish culture use but that the general criteria and numeric criteria for bacterial quality, pH and temperature ensure adequate water quality. None of those criteria have been changed, and more stringent criteria remain applicable to the coldwater aquatic life use.

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:

[~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~], except that the following segment-specific criteria apply:

[~~(2) The~~] the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less[~~;~~], single sample 235 cfu/100 mL or less [~~(see Subsection B of 20.6.4.14 NMAC)~~].

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

312. The Commission adopts the Department's proposal to restructure subsection B; see section 101.

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 [~~and intermittent water below the perennial reaches of the Rio Puerco that enters the main stem of the Rio Grande~~].

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

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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.

313. The Commission adopts the Department's proposal to split this section to address variations in hydrology. This section covers the main stem of the Rio Grande from the headwaters of Elephant Butte reservoir upstream to Alameda bridge (Corrales bridge), while section 130 covers the waters described in the deleted phrase.

314. The Commission adopts the Department's proposal to add the public water supply use because the Albuquerque Bernalillo County Water Utility Authority uses this reach for the San Juan-Chama Drinking Water Project, and Belen and Los Lunas have longer-term plans to use San Juan-Chama water.

315. The Commission adopts the Department's proposal to exclude waters on tribal lands for the reasons given in section 103, change the contact use designation to primary contact to be consistent with the assigned criteria and restructure subsection B for the reasons given in section 101.

316. The Commission does not adopt Amigos Bravos' proposal to include radionuclide standards for this segment because radionuclide standards are being adopted at this time for segment 114, where the Department appears to have a good understanding of the source; if standards are exceeded in segment 114, the Commission can later apply the standards to other segments as well.

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 [~~secondary~~] primary contact; and public water supply on the Rio Grande.

B. Criteria:

(1) [~~In any single sample: dissolved oxygen greater than 5.0 mg/L, pH within the range of 6.6 to 9.0 and temperature less than 32.2°C (90°F).~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~**]** 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, X-X-X]

317. The Commission adopts the Department's proposal to add a statement acknowledging that a portion of the Rio Grande is under the joint jurisdiction of the state and Sandia

Pueblo to inform the reader; it does not affect either jurisdiction. In the case of joint jurisdiction, both the Standards and tribal water quality standards apply.

318. The Commission adopts the Department's proposal to add the public water supply use because the Albuquerque-Bernalillo County Water Utility Authority's diversion dam for the San Juan-Chama Drinking Water Project is located just downstream of this segment.

319. The Commission adopts the Department's proposal to exclude waters on tribal lands for the reasons given in section 103, change the contact use designation to primary contact to be consistent with the assigned criteria and restructure subsection B for the reasons given in section 101.

320. The Commission does not adopt Amigos Bravos' proposal to include radionuclide standards for this segment because radionuclide standards are being adopted at this time for segment 114, where the Department appears to have a good understanding of the source; if standards are exceeded in segment 114, the Commission can later apply the standards to other segments as well.

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:

[~~(1) In any single sample: temperature 25°C (77°F) and pH within the range of 6.6 to 8.8.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 25°C (77°F).

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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

321. The Commission adopts the Department's proposal to add the public water supply use because the infiltration gallery of the Ponderosa Mutual Domestic Water Consumers Association (MDWCA) is located near Vallecito Creek. This public water system is considered ground water under the direct influence of surface water.

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 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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: specific conductance 400 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

[**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.**]

322. The Commission adopts the Department's proposal to reduce the lower pH criterion to 2.0, and to set a specific conductance criterion of 800 µS/cm for Sulphur Creek because the criteria reflect the naturally acidic source waters of Sulphur Springs. The Commission established a separate section for Sulphur Creek from the headwaters to the confluence with Redondo Creek during the last triennial review. The one-mile reach below the confluence with Redondo Creek remains in segment 108 but its water quality conditions still reflect the influence of the naturally acidic source waters of Sulphur Springs.

323. The Commission adopts the Department's proposal to change the contact use designation to primary contact to be consistent with the assigned criteria and restructure subsection B.

20.6.4.109 RIO GRANDE BASIN - Perennial reaches of Bluewater creek excluding waters on tribal lands, Rio Moquino upstream of Laguna pueblo, Seboyeta creek, Rio Paguate upstream of Laguna pueblo, the Rio Puerco [~~above the village~~] 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:

[~~(1) In any single sample: pH shall be within the range of 6.6 to 8.8, temperature 20°C (68°F) or less and total phosphorus (as P) 0.1 mg/L.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

324. The Commission adopts the Department's proposal to change the downstream endpoint of the segment on the Rio Puerco from "above the village of Cuba" to "the northern boundary of Cuba" because the endpoint of the applicable assessment unit and TMDL and the upstream endpoint of the new segment 131 are described in these terms.

325. The Commission adopts the Department's proposal to add the public water supply use because La Jara Creek supplies the La Jara Water Users Association, a public water system; and to replace "total" preceding phosphorus with a parenthetical note that analysis should be of an unfiltered sample because the expression avoids the ambiguity associated with term "total."

326. The Commission adopts the Department's proposals to delete "(as P)" because it is redundant (i.e., P is the chemical symbol for phosphorus); to exclude waters on tribal lands for the reasons given in section 103 and to restructure subsection B for the reasons given in section 101.

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 and Cochiti pueblos.

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

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.110 NMAC - Rp 20 NMAC 6.1.2108, 10-12-00; A, 05-23-05; A, XX-X-XX]

327. The Commission adopts the Department's proposal to exclude waters on tribal lands for the reasons given in section 103, change the contact use designation to primary contact to be consistent with the assigned criteria and restructure subsection B for the reasons in section 101.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to

the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 25°C (77°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

[**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.**]

328. The Commission adopts the Department's proposal to exclude waters on tribal lands for the reasons given in section 103, change the contact use designation to primary contact to be consistent with the assigned criteria and restructure subsection B for the reasons in section 101.

[~~**20.6.4.112 RIO GRANDE BASIN - Cochiti reservoir.**~~

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

~~**B. Criteria:**~~

~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 25°C (77°F). The use specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses listed above in Subsection A of this section.~~

~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~] **RESERVED.**

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

329. The Commission adopts the Department's proposal to delete this segment because Cochiti Reservoir is entirely within Cochiti Pueblo, and therefore lies outside state jurisdiction.

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

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

B. Criteria:

[~~(1)~~] The use-specific criteria in 20.6.4.900 NMAC are applicable to the designated uses, except that the following segment-specific criteria apply: [~~In any single sample: pH within the range of 6.6 to 9.0,~~] temperature 30°C (86°F) or less, [~~and~~] dissolved oxygen 4.0 mg/L or more[~~. Dissolved~~], and dissolved oxygen 5.0 mg/L or more as a 24-hour average. Values used in the calculation of the 24-hour average for dissolved oxygen shall not exceed the dissolved oxygen saturation value. For a measured value [~~above~~] greater than the dissolved oxygen saturation value, the dissolved oxygen saturation value [~~will~~] shall be used in calculating the 24-hour average. [~~The dissolved oxygen saturation value shall be determined from the table set out in Subsection N of 20.6.4.900 NMAC. The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses listed above in Subsection A of this section.~~]

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less, single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.113 NMAC - Rp 20 NMAC 6.1.2110, 10-12-00; A, 10-11-02; A, 05-23-05; A, XX-X-XX]

330. The Commission adopts the Department's proposal to delete the table reference and the table in section 900 because dissolved oxygen saturation values can be readily referenced

elsewhere, such as on the USGS website. It is not necessary to include them in the Standards, where actual values usually need to be interpolated, e.g., for an elevation between 6,500 and 7,000 feet. Even if it were necessary to publish such a table in the Standards, section 900 would not be the right place for this information because that section does not contain numeric criteria applicable only to this segment.

331. The Commission adopts the Department's proposals to exclude waters on tribal lands for the reasons given in section 103 and restructure subsection B for the reasons given in section 101; and to change "above" to "greater than" and "will" to "shall" as minor editorial corrections.

20.6.4.114 RIO GRANDE BASIN - The main stem of the Rio Grande from the [~~headwaters of~~] Cochiti [~~reservoir~~] 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 [~~junction of the Rio Pueblo and the Rio Santa Barbara~~] Picuris Pueblo boundary, the Santa Cruz river [~~below~~] from the Santa Clara pueblo boundary upstream to the Santa Cruz dam, the Rio Tesuque [~~below the Santa Fe national forest~~] except waters on the Tesuque and Pojoaque pueblos, and the Pojoaque river [~~below Nambe dam~~] 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) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 22°C (71.6°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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.

332. The Commission adopts the Department's proposal to add the public water supply use because the City of Santa Fe plans to divert San Juan-Chama water at the Buckman Direct Diversion, and Los Alamos County and Española have long-term plans to use water from this segment.

333. The Commission adopts the Department's proposed new criteria for radionuclides in response to concern that discharges from Los Alamos National Laboratory (LANL) could threaten public water supplies on the Rio Grande. Interested parties including the Buckman Direct Diversion Board (BDDB), the Albuquerque-Bernalillo County Water Utility Authority, and more than one hundred members of the public, urged the Department to propose radionuclide criteria, pointing to the example of the State of Colorado, which adopted statewide criteria for several radionuclides, as well as site-specific criteria downstream of the Rocky Flats site.

334. The criteria apply to radioisotopes associated with LANL activities. They do not occur naturally in significant amounts. They have been detected in surface waters on LANL property downstream from discharges of radioactive effluent. Most have also been detected in the Rio Grande, generally at low concentrations. Based on the Department's review of RACER database monitoring data, the long-lived alpha-emitting transuranic radionuclides (TRUs) in the Department's proposal (americium-241, plutonium 238, 239 and 240) are those most likely to be discharged in greater than trace amounts from the canyons transecting LANL property. The criteria apply only to this segment because it represents the area at greatest risk from potential LANL discharges.

335. The criteria rely on the risk coefficients in EPA's 1999 Cancer Risk Coefficients for Environmental Exposure to Radionuclides – Federal Guidance Report 13. This report represents current EPA guidance for estimating the risk of cancer from low-level exposure to radionuclides. The risk coefficients presented in the report have been averaged over age and gender distributions, are radionuclide-specific, and represent the health risk per unit of radioactivity absorbed.

336. The criteria reflect the consideration of several factors, including the ingestion of radionuclides in water, and morbidity risk coefficients, which estimate the average total risk of experiencing a cancer due to radioactivity exposure whether or not the cancer is fatal. An exposure period of 70 years and water intake rate of 2 liters per day are assumed. These same assumptions are used in the calculation of EPA's human health criteria for non-radioactive contaminants. A lifetime cancer risk of 10^{-5} is used in accordance with Commission practice. The calculation is as follows:

$$CC = LC/(EP \times RC \times DI)$$

where:

CC = criterion concentration (pCi/L)
LC = lifetime cancer risk (10^{-5})
EP = exposure period (70 years or 25,568 days)
RC = morbidity risk coefficient (pCi^{-1})
DI = drinking water intake (2 L/day)

The morbidity coefficients for each radionuclide are as follows:

Radionuclide	Morbidity Risk Coefficient (pCi^{-1})
Americium-241	**1.0×10^{-10}**
Cesium-137	**3.0×10^{-11}**
Plutonium-238	**1.3×10^{-10}**
Plutonium-239/240	**1.3×10^{-10}**
Strontium-90	**5.6×10^{-11}**
Tritium	**5.1×10^{-14}**

337. The new criteria apply on a 12-month rolling average basis. Sampling results for the preceding 12 months are averaged and compared to criteria values. The Drinking Water Regulations employ a similar approach for determining whether a public water system meets maximum contaminant levels.

338. The Commission adopts the Department's proposal to calculate the criteria using a lifetime cancer risk of 10^{-5} in accordance with Commission past practice, rather than the 10^{-6} risk level proposed by Amigos Bravos. The risk level is a policy matter, and the 10^{-5} risk level is consistent with the risk level used by the Commission in several other regulatory contexts. The Commission's criteria for toxic pollutants and human health-organism only criteria for carcinogens are based on the 10^{-5} risk level. See also Ground

and Surface Water Protection Regulations (20.6.2.7 NMAC) ("any water contaminant or combination ... creating a lifetime risk of more than one cancer per 100,000 exposed persons"). The Compliance Order on Consent for LANL, issued pursuant to the New Mexico Hazardous Waste and Solid Waste Acts, also uses the 10^{-5} risk level.

339. The Department proposed criteria for monitoring and public disclosure only because the Atomic Energy Act of 1954, as amended (AEA), prohibits New Mexico from regulating the discharge of certain radioactive constituents from DOE facilities. The criteria constitute health-based values for comparison to monitoring results for water in the Rio Grande. The comparative analysis then would be made available to the public. As a result, even if the criteria cannot be enforced, their formal adoption by the Commission - the state board which establishes water quality policy for the New Mexico - would inform the public of health risks resulting from radioactive contamination.

340. The Department's proposed criteria protect the public water supply use designated for this reach of the Rio Grande. The Commission is authorized by the WQA to adopt criteria "necessary to protect" the designated use. According to the Standards, 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 use." 20.6.4.7 NMAC. Consequently, criteria are "necessary to protect" a designated use when they describe the quality of water that supports that use.

341. The Commission has the statutory authority to establish water quality criteria for radionuclides which describe the desired water quality, establish the state's policy regarding the safe level for radionuclides, and ensure that the public is informed regarding the presence of these materials in surface waters of the state. The Commission, by adopting the proposed criteria, articulates the quality of water that will protect the public health against exposure to radionuclides. The Commission has been authorized to establish water quality policy for New Mexico. The Commission may effectuate this policy in different ways, including the adoption of informational criteria based on clearly

articulated evidence. Such criteria allows the public to make a meaningful comparison to measured values, and so advised, the public can advocate for further action in the event the measured values indicate a problem in the Rio Grande. None of the existing approaches for monitoring water quality in the Rio Grande use such state-approved values for comparative purposes.

342. The proposed criteria also satisfy the Commission's statutory obligation to adopt criteria on the basis of "credible scientific data and other evidence". The Department testified, and no party disputed, that the proposed criteria are based on credible scientific data published by the federal government. Even if the Commission lacked credible scientific data, it would be authorized to adopt the proposed criteria as a matter of policy on the basis of "other evidence."

343. The Commission adopts the Department's proposals to exclude waters on tribal lands for the reasons given in Section 103, add a statement acknowledging that a portion of the Rio Grande is under the joint jurisdiction of the state and San Ildefonso Pueblo for the reasons given in section 106; change the contact use designation to primary contact to be consistent with the assigned criteria for the reasons explained in section 101, and restructure subsection B for the reasons given in section 101.

344. The Commission adopts the Department's proposal to refine the temperature criteria to reflect the revised temperature criteria described in section 900.H. The segment-specific temperature criterion of 22°C was intended to be more stringent in the previous single-temperature scheme than the marginal coldwater criterion of 25°C, but not as stringent as the coldwater temperature of 20°C. If that criterion were now interpreted as a maximum temperature, then it would be more stringent than the high quality coldwater use and more stringent than any other water in the state. That criterion is more properly set at a maximum of 25°C, which is protective of the aquatic life use in these waters.

345. The Commission does not adopt Amigos Bravos' proposed combined criterion for selected TRUs because these radionuclides do not pose identical health risks, and consequently the morbidity coefficients in the Federal Guidance Report 13 are different.

Amigos Bravos presented no evidence that the additional TRUs, except for plutonium-238, are likely to be discharged in greater than trace amounts from LANL canyons.

346. The Commission does not adopt Amigos Bravos' proposal to strike the Department's phrase "applicable to the public water supply use for monitoring and public disclosure purposes only" because it would make the criteria enforceable against LANL in possible violation of the AEA, and could result in inequitable regulatory controls on downstream facilities not covered by the AEA.

20.6.4.115 RIO GRANDE BASIN - The perennial reaches of Rio Vallecitos and its tributaries, 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 [~~secondary~~] primary contact; public water supply on the Rio Vallecitos and El Rito creek.

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

347. The Commission adopts the Department's proposal to add the public water supply use because El Rito Creek supplies the public water system at Northern New Mexico Community College, and the Rio Vallecitos supplies the Vallecitos MDWCA's infiltration gallery. The public water system operated by Vallecitos MDWCA is considered ground water under the direct influence of surface water.

348. The Commission adopts the Department's proposal to change µmhos/cm to µS/cm for the reasons given in section 7.A, change the contact use designation to primary contact to be consistent with the assigned criteria for the reasons given in section 101, and restructure subsection B for the reasons explained in section 101.

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 the town of El Rito.

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

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 31°C (87.8°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 31°C (87.8°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less; single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

349. The Commission adopts the Department's proposal to restructure subsection B; see section 101.

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:

[~~(1) At any sampling site: pH within the range of 6.6 to 8.8 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 25°C (77°F) or less.

[~~(2) The monthly geometric mean of E. coli 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

350. The Commission adopts the Department's proposal to restructure subsection B; see section 101.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 26°C (78.8°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 26°C (78.8°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

351. The Commission adopts the Department's proposal to add a statement acknowledging that a portion of the Rio Chama is under the joint jurisdiction of the state and the Jicarilla Apache tribe for the reasons given in section 106, change the contact use designation to primary contact to be consistent with the assigned criteria, and restructure subsection B for the reasons given in section 101.

20.6.4.119 RIO GRANDE BASIN - All perennial reaches of tributaries to the Rio Chama above Abiquiu dam, except 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 [~~secondary~~] primary contact; and public water supply on the Rio Brazos and Rio Chama.

B. Criteria:

[~~(1) In any single sample: specific conductance 500 µmhos/cm or less (1,000 µmhos or less for Coyote creek), pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

352. The Commission adopts the Department's proposal to add public water supply use because the Rio Chama supplies the Chama Water System and the Rutheron Mutual Water Association, and the Rio Brazos supplies La Asociación De Agua De Los Brazos, a water system considered ground water under the direct influence of surface water.

353. The Commission adopts the Department's proposal to add two commas to the segment description for clarity, exclude waters on tribal lands for the reasons given in section 103, add a statement acknowledging that some waters are under the joint jurisdiction of the state and the Jicarilla Apache tribe for the reasons given in section 106, change µmhos/cm to µS/cm for the reasons given in section 7.A, change the contact use designation to primary contact to be consistent with the assigned criteria and restructure subsection B for the reasons explained in section 101.

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:

[~~(1) At any sampling site: pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

354. The Commission adopts the Department's proposal to add the public water supply use because El Vado Lake supplies the public water system for El Vado Lake State Park, and Heron Reservoir supplies the public water system at Heron Lake State Park.

355. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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[~~, municipal and industrial water supply, secondary contact~~] and primary contact; and public water supply on Little Tesuque creek, the Rio en Medio, the Santa Fe River and Cerrillos reservoir.

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.121 NMAC - Rp 20 NMAC 6.1.2118, 10-12-00; A. 05-23-05, A, XX-X-XX]

[**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.**]

356. The Commission adopts the Department's proposal to change the designated use municipal water supply to public water supply because Little Tesuque Creek supplies Hyde Memorial State Park, whose public water system is considered ground water under the influence of surface water; the Rio en Medio supplies the Santa Fe Ski Basin, whose public water system is considered ground water under the influence of surface water; the City of Santa Fe's municipal reservoirs are located on the portion of the Santa Fe River included in this segment; and Cerrillos reservoir is a spring-fed reservoir on San Marcos Arroyo, a tributary of Galisteo Creek, which supplies El Vadito de los Cerrillos Water Association. According to the Drinking Water Bureau's database, these are the only public water systems in this segment that rely on surface waters, so the public water supply designation is restricted to these specified waters.

357. The Commission adopts the Department's proposal to delete the industrial water supply use because no industrial water uses are known to exist that are not supplied by a public water system.

358. The Commission adopts the Department's proposes to exclude waters on tribal lands for the reasons given in section 103, change µmhos/cm to µS/cm for the reasons given in section 7.A, delete secondary contact because primary contact is designated, and restructure subsection B for the reasons given in section 101.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

359. The Commission adopts the Department's proposal to add a statement acknowledging that a portion of the waters in the segment is under the joint jurisdiction of the state and Taos Pueblo for the reasons given in section 106, and to restructure subsection B for the reasons given in section 101.

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, [~~fish culture,~~] high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat and [~~secondary~~] primary contact; and public water supply on the Rio Pueblo and Rio Fernando de Taos.

B. Criteria:

[~~(1) In any single sample: specific conductance 400 µmhos/cm or less (500 µmhos or less for the Rio Fernando de Taos) and pH within the range of 6.6 to 8.8, temperature 20°C (68°F) or less. For the Red river in this segment, total phosphorus (as P) less than 0.1 mg/L.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single~~

~~sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]
[20.6.4.123 NMAC - Rp 20 NMAC 6.1.2120, 10-12-00; A, 05-23-05, A, XX-X-XX]
[**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.**]

360. The Commission adopts the Department's proposal to remove the fish culture use because there is no hatchery on this segment. Section 900.A states that no numeric criteria apply to the fish culture use, but that the general criteria and numeric criteria for bacterial quality, pH and temperature ensure adequate water quality. None of those criteria are being changed, and more stringent criteria remain applicable to the high quality coldwater aquatic life use.

361. The Commission adopts the Department's proposal to add the public water supply use because the Rio Pueblo and Rio Fernando de Taos supply Sipapu Lodge and Cafe and Cañon MDWCA. These public water systems are considered ground water under the influence of surface water.

362. The Commission adopts the Department's proposal to exclude waters on tribal lands for the reasons given in Section 103, change secondary contact to primary contact to be consistent with the assigned criteria for the reasons explained in section 101, change µmhos/cm to µS/cm for the reasons given in section 7.A, replace "total" preceding phosphorus and delete the parenthetical "(as P)" for the reasons given in section 109, and restructure subsection B for the reasons given in section 101.

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

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

B. Criteria:

[~~(1) In any single sample: pH within the range of 2.0 to 9.0 and temperature 30°C (86°F) or less.~~] 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) [~~or less~~], and the chronic aquatic life criteria of Subsections I and J of 20.6.4.900 NMAC. [~~listed above in Subsection A of this section.~~

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less, single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3) The chronic aquatic life criteria of Subsections I and J of 20.6.4.900 NMAC shall also apply.~~]

[20.6.4.124 NMAC - N, 05-23-05, A, XX-XX-XX]

363. The Commission adopts the Department's proposal to specify 30°C as the maximum temperature because section 900.H does not specify the temperature criteria for the limited aquatic life use, and to restructure subsection B; see section 101.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 25°C (77°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.125 NMAC - N, 05-23-05, A, XX-XX-XX]

364. The Commission adopts the Department's proposal to exclude waters on tribal lands for the reasons given in section 103, change the contact use designation to primary contact to be consistent with the assigned criteria, and restructure subsection B; see section 101.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 24°C (75.2°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less; single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.126 NMAC - N, 05-23-05; A, XX-XX-XX]

365. The Commission adopts the Department's proposal to delete the segment-specific temperature criterion because the changes to section 900.H specify 24°C as the maximum for the coldwater aquatic life use. The temperature for this segment was established at 24°C because continuous temperature data were available; see also section 900.H.

366. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

[20.6.4.127 NMAC - N, 05-23-05, A, XX-XX-XX]

367. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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:

[~~(1)~~] The use-specific criteria in 20.6.4.900 NMAC[~~, except the chronic criteria for aquatic life~~] are applicable [~~for~~] to the designated uses [~~listed above in Subsection A of this section~~], 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).

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less; single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3) The acute total ammonia criteria set forth in Subsection K of 20.6.4.900 NMAC (salmonids absent) are applicable to this use.~~]

368. The Commission adopts the Department's proposal to strike the phrase "except the chronic criteria for aquatic life" because chronic criteria are not applicable to the limited aquatic life use in section 900.H.

369. The Commission adopts the Department's proposal to revise the first sentence in subsection B to read "applicable to the designated uses" for consistency with other sections and to restructure subsection B for the reasons given in section 101.

370. The Commission does not adopt Amigos Bravos' proposal to replace limited aquatic life use with aquatic life use because this segment was created and designated uses were assigned in the last triennial review; Amigos Bravos presented no new evidence regarding current water quality conditions that would support a change in the standards.

371. A UAA was completed and approved by EPA for this segment. The UAA noted that the 2002 study referenced by Amigos Bravos "provide[s] information from numerous sources indicating that ephemeral and intermittent streams in the Jemez Mountains

support aquatic life that includes aquatic invertebrates and perhaps amphibians, but not fish." Amigos Bravos relies on information that the Commission already considered in assigning the limited aquatic life use.

372. EPA approved this provision based on the hearing record and the UAA submitted by the Department, and has not indicated any problem with that decision.

373. The UAA for this segment acknowledges the presence of aquatic invertebrates, and even amphibians, but not fish, and therefore concludes that the waters cannot attain the CWA section 101(a)(2) goal of water quality providing for the "protection and propagation of fish, shellfish and wildlife."

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: specific conductance 400 µmhos/cm or less, pH within the range of 6.6 to 8.8, total phosphorous (as P) less than 0.1 mg/L and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.129 NMAC - N, 05-23-05; A, XX-XX-XX]

374. The Commission adopts the Department's proposal to change secondary contact to primary contact for consistency with the assigned criteria for the reasons explained in section 101, change µmhos/cm to µS/cm for the reasons given in section 7.A, replace "total" preceding phosphorus and delete the parenthetical "(as P)" for the reasons given in section 109, and restructure subsection B for the reasons given in section 101.

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, XX-XX-XX]

375. The Commission adopts the Department's proposal to create a new segment from a portion of segment 105 because the new segment covers the furthest downstream portion of the Rio Puerco (from the Rio Grande upstream to Arroyo Chijuilla excluding tribal waters).

376. At Arroyo Chijuilla, there is a change in geology that causes the perennial flow of the Rio Puerco to disperse into alluvial fill material. As a result, the hydrology changes to intermittent flow. The designated uses and criteria from section 105 are carried over. Even though the attainable aquatic life use in this intermittent water is probably marginal warmwater, the designated use will be warmwater because EPA has stated that a UAA would be required to change the applicable use.

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, XX-XX-XX]

377. The Commission adopts the Department's proposal to classify this reach of the Rio Puerco from the northern boundary of Cuba to Arroyo Chijuilla, where the perennial flow disperses into alluvial fill material because the perennial flow is augmented approximately two miles downstream of the Highway 550 bridge by the discharge from the Cuba Wastewater Treatment Plant.

378. For this previously unclassified portion of the Rio Puerco, the designated uses are irrigation, warmwater aquatic life, livestock watering, wildlife habitat and primary contact. The warmwater use is appropriate because the reach contains beaver dams, benthic macroinvertebrates, and fathead minnows of all life stages. Further, the river is accessible, and water depths are sufficient to support primary contact activities.

379. Irrigation use is appropriate because of evidence from the Office of the State Engineer that David and Felix Sanchez have rights to pump water directly from the Rio Puerco near Lagunitas.

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, XX-XX-XX]

380. The Commission adopts the Department's proposal to create a new segment for Klauer Spring because Klauer Spring has been used for years as a domestic water source for residents. Also known as Rio Grande Spring, Klauer Spring is located within the BLM's Orilla Verde recreation area on the Rio Grande south of the Taos Junction bridge. Although the spring is used for domestic water according to the Drinking Water Bureau, the spring does not meet the definition of a public water system, and therefore does not fall under the drinking water regulations.

381. Water from the spring flows along the surface as a "spring brook" for a few hundred feet before being diverted into a pipe placed directly in the channel. The pipe ends on a rock outcrop above New Mexico Highway 570, where it is collected by residents. After leaving the pipe, the water flows into a culvert under the road and dissipates into a wetland on the bank of the Rio Grande. Klauer Spring has been sampled sporadically over the years. Some of this sampling has shown elevated levels of E. coli bacteria, so disinfection is necessary before drinking the water. The Department has been sampling the spring as part of its ongoing Upper Rio Grande survey. Reported temperatures range from 15.55 to 18.06°C, and dissolved oxygen concentrations range from 6.98 to 8.06 mg/L. These characteristics are appropriate for the coldwater aquatic life use.

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, [~~secondary~~] primary contact and warmwater aquatic life.

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: dissolved boron for irrigation use 2,000 µg/L or less.

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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, XX-X-XX]

382. The Commission adopts the Department's proposal to apply a segment-specific boron criterion to the irrigation designated use because concentrations higher than 750 µg/L, the criterion identified in section 900.J, have been measured in this reach by the USGS and the Department.

383. The high concentrations are attributable in part to discharges of saline ground water at Malaga Bend. Although there is no evidence that water from this reach is currently being used for irrigation, the higher criterion would protect the irrigation use because it allows for the cultivation of salt-tolerant crops.

384. The proposed criterion meets the requirement in EPA's regulations at 40 CFR 131.11(a), which states that numeric criteria must protect the designated use and be based on a sound scientific rationale.

385. The Commission adopts the Department's proposal to change the contact use designation to primary contact to be consistent with the assigned criteria and restructure subsection B for the reasons given in section 101.

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, [~~secondary~~] primary contact and warmwater aquatic life.

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 34°C (93.2°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 34°C (93.2°F) or less.

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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, XX-X-XX]

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

386. The Commission adopts the Department's proposal to change the contact use designation to primary contact to be consistent with assigned criteria, restructure subsection B for the reasons given in section 101, and clarify the note at the end.

20.6.4.203 PECOS RIVER BASIN - The main stem of the Pecos river from [~~lower~~] 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:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 34°C (93.2°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

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

387. The Commission adopts the Department's proposal to strike the word "lower" from the segment description because during the last triennial review, the downstream extent of the segment was erroneously changed from Lower Tansil Dam to the headwaters of Lake Carlsbad.

388. The Commission adopts the Department's proposal to clarify the note at the end of the section and restructure subsection B for the reasons given in section 101.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less, single sample 2880 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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

389. The Commission adopts the Department's proposal to change the E. coli single sample criterion from 2880 cfu/100 mL to 2507 cfu/100 mL to ensure consistency with the secondary contact criteria in section 900.

390. This is the only segment in the Standards with segment-specific secondary contact criteria. The proposed change results in a criterion only slightly more stringent.

391. The Commission adopts the Department's proposal to add a note at the end of the section explaining that Avalon Reservoir was previously included in this segment, and to restructure subsection B for the reasons given in section 101.

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:

[~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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

392. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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 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) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less; single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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, XX-X-XX]

393. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli 548 cfu/100 mL or less; single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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, XX-X-XX]

394. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8, temperature 30°C (86°F) or less and total phosphorus (as P) less than 0.1 mg/L.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

395. The Commission adopts the Department's proposal to replace "total" preceding phosphorus and the parenthetical "(as P)" for the reasons given in section 109; "primary contact" is consistent with the assigned criteria.

396. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

20.6.4.209 PECOS RIVER BASIN - Perennial reaches of Eagle creek [~~above~~] upstream of Alto [~~reservoir~~] dam to the Mescalero Apache boundary, perennial reaches of the Rio Bonito and its tributaries upstream of state highway 48 (near Angus) 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, [~~fish culture,~~] high quality coldwater aquatic life, irrigation, livestock watering, wildlife habitat, [~~municipal and industrial~~] public water supply and [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: specific conductance 600 µmhos/cm or less in Eagle creek, 1,100 □mhos or less in Bonito creek, and 1,500 µmhos or less in the Rio Ruidoso, pH within the range of 6.6 to 8.8, total phosphorus (as P) less than 0.1 mg/L and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

397. The Commission adopts the Department's proposal to remove fish culture as a designated use because there is no fish hatchery within the segment. The use is likely an

artifact of earlier segment descriptions. The August 1973 version of the segment included "all other perennial reaches of tributaries to the Pecos River between Acme and Artesia." The Dexter National Fish Hatchery and Research Center is located near Dexter. The fish culture designated use may have been established to protect that facility. However, the facility now uses well water for its operations. Because of language changes effective in October 1976, the segment applicable to the Dexter National Fish Hatchery is now section 206. Because section 209 is limited to the headwaters of the Rio Bonito and the Rio Ruidoso, there is no fish hatchery in this segment. Section 900.A states that no numeric criteria apply uniquely to the fish culture use but that the general criteria and numeric criteria for bacterial quality, pH, and temperature ensure adequate water quality. None of those criteria are being changed, and more stringent criteria remain applicable to the high quality coldwater aquatic life use.

398. The Commission adopts the Department's proposal to remove the industrial water supply use because such uses do not exist in this segment. Public water supply is the appropriate designation for the reasons given in section 7. Bonito Lake supplies the Alamogordo Domestic Water System, Carrizozo Water System, and Fort Stanton Facility, and Eagle Creek, Alto Lake and Grindstone Lake supply the Ruidoso Water System.

399. The Commission adopts the Department's proposal to replace "above" with "upstream of" for clarity, and replace "reservoir" with "dam" to clarify that Alto Lake is included in this segment. The Department proposes to exclude waters on tribal lands for the reasons given in section 103.

400. The Commission adopts the Department's proposals to change the contact use designation to primary contact and to restructure subsection B for the reasons given in section 101; to change µmhos/cm to µS/cm for the reasons given in section 7.A; to delete "total" preceding phosphorus.; and to delete the parenthetical "(as P)" the reasons given in section 109.

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:

[~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

401. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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

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

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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, XX-X-XX]

402. The Commission adopts the Department's proposal to change the contact use designation to primary contact and restructure subsection B for the reasons given in section 101.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 25°C (77°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL (see Subsection B of 20.6.4.14 NMAC).~~]

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

403. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

20.6.4.213 PECOS RIVER BASIN - McAllister lake.

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

B. Criteria:

[~~(1) At any sampling site: pH within the range of 6.6 to 8.8 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 25°C (77°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less; single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

404. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

20.6.4.214 PECOS RIVER BASIN - Storrie lake.

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

B. Criteria:

[~~(1) At any sampling site: pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

405. The Commission adopts the Department's proposals to change municipal to public water supply because this segment supplies the City of Las Vegas, and to restructure subsection B for the reasons given in section 101.

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, [~~municipal and~~] industrial water supply and [~~secondary~~] primary contact; and public water supply on the Gallinas river.

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos/cm or less except specific conductance 450 µmhos/cm or less in Wright Canyon creek, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

406. The Commission adopts the Department's proposals to change municipal to public water supply because this segment supplies the City of Las Vegas, to change the contact use designation to primary contact to be consistent with the assigned criteria, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

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

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

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 30°C (86°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 30°C (86°F) or less.

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~

~~(3)~~] 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, XX-X-XX]

407. The Commission adopts the Department's proposal to correct a typographical error in the name of Cañon de Manzanita, and to restructure subsection B for the reasons given in section 101.

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.

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

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

[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.]

408. The Commission adopts the Department's proposal to add the public water supply use because the Pecos River supplies the Tres Lagunas Home Owners Association. This public water system is considered ground water under the influence of surface water.

409. The Commission adopts the Department's proposals to change the contact use designation to primary contact to be consistent with the assigned criteria, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

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:

[~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 34°C (93.2°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 34°C (93.2°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.218 NMAC - N, 05-23-05; A, XX-XX-XX]

410. The Commission adopts the Department's proposals to correctly identify Lower Tansil Lake in the segment description, and to restructure subsection B for the reasons given in section 101.

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:

[~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less, single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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

411. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 30°C (86°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 30°C (86°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 410 cfu/100 mL or less.~~]

[20.6.4.220 NMAC - N, 05-23-05; A, XX-XX-XX]

412. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

20.6.4.221 PECOS RIVER BASIN - Pecos Arroyo.

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

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less, single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.221 NMAC - N, 05-23-05; A, XX-XX-XX]

413. The Commission adopts the Department's proposal to assign numeric criteria that EPA considers protective of primary contact in waters receiving infrequent use because it reflects the appropriate use and criteria based on a UAA.

414. This segment was created during the last triennial review. The documentation submitted to EPA erroneously suggested that the segment was split out from section 216. On that basis, EPA withheld approval, citing the need to provide more justification for downgrading the use from marginal coldwater aquatic life to warmwater aquatic life. In fact, Pecos Arroyo was never part of segment 216, which is clear from the segment description in the Standards effective October 11, 2002: "The main stem of the Pecos river from Anton Chico upstream to the southern boundary of the Pecos national historical park, and perennial reaches of the Gallinas river from its mouth upstream to the diversion for the Las Vegas municipal reservoir." Pecos Arroyo, a tributary to the Gallinas River, was an unclassified water. Because the warmwater aquatic life use satisfies the CWA section 101(a)(2) goal, and the designation is not being downgraded, a UAA was not required. EPA also cited the need for a UAA to justify the secondary contact designation because this designation does not meet the "swimmable" goal.

415. The Department conducted a UAA that found primary contact to be attainable, though not likely, given unfavorable conditions such as a muddy substrate. The proposed criteria represent a 1% risk level, equivalent to an illness rate of 10 per 1000.

416. The Commission adopts the Department's proposal to restructure subsection B for the reasons stated in section 101.

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 [~~secondary~~] primary contact.

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0, temperature 32.2°C (90°F) or less and TDS 6,500 mg/L or less at flows above 25 cfs.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~] 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, XX-X-XX]

417. The Commission adopts the Department's proposed revisions to change the contact use designation to primary contact and restructure subsection B for the reasons given in section 101.

20.6.4.302 CANADIAN RIVER BASIN - Ute reservoir.

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

B. Criteria:

[~~**(1)** At any sampling site: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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)** The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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

418. The Commission adopts the Department's proposals to change "municipal and industrial water supply" to "public water supply" and "industrial water supply" for the reasons given in section 7, as Ute Reservoir is expected to supply these uses in Curry, Roosevelt, and Quay counties; and to restructure subsection B for the reasons given in section 101.

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 [~~secondary~~] primary contact.

B. Criteria:
[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~
~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].
[20.6.4.303 NMAC - Rp 20 NMAC 6.1.2303, 10-12-00; A, 05-23-05; A, XX-X-XX]

419. The Commission adopts the Department's proposal to change the contact use designation to primary contact and restructure subsection B; see Section 101.

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:
[~~(1) At any sampling site: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].
[20.6.4.304 NMAC - Rp 20 NMAC 6.1.2304, 10-12-00; A, 05-23-05; A, XX-X-XX]

420. The Commission adopts the Department's proposals to add the public water supply use because Conchas Reservoir supplies the public water systems for Conchas Dam State Park and Big Mesa Water MDWCA; and to restructure subsection B for the reasons given in section 101.

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 [~~secondary~~] primary contact.

B. Criteria:
(1) [~~In any single sample: pH within the range of 6.6 to 9.0, temperature 32.2°C (90°F) or less and TDS 3,500 mg/L or less at flows above 10 cfs.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~]. 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, XX-X-XX]
[NOTE: This segment was divided effective XX-XX-XX. The standards for Lake Maloya and Lake Alice are under 20.6.4.311 and 20.6.4.312 NMAC.]

421. The Commission adopts the Department's proposals to move Lake Maloya and Lake Alice to new segment 311 because these reservoirs have a coldwater aquatic life use not

fully protected in this segment; to change the contact use designation to primary contact and to restructure subsection B for the reasons given in section 101.

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 [~~secondary~~] primary contact; and public water supply on Cimarroncito creek.

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0, temperature 32.2°C (90°F) or less and TDS 3,500 mg/L or less at flows above 10 cfs.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

(2) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~]. 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, X-X-XX]

422. The Commission adopts the Department's proposals to add the public water supply use because Cimarroncito Creek supplies the Cimarron Water System and Philmont Scout Camp; to change the contact use designation to primary contact and to restructure subsection B for the reasons given in section 101.

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, 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, [~~secondary~~] primary contact, irrigation, livestock watering and wildlife habitat.

B. Criteria:

[~~**(1)** In any single sample: temperature 25°C (77°F) or less and pH within the range of 6.6 to 9.0.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~**(2)** The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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

423. The Commission adopts the Department's proposals to change the contact use designation to primary contact and to restructure subsection B; see section 101.

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:

[~~**(1)** At any sampling site: pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~**(2)** The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less; single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

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

424. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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, 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, all perennial reaches of tributaries to the Cimarron river north and northwest of highway 64, 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, [~~municipal and industrial water supply~~] and [~~secondary~~] primary contact; and public water supply on the Cimarron River upstream from Cimarron, on Eagle Nest lake and on perennial reaches of Rayado creek and its tributaries.

B. Criteria:

[~~(1) In any single sample: specific conductance 500 □mhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

[**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.**]

425. The Commission adopts the Department's proposal to change municipal and industrial water supply to public water supply for the reasons given in section 7. A pipeline from the Cimarron River above the town of Cimarron supplies water to Raton; Eagle Nest Lake supplies water to the Springer water system; Miami Lake on Rayado Creek supplies the Miami Water Users Association; and a spring on Cimarroncita Creek supplies the Cimarroncita, LLC water system.

426. The Commission adopts the Department proposals to change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

20.6.4.310 CANADIAN RIVER BASIN - Perennial reaches of Corrumpa creek [~~and perennial reaches of tributaries of the Canadian river north of U.S. highway 54/66 and east and northeast of the Ute creek drainage~~].

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

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) [~~The monthly geometric mean of E. coli bacteria 548 cfu/100 mL or less, single sample 2507 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~] 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, XX-XX-XX]

427. The Commission adopts the Department's proposal to assign the uses and criteria from section 701 that applied before the last triennial review, e.g., effective on October 12, 2002 because these criteria apply pending completion of a UAA. EPA did not approve this new segment during the last triennial review. The segment was created because Corrumpa Creek had been incorrectly included in section 701 of the Dry Cimarron River basin. Although the creek had been incorrectly classified, EPA maintained that a UAA was required to assign less stringent designated uses and criteria than specified in section 701. Additional data must be collected to conduct a UAA.

428. The Commission adopts the Department's proposal to delete waters not previously listed in section 701 because those waters are not properly listed in this segment. As a result, those waters will remain unclassified.

429. The Commission adopts the Department's proposes to change the contact use designation to primary contact and restructure subsection B; see section 101.

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, XX-XX-XX]

430. The Commission adopts the Department's proposal to create a new segment for Lake Alice because it is supported by the Department's 2006 lake survey. This six-acre impoundment located within Sugarite Canyon State Park was previously included in segment 305. Fed by water released from Lake Maloya via Chicorica Creek, it serves as a public water supply reservoir and supports a put-and-take rainbow trout fishery. Because the lake is a small impoundment and the rainbow trout are not native, the

marginal coldwater designation and associated criteria are appropriate and will result in more protection than the marginal warmwater aquatic life designation in segment 305. The other designated uses and criteria are carried over from segment 305. However, the salinity criterion in segment 305, "TDS 3,500 mg/L or less at flows above 10 cfs," is not applicable to lake conditions and therefore is not included.

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, XX-XX-XX]

431. The Commission adopts the Department's proposal to create a new segment for Lake Maloya because it is supported by the Department's 2006 lake survey. The 120-acre Lake Maloya is located on the New Mexico-Colorado border within Sugarite Canyon State Park (an estimated three-acre portion is in Colorado).

432. The lake impounds the waters of Chicorica Creek for public water supply for the City of Raton and supports recreational fishing and camping. Rainbow trout are stocked in the lake and brown trout are being introduced. White sucker and yellow perch are also present. The lake is listed as impaired for mercury in fish tissue and temperature, based on the existing coldwater aquatic life use. However, the temperature exceedances are slight, and it is expected that the coldwater criteria are attainable.

433. The coldwater designation and associated criteria are proposed to protect the fish community. The other designated uses and criteria are carried over from segment 305, with the exception of the salinity criterion in segment 305, "TDS 3,500 mg/L or less at flows above 10 cfs," which is not applicable to lake conditions.

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: [~~municipal and~~] public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, [~~secondary~~] primary contact, marginal coldwater aquatic life and warmwater aquatic life.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 32.2°C (90°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]
[20.6.4.401 NMAC - Rp 20 NMAC 6.1.2401, 10-12-00; A, 05-23-05; A, XX-X-XX]
[**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**.]

434. The Commission adopts the Department's proposal to add a statement acknowledging that a portion of the waters in this segment are under the joint jurisdiction of the state and the Navajo Nation for the reasons given in section 106.

435. The Commission adopts the Department's proposal to change municipal and industrial water supply to public water supply for the reasons given in section 7; this reach of the San Juan River supplies the Lower Valley Water Users Association.

436. The Commission adopts the Department's proposals to change the contact use designation to primary contact and restructure subsection B; see section 101.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 32.2°C (90°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]
[20.6.4.402 NMAC - Rp 20 NMAC 6.1.2402, 10-12-00; A, 05-23-05; A, X-X-X]

437. The Commission adopts the Department's proposals to change the contact use designation to primary contact and restructure subsection B; see section 101.

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

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

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 27°C (80.6°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~].

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]
[20.6.4.403 NMAC - Rp 20 NMAC 6.1.2403, 10-12-00; A, 05-23-05; A, X-X-X]

438. The Commission adopts the Department's proposal to change municipal and industrial water supply to public water supply for the reasons given in section 7; this reach of the

Animas River supplies the Farmington Water System and Morningstar Water Supply System.

439. The Commission adopts the Department's proposal to strike the segment-specific criterion of 27°C because the criterion was established to be less stringent than the marginal coldwater criterion of 25°C. With the proposed addition of magnitude, frequency, and duration to the criteria in section 900.H, the criteria for the marginal coldwater aquatic life (6T3 25°C and maximum 29°C) are appropriate for this segment. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

20.6.4.404 SAN JUAN RIVER BASIN - The Animas river from Estes Arroyo upstream to the New Mexico-Colorado line.

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

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8, temperature 20°C (68°F) or less and total phosphorus (as P) 0.1 mg/L or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: phosphorus (unfiltered sample) 0.1 mg/L or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.404 NMAC - Rp 20 NMAC 6.1.2404, 10-12-00; A, 05-23-05; A, X-X-X]

440. The Commission adopts the Department's proposal to change municipal and industrial water supply to public water supply for the reasons given in section 7; this reach of the Animas River supplies the Aztec Domestic Water System and Northstar Water Users Association.

441. The Commission adopts the Department's proposals to change the contact use designation to primary contact and restructure subsection B for the reasons given in section 101, replace "total" preceding phosphorus, and remove the parenthetical "(as P)" for the reasons given in section 109.

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, [~~municipal and~~] public water supply, industrial water supply and [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: specific conductance 400 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

442. The Commission adopts the Department's proposal to change municipal and industrial water supply to public water supply for the reasons given in section 7; the diversion for Citizens Ditch is located on this reach of the San Juan River. Citizens Ditch supplies Blanco MDWCA, Bloomfield Water Supply System, Harvest Gold Subdivision and Enterprise Products Company Chaco Plant.

443. The Commission adopts the Department's proposals to change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

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, [~~municipal and industrial water storage~~] public water supply, industrial water supply and primary contact.

B. Criteria:

[~~(1) At any sampling site: pH within the range of 6.6 to 8.8, temperature 20°C (68°F) or less and total phosphorus (as P) 0.1 mg/L or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

444. The Commission adopts the Department's proposal to change municipal and industrial water supply to public water supply for the reasons given in section 7; the reservoir supplies Navajo Dam Domestic Water Consumers, Navajo Lake State Park – Pine Site, Navajo Lake State Park – Cottonwood Camp and Navajo Lake State Park – Sims Mesa.

445. The Commission adopts the Department's proposals to restructure subsection B for the reasons given in section 101, replace "total" preceding phosphorus, and remove the parenthetical "(as P)" for the reasons given in section 109.

20.6.4.407 SAN JUAN RIVER BASIN - Perennial reaches of the Navajo [~~and Los Pino rivers~~] 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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8, temperature 20°C (68°F) or less and total phosphorus (as P) 0.1 mg/L or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.407 NMAC - Rp 20 NMAC 6.1.2407, 10-12-00; A, 05-23-05; A, X-X-X]

446. The Commission adopts the Department's proposal to add the public water supply use because the Navajo River supplies the Lumberton MDWCA, and Los Pinos River supplies the Pine River Subdivision Water Users Association. Both public water systems are classified as ground water under the influence of surface water.

447. The Commission adopts the Department's proposals to exclude waters on tribal lands, see section 103; change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, replace "total" preceding phosphorus, and remove the parenthetical "(as P)" for the reasons given in section 109.

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: [~~municipal and~~] public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, [~~secondary~~] primary contact, marginal coldwater aquatic life and warmwater aquatic life.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0, and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 32.2°C (90°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.408 NMAC - N, 05-23-05; A, XX-XX-XX]

448. The Commission adopts the Department's proposals to change municipal and industrial water supply to public water supply for the reasons given in section 7, as the Farmington Water System and Lee/Hammond Water Treatment Plant rely on this reach of the San Juan River; to change the contact use designation to primary contact and restructure subsection B for the reasons given in section 101.

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, XX-XX-XX]

449. The Commission adopts the Department's proposed a new segment for the previously unclassified Lake Farmington because this 198-acre off-channel impoundment serves as the primary water supply for the City of Farmington.

450. NMDGF stocks both warm and cold water species to satisfy the fishing public, who may fish from shore or float in non-gasoline powered boats. There are trails for hiking and biking enthusiasts. Primary contact activities are not allowed, but they could take place because other recreation is allowed and the depth makes immersion possible.

451. The proposed temperature criterion of 25°C is based on current conditions and is protective of the fish species present.

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, XX-XX-XX]

452. The Commission adopts the Department's proposal to create a new segment for a portion of the previously unclassified Rio Nutria and its tributaries (Tampico Draw, Tampico Springs, and Agua Remora) in the Zuni River drainage because the Rio Nutria enters Zuni Pueblo approximately one-half mile downstream of Tampico Draw, and only the waters upstream of the pueblo boundary are included in the proposal.

453. The proposal is the result of a joint water quality survey conducted in 2004 by the Department and Zuni Pueblo. The Rio Nutria and its tributaries host the state-listed endangered Zuni bluehead sucker, a subspecies of the bluehead sucker, considered to have an intermediate temperature preference. The segment would be designated for the new coolwater aquatic life use. The primary contact use is assigned on the basis of

measured depths. There is no evidence that irrigation or domestic water supply are existing uses.

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, XX-XX-XX]

454. The Commission adopts the Department's proposed new segment for Ramah Lake, a previously unclassified reservoir near the Village of Ramah on the basis of the Department's 2004 lake survey.

455. Ramah Lake, which was constructed on Cebolla Creek for irrigation purposes, has become a popular boating and fishing reservoir. NMDGF stocks rainbow trout regularly and also lists bass as a fishable resident. The reservoir is fed by the ephemeral Cebolla Creek. The proposed temperature criterion of 25°C accommodates fluctuating conditions that result from ephemeral inflow, but still provides protection for the stocked species.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~.

~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

[20.6.4.501 NMAC - Rp 20 NMAC 6.1.2501, 10-12-00; A, 05-23-05; A, X-X-X]

456. The Commission adopts the Department's proposed editorial change to the segment description and to restructure subsection B; see section 101.

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 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:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 28°C (82.4°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: 28°C (82.4°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

457. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

20.6.4.503 GILA RIVER BASIN - All perennial tributaries to the Gila river above and including Mogollon creek.

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

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos/cm or less for the main stem of the Gila river above Gila hot springs and 400 µmhos or less for other reaches, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less except 32.2°C (90°F) or less in the east fork of the Gila river and Sapillo creek below lake Roberts.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criteria apply: specific conductance 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 lake Roberts; the monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less, single sample 235 cfu/100 mL or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.503 NMAC - Rp 20 NMAC 6.1.2503, 10-12-00; A, 05-23-05; A, X-X-X]

458. The Commission adopts the Department's proposals to change the contact use designation to primary contact, restructure subsection B for the reasons in section 101, and change µmhos/cm to µS/cm for the reasons in section 7.A.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 22°C (72°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: specific conductance 300 µS/cm or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[**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.**]

459. The Commission adopts the Department's proposal to strike the segment-specific criterion of 22°C because the criterion was established to be less stringent than the coldwater criterion of 20°C. With the proposed addition of magnitude, frequency, and duration to the criteria in section 900.H, the criteria for the coldwater aquatic life (6T3 20°C and maximum 24°C) are appropriate for this segment.

460. The Commission adopts the Department's proposals to change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 32.2°C (90°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].

[20.6.4.601 NMAC - Rp 20 NMAC 6.1.2601, 10-12-00; A, 05-23-05; A, X-X-X]

461. The Commission adopts the Department's proposals to change the contact use designation to primary contact and restructure subsection B; see section 101.

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:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: temperature 25°C (77°F) or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

[20.6.4.602 NMAC - Rp 20 NMAC 6.1.2602, 10-12-00; A, 05-23-05; A, X-X-X]

462. The Commission adopts the Department's proposal to restructure subsection B for the reasons given in section 101.

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 [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: specific conductance 400 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less except 25°C (77°F) or less in Tularosa creek.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

463. The Commission adopts the Department's proposals to change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

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

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 8.8, temperature 25°C (77°F) or less, TDS 1,200 mg/L or less, sulfate 600 mg/L or less, and chloride 40 mg/L or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~] 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, X-X-X]

[**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.**]

464. The Commission adopts the Department's proposal to reassign the EPA-approved coldwater use that applied before the last triennial review, i.e., effective on October 12, 2002 because EPA did not approve the amendment of this section during the last triennial review. The uses and criteria are under review, but a UAA has not been completed.

465. The Commission adopts the Department's proposals to change the contact use designation to primary contact and restructure subsection B; see section 101.

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

B. Criteria:

(1) [~~In any single sample: pH within the range of 6.6 to 8.8, temperature 32.2°C (90°F) or less, TDS 1,200 mg/L or less, sulfate 600 mg/L or less and chloride 40 mg/L or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) [~~The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~] 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, XX-XX-XX]

466. The Commission adopts the Department's proposal to restore the pre-2005 EPA-approved uses and criteria because EPA did not approve this new segment during the last

triennial review, asserting that the evidence presented in the UAA was insufficient to support changing the aquatic life use from coldwater to warmwater and the associated temperature criterion from 25 to 32.2°C. The Department evaluated the available data more thoroughly and, based on stream temperature modeling using the SSTEMP model from the USGS, concluded that reasonable restoration efforts may result in attainment of the 25°C criterion that applied prior to 2005.

467. The Commission adopts the Department's proposals to change the contact use designation to primary contact and restructure subsection B; see section 101.

20.6.4.801 CLOSED BASINS - Rio Tularosa [~~lying~~] 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, [~~fish culture,~~] irrigation, livestock watering, wildlife habitat, [~~municipal and industrial~~] public water supply and [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

468. The Commission adopts the Department's proposal to remove fish culture as a designated use because there is no fish hatchery within the segment. Section 900.A states that no numeric criteria apply uniquely to the fish culture use, but that the general criteria and numeric criteria for bacterial quality, pH and temperature ensure adequate water quality. None of those criteria are being changed, and more stringent criteria remain applicable to the coldwater aquatic life use.

469. The Commission adopts the Department's proposal to change municipal to public water supply for the reasons given in section 7; Fresnal Canyon supplies the Alamogordo Domestic Water System and La Luz MDWCA; Tularosa Creek and Reservoir supply the Tularosa Water System; and La Luz Creek is another source for La Luz MDWCA. The revisions remove industrial water supply because such uses do not exist in this segment.

470. The Commission adopts the Department's proposals to exclude the waters on tribal lands for the reasons given in section 103, change the contact use designation to primary contact, and restructure subsection B for the reasons given in section 101.

20.6.4.802 CLOSED BASINS - Perennial reaches of Three Rivers.

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

B. Criteria:

[~~(1) In any single sample: specific conductance 500 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

471. The Commission adopts the Department's proposals to change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

20.6.4.803 CLOSED BASINS - Perennial reaches of the Mimbres river downstream of the confluence with Willow Springs canyon and all perennial reaches of tributaries thereto.

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

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]

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

472. The Commission adopts the Department's proposals to change contact use designation to primary contact and restructure subsection B for the reasons given in section 101.

20.6.4.804 CLOSED BASINS - Perennial reaches of the Mimbres river upstream of the confluence with Willow Springs canyon and all perennial tributaries thereto.

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

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos or less, pH within the range of 6.6 to 8.8 and temperature 20°C (68°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], 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.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single~~

~~sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]
[20.6.4.804 NMAC - Rp 20 NMAC 6.1.2804, 10-12-00; A, 05-23-05; A, X-X-X]

473. The Commission adopts the Department's proposals to change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

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 [~~and municipal~~] water supply, livestock watering, wildlife habitat, marginal coldwater aquatic life and [~~secondary~~] primary contact.

B. Criteria:

[~~(1) In any single sample: pH within the range of 6.6 to 9.0 and temperature 25°C (77°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section.~~

~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC)~~].
[20.6.4.805 NMAC - Rp 20 NMAC 6.1.2805, 10-12-00; A, 05-23-05; A, X-X-X]

474. The Commission adopts the Department's proposal to delete municipal water supply as a designated use because there is no longer a public water system on this segment. According to 40 CFR 131.10(h), states may not remove a designated use that is an existing use "unless a use requiring more stringent criteria is added." No criteria are applicable to this use, and the criteria associated with the remaining designated uses are more stringent.

475. The Commission adopts the Department's proposals to change contact use designation to primary contact and restructure subsection B for the reasons given in section 101.

20.6.4.806 CLOSED BASINS - Bear canyon reservoir.

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

B. Criteria:

[~~(1) In any single sample: specific conductance 300 µmhos/cm or less, pH within the range of 6.6 to 8.8 and temperature 22°C (72°F) or less.~~] The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses [~~listed above in Subsection A of this section~~], except that the following segment-specific criterion applies: specific conductance 300 µS/cm or less.

[~~(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 410 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).~~]
[20.6.4.806 NMAC - N, 05-23-05; A, XX-XX-XX]

476. The Commission adopts the Department's proposal to strike the segment-specific criterion of 22°C because the criterion was established to be less stringent than the coldwater criterion of 20°C. With the proposed addition of magnitude, frequency, and

duration to the criteria in section 900.H, the criteria for the coldwater aquatic life (6T3 20°C and maximum 24°C) are appropriate for this segment.

477. The Commission adopts the Department's proposals to change the contact use designation to primary contact, restructure subsection B for the reasons given in section 101, and change µmhos/cm to µS/cm for the reasons given in section 7.A.

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

478. The Commission adopts the Department's proposal to add "existing" to the list of uses because these uses must be protected under the antidegradation policy in section 8. Although existing uses are typically identified as designated uses for a water, there may be a lapse in time between identification and designation in the Standards. The revision is consistent with the introduction to subsection J, which also references existing, designated, and attainable uses.

A. Fish Culture[~~,~~] and Water Supply [~~and Storage~~]: Fish culture, public water supply [~~and municipal~~] and industrial water supply [~~and storage~~] 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 [~~that are established to for all classified waters of the state listed in 20.6.4.97 through 20.6.4.899 NMAC~~].

479. The Commission adopts the Department's proposals to change "municipal and industrial" to "public water supply" and "industrial water supply," and to delete "storage" for consistency with the new definitions proposed in section 7; and to strike the last phrase because the E. coli, pH, and temperature criteria in sections 97 – 899 are applicable on a segment-specific basis; otherwise, the criteria listed in section 900 are applicable.

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 and single sample of 410 cfu/100 mL[~~, apply to this use~~] and pH [~~shall be~~] within the range of 6.6 to 9.0 apply to this use.

480. The Commission adopts the Department's proposed minor editorial change for consistency of style.

E. Secondary Contact: The monthly geometric mean of E. coli bacteria of 548 cfu/100 mL and single sample of 2507 cfu/100 mL apply to this use.

F. Livestock Watering: The criteria listed in Subsection J 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 discharge of substances that bioaccumulate, in excess of levels listed in Subsection J for wildlife habitat is allowed if, and only to the extent that, the substances are present in the intake waters that are diverted and utilized prior to discharge, and then only if the discharger utilizes best available treatment technology to reduce the amount of bioaccumulating substances that are discharged.~~ The numeric criteria listed in Subsection J for wildlife habitat apply to this use [~~except when a site-specific or segment specific criterion has been adopted under 20.6.4.101 through 20.6.4.899 NMAC~~].

481. The Commission adopts the Department's proposal to strike the second sentence because it is unnecessary and may be inconsistent with federal regulations. The sentence is similar to the requirement in 40 CFR 122.45(g) regarding the setting of technology-based effluent limitations when a pollutant is present in the intake water. The federal requirement applies regardless of the designated use, and regardless of whether it is referenced in the Standards. The sentence is a relic from a version of the provision that predated the adoption of numeric criteria for this use and is no longer used to write NPDES permits.

482. The Commission adopts the Department's proposal to strike the last phrase because the section header already states, "...UNLESS OTHERWISE SPECIFIED IN 20.6.4.97 THROUGH 20.6.4.899 NMAC." Even if the phrase were retained, it incorrectly references section 101.

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 [~~6 below~~] (7) of this subsection, the acute and chronic aquatic life criteria set out in Subsections I, [~~and~~] 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 [~~this use~~] all aquatic life use

subcategories. In addition, the specific criteria for aquatic life subcategories in the following paragraphs [~~shall~~] apply to waters classified under the respective designations.

483. The Commission adopts the Department's proposal to eliminate "aquatic life" as a designated use because, as discussed in section 98, EPA concluded that the use was not sufficiently protective.

484. The Commission adopts the Department's proposal to make the first paragraph of this subsection an introduction to the aquatic use subcategories because it simplifies the overall subsection and avoids the need to repeat these criteria in every subcategory.

(1) **High Quality Coldwater:** Dissolved oxygen 6.0 mg/L or more, 4T3 temperature 20°C (68°F) [~~or less~~], maximum temperature 23°C (73°F), pH within the range of 6.6 to 8.8 and specific conductance a segment-specific limit [~~varying~~] between 300 [~~µmhos/cm~~] µS/cm and 1,500 [~~µmhos/cm~~] µS/cm depending on the natural background in the particular surface water[s] 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. [~~The total ammonia criteria set out in Subsections K, L and M of this section and the human health criteria for pollutants listed in Subsection J of this section are applicable to this use.~~]

485. The Commission adopts the Department's proposal to modify the temperature criteria to incorporate the new temperature criteria based on "4T3", "6T3", and "maximum" because it will improve aquatic life protection. Additionally, the refined criteria will be effectively implemented because the Department has transitioned to the use of continuously recording thermographs, which enable robust assessment of magnitude, frequency, and duration.

486. For the coldwater uses (high quality, coldwater and marginal coldwater), the Commission adopts the Department's proposal to identify two temperature criteria because aquatic ecology literature identifies two critical temperature thresholds: 1) a lethal threshold typically expressed as a maximum temperature, and 2) a sublethal threshold that may impact the long-term survival, growth and reproduction of aquatic life. This proposal will improve aquatic life protection. The new criteria will be effectively implemented because of the Department's transition to the use of continuously recording thermographs, which enable robust assessment of magnitude, frequency, and duration.

487. The Commission adopts the Department's proposal to add a sentence at the end of the paragraph that explains that a segment-specific criterion identified in sections 101-899 is a maximum temperature; this avoids the need to revise numerous sections.

488. The Commission adopts the Department's proposal to clarify that the specific conductance criterion is a particular value set on a segment-specific basis that falls within the range of 300-1,500 µS/cm.

489. The Commission adopts the Department's proposals to change µmhos/cm to µS/cm for the reasons given in section 7.A; and to delete the reference to ammonia and human health criteria because the criteria are specified in the introductory paragraph.

(2) **Coldwater:** Dissolved oxygen 6.0 mg/L or more, 6T3 temperature 20°C (68°F) ~~or less~~, 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. [~~The total ammonia criteria set out in Subsections K, L and M of this section and the human health criteria listed in Subsection J of this section are applicable to this use.~~]

490. The Commission adopts the Department's proposal to modify the temperature criteria for the reasons given in paragraph (1) of section 900.H.

491. The Commission adopts the Department's proposals to add the second sentence because it avoids the need to make revisions to numerous segment-specific criteria in sections 101-899; and to delete the reference to ammonia and human health criteria for the reasons given in paragraph (1) of section 900.H.

(3) **Marginal Coldwater:** Dissolved oxygen [~~than~~] 6 mg/L or more, ~~on a case-by case basis maximum~~] 6T3 temperature[~~s may exceed~~] 25°C (77°F) , maximum temperature 29°C (84°F) and [~~the~~] pH [~~may~~] 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. [~~The total ammonia criteria set out in Subsections K, L and M of this section and the human health criteria listed in Subsection J of this section are applicable to this use.~~]

492. The Commission adopts the Department's proposal to delete the phrase referring to temperatures exceeding 25°C on a case-by-case basis because the phrase is no longer necessary. The phrase acknowledges that it may be appropriate to set a segment-specific criterion higher than 25°C in accordance with the second part of the definition of "marginal coldwater" which indicates that the temperature "in the surface water of the state may exceed 25°C." Nine segments with the marginal coldwater designation

currently have a segment-specific temperature criterion higher than 25°. Deleting the phrase will not affect these segments because Section 900 criteria apply only if segment-specific criteria are not identified, and eliminates the possible misinterpretation that criteria exceedances on a particular water are allowed on a case-by-case basis.

493. The Commission adopts the Department's proposals to modify the temperature criteria for the reasons given in paragraph (1) of section 900.H; to add the second sentence because it avoids the need to make revisions to numerous segment-specific criteria in sections 101-899; and to delete the reference to ammonia and human health criteria for the reasons given in paragraph (1) of section 900.H.

(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.

494. The Commission adopts the Department's proposed maximum temperature of 29°C because it is supported by a review of the thermal tolerances of coolwater species in New Mexico. The criterion falls between the coldwater and warmwater uses, consistent with the definition of the coolwater aquatic life use in section 7 ("the water temperature and other characteristics are suitable for the support or propagation of aquatic life whose physiological tolerances are intermediate between those of warm and coldwater aquatic life"). The same dissolved oxygen and pH criteria will apply to the warmwater uses because the physiological tolerances of coolwater fish species are typically broader than those of coldwater species.

495. The Commission does not adopt Amigos Bravos' proposal to eliminate marginal coldwater based on its concerns about the Department's addition of "coolwater" criteria. As proposed, the coolwater designation will be used only on a segment-specific basis, and the next 303 Report will show the spectrum of coldwater to warmwater uses. It may be that further changes will be appropriate in the next triennial review; in this review, the Department has supported the new category.

[~~(4)~~](5) **Warmwater:** Dissolved oxygen 5 mg/L or more, maximum temperature 32.2°C (90°F) ~~or less~~, 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. [~~The total ammonia criteria set out in Subsections K, L and M of this section and the human health criteria listed in Subsection J of this section are applicable to this use.~~]

496. The Commission adopts the Department's proposal to specify 32.2°C as the "maximum temperature" because it clarifies the magnitude, frequency, and duration of the criterion. As a maximum value, the criterion protects the more sensitive native warmwater species, such as the fathead minnow and sand shiner.

497. The Commission adopts the Department's proposals to add the second sentence because it avoids the need to make revisions to numerous segment-specific criteria in sections 101-899; and to delete the reference to ammonia and human health criteria for the reasons given in paragraph (1) of section 900.H.

[~~(5)~~](6) **Marginal Warmwater:** Dissolved oxygen 5 mg/L or more, pH within the range of 6.6 to 9.0 and [~~on a case-by-case basis~~] maximum temperature[~~s may exceed~~] 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. [~~The total ammonia criteria set out in Subsections K, L and M of this section and the human health criteria listed in Subsection J of this section are applicable to this use.~~]

498. The Commission adopts the Department's proposal to delete the phrase referring to temperatures exceeding 32.2°C "on a case-by-case basis" because the phrase is no longer necessary. The phrase acknowledges that it may be appropriate to set a segment-specific criterion higher than 32°C if the segment has the temperature characteristics described in the second part of the definition of "marginal warmwater," which states, "historical data indicate that natural water temperature routinely exceeds 32.2°C." Only one segment with the marginal warmwater designation has a segment-specific temperature criterion higher than 32.2°. Deleting the phrase here will have no effect on this segment because section 900 criteria apply only if segment-specific criteria are not identified, and eliminates the possible misinterpretation that criteria exceedances on a particular water may be allowed on a case-by-case basis.

499. The Commission adopts the Department's proposals to specify that 32.2°C is the "maximum temperature" because it reflects the new temperature criteria; to add the second sentence because it avoids the need to make revisions to numerous segment-specific criteria in sections 101-899; and to delete the reference to ammonia and human health criteria for the reasons given above.

[~~(6)~~](7) **Limited Aquatic Life:** [~~Criteria shall be developed on a segment-specific basis.~~] The acute aquatic life criteria of Subsections I and J of this section [~~shall~~] 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.

500. The Commission adopts the Department's proposals to delete the first sentence because the criteria specified in the rest of the paragraph are protective of the use, and adopting segment-specific criteria is an option when appropriate; and to add the last sentence for consistency with section 11.G regarding the applicability of human health-organism only criteria.

501. The Commission does not adopt Amigos Bravos' proposal to delete the limited aquatic life use because the criteria protect aquatic species that take advantage of habitats, such as ephemeral waters, that do not support fish populations. The use is assigned on a site-specific basis when a UAA demonstrates the attainment of higher uses is not feasible, and the applicable criteria are modified as appropriate for a particular water. This process safeguards against the inappropriate application of the use, and is neither confusing nor inappropriate, particularly since EPA has confirmed its consistency with the CWA. In this respect, contrary to Amigos Bravos' claims, the use fully addresses EPA's concerns. EPA approved both the use definition and criteria in section 900.H(7), provided a UAA is conducted to demonstrate that the use is appropriate for a particular water.

502. AB has provided no technical testimony supporting its concern that "the limited aquatic life use could be abused to lower water quality standards." The limited aquatic life designated use is appropriate for certain environmental conditions in New Mexico.

20.6.4.900

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 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 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, 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

Hardness as CaCO, dissolved (mg/L)		Al	Cd	Cr III	Cu	Pb	Mn	Ni	Ag	Zn
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								
	Chronic	4,035								
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

503. The Commission adopts the Department's proposal to reformat the criteria for ease of use.

504. The Commission adopts the Department's proposal to change the introductory paragraph to clarify that these criteria are hardness-dependent, must be expressed by an equation and cannot simply be listed in the table in subsection J.

505. The Commission adopts the Department's proposal to add a sentence clarifying that the criteria are a function of dissolved hardness because dissolved calcium and magnesium compete for sites on fish gills that might otherwise be occupied by metals, thereby reducing the toxicity of the metals. Therefore, the hardness value to be used in the equations should represent the dissolved fraction.

506. The Commission adopts the Department's proposal to move the applicable range of hardness from section 12.H to this location because the hardness range is an integral part of the criteria statement.

507. The Commission adopts the Department's proposal to delete the phrase "and those criteria listed in Subsection J for aquatic life shall apply to the subcategories of aquatic life identified in this section" because the phrase is incomplete (ammonia criteria in subsections K and L also apply to some

subcategories) and misplaced (subsection H indicates which aquatic life criteria apply to the aquatic life subcategories).

508. The Commission adopts the Department's proposal to add paragraphs (1) and (2) because they express the criteria equations in the more readable form used in EPA's National Recommended Water Quality Criteria.

509. The Commission adopts the Department's proposal to clarify that the chromium equations apply to the trivalent ion (chromium III) because it is consistent with EPA's recommended criteria.

510. The Commission adopts the Department's proposal to include a table showing selected calculated criteria values at a range of hardnesses to respond to complaints that criteria expressed as equations are difficult for the public to compare to water quality data.

511. The Commission adopts the proposal by Chevron Mining and Los Alamos National Laboratory/Department of Energy (CMI and LANS/DOE) to replace the current acute and chronic aquatic life criteria for aluminum in section 900.J with hardness-based criteria and to show total aluminum in this subsection to reflect findings of new toxicological studies.

512. The current New Mexico surface water quality standards for aluminum are based on the current standards document and the 1988 national aluminum toxicity databases, which do not reflect current scientific understanding of aluminum toxicity to aquatic life. CMI and LANS/DOE's proposal is based on an evaluation of the EPA recalculation procedure for Arid West effluent-dependent waters conducted by CMI's consultants as part of the Arid West Water Quality Research Project.

513. The incorporation of the new toxicity studies adds more than three dozen new data points and substantially increases the statistical confidence in the criteria.

514. The original proposal was refined to implement aluminum criteria on the basis of "total recoverable aluminum." Newer studies show that aluminum toxicity to aquatic organisms potentially can be caused not only by dissolved aluminum, but can also be caused by insoluble amorphous hydroxides suspended in the water column. This particle can cause suffocation in aquatic organisms. Because the Commission's existing aquatic life criteria consider only dissolved aluminum, the standards need to be modified to also allow for assessment of aluminum hydroxides.

515. The total form is recommended by EPA. Most of the data is derived from studies on the total form. It is recognized that field samples of the total form may capture aluminum in nontoxic materials, such as clays and sands.

516. 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 because some native sands, silts and clays contain forms of aluminum that are not toxic to aquatic organisms, and can be removed from the sample. The filter pore-size would be selected to allow the potentially toxic aluminum hydroxide particles to pass through the filter and be measured during sample analysis, but would exclude the non-toxic solid phases.

517. The newer scientific literature demonstrates that hardness has a significant influence on aluminum toxicity and, hence, should be incorporated into regulatory criteria. The aluminum criteria should be revised to reflect this hardness dependency using an equation rather than a single numeric value, as is done with the criteria for several other metals.

518. The same hardness relationship for the acute and chronic criteria is proposed for aluminum; EPA allows the acute hardness relationship to be applied to the chronic equation in the absence of better data.

519. The Commission adopts the proposed hardness range because using zero is consistent with the approach used for other hardness-dependent metals, and

capping the range at 220 is consistent with the highest hardness concentration used in toxicity tests. The new equations apply at hardness concentrations from 0 to 220 mg/L, and the criteria values for a hardness of 220 ug/L applies at higher hardness concentrations. The criteria values for a hardness of 25 ug/L apply at hardnesses less than 25 mg/L because no compelling basis exists for limiting the application of the proposed criteria to hardness of 25 mg/L and above, and because the criteria were based in part on toxicity studies conducted in waters softer than 25 mg/L.

520. The Commission adopts CMI and LANS/DOE's proposal to update the hardness-based acute and chronic aquatic life criteria for dissolved cadmium based on EPA's criteria derivation and recalculation procedures.

521. The current acute and chronic standards for dissolved cadmium in New Mexico are based on EPA's 2001 criteria update. The proposed changes are based on a more recent review technical review and update of the 2001 revised cadmium standards that resulted in new cadmium acute and chronic equations adopted by the State of Colorado in 2005 and approved by EPA.

522. The proposed change follows EPA's guidance for developing numeric criteria for the protection of aquatic life (USEPA, 1985). Updating the criteria as proposed retains the level of protection intended by EPA guidance for deriving numeric criteria for aquatic life designated uses.

523. The Commission adopts CMI and LANS/DOE's proposal to update the hardness-based acute and chronic aquatic life criteria for dissolved zinc based on EPA's criteria derivation and recalculation procedures.

524. The acute and chronic standards for zinc are based on EPA's 1996 criteria update. The proposed changes for zinc equations are based on a more recent review of the updated zinc standards adopted by the State of Colorado, a subsequent review of the EPA recalculation procedure, additional literature searches in 2008 as part of a site-specific zinc standards evaluation for Colorado streams, and additional data from

recently available studies conducted by the International Lead-Zinc Research Organization (ILZRO).

525. The proposed change follows EPA's guidance for developing numeric criteria for the protection of aquatic life (USEPA, 1985). Updating the criteria as proposed retains the level of protection intended by EPA guidance for deriving numeric criteria for aquatic life designated uses.

526. The Commission adopts CMI's proposal to add acute and chronic criteria for dissolved manganese because the criteria rely on updated scientific information and are consistent with EPA's 1985 Guidelines.

527. Neither EPA nor New Mexico currently has manganese ambient water quality standards for the protection of aquatic life. Manganese can be a metal of concern in the west, where manganese deposits are present in the Rocky Mountain and Great Basin Regions. Additional sources of manganese come from iron manufacture industry, volcanic activity, and use of fertilizers. These sources, combined with the natural deposits, can contribute to elevated concentrations of manganese in watersheds with no apparent adverse effect on aquatic biota.

528. The proposed criteria follow the manganese criteria adopted in Colorado, which were developed based on available literature and toxicity testing conducted jointly by industry and the Colorado Division of Wildlife. These hardness-based equations were developed based on the EPA standards derivation procedure, were adopted by the Colorado Water Quality Control Commission in 2000, and have been approved by EPA for use in Colorado.

J. Use-Specific Numeric criteria.

(1) Notes applicable to the Table of Numeric Criteria in paragraph (2):

(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 [~~adopted by the commission to protect~~] applicable to existing, designated and attainable uses. Additional criteria that are not compatible with this table are found in Subsections A through I, K and L of this section.

529. The Commission adopts the Department's proposal to add a new paragraph to subsection J to help the public interpret the criteria table in paragraph (2) without adding footnotes, which are not allowed in the NMAC.

530. The Commission adopts the Department's proposal to add subparagraphs (a)-(d) because the subparagraphs constitute non-substantive formatting changes that simplify the criteria table. A simple "a" or "b" replaces "See 20.6.4.900.I" or "See 20.6.4.900.C" in the applicable cells of the table. Stating the units here avoids repeating them in every column of the table, while abbreviated headers better accommodate the information in the table.

531. The Commission adopts CMI and LANS/DOE's proposal for section 900.J(1)(e) to accommodate the new hardness-based aluminum criteria and clarify the basis for the new criteria to clearly address the intended filtering question.

532. The Commission adopts the Department's proposed subparagraph (f) to rename the human health criteria because the term "human health-organism only" better describes the criteria. The term "human health" is too broad to correctly represent the intent of the criteria. These criteria do not represent safe concentrations for drinking the water or swimming in the water, two common misconceptions. These criteria are based on EPA's recommended human health criteria for the consumption of organisms only. Consuming fish from waters with pollutant concentrations higher

than these criteria poses a human health risk because of the effects of bioaccumulation in the food chain.

533. The Commission adopts the Department's proposal to revise subparagraph (g) to clarify that the dioxin criteria apply, in accordance with EPA recommendations, to the sum of the dioxin toxicity equivalents expressed as 2,3,7,8-tetrachlorodibenzo-p-dioxin dioxin (TCDD). Dioxins include a group of chemicals that share certain similar chemical structures and biological characteristics. The chemical 2,3,7,8-TCDD dioxin is the most studied and most toxic of these compounds. Because exposure is typically measured in relation to a variable mixture of dioxins, EPA uses Toxicity Equivalency Factors (TEFs) that compare the potential toxicity of each of the individual dioxins to the relative toxicity of TCDD. The toxicity of a mixture can be expressed in terms of its Toxicity Equivalents (TEQs), which is the amount of TCDD it would take to equal the combined toxic effect of all the dioxin-like compounds found in that mixture. In its 2002 National Recommended Water Quality Criteria document, EPA explained that the recommended dioxin criteria were expressed in terms of 2,3,7,8 TCDD dioxin and "and should be used in conjunction with the national/international convention of toxicity equivalence factors (TEF/TEQs) to account for the additive effects of other dioxin-like compounds (dioxins)." The clarification is needed in the Standards so that the criteria are not interpreted to apply only to 2,3,7,8 TCDD dioxin. Such an interpretation would discount the toxic effects of other dioxin compounds.

534. The Commission adopts the Department's proposed subparagraph (h) to reflect that the PCB criteria apply to the sum of all PCBs, expressed either as congeners, homologs, or aroclors. For PCBs, the terms congener, isomer, and compound are synonyms. The subparagraph also replaces the definition of "total PCBs" in section 7. The information is located here rather than in Section 7 because it pertains to how the criteria are interpreted, not how PCBs are defined.

535. The Commission adopts the Department's proposal to strike "adopted by the commission" because it is unnecessary. The Standards in their entirety are adopted by the Commission. These criteria are "applicable to" uses instead of adopted "to protect" uses, because the human health criteria protect humans from the health risks of eating contaminated aquatic organisms, rather than from the direct risk to the aquatic organisms. Moreover, human health is not a designated use. The revisions also add a reference to the ammonia criteria in subsections K and L which was previously omitted. The criteria are properly referenced in this subsection.

536. The Commission does not adopt Amigos Bravos' proposal to list detection limits in this section because this information is not appropriate for the Standards. This information is available in the Surface Water Quality Bureau's Quality Assurance Project Plan, which is updated annually and available on the website or by request.

537. Detection limits need not be specified to ensure that the water is safe. The Department already takes appropriate measures to ensure that water is safe given the applicable detection limit. Collecting water quality data, interpreting analytical results, and reporting whether waters attain designated uses are activities that implement the Standards, and are guided by appropriate implementation documents. Regular updates allow the Department to incorporate new approved methods which may provide greater accuracy or lower detection limits. Listing detection limits in the Standards, which must be amended through the rulemaking process, might delay the use of improved analytical methods that provide better information regarding water quality.

[tables begin on next page]

~~Pollutant~~ ~~total, unless indicated~~	~~CAS Number~~	~~Domestic Water Supply~~ ~~µg/L unless indicated~~	~~Irrigation~~ ~~µg/L unless indicated~~	~~Livestock Watering~~ ~~µg/L unless indicated~~	~~Wildlife Habitat~~ ~~µg/L unless indicated~~	~~Aquatic Life~~		~~Human Health~~	~~Cancer Causing (C) or Persistent (P)~~
						~~Acute~~	~~Chronic~~		

Pollutant	CAS Number	DWS	Irr	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Aluminum, dissolved	7429-90-5		5,000			[~~750~~]	[~~87~~]		
Aluminum, total recoverable	7429-90-5					a	a		
Antimony, dissolved	7440-36-0	[~~5.6~~] 6						640	P
Arsenic, dissolved	7440-38-2	[~~2.3~~] 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		[~~See 20.6.4.900.I~~] a	[~~See 20.6.4.900.I~~] 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	[~~18540-29-9~~] 7440-47-3	100	100	1,000		[~~See 20.6.4.900.I~~]	[~~See 20.6.4.900.I~~]		
Cobalt, dissolved	7440-48-4		50	1,000					
Copper, dissolved	7440-50-8	1300	200	500		[~~See 20.6.4.900.I~~] a	[~~See 20.6.4.900.I~~] a		
~~Cyanide, dissolved~~	~~57-12-5~~	~~200~~	-	-	-	-	-	-	-
Cyanide, [~~weak acid dissociable~~] total recoverable	57-12-5	[~~700~~] 200			5.2	22.0	5.2	[~~220,000~~] 140	
Lead, dissolved	7439-92-1	[~~50~~] 15	5,000	100		[~~See 20.6.4.900.I~~] a	[~~See 20.6.4.900.I~~] 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	[~~100~~] 700				[~~See 20.6.4.900.I~~] a	[~~See 20.6.4.900.I~~] a	4,600	P

Pollutant	CAS Number	DWS	Irr	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Nitrate as N		10 mg/L							
Nitrite + Nitrate				132 mg/L					
Selenium, dissolved	7782-49-2	50	[~~See 20.6.4.900.C~~] b	50				4,200	P
Selenium, total recoverable	7782-49-2				5.0	20.0	5.0		
Silver, dissolved	7440-22-4					[~~See 20.6.4.900.I~~] a			
Thallium, dissolved	7440-28-0	[~~1.7~~] 2						[~~6.3~~] 0.47	P
Uranium, dissolved	7440-61-1	[~~5,000~~] 30							
Vanadium, dissolved	7440-62-2		100	100					
Zinc, dissolved	7440-66-6	[~~7,400~~] 10,500	2,000	25,000		[~~See 20.6.4.900.I~~] a	[~~See 20.6.4.900.I~~] a	26,000	P
Adjusted gross alpha [~~(see 20.6.4.900.B and .F)~~]		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	[~~670~~] 2,100						990	
Acrolein	107-02-8	[~~190~~] 18						[~~290~~] 9	
Acrylonitrile	107-13-1	[~~0.51~~] 0.65						2.5	C
Aldrin	309-00-2	[~~0.00049~~] 0.021				3.0		0.00050	C,P
Anthracene	120-12-7	[~~8,300~~] 10,500						40,000	
Benzene	71-43-2	[~~22~~] 5						510	C
Benzidine	92-87-5	[~~0.00086~~] 0.0015						0.0020	C
Benzoaanthracene	56-55-3	[~~0.038~~] 0.048						0.18	C
Benzoapyrene	50-32-8	[~~0.038~~] 0.2						0.18	C,P
Benzo(b)fluoranthene	205-99-2	[~~0.038~~] 0.048						0.18	C
Benzo(k)fluoranthene	207-08-9	[~~0.038~~] 0.048						0.18	C
alpha-BHC	319-84-6	[~~0.026~~] 0.056						0.049	C
beta-BHC	319-85-7	0.091						0.17	C
Gamma-BHC (Lindane)	58-89-9	[~~0.19~~] 0.20				0.95		[~~0.63~~] 1.8	[~~C~~]
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	[~~12~~] 6						22	C

Pollutant	CAS Number	DWS	Irr	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Bromoform	75-25-2	[~~43~~] 44						1,400	C
Butylbenzyl phthalate	85-68-7	[~~1,500~~] 7,000						1,900	
Carbon tetrachloride	56-23-5	[~~2.3~~] 5						16	C
Chlordane	57-74-9	[~~0.0080~~] 2				2.4	0.0043	0.0081	C,P
Chlorobenzene	108-90-7	[~~680~~] 100						[~~21,000~~] 1,600	
Chlorodibromomethane	124-48-1	[~~4.0~~] 4.2						130	C
Chloroform	67-66-3	57						4,700	C
2-Chloronaphthalene	91-58-7	[~~1,000~~] 2,800						1,600	
2-Chlorophenol	95-57-8	[~~81~~] 175						150	
Chrysene	218-01-9	[~~0.038~~] 0.048						0.18	C
Diazinon	333-41-5					0.17	0.17		
4,4'-DDT and derivatives		[~~0.0022~~] 1.0			0.001	1.1	0.001	0.0022	C,P
Dibenzo(a,h)anthracene	53-70-3	[~~0.038~~] 0.048						0.18	C
Dibutyl phthalate	84-74-2	[~~2,000~~] 3,500						4,500	
1,2-Dichlorobenzene	95-50-1	[~~2,700~~] 600						[~~17,000~~] 1,300	
1,3-Dichlorobenzene	541-73-1	[~~320~~] 469						960	
1,4-Dichlorobenzene	106-46-7	[~~400~~] 75						[~~2,600~~] 190	
3,3'-Dichlorobenzidine	91-94-1	[~~0.21~~] 0.78						0.28	C
Dichlorobromomethane	75-27-4	[~~5.5~~] 5.6						170	C
1,2-Dichloroethane	107-06-2	[~~3.8~~] 5						370	C
1,1-Dichloroethylene	75-35-4	[~~0.57~~] 7						[~~32~~] 7,100	C
2,4-Dichlorophenol	120-83-2	[~~77~~] 105						290	
1,2-Dichloropropane	78-87-5	5.0						150	C
1,3-Dichloropropene	542-75-6	[~~10~~] 3.5						[~~1,700~~] 210	C
Dieldrin	60-57-1	[~~0.00052~~] 0.022				0.24	0.056	0.00054	C,P
Diethyl phthalate	84-66-2	[~~17,000~~] 28,000						44,000	
Dimethyl phthalate	131-11-3	[~~270,000~~] 350,000						1,100,000	
2,4-Dimethylphenol	105-67-9	[~~380~~] 700						850	
2,4-Dinitrophenol	51-28-5	[~~69~~] 70						5,300	
2,4-Dinitrotoluene	121-14-2	1.1						34	C
[~~2,3,7,8-TCDD~~] Dioxin	[~~1746-01-6~~]	[~~5.0E-08~~] 3.0E-05						5.1E-08	C,P
1,2-Diphenylhydrazine	122-66-7	[~~0.36~~] 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	[~~0.76~~] 2				0.086	0.036	[~~0.81~~] 0.060	
Endrin aldehyde	7421-93-4	[~~0.29~~] 10.5						0.30	

Pollutant	CAS Number	DWS	Irr	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Ethylbenzene	100-41-4	[~~3,100~~] 700						[~~29,000~~] 2,100	
Fluoranthene	206-44-0	[~~130~~] 1,400						140	
Fluorene	86-73-7	[~~1,100~~] 1,400						5,300	
Heptachlor	76-44-8	[~~0.00079~~] 0.40				0.52	0.0038	0.00079	C
Heptachlor epoxide	1024-57-3	[~~0.00039~~] 0.20				0.52	0.0038	0.00039	C
Hexachlorobenzene	118-74-1	[~~0.0028~~] 1						0.0029	C,P
Hexachlorobutadiene	87-68-3	[~~4.4~~] 4.5						180	C
Hexachlorocyclopen-tadiene	77-47-4	[~~240~~] 50						[~~17,000~~] 1,100	
Hexachloroethane	67-72-1	[~~14~~] 25						33	C
Ideno(1,2,3-cd)pyrene	193-39-5	[~~0.038~~] 0.048						0.18	C
Isophorone	78-59-1	[~~350~~] 368						9,600	C
Methyl bromide	74-83-9	[~~47~~] 49						1,500	
2-Methyl-4,6-dinitrophenol	534-52-1	[~~13~~] 14						280	
Methylene chloride	75-09-2	[~~46~~] 5						5,900	C
Nitrobenzene	98-95-3	[~~17~~] 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	[~~33~~] 71						60	C
Nonylphenol	84852-15-3					28	6.6		
Polychlorinated Byphenyls (PCBs)	1336-36-3	[~~0.00064~~] 0.50			0.014	2	0.014	0.00064	C,P
Pentachlorophenol	87-86-5	[~~2.7~~] 1.0				19	15	30	C
Phenol	108-95-2	[~~21,000~~] 10,500						[~~1.7E+6~~] 860,000	
Pyrene	129-00-0	[~~830~~] 1,050						4,000	
1,1,2,2-Tetrachloroethane	79-34-5	[~~1.7~~] 1.8						40	C
Tetrachloroethylene	127-18-4	[~~6.9~~] 5						33	C,P
Toluene	108-88-3	[~~6,800~~] 1,000						[~~200,000~~] 15,000	
Toxaphene	8001-35-2	[~~0.0028~~] 3				0.73	0.0002	0.0028	C
1,2-Trans-dichloroethylene	156-60-5	[~~700~~] 100						[~~140,000~~] 10,000	
1,2,4-Trichlorobenzene	120-82-1	[~~260~~] 70						[~~940~~] 70	
1,1,1-Trichloroethane	71-55-6	200							
1,1,2-Trichloroethane	79-00-5	[~~5.9~~] 5						160	C
Trichloroethylene	79-01-6	[~~25~~] 5						300	C
2,4,6-Trichlorophenol	88-06-2	[~~14~~] 32						24	C
Vinyl chloride	75-01-4	[~~20~~] 2						[~~5,300~~] 24	C

538. The Commission adopts the Department's proposed revisions to the header row of the table. The abbreviations provide more flexibility in column width, and more space for the pollutant names while still accommodating the extended term "human health-organism only." The columns retain the same order as the existing table.

539. The Commission adopts the Department's proposed revised criteria to protect the domestic water supply use. Current criteria are based on drinking water standards (maximum contaminant levels or MCLs) or EPA's CWA section 304(a) recommended human health criteria for the consumption of water plus organism. Some criteria are more and some less stringent than MCLs, although MCLs are considered the appropriate level of protection for drinking water under the federal Safe Drinking Water Act. The practice of basing domestic water supply criteria on EPA's water plus organism recommendations has been criticized because the designated use pertains only to ingesting water, not fish.

540. The Commission adopts the Department's proposal that domestic water supply criteria be set equal to the MCL whenever an MCL exists, and the "water-only" value when no MCL exists. Whenever possible, the same drinking water quality should be provided to people relying on private, unregulated systems, represented by the domestic water supply use, as those who are served by public water systems, which are required to meet MCLs. When no MCL exists, the "water-only" value is appropriate because it considers the health risks of ingesting water and can be calculated using the same equations that EPA uses to derive water-plus-organism values but omitting the bioaccumulation factor. The resulting equations are the same as those used to derive maximum contaminant level goals (MCLGs) under the Safe Drinking Water Act. For carcinogens, the water-only values reflect a cancer risk of 10^{-5} consistent with section 900.B, which states, "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." The human health criteria, renamed "human health-organism only"

criteria, continue to protect persons who consume fish or other aquatic organisms. The recalculated values include EPA's 2003 recommended updates for thallium, cyanide, gamma-BHC (lindane), chlorobenzene, 1,2 dichlorobenzene, 1,4-dichlorobenzene, 1,1-dichloroethylene, 1,3-dichloropropene, endrin, ethylbenzene, hexachlorocylopentadiene, toluene, 1,2 trans-dichloroethylene, 1,2,4-trichlorobenzene and vinyl chloride. PL 48 - Exhibit 63, as well as new values for acrolein and phenol based on EPA's 2009 recommended updates.

541. Compared to the previous domestic water supply criteria, some of the revised criteria are more stringent due to the use of MCLs, such as benzene, methylene chloride and trichloroethylene, while others are less stringent, such as chlordane, dioxin, heptachlor and PCBs. A few criteria are significantly less stringent due to the use of water-only calculations, such as aldrin, DDT and endrin, because these pollutants pose a relatively higher risk associated with fish consumption. The human health organism-only criteria, which protect against the health effects of consuming fish or shellfish from contaminated waters, continue to apply to all waters with the domestic water supply use. The Commission does not adopt Amigos Bravos' position that UAAs are required to change the domestic water supply criteria. A UAA is required when proposing to remove a designated CWA section 101(a)(2) use or changing a CWA section 101(a)(2) use to a use requiring less stringent criteria. The domestic water supply use is not a CWA section 101(a)(2) use and the use will not be changed; more appropriate criteria will be assigned.

542. The Commission adopts the Department's proposed criterion for 1,1,1 trichloroethane because this pollutant is a priority toxic pollutant for which an MCL exists, even though EPA has not recommended human health criteria.

543. The Commission adopts the Department's proposal to revise the human health-organism only criteria because the criteria reflect EPA's 2003 and 2009 recommended updates, as referenced in the discussion of domestic water supply

criteria. The revised values for carcinogens carry the same 10^{-5} risk level as did the previous values.

544. The Commission adopts the Department's proposal to strike the reference to sections 900.B and F for adjusted gross alpha because the reference is not correct. The intended reference was to the definition of adjusted gross alpha in section 7, but it is not necessary to reference the definition.

545. The Commission adopts the Department's proposal to differentiate aquatic life criteria for trivalent and hexavalent chromium (chromium III and VI) and add criteria for chromium VI. New Mexico has no criteria corresponding to EPA's recommendation for the hexavalent ion, which is the more toxic form and whose toxicity is not hardness-dependent.

546. The Commission adopts the Department's proposal that for cyanide, the human health-organism only criteria be updated based upon EPA's 2003 recommendations, the domestic water supply criterion be based on the MCL, and unfiltered samples be analyzed for total recoverable cyanide for all designated uses. The proposal is consistent with the prior discussion and the analytical method captures cyanide in the majority of the forms that may have a deleterious effect on uses.

547. The Commission adopts the Department's proposal to add acute and chronic aquatic life criteria for diazinon and nonylphenol because the proposed criteria, 28 µg/L acute and 6.6 µg/L chronic, are consistent with EPA's 2006 recommendations.

548. The Commission adopts the Department's proposal to replace 2,3,7,8 TCDD with "dioxin" and delete the CAS number because the criteria apply to all dioxin compounds as expressed through TEFs.

549. The Commission adopts the Department's proposal to add an acute aquatic life criterion for PCBs based on EPA's 1986 Gold Book because the 1986 Gold Book provides the most current value. EPA's current National Recommended Water Quality Criteria document does not specify an acute aquatic life value, so several

states, including Arizona and Colorado, have retained the 1986 criterion, and it is better to adopt the earlier criterion than to have no criterion.

550. The Commission does not adopt Amigos Bravos' proposed addition of a new designated use of "Water and Organism Consumption" that would apply to all waters that have both a domestic water supply and aquatic life use designation, because segments with the domestic water supply use already have a designated aquatic life use, so the human health-organism only criteria protect against the health effects of consuming fish from contaminated water. The record does not reflect examples of people consuming water and ingesting aquatic organisms from the same water at such a rate that the revised domestic water supply and human health-organism only criteria would not be protective. Nonetheless, the Commission encourages the Department to evaluate the numbers, and consider whether a new column showing consumption of water plus organism would be reasonable or necessary.

551. The Commission adopts CMI and LANS/DOE's proposed additional changes to accommodate the adoption of new hardness-based aquatic life criteria for aluminum and new manganese criteria.

552. The Commission adopts CMI's proposed new acute and chronic criteria for dissolved molybdenum; neither the EPA nor New Mexico currently has molybdenum ambient water quality standards for the protection of aquatic life. The proposed criteria rely on updated scientific information and are consistent with EPA's 1985 Guidelines.

553. The Commission does not adopt Amigos Bravos and AVAT's proposed domestic water supply criterion of 1 µg/L for perchlorate for lack of support in the record and because EPA is reevaluating whether there is a need to establish a drinking water regulation for perchlorate.

554. The Commission does not adopt Amigos Bravos' suggestion to adopt use-specific criteria for the public water supply use for lack of support in the record. Although Amigos Bravos urged the Commission to direct the development by 2012 of new water quality standards for Pharmaceuticals and Personal Care Products (PPCPs), and

nutrients, the Commission's direction to the Department is to monitor federal action, and propose standards as appropriate and as supported by science.

20.6.4.900

K. [~~**Acute Criteria, Total Ammonia (mg/L as N)**~~] 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

555. The Commission adopts the Department's proposal to add an introductory sentence to subsections K and L to clarify that the ammonia criteria are aquatic life criteria. Explaining the dependence on pH and the presence of salmonids provides context for the table that follows.

556. The Commission adopts the Department's proposal to add the second sentence specifying that unfiltered samples should be analyzed to reflect the proper technique.

557. The Commission adopts the Department's proposal to add the word "where" in the header on the table because the determination of the presence or absence of

salmonids is based on the designated aquatic life use or historical records for each water body, rather than timing or season.

558. The Commission adopts the Department's proposal to move the explanation regarding the applicability of the criteria at a pH lower than 6.5 or higher than 9.0 from section 12.I to this location because the explanation is an integral part of the criteria statement. The explanation is reflected by changing the first listed pH value in the table to "6.5 or below" and the last pH value in the table to "9.0 or above."

L. [~~Chronic Criteria, Total Ammonia (mg/L as N), Fish Early Life Stages Present~~] 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). For temperatures below 0°C, the criteria for 0°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:

$$\left(\frac{0.0577}{1+10^{7.688-pH}}+\frac{2.487}{1+10^{pH-7.688}}\right)\times MIN\left(2.85,1.45x10^{0.028\times(25-T)}\right)$$

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

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

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

~~[M. Chronic Criteria, Total Ammonia (mg/L as N), Fish Early Life Stages Absent]~~

(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:

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

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

pH	Temperature (°C)									
	0 and below	7	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

pH	Temperature (°C)									
	0 and below	7	8	9	10	11	12	13	14	15 and above
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) [~~Subsection L of 20.6.4.900 NMAC~~]).										

559. The Commission adopts the Department's proposal to add an introductory paragraph for the reasons given in subsection K. Additionally, by including both sets of chronic criteria in one subsection, subsection M can be eliminated.

560. The Commission adopts the Department's proposal to move the explanation regarding the applicability of the criteria at low and high temperature and at low and high pH from section 12.I to this location because the explanation is an integral part of the criteria statement.

561. The Commission adopts the Department's proposal to add word "when" in reference to the presence or absence of fish in early life stages because the added word indicates that the determination is based on the time of the year.

562. The Commission adopts the Department's proposal to state the criteria in equation form, similar to the metals criteria in subsection I because the equations are the proper method for determining the criteria. Although the tables are retained, they represent selected calculated values. For temperatures not listed in the tables, the equation must be used to arrive at the applicable criterion.

563. The Commission adopts the Department's proposal to strike "shall" in the introductory sentence as unnecessary and inconsistent with the style used to express applicable criteria throughout the Standards.

~~**N Dissolved oxygen saturation based on temperature and elevation.**~~

~~**(1) Elevation 5,000 feet or less:]**~~

		~~Elevation (feet)~~										
		~~0~~	~~500~~	~~1,000~~	~~1,500~~	~~2,000~~	~~2,500~~	~~3,000~~	~~3,500~~	~~4,000~~	~~4,500~~	~~5,000~~
~~perature~~	~~0~~	~~14.6~~	~~14.3~~	~~14.1~~	~~13.8~~	~~13.6~~	~~13.3~~	~~13.1~~	~~12.8~~	~~12.6~~	~~12.3~~	~~12.1~~
	~~1~~	~~14.2~~	~~13.9~~	~~13.7~~	~~13.4~~	~~13.2~~	~~12.9~~	~~12.7~~	~~12.5~~	~~12.2~~	~~12.0~~	~~11.8~~
	~~2~~	~~13.8~~	~~13.6~~	~~13.3~~	~~13.1~~	~~12.8~~	~~12.6~~	~~12.4~~	~~12.1~~	~~11.9~~	~~11.7~~	~~11.5~~

	Elevation (feet)										
	0	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000
3	13.4	13.2	13.0	12.7	12.5	12.3	12.0	11.8	11.6	11.4	11.1
4	13.1	12.8	12.6	12.4	12.2	11.9	11.7	11.5	11.3	11.1	10.9
5	12.7	12.5	12.3	12.1	11.8	11.6	11.4	11.2	11.0	10.8	10.6
6	12.4	12.2	12.0	11.8	11.5	11.3	11.1	10.9	10.7	10.5	10.3
7	12.1	11.9	11.7	11.5	11.3	11.1	10.8	10.6	10.4	10.2	10.1
8	11.8	11.6	11.4	11.2	11.0	10.8	10.6	10.4	10.2	10.0	9.8
9	11.5	11.3	11.1	10.9	10.7	10.5	10.3	10.1	9.9	9.8	9.6
10	11.3	11.1	10.9	10.7	10.5	10.3	10.1	9.9	9.7	9.5	9.4
11	11.0	10.8	10.6	10.4	10.2	10.0	9.9	9.7	9.5	9.3	9.1
12	10.8	10.6	10.4	10.2	10.0	9.8	9.6	9.5	9.3	9.1	8.9
13	10.5	10.3	10.1	9.9	9.8	9.6	9.4	9.2	9.1	8.9	8.7
14	10.3	10.1	9.9	9.7	9.6	9.4	9.2	9.0	8.9	8.7	8.5
15	10.1	9.9	9.7	9.5	9.3	9.2	9.0	8.8	8.7	8.5	8.4
16	9.8	9.7	9.5	9.3	9.2	9.0	8.8	8.7	8.5	8.3	8.2
17	9.6	9.5	9.3	9.1	9.0	8.8	8.6	8.5	8.3	8.2	8.0
18	9.4	9.3	9.1	8.9	8.8	8.6	8.5	8.3	8.1	8.0	7.8
19	9.3	9.1	8.9	8.8	8.6	8.4	8.3	8.1	8.0	7.8	7.7
20	9.1	8.9	8.7	8.6	8.4	8.3	8.1	8.0	7.8	7.7	7.5
21	8.9	8.7	8.6	8.4	8.3	8.1	8.0	7.8	7.7	7.5	7.4
22	8.7	8.6	8.4	8.2	8.1	8.0	7.8	7.7	7.5	7.4	7.2
23	8.6	8.4	8.2	8.1	7.9	7.8	7.7	7.5	7.4	7.2	7.1
24	8.4	8.2	8.1	7.9	7.8	7.7	7.5	7.4	7.2	7.1	7.0
25	8.2	8.1	7.9	7.8	7.7	7.5	7.4	7.2	7.1	7.0	6.8
26	8.1	7.9	7.8	7.7	7.5	7.4	7.2	7.1	7.0	6.8	6.7
27	7.9	7.8	7.7	7.5	7.4	7.2	7.1	7.0	6.8	6.7	6.6
28	7.8	7.7	7.5	7.4	7.2	7.1	7.0	6.9	6.7	6.6	6.5
29	7.7	7.5	7.4	7.3	7.1	7.0	6.9	6.7	6.6	6.5	6.4
30	7.5	7.4	7.3	7.1	7.0	6.9	6.7	6.6	6.5	6.4	6.3

[(2) Elevation greater than 5,000 feet:]

	Elevation (feet)									
	5,500	6,000	6,500	7,000	7,500	8,000	8,500	9,000	9,500	10,000
0	11.9	11.6	11.4	11.2	11.0	10.8	10.6	10.3	10.1	9.9
1	11.5	11.3	11.1	10.9	10.7	10.5	10.3	10.1	9.9	9.7
2	11.2	11.0	10.8	10.6	10.4	10.2	10.0	9.8	9.6	9.4
3	10.9	10.7	10.5	10.3	10.1	9.9	9.7	9.5	9.3	9.1
4	10.7	10.4	10.2	10.0	9.8	9.7	9.5	9.3	9.1	8.9
5	10.4	10.2	10.0	9.8	9.6	9.4	9.2	9.0	8.9	8.7
6	10.1	9.9	9.7	9.5	9.4	9.2	9.0	8.8	8.6	8.5
7	9.9	9.7	9.5	9.3	9.1	8.9	8.8	8.6	8.4	8.2
8	9.6	9.4	9.3	9.1	8.9	8.7	8.6	8.4	8.2	8.0
9	9.4	9.2	9.0	8.9	8.7	8.5	8.3	8.2	8.0	7.8
10	9.2	9.0	8.8	8.7	8.5	8.3	8.1	8.0	7.8	7.7
11	9.0	8.8	8.6	8.5	8.3	8.1	8.0	7.8	7.6	7.5
12	8.8	8.6	8.4	8.3	8.1	7.9	7.8	7.6	7.5	7.3
13	8.6	8.4	8.2	8.1	7.9	7.8	7.6	7.5	7.3	7.2
14	8.4	8.2	8.1	7.9	7.7	7.6	7.4	7.3	7.1	7.0
15	8.2	8.0	7.9	7.7	7.6	7.4	7.3	7.1	7.0	6.8
16	8.0	7.9	7.7	7.6	7.4	7.3	7.1	7.0	6.8	6.7
17	7.9	7.7	7.6	7.4	7.3	7.1	7.0	6.8	6.7	6.6
18	7.7	7.5	7.4	7.3	7.1	7.0	6.8	6.7	6.6	6.4

Temperature (°C)

	Elevation (feet)									
	5,500	6,000	6,500	7,000	7,500	8,000	8,500	9,000	9,500	10,000
19	7.5	7.4	7.2	7.1	7.0	6.8	6.7	6.6	6.4	6.3
20	7.4	7.2	7.1	7.0	6.8	6.7	6.6	6.4	6.3	6.2
21	7.2	7.1	7.0	6.8	6.7	6.6	6.4	6.3	6.2	6.0
22	7.1	7.0	6.8	6.7	6.6	6.4	6.3	6.2	6.1	5.9
23	7.0	6.8	6.7	6.6	6.4	6.3	6.2	6.1	5.9	5.8
24	6.8	6.7	6.6	6.4	6.3	6.2	6.1	5.9	5.8	5.7
25	6.7	6.6	6.5	6.3	6.2	6.1	6.0	5.8	5.7	5.6
26	6.6	6.5	6.3	6.2	6.1	6.0	5.8	5.7	5.6	5.5
27	6.5	6.3	6.2	6.1	6.0	5.9	5.7	5.6	5.5	5.4
28	6.4	6.2	6.1	6.0	5.9	5.8	5.6	5.5	5.4	5.3
29	6.2	6.1	6.0	5.9	5.8	5.7	5.5	5.4	5.3	5.2
30	6.1	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1

[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, XX-XX-XX]

564. The Commission adopts the Department's proposal to delete the dissolved oxygen saturation tables for the reasons given in section 113.

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 [~~and the New Mexico environment department public library~~]. Copies of these documents have also been filed with the New Mexico state records center in order to provide greater access to this information.

565. The Commission adopts the Department's proposal to strike the reference to the Department's public library because the library no longer exists.

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.**

D. United States geological survey. 1987. ***Methods for determination of inorganic substances in water and fluvial sediments, techniques of water-resource investigations of the United States geological survey.*** **Washington, D.C. 80 p.**

E. United States geological survey. 1987. ***Methods for the determination of organic substances in water and fluvial sediments, techniques of water-resource investigations of the U.S. geological survey.*** **Washington, D.C. 80 p.**

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.**

G. New Mexico water quality control commission. 2003. ***(208) state of New Mexico water quality management plan.*** **Santa Fe, New Mexico. 85 p.**

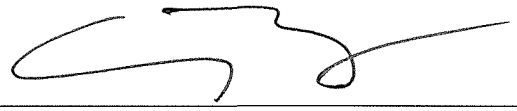
H. Colorado river basin salinity control forum. 2002. ***2002 Review, water quality standards for salinity, Colorado river system.*** **Phoenix, Arizona. 176 p.**

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/ost/WET/disk2/atx.pdf**

J. United States environmental protection agency. [~~1989~~] 2002. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms. Environmental monitoring systems laboratory, Cincinnati, Ohio. ([~~2nd~~] 4th Ed., EPA [~~600/4-89/001~~] 821-R-02-01). [~~250~~] 335 p.

566. The Commission adopts the Department's proposal to correct the edition because a later edition has been issued.

567. The Commission directs the Department to prepare the amended surface water standards in a format acceptable to Records and Archives for filing as part of the New Mexico Administrative Code. This preparation may include re-numbering and re-lettering of existing sections of the standards and the correction of errata consistent with the findings above.



CHAIR, WATER QUALITY CONTROL COMMISSION